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Middle School Teacher Collaboration: The Intersection of Teacher Domain and Administrative Purview

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Middle School Teacher Collaboration: The Intersection of Teacher Domain and Administrative

Purview

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Middle School Teacher Collaboration: The Intersection of Teacher Domain and Administrative Purview

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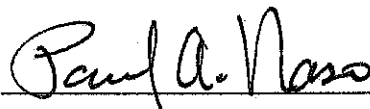
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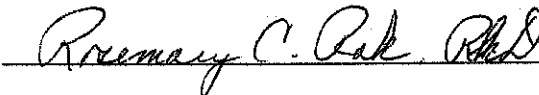
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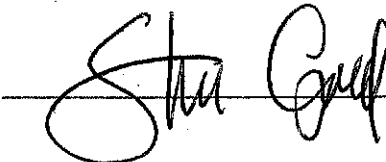
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Abstract

This study examined the experiences and perspectives of twelve urban public middle school teachers and one focused instructional coach in one district in a New England state involved in a district-mandated change to professional learning communities as their form of teacher collaboration. It explored teachers' reasons for engaging in collaboration, their understanding of the administration's expectations for their collaboration, the factors and conditions that influenced their collaborative work, and the perceived effects of collaboration on their teaching practices and professional identity. This qualitative phenomenological study employed a purposeful sampling strategy and both interviews and field observations to uncover teachers' percep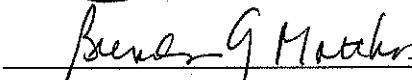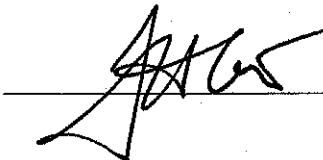tions of collaboration. The professional learning community meetings of one team (five teachers and the focused instructional coach at the same school) were observed five times and these six individuals were interviewed twice each. The remaining seven teachers, assigned to collaborative teams at other middle schools in the same district, were each interviewed once. The study found that teachers' reasons for participating in collaboration vary and are based on both intrinsic and extrinsic motivations. According to participants, they are more receptive to administrative expectations for teacher collaboration that are perceived to be from their principal rather than from the district administration. The study found that although teachers see the good intentions for collaboration to benefit the school community, there are instances of certainty and uncertainty about their own agency in achieving the intended outcomes. The study also found that although some factors and conditions that influence teacher collaboration occur across many school settings, fostering teacher collaboration requires close attention to each school's particular context, including the presence of a unifying school culture. Lastly, the study found that teachers that value collaboration recognize that it has a positive effect on the development of their

teaching practices, professional identity, and sense of collective responsibility. The implications of this study for principals involve the need to structure professional learning communities to emphasize their importance to teachers and the need to discover conditions that enable collaborative team members to develop trust in one another. The implications for teachers include the importance of exercising their own judgement about the topics to investigate in their professional learning communities so that the work that they do is meaningful to them. Additional questions about teachers' perceptions of expectations from the principal as compared to expectations from the district administration as well as the possible connection between a unifying school culture and the effectiveness of teacher collaboration must still be explored.

Keywords: teacher collaboration, professional learning community, school culture, teacher leadership, middle school, change implementation

DEDICATION

This paper is dedicated to my children, Amy and Zachary. Being your mother and helping you to grow as people will always be my greatest accomplishment. I hope you both understand that through hard work, anything is possible. I love you both always.

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The journey to completing my dissertation has been long and full of challenges. I would be remiss if I did not thank the people whose efforts have helped me to achieve this goal.

I would like to begin by thanking my advisor, Dr. Paul Naso. You constantly pushed and encouraged me to write more clearly and think on a deeper level. You gave so willingly of your time to provide feedback and help me continue to move forward and were always so kind and patient, even when the writing process completely frustrated me. I do not think that I would have been able to produce the type of writing needed for this dissertation without your assistance. I also would like to thank the other members of my committee, Dr. Nicole Weber and Dr. Rosemary Rak. Your feedback and words of encouragement were greatly appreciated and your critical assessment of my work helped to elevate it to a higher level of quality.

I also would like to thank the participants in my study. I was overwhelmed by how much all of you welcomed me into your classrooms and were willing to share your experiences with me. You all took the risk of allowing someone from outside of your school in and helped me to understand better what teacher collaboration in our district is really like. I truly would not have been able to do this study without you.

Next, I also would like to thank my principal, Daniel St. Louis, and my coworkers at University Park, particularly Jody, Kathy, James, Meghan, Kaitlin, Kevin, and Pam for all of your support. The flexibility that you provided me to conduct my interviews and observations was invaluable, and your willingness to overlook my constantly stressed state was much appreciated. I am truly blessed to work with such an amazing group of educators. Kevin, thank you for giving up your free period and covering my classes so that I could collect all of my data. Kaitlin, thank you for always being willing to provide me with whatever I needed to get my work

done. Jody, Kathy, and James, thank you for checking up on me to make sure that I was alright and for listening to me when I needed to vent. Pam, thank you for reminding me that, even though what I was doing was difficult, I still needed to remember to be kind to others.

I would also like to thank the members of my cohort at Lesley University. Never in a million years did I think that I would be able to develop such close friendships so quickly. It was so much easier to do this knowing that all of you were experiencing the same type of powerful learning as I was. Keep pressing forward so that we can all reach the state of "#phdproblemssolved". Darlene and Lynne, I am beyond honored to be able to join you at graduation in May.

Next, I would like to thank my Taekwondo Master, Master Myoung Ho Jun for providing the inspiration to begin this journey. Your focus on working towards a goal and persevering until that goal is achieved are what caused me to begin my doctoral studies and see it through to completion. I also would like to thank Master Jun, Instructor Kim, and the other staff at US Taekwondo for giving me a physical outlet for stress relief while working through this process.

To my friends that have supported me through this process, especially Tony, Tanya, Jenn, Leslie, Alexis, Maureen, Jason, and Becky, you all are amazing. You provided me with hugs and encouragement when I needed it and were always so understanding when I could not join you for a fun night out and had to say no. I am very much looking forward to celebrating the end of this journey with you.

Lastly, I would like to thank my husband and children. Larry, you came into my life when I needed you the most. I did not think that I would be able to handle a relationship while trying to complete my doctoral studies. Clearly, I was wrong, and I could not be happier about that. You have done more for me that you could ever realize, and I do not know that I could ever

adequately show my appreciation for you. I love you with all of my heart and soul. Amy and

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the amazing people that you are, and I hope you both understand that you were my entire reason

for doing this. I cannot wait to spend some of this wonderful thing I have heard of called "free

time" with both of you. I love you always.

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CHAPTER1: INTRODUCTION

I am one of the people for whom education is a second career. I started out in the biotechnology industry and carried out research on drug development for pharmaceutical companies. I enjoyed conducting the research, but was dissatisfied with the idea that although my work could benefit society, it was not having an immediate impact. The pharmaceutical development process can often take twenty years before a drug is approved for distribution. I wanted the work that I did to have an impact right away. The downturn of the stock market and closing of the company that I worked for caused me to reassess my career. I had considered studying education as an undergraduate but chose not to pursue it at the time. The closing of my company became an opportunity to begin a second career as an educator, where I hoped to have a more immediate impact on society.

My teacher preparation program included a year of student teaching. I was placed at a public urban high school in a New England state that served a severely economically disadvantaged neighborhood. The majority of the students at this school qualified for free or reduced cost meals. Many had very troubling home environments. Despite these out-of-school factors, the teachers at this school had built a very successful learning environment for their students, one that made it possible for the students, who might otherwise become disenchanted with school, to be successful in school and move on to college careers. In this school, teachers had created a collaborative community, where the focus was on combining efforts to provide the best education for all and with the common belief that all students, regardless of their background, were capable of learning. Teachers consistently worked together on observing lessons and adjusting instructional practice to offer the finest education possible for their students. In retrospect, I realized that this school is an illustration of what researchers mean

when they cite a positive correlation between teacher collaboration and student learning (Davis, 2015; Little, 2002).

When my student teaching year was completed, I took a teaching position at a different urban public high school in central Massachusetts. The student enrollment was nearly twenty times larger than the school where I student taught, was less racially diverse, and was more economically privileged. In addition to the differences in student population, the teaching community at my second school stood in stark contrast to the one I experienced while student teaching. Teachers taught in isolation. Opportunities for teacher collaboration were rare and were not cultivated. The school administration would discuss improving student learning, but the only way suggested to do so was through drilling students to achieve higher standardized test scores. The lack of teacher collaboration at this school surprised and eventually troubled me. Transitioning into this new environment was disorienting, and I struggled to make sense of the change and find my place within this different school culture. I had witnessed the positive results of teacher collaboration, and I naively assumed that all schools would be structured in the same way. I saw what was lost in terms of teacher development, school community, and student achievement and I attributed that loss to the lack of collaboration. I was very unhappy at this school and I could not foresee how I could possibly influence my new colleagues to change their culture so drastically, nor could I see myself finding satisfaction as a teacher within the culture as it was.

After one year at the new school, I was invited to return to my student teaching school as a full-fledged member of the staff. I returned there, confident that the collaborative environment of my student teaching school brought out the best in me as a teacher and would challenge me to continue to grow and improve. Shortly thereafter, I began a doctoral program in educational

leadership. As I progressed through the program, I discovered that my curiosity about collaboration had developed into a research interest and that I could study teacher's collaborative practices in even greater depth. I continued on in the program with the hopes that becoming more knowledgeable about school culture and teacher collaboration would allow me to someday have a wider sphere of influence and be able to help other teachers collaborate to improve their practice for the greater benefit of their students. Conducting research on teacher collaboration will lead me to have a deeper understanding of its complexity and the conditions that make it possible.

My time in education has coincided with a rise in interest in professional learning communities, a form of teacher collaboration explained and popularized by DuFour (2007). There has been so much written about the benefits of professional learning communities in reform literature and other places that it is now taken as an indicator of good practice (Davis, 2015; Elbousty & Bratt, 2010b). The popularity of professional learning communities has prompted many districts throughout the country to promote the use of professional learning communities as an action in improving student learning. However, the districts that are instituting professional learning communities may not necessarily be considering the context of the schools in their districts, what their teachers already know about working together, or if successful collaborative practices are already in place. This rapid rise in interest in professional learning communities also leads me to wonder about how teachers experience this sense of urgency and their uncertain role in steering these efforts. These circumstances have inspired me to examine teacher collaboration in closer detail. The tension that exists between the theories that support teacher collaboration and the actual collaboration practices in place in schools is intriguing. My experiences as a teacher and as a doctoral student suggest that there is an urgent

need for teachers to collaborate effectively to improve their instruction and thereby improve

student learning outcomes.

Statement of the Problem

As stated in the introduction, researchers have found a positive correlation between

teacher collaboration and student learning outcomes (Davis, 2015; Little, 2002). There is also

evidence showing the positive correlation between professional learning communities, a specific

way of enacting teacher collaboration, and student learning outcomes (Davis, 2015; Dunne &

Honts, 1998; Hord & Southwest Educational Development Lab, 1997; Lee & Smith, 1996;

Yasumoto, Uekawa, & Bidwell, 2001). A positive correlation also exists between teacher

collaboration and the enhanced professional capacity of teachers (D. H. Hargreaves, 1999; Little,

1990a). The benefits of teacher collaboration extend throughout schools, leading to cohesion

across classrooms and throughout the school community (A. Hargreaves, 1994; Little, 1990a).

Collaboration also has the added benefit of empowering teachers (Little, 1990a; McLaughlin &

Talbert, 2006).

Much of what is known about teacher collaboration has been learned from studies aimed

specifically at professional learning communities. In order for teacher collaboration, or a more

specific enactment of it such as professional learning communities, to be successful, the

literature has shown that certain conditions must exist in schools. An atmosphere of trust

(Bullough, 2007; Lencioni, 2002) and a willingness to inquire into practice (Bullough, 2007;

Kruse, Louis, & Bryk, 1994) must be present. The members of the collaborative teams and

professional learning communities must have a shared mission, vision, and norms (DuFour,

2004; DuFour & Eaker, 1998; Hord & Southwest Educational Development Lab, 1997; Kruse et

al., 1994). In addition, collaborating groups must be focused on continuous improvement and

obtaining results in various forms, including but not limited to measurements of student learning (DuFour & Eaker, 1998). The individuals in collaborative teams and professional learning communities must be willing to de-privatize their practice (Kruse et al., 1994) and be open to observation and critique (Little, 1982). Teachers also require the time and space (Davis, 2015; Kruse et al., 1994), as well as the support of the principal, to discuss problems of practice and devise possible improvements (Kruse et al., 1994).

For the purposes of this study, collaboration refers to any process in which teachers work together to improve student learning. A professional learning community, on the other hand, is one of a number of specifically defined models of collaboration. In the case of professional learning communities, they are defined as a model that creates a common mission, vision, and values, participates in collective inquiry, utilizes collaborative teams, is action oriented, and is focused on improvement and results (DuFour & Eaker, 1998).

Regardless of the form that collaboration takes, the context and conditions that support teacher learning within a collaborative environment are important yet easily overlooked. Knowledge of the factors supporting collaboration and the benefits of collaboration as a whole are important, but there is more to understand about how the participating teachers regard their collaborative efforts and the factors and conditions that support teacher learning within collaborative environments. As stated above, collaboration increases teachers' knowledge and professional capacity, but these benefits can be affected by the context of the school. The attitude of the school leader towards collaboration (A. Hargreaves & Goodson, 2006), the attitudes of the staff members towards collaboration (Elbousty & Bratt, 2010a), the training and experience of the teachers in the collaborative group (Little, Horn, Bartlett, & National Partnership for Excellence and Accountability in Teaching, 2000), and the time and space

allowed for collaborative work (Davis, 2015; Kruse et al., 1994) are some of the contextual factors and conditions that can augment or inhibit a collaborative team. These contextual factors are all acknowledged in the literature as influencing collaboration as a whole, but further study is needed to understand the effect within specific contexts, as different contexts can dramatically affect the way that changes in collaborative models proceed. The effect that these contextual factors, either individually or combined, can have on teacher learning within a collaborative group and what teachers report as the supports and conditions that influence their learning must be understood in greater detail for these same reasons.

In addition, the literature that exists on professional learning communities makes the assumption that teachers have no prior experience with collaboration and disregards the context of the school and the supports that already exist. For example, DuFour and Eaker (1998) made the assumption that all schools looking to introduce professional learning communities are beginning from an industrial model with a "reliance on centralization, standardization, hierarchical top-down management, a rigid sense of time, and accountability based on adherence to the system" (pp. 44-45). If schools already have prior experience with collaboration, the practices and procedures already in place could potentially have an impact on the implementation of new collaborative models.

In a situation where control of collaboration switches from teachers to district, tensions may occur. Both teachers and districts seek to improve student learning, but could have different ideas about how to accomplish that. Districts try to improve student learning by aligning programs throughout the district to create uniformity (Ladd & Duke University Sanford School of Public Policy, 2011; Leithwood, Seashore Lewis, Anderson, & Wahlstrom, 2004). Teachers, on the other hand, have a narrower focus on the students within their school.

Throughout the history of public education in the United States, there have been varying levels of school control from district, state, and federal governments, with debates about democratic operation of schools occurring in response to the level of control (Boyle & Burns, 2011; Sizer, 2000). It could be argued that the level of control from the district, state, and federal government is heavy now as evidenced by the increase in teacher and school accountability, the specificity in teacher evaluations, the emphasis on standardized tests results, and the incentivized implementation of the Common Core Standards. All of these initiatives are intended to improve student learning. On the other hand, it has been argued by Dewey (1929), Stenhouse (1980) and Schwab (1969) that teachers should be central figures involved in the inquiry and deliberations about the practical actions needed at both the school and classroom level. When teachers are part of the process of collaboration, they are "investigating" teacher learning at the local level and are involved in a way that Dewey, Stenhouse, and Schwab stated was necessary.

The district's desire for uniformity in teacher collaboration could serve different purposes or be communicated to schools in different ways that can affect teacher perception of the change in collaborative models and what is expected of them. The district could approach the need for uniformity as a way to maximize teacher learning and have continuity throughout all of the district schools. In this way, the collaborative team could become engaged in networked improvement and improvement science (Bryk, Gomez, Grunow, & LeMahieu, 2015) in which teachers at different locations would be working on common problems and thus improving the knowledge base of the overall organization. It is also possible, however, that the district could insist on uniformity as way to minimize the variability from school to school and teacher to teacher. These different arrangements can affect teachers' perceptions of the changes and their overall receptivity to the changes. For example, the arrangement focused on increasing teacher

learning through networking would likely be received differently than the arrangement seeking to reduce variability. Therefore, how districts communicate their reasoning for required collaborative practices could affect the overall context, influence the ways that changes in collaboration are viewed by teachers, and affect how teachers make sense of their part in defining and sustaining the desired collaboration.

Although much has been documented about the benefits of collaboration and the conditions necessary for successful implementation, our understanding of the conditions that support teacher learning in collaborative environments needs to be deepened. In addition, the teacher's perspective on these factors and conditions that most support their learning within their collaborative environment are not understood well. The context of the school can affect whether any form of collaboration is successful and as a result can affect teachers' learning within collaborative groups. As such, the policies, procedures, arrangements, and other contextual factors that can influence teacher learning in collaborative environments need further exploration. A better understanding is needed of teachers' experiences and perspectives in instances where districts want to replace an existing form of collaboration with a different model, such as professional learning communities. In circumstances where schools have independently built their own methods of teacher collaboration, what teachers understand as the reasons for changes in their self-directed collaboration and the administration's expectations from teacher collaboration needs to be explored. The enthusiasm in school districts for instituting professional learning communities, data teams, lesson study groups, and other forms of teacher collaboration continues to grow. Nevertheless, without close attention to the teacher's perspectives on collaboration and their understanding of their role in these arrangements, there is risk that these promising practices will have limited impact.

Purpose of the Study

The purpose of this study was to develop a deeper understanding of the supports and conditions that, from the teachers' perspective, have an impact on teacher learning within a collaborative team. It examined what conditions were in place within a school that support collaboration focused on an inquiry into practice. This study also explored the teachers' perspectives on the effects of collaboration on their own learning and their teaching practices through direct interviews with teachers and observations of collaborative conversations among teachers.

This study also sought to understand what teachers perceived to be the administration's expectations of them and of teacher collaboration. It explored teachers' accounts of the aspects of their collaboration that they understood to be within their own control. Through interviews, it examined teachers' reasons for participating in collaborative practices and what their perceptions of the administration's reasons for teacher collaboration were. Finally, this study looked at teachers' perceptions on the contextual factors that supported their collaboration.

Guiding Questions

The questions that guided this study are as follows: What do teachers report as their reasons for collaborating with peers? What do teachers in an urban public middle school understand about the administration's expectations for teacher collaboration? What are teachers' perspectives on the factors and conditions that influence their collaborative work? What do teachers report are the effects of collaboration on their teaching and learning?

Significance of the Study

This study is important because it provided an opportunity to study a transition in collaborative modes as it was happening. This was a unique scenario because the school

intended as the site for this study was already practiced at informal collaboration and was in the process of changing to a district mandated formal professional learning community structure. This study also gained insight from other teachers throughout the district to obtain a wider perspective from teachers that may not be as experienced at collaboration. The information on teacher learning, the conditions that support learning, and the perceived effects on teaching practices that can be gleaned from this study will be very beneficial to many groups.

District administrators and principals can benefit from this study because it provides practical information on implementation of professional learning communities, and helps to inform them of the possible challenges and successes of beginning professional learning communities from an already established collaborative environment. In addition, it helps district administrators and principals understand how to better support staff during the transition to new initiatives.

This study can provide teachers, principals, and district administrators with an understanding of the experiences and perspectives of those within transitions of programs. It also can empower teachers to know that their voice matters and that their investigations into their practices can contribute to the existing knowledge about education.

This study can help policy makers and researchers understand the broad-based effects of implementing changes and the importance of supporting those experiencing the change. Principals, superintendents, researchers, and policy makers can obtain a deeper understanding of how context can affect change implementation. Finally, researchers can obtain a deeper understanding of the teacher's perspective in the fields of teacher collaboration, professional learning communities, and organizational change.

Delimitations of the Study

The participants in this study are limited to one urban interdisciplinary middle school teaching team consisting of five members, the focused instructional coach for the school, and seven teachers from other middle schools within the same district. The experiences of this small sample are not representative of middle school teams in other contexts. The setting of this study is not intended to be representative of other urban settings or other suburban or rural settings. The data collection continued for approximately three months. The data collection tools were designed specifically for this study and were not used in any other research. In addition, this study does not measure student progress, so the effect of a change in collaborative model on student learning cannot be determined.

Review of the Literature

This study pulls from various bodies of literature to inform the lens with which the study was conducted and analyzed. Literature from the following four areas was consulted: the sociology of teaching, adult learning theory and adaptive learning, social network theory and organizational learning as it applies to education, and teacher collaboration and professional learning communities. Works from the following authors were among the ones consulted to augment the literature review, although they do not represent the entirety of the sources that were used. For sociology of teaching, the works of Waller and Lortie were utilized. To address social network theory, the works of Daly, Kadushin, and Deal, Purinton, and Waetjen, were used.   The works of Perkins, Hargreaves, and McDonald were consulted to address organizational learning. The works of Mezirow, Kegan, and Drago-Severson were consulted to address adult learning theory. To address adaptive learning, Heifetz was utilized. The works of Little and McLaughlin

were used to address teacher collaboration. The works of DuFour were consulted to address professional learning communities.

Design of the Study

This section details the methods and procedures that guided the study. Information about the orientation of the study, the setting and selection of participants, and the role of the researcher will also be discussed. In addition, data collection, data management, and data analysis will also be described.

Orientation

This study was an interpretive, qualitative study that was phenomenological in nature. Creswell (2013) defines phenomenological study as having "an emphasis on a phenomenon to be explored" (p. 78) and states that a phenomenological study would examine the experiences of "a group of individuals who have all experienced the phenomenon" (p. 78). Both Creswell (2013) and Merriam (2009) state that phenomenological studies often rely primarily on interviews and can include observations.

This study was conducted from a constructivist interpretive stance. Creswell (2013) and Bloomberg and Volpe (2012) describe the constructivist stance as understanding that reality is dependent on context and is socially constructed. The constructivist stance explores the idea that group processes are constructed through mutual interactions.

In this study, the experiences of several teachers in the midst of implementing district-instituted requirements for teacher collaboration were explored. Semi-structured interviews and observations were employed to understand the experiences of the team. This study looked at the broader phenomenon of teacher collaboration while maintaining a focus on one particular team and explored how participants constructed the meaning of teams and collaboration with their

teams. These criteria fit with Creswell's and Merriam's definition of phenomenological study and with Creswell's and Bloomberg and Volpe's definitions of the constructivist interpretive framework.

Setting and Selection of Participants

This study was set at several public urban middle schools in one district in a New England state. In one of these schools, referred to as the Crandall school, an interdisciplinary team of five middle school teachers was interviewed and collaborative team meetings were observed. This school was chosen because the teachers have already created their own collaborative practices and the district that this school is in has begun mandating implementation of professional learning communities district-wide. The observations and interviews were supplemented by interviews of other teachers at other middle schools within the same district to obtain additional information on teachers' perspectives within the district as changes in teacher collaboration occurred.

The participants consisted of 12 middle school teachers. Five of those teachers were part of the same interdisciplinary teaching team. All of the middle school teaching teams at Crandall were informed about the study and invited to participate. The remaining middle school teachers in the same district were informed about the study through email communication and invited to participate. All of the teachers were informed of the risks and benefits of participating in the study as well as their right to refuse to participate. The team was purposefully selected from a list of all teams that volunteered using the following criteria: the team must consist of five members, the team must consist of teachers from different subject areas, and the team must have been completely intact for a minimum of one year or with a maximum of one new member in the past year. In the event that more than two teams met these criteria, the team with which the

researcher had the least interaction would be chosen. Teachers that were not part of the teaching team were selected from the list of teachers who volunteered using the following criteria: teachers chosen would represent a range of subject areas, teachers were part of a collaborative teaching team, and teachers must have had a minimum of three years of teaching experience. In order to obtain a range of experiences and perspectives, the individual teachers selected did not have a minimum time of collaboration required. Individual teachers were also selected so that the overall age and gender mix for the group closely matched the age and gender demographics for teachers in the district. Because collaboration is arguably a forward-oriented endeavor, to reduce the risk that someone near retirement would be disengaged in this work, participants within one year of retirement were not included. Participants were compensated with a small gift card for their time. The consent and participation letters are attached as Appendix A and B.

The Researcher's Role

Although I am a colleague from the same district, my role as a researcher was as an outside observer in this study. I needed to be certain that I understood my responsibilities as a researcher and that I communicated my role clearly to the participants in the study. As an employee of the same district and as a teacher accustomed to working in a collaborative environment, I shared similar values with the participants. Despite this, I needed to keep perspective on my own orientation and was prepared to recognize that differences in age, gender, race, language, or culture might be factors in how I perceived the phenomenon that was the focus of this study. My own personal experiences influenced my perspective and thinking both within the study and outside of it. My role as a researcher was to be aware of my own perceptions and maintain as much separation as possible between my personal orientation within the study and what the participants reported of their experiences. I needed to be aware of my own personal

experiences and perspectives and to minimize their effects as much as possible during the data analysis. It was my obligation as the researcher to consider how my sociocultural perspective influenced my interpretation and analysis. In addition, I brought biases about the student body, pedagogy, collaboration, and district initiatives into this study. It is possible that my familiarity with some of the teachers being studied may have had an influence on my results. All of these biases were controlled for as much as possible through the study design.

The choice of schools other than one that I work at was meant to help me maintain impartiality. During observations, I was a neutral observer rather than an active participant in order to best understand how the participants were functioning during their collaborative time. This allowed me to observe the role of context in collaboration as well. Interview questions were peer reviewed and piloted to develop questions with the least possible amount of bias in them.

Data Collection

Data was collected through semi-structured interviews with each of the participants and observations of five team meetings. The Crandall participants were interviewed twice, once at the beginning of the data collection and once at the end of the data collection, approximately eight weeks later, in order to understand their experiences. The remaining teachers were interviewed once during the course of the study. These interviews were audio recorded and transcribed by me, and notes were taken during the interviews to record meanings that may only be evident in face to face interactions. The team meeting observations were audio recorded and transcribed by me, and field notes were taken during each observation. The observations recorded dialog about students, instruction and curriculum, and group processes. The interview protocols and observation protocol are included as Appendices C, D, and E, respectively. In

addition, available documents, emails, meeting minutes, guidelines and other communication from the district or school leadership pertaining to professional learning communities and the change in collaborative practices were reviewed.

The interview and observation protocols were developed by the researcher based on templates and examples provided by Creswell (2013), Spradley (1979), and Weiss (1994). Descriptive questions were used to illustrate participants' perspectives on what their experiences were like. Structural and contrasting questions were used to highlight the differences that participants noticed in their experiences and to uncover the conditions that supported their learning as a group. As mentioned above, the interview protocols were tested with a pilot study to ensure clarity of questions, to reduce the risk of researcher bias, and to identify leading questions. A script was used to provide clear instructions to participants and remind them of the reason for the study.

Data Management

The transcriptions of the interviews and observations were kept in password protected files on my personal laptop. All paper copies of field notes, meeting agendas, and any other documentation pertaining to the study were kept in a locked filing cabinet at my home. The names of the teachers, the school, and the district are known only to me and have been changed to protect the privacy of the participants. Upon completion of the dissertation, all transcripts and paper copies will be destroyed.

Data Analysis

Data analysis was directed by the guiding questions as stated above. Keeping with phenomenological research design, transcripts and field notes were pored over, topics were categorized, and themes constructed as part of the process to explain the phenomenon, similar to

the analysis methods described by Creswell (2013), Maxwell (2005), and Weiss (1994). The interview pilot provided a set of provisional codes to begin with. Open coding was conducted in conjunction with the provisional coding to during the initial rounds of data analysis. Following the initial round of coding, descriptive coding was conducted to begin organizing the original meaning units into preliminary categories. As the preliminary categories were examined, patterns began to emerge and codes were collapsed into larger thematic categories. During this process, the researcher bracketed her biases to the best of her ability so that they did not affect the validity of the interpretation of the data. More specific information about the analysis procedures will be provided in Chapter three. Chapter four contains more information about how the analysis unfolded.

Chapter Outline

Chapter one is titled Introduction and contains an overview of the organization of the dissertation, the Statement of the Problem, Purpose of the Study, and Guiding Questions. Chapter two is titled Literature Review and addresses the three guiding questions and contained the bodies of literature stated above. Chapter three is titled Methods and Procedures and contains the methods and procedures for collecting data to answer the guiding questions. Chapter four is titled Results and contains a detailed analysis of the results using the guiding research questions. Chapter five is titled Summary, Implications, and Conclusions and summarizes the study, discusses the implications of the results, details areas for further research, and shares final reflections.

CHAPTER 2: LITERATURE REVIEW

This chapter reviews theoretical research and professional literature to consider existing scholarship relevant to middle school teacher collaboration in urban public schools. Insights from these bodies of literature influenced the focus and design of this study. To understand this study, the sociology of teachers' experiences, teachers' learning as adults and as part of organizations, the structure of middle schools, and teacher collaboration must all be examined in closer detail. Each of these fields provides added insight into the experience of the urban middle school teacher. This review will interpret foundational ideas from the sociology of teaching that explain the historical isolation of teachers in their personal and professional lives and the rationale for conducting their professional work in a group context. It also will examine theories from adult learning that explain the processes through which teachers learn and develop as professionals. The literature review will also explore the scholarship from organizational learning and social network theory to understand how organizations learn and how that knowledge is distributed among members of organizations. It will examine the development of interdisciplinary education in middle schools and the impact that the reorganization of middle schools has had on teacher learning and development. The scholarship on interdisciplinary education in middle schools is of particular relevance because the participants in the study all teach in interdisciplinary environments. Finally, this review will explore the scholarship surrounding the historical development, purposes, and guidelines for implementing and sustaining professional learning communities and the impact of professional learning communities on teachers. Combined attention to all of these bodies of literature provides insight into multiple facets of middle school teachers' experiences and orients what is currently known to guide the study.

Sociology of Teaching

Schools are organizations filled with social interactions of which teachers are a key part. As Waller (1932) stated, "school is a social world because human beings live in it" (p. 1). Schools have a clearly defined population, a political structure created by the interactions within the school, and their own unique cultures (Waller, 1932). The social structure of the school influences how teachers behave. Teachers must interact with administrators, students, and school support staff on a regular basis and other teachers and parents on a less frequent basis. Teachers historically have had little opportunity to interact with other teachers in a meaningful, focused way that can enhance their practice. The structure of the school day and the amount of interactions between teachers, students, and administrators have remained largely consistent since the 1940s (Lortie, 1975). As a result of the structures and interactions that exist in schools, teachers have historically been isolated professionally and personally, which can affect their learning and development as professionals.

Teaching in Isolation

According to Waller (1932), teachers in the United States have typically been isolated from the rest of society. They often were held to high standards of behavior in their personal lives and were restricted in what they could and could not do. Regular citizens tended to behave differently around teachers for several reasons. The regular citizens held teachers to high standards of moral behavior. They were afraid of being viewed as unintelligent by teachers and did not have a clear understanding of what teachers actually did in the classroom. Due to the high standards of behavior and the way that they were treated, teachers tended not to associate with other citizens and only with other teachers, when that was possible, leading to a separation of teachers from the rest of society. Along with the uncertainty surrounding what teachers do in

schools, teachers themselves were changed as a result of interacting with and instructing

students. Waller stated that "teaching does something to those who teach" (p. 375), meaning that

the act of teaching changes the teacher's personality and affects how he or she interacts with and

reacts to others both in school and on a personal level outside of school. The changes to

teachers' personality, their physical separation from the rest of the public, and the regard for their

profession as a mystery are all part of the historical culture of teaching and contribute to the

separation of teachers from the rest of society.

In addition to societal isolation, teachers have experienced isolation within schools.

Lortie (1975) described the organization of schools as shifting from a one room school house to a

hierarchical system managed by a centralized district office. Lortie stated that the organization

of schools is cellular in nature, with teachers operating within their own individual

compartments. He also argued that this cellular organization of schools inhibits learning,

particularly for beginning teachers. When teachers operate within their own individual areas,

separated from contact with their colleagues, they lose the ability to have discussions about their

instruction and classroom management. They do not have the opportunity to provide or receive

feedback in a manner that will assist themselves and their fellow teachers. Waller (1932)

expressed the idea that teachers are consistently cut off from interaction with other teachers and

have a constant hunger for connection with them. There are several consequences to the long-

established isolation of teachers, and these consequences have far reaching effects. For teachers

looking to improve their practice, the isolation means that growth in their teaching ability

happens in private, and any support that teachers might receive comes after the fact, not while

instruction is happening (Lortie, 1975). In addition, isolated teachers may not develop a

common language with other teachers, as the teaching experience happens individually. When

teachers are left to work on their practice on their own, there is wide variability in practice between teachers and practices are reinvented every time a new teacher learns to teach (Cohen, 2011). The lack of common language and collective knowledge inhibits the development of the profession of teaching.

At the time of his now classic study, Lortie (1975) found that forty-two percent of female teachers and twenty-two percent of male teachers view the isolated work of teaching as a detriment to their work, but there are instances identified by Lortie where isolation is a preferred quality. For example, teaching in isolation does provide teachers with a sense of stability and allows them to exercise control over how they teach. Little (1990b) recognized this, stating that the autonomy teachers experience in isolation provides them with the freedom to teach utilizing whatever methods they wish. The latitude that teachers have and the compartmentalized organization of schools led to teachers resisting change, and presents complications with self-evaluation (Lortie, 1975). In a school with teacher isolation, there is little opportunity for teachers to consider their teaching practices in light of what they observe colleagues doing. As a result teachers "crave reassurance, which for them, could only come from superordinates or teaching peers" (Lortie, 1975, p. 149). The sense of stability and control that teachers receive from their isolation is in direct conflict with their need to be connected, appreciated, and have their efforts recognized. In addition to the conflicts created by isolation, the opportunity for teachers to grow is slim when there is little interaction among faculty members. Teachers must be able to interact with their colleagues to develop a shared knowledge of the teaching practice.

From Isolation to Group Context

Beginning with Lortie (1975) and Waller (1932), many scholars have offered suggestions for how to decrease isolation among teachers. Among the scholarship is the common suggestion

that teachers must work together to improve their teaching practices. Each of these perspectives is explored in this section and are summarized in Table 1.

Waller (1932) suggested that the structure of schools is too rigid and stifles rather than enhances growth in the learning of all members of the school community. He proposed that students and teachers alike be given more freedom to explore and inquire. Students should do so within their curriculum and teachers within their teaching practice. In addition, Waller suggested that teachers have societal restrictions removed from them so that they are allowed to "be treated not as a teacher but as a human being" (p. 455) outside of school. In a similar line of reasoning, Hargreaves (1994) argued that when teachers work in isolation and attempt to improve their practice on their own, they run the risk of becoming self-indulgent and focused too narrowly on themselves. This individualized focus decreases the power of the teacher's voice. Hargreaves stated that reflection could lead to positive educational consequences when teachers focus more broadly on the organization in which they work.

Lortie (1975) developed suggestions for how to reduce the isolation that exists among teachers in schools based on his interviews with teachers. Lortie reported that teachers felt they would improve if given the opportunity to observe their colleagues at work. In addition, Lortie stated that teachers want autonomy and support from their principal. Teachers desire to have the "most autonomy they can get while simultaneously receiving the help they need" (Lortie, 1975, p. 202). Lortie also suggested that teachers become accustomed to collegial relationships with their peers beginning in teacher training programs. There teachers should learn to teach in a team atmosphere and will develop more of a shared sense of responsibility for each other's performances. His theories about decreasing isolation were supported by the work of Webb (1985) who stated that teachers are generally isolated and receive little support or recognition

from their colleagues or members of the administration. He added that isolation deprives

teachers of the power to influence the conditions that affect their work.   Cohen (2011) similarly

argued that teachers must rely on each other to improve their teaching practices and that the

extent to which teachers can improve depends on the social resources made available to them.

He further stated that successful schools create consensus about the results that they are working

towards and institute collaborative practices to improve teaching and learning, adding that "when

teachers … work in school systems that organize social resources to improve instruction …

teachers have access to colleagues who can support classroom work" (p. 161). Hargreaves

(1994) argued that providing teachers with the opportunity to work together on improving their

instruction increases their sense of empowerment and broadens their sense of purpose. Little

(1990b) maintained that teacher collaboration would increase the amount of resources available

to teachers thereby improving their teaching and emphasized the importance of collective

responsibility for the improvement of all teachers within the school stating that "each one's

teaching is everyone's business and each one's success is everyone's responsibility" (p. 523). In

addition, granting teachers the opportunity to exercise choice in their work together leads to both

a larger commitment to improvement and development of shared knowledge (Cohen, 2011).

This increases both the knowledge of the adults within the organization and of the organization

itself.

       The arguments supporting a reduction in teacher isolation indicate that providing teachers

with the opportunity to work together will benefit teachers and the larger school community.

Teachers will be able to gain a sense of empowerment at their ability to explore teaching

practices within their classroom and to help their colleagues to improve at the same time. The

Table 1

Suggestions for Decreasing Isolation Among Teachers

Author	Date	Suggestion
Waller	1932	School structure is too stifling. Providing the freedom to explore curriculum will improve teaching practices.
Hargreaves	1994	Teachers working in isolation can become self-indulgent. Reflection can be positive when its focus is on the broader organization. Providing teachers with the opportunity to work together is empowering.
Lortie	1975	Teachers feel they will improve if they can observe their colleagues at work. They desire both autonomy and assistance at the same time.
Webb	1985	Teachers receive little recognition from their colleagues or the administration. Their isolation decreases their opportunity to change their conditions at work.
Little	1990	Providing teachers with additional resources and support will improve their ability to teach. Every teacher's work in a school is the entire school's responsibility.
Cohen	2011	Teachers must rely on each other to improve and the extent to which they improve depends on the social resources available to them. Providing teachers with choice in their work as a group increases their commitment to the groups' work and their development of shared knowledge.

scholarship states that giving teachers a sense of control over their learning and development increases their investment in their work together. When teachers are able to work together they are able to develop a shared knowledge that assists in the improvement of the school as a whole. The processes involved in teachers' learning as adults and in schools' learning as organizations will be discussed in the following sections.

Adult Learning and Development in the Teacher

Whether working in isolation or within a group, teachers must learn how to improve their teaching practice and further their development as professionals. There have been many arguments about the processes in which adults learn and the transformation that happens when

their understanding of a topic evolves. The field of developmental psychology has established

that adults learn more effectively when they learn from others. This section explores these

processes of adult learning and the conditions most likely to support it in more detail.

Adult Learning

When teachers work together with their colleagues, the learning of the individual teachers

involved increases. Mezirow (2000) mentioned several structures involved in adult learning.

Every person has a unique frame of reference, or perspective, and set of assumptions that is used

to make meaning. In addition, people have particular habits of mind, or ways of thinking that

orient people in the way that they make meaning. People also have points of view made of

meaning schemes which are "specific beliefs, feelings, and value judgements" (p. 18). Mezirow

proposed that adults undergo a transformative learning process in which a meaning scheme or

habit of mind changes. The process of transformative learning is typically characterized by

"experience, critical reflection, reflective discourse, and action" (Merriam, Caffarella, &

Baumgartner, 2007). Mezirow (2009) stated that the outcome of transformative learning is the

change in a person's frame of reference to be more reflective, inclusive, and open to change. It

is very similar to the processes involved in teacher collaboration and professional learning

communities, which will be discussed later.

Kegan (1994) and Drago-Severson (2009) argued for a social constructivist perspective

on learning, in which adults make their own meaning based on their interactions with others.

They both stated that there are multiple stages of learning that people move through in their

transition from childhood into adulthood. People can move forward and backward through these

stages based on the scenarios they are in and the experiences they have. Drago-Severson (2009)

expressed the idea that there are four pillars that support adult learning: teaming, providing

adults with leadership roles, engaging in collegial inquiry, and mentoring. Teaming allows for reflective dialogue and reduces teacher isolation. Team activities can be structured with the use of protocols and with the creation of norms set by the group. Leadership roles can be provided to teachers formally through the role of department head or instructional coach or informally through leading an inquiry exercise. Providing leadership roles can build individual and organizational knowledge and capacity. Collegial inquiry is a reflective practice that involves two or more people and includes "examining and reflecting on one's assumptions, beliefs, values, commitments and convictions as part of the learning, teaching, and leadership process" (p. 154). Collegial inquiry provides adult learners with the opportunity to consider other points of view and increases individual and organizational learning. Mentoring involves the pairing of a more experienced teacher with one of less experience. When mentoring happens and the relationship between mentor and mentee is good, growth for both the mentor and mentee can happen. These four pillars directly relate to teacher collaboration and professional learning communities. Teachers work together on teams and have the opportunity to take on leadership roles. Together the group enquires into issues of their teaching practices, and often will engage in mentoring relationships to help other teachers in their group.

The work of Mezirow, Keegan, and Drago-Severson indicate that through the support of their colleagues and the administration at their schools, teachers are able to learn. When provided with the opportunity to work together to inquire into teaching practices, teachers as individuals learn. Their individual learning combines with the learning of other teachers in the school so that the school as a full organization begins to learn. Organizational learning and its relationship to teachers will be discussed in the following section.

Organizational Learning and Adaptive Learning in the Teacher

It is possible to recognize how the social-constructivist perspectives of the adult development theorists are compatible with the ideas advanced in Senge's *The Fifth Discipline* (1990) in which members of organizations collaborate to clarify their goals and discover opportunities for improvement through the changes presented to them. In addition, the characteristics of professional learning communities, which will be discussed later, suggest that there will be instances in which members of a group must collectively learn how to adjust and adapt to new circumstances. Thus, professional learning communities and teacher collaboration promote adaptive learning, which according to Heifetz and Linsky (2002) is essential to support organizations as they encounter new demands and challenges for which they do not have answers. The following sections seek to clarify how organizations learn, how knowledge and information is transmitted through a network, and how both of those topics relate to teachers and their work.

Organizational Learning

In order for an organization to function well, knowledge must flow freely between its members (Perkins, 2003). In fact, how knowledge is processed and the types of conversations that occur within an organization are representative of that organization's level of intelligence. Collaboration with a focus on generating, communicating, integrating, and acting on both the explicit and tacit knowledge of the organization is important to the success of the organization.

Teaching has long been thought of as a solitary enterprise, but in order for teachers to improve their practice, they must work collaboratively (D. H. Hargreaves, 1999). This can be challenging because schools with a traditional structure are often "wired" to maintain bureaucracy so that information flows from the top down rather than spreading laterally

throughout the school (McDonald, 1996). Rather than maintain a culture of isolation among teachers, "we need schools where no one works alone and that do not hide behind statements of their best intentions" (p. 119). Teachers, through their activities in the classroom and interactions with colleagues, can subvert this bureaucratic type of wiring to change the way that knowledge is transmitted throughout the school. What happens in one teacher's classroom is often influenced by the attitudes and assumptions of other teachers in the school (Bridwell-Mitchell, 2015; A. Hargreaves, 1994). In schools where increasing the knowledge of teachers is a focus, teachers work together to understand what is collectively known, where there are gaps in knowledge, and subsequently combine their resources to improve the knowledge of the group (D. H. Hargreaves, 1999). Through the process of working in separate groups on improving teacher knowledge and sharing what is learned, teachers engage in the network improvement, building the collective knowledge in the organization (Bryk et al., 2015). The success of any innovation in a school depends on the socially distributed knowledge created from the collaborative efforts of teachers across disciplines (Perkins, 1992).

In professional learning communities, teachers collaborate and continuously inquire into teaching practices at the school to improve student learning outcomes. These activities create a collective knowledge within the school. It is very important that the learning generated from the professional learning communities' work is transmitted through the rest of the school so that all members of the school community can benefit from the learning of the group. When the new knowledge is shared among staff members and integrated into practice, it becomes part of the collective knowledge of the group and also increases the individual knowledge of each of the group members, thereby increasing the professional capacity of each staff member.

Social Network Theory

In the 1930s the study of social networks began as a way of measuring social and psychological interactions between people (Borgatti & Ofem, 2010). As study of the theory progressed by social scientists, the value of looking at education through the lens of social network theory was realized. Social network theory and its tenets can be directly applied to the way that knowledge and information are transmitted among teachers and throughout a school.

Social network theory examines the relationships between different members of a group. Social networks are the product of individual actions that result in social structures that the participants cannot see because they are part of the structure (Kadushin, 2012). The relationships can be constraining or can provide opportunities for growth and allow information and resources to flow between members. The members of these relationships tend to be near each other physically and share characteristics, values, and social status. People tend to form networks and are motivated to interact both to feel safe and to take risks, and to seek higher social status. These interactions are the mechanism that allows information and resources to move between members. Trust and safety are important to the function of social networks. As Cross and Parker stated, "trust is important to effective knowledge transfer" (2004, p. 99). Without the presence of trust in a social network, communication between members will not happen at all or will not happen easily. Social networks in schools help to build the professional capacity of individual teachers through collaborative effort (Deal, Purinton, & Waetjen, 2009). The collegial support that social networks provide are now recognized to be central for the retention, professionalism, and engagement of educators (Daly, 2010).

The study of social networks within schools has yielded valuable information about reform efforts and how the social networks within schools affect the implementation of reforms.

For example, one study showed that peers have a strong influence on teachers' attitudes about reform efforts in both positive and negative ways (Cole & Weinbaum, 2010). Another showed that when professional development resources are scarce, distributed leadership can enhance reform efforts through the circulation of knowledge and resources to more staff leaders (Penuel, Frank, & Krause, 2010). The interactions among staff members can enhance reform efforts with positive communication and distribution of knowledge or can stifle reform efforts with negative communication and containment of knowledge to a select few.

The principles of social network theory are aligned with the ideas of teacher collaboration and professional learning communities and how each of those operates. The social connections that exist between staff members can enhance or restrict collaborative efforts to improve teacher practice. In schools with established professional learning communities, collaboration is not the goal, but a means for school improvement (Deal et al., 2009). Information is transmitted easily from one staff member to the next as the school works together on the process of improvement. Understanding how information flows or does not flow and the patterns of association and interaction that disperse or contain that flow will be helpful for school leaders when thinking about implementation of professional learning communities (Deal et al., 2009). It is also important to consider how a change in the organization of schools may help knowledge and information to be transmitted, as was the case with the re-organization of middle schools to incorporate interdisciplinary education.

Interdisciplinary Education in Middle Schools

Prior to 1963, the years of schooling between elementary school and high school were referred to as junior high school. Junior high schools had adopted a structure similar to high schools in which teachers were separated into departments based on their subject matter and did

not interact with other members of the school staff (Erb, 1995). William Alexander first coined

the term "middle school" in 1963 and proposed the use of middle schools as an innovative

alternative to junior high schools due to growing dissatisfaction with the then-current junior high

school model (Alexander & McEwin, 1989; Alexander & Williams, 1965; Schaefer, Malu, &

Yoon, 2016). Beyond changing the name, middle schools would focus on the educational

experience of students in between elementary and high schools, individualize education to meet

students' needs, allow students to explore curriculum, and prioritize education of the whole child

rather than their minds only (Alexander & Williams, 1965). As schools began to embrace the

middle school model, the Carnegie Council on Adolescent Development Task Force on

Education of Young Adolescents (1989) developed a list of recommendations to better meet the

needs of their students including creating small learning communities for students, focusing on

core academics, eliminating achievement-based tracking, empowering teachers and

administrators to make decisions, and employing teachers skilled at teaching young adolescents,.

In an effort to develop small learning communities for students, middle schools began to

institute interdisciplinary teams. These teams were made up of teachers from different academic

disciplines that taught the same students and occupied the same area of the school building

(Wallace, 2007). The teachers in interdisciplinary teams were provided time to meet together to

plan instruction and monitor the progress of their students (Erb, 1995). Interdisciplinary teams

allow for teachers to know their students better and set consistent expectations from classroom to

classroom (Carnegie Council on Adolescent Development & United States of America, 1989;

Erb, 1995). Teachers on interdisciplinary teams have the opportunity to work closely with

colleagues that teach the same students, giving teachers the chance to discuss their

understandings of their students, set common expectations for them, change their instruction, and plan more appropriately to meet their needs.

The use of interdisciplinary teams has been shown to be beneficial to the entire middle school community. The organization of middle school interdisciplinary teams led to increased student achievement (Alexander & McEwin, 1989; National Middle School Association, 2003; Schaefer et al., 2016; Wallace, 2007). Interdisciplinary teams tended to be more supportive learning environments for students (Erb, 1995). The benefits of interdisciplinary teams were not limited to students. Teachers also experienced the benefits of a stronger school community that provided opportunities for teacher collaboration, embraced the idea of teachers taking pedagogical risks, and led to an increased sense of accomplishment (Erb, 1995; National Middle School Association, 2003). Teachers in interdisciplinary teams learned to work together and relied on each other to provide feedback on students and on instructional ideas. Interdisciplinary teams continue to be embraced by middle schools and are a model used by the majority of middle-level schools in the United States (Schaefer et al., 2016).

The scholarship described above has shown that the organization of interdisciplinary teams provides an ideal opportunity for teachers to collaborate and investigate into their teaching practices. Teachers from different subject areas are able to work together to discuss and exchange ideas about the best methods to teach the same group of students. Teachers on an interdisciplinary team often occupy the same area of a school. This proximity increases their opportunities for collaboration. Teacher collaboration and professional learning communities will be discussed in the following sections.

Teacher Collaboration

Teacher collaboration comes in many forms and generally speaking describes any instance in which teachers are working together. This section examines the different educational reform movements that are responsible for the emergence of teacher collaboration. It also explores claims that have been made about the conditions necessary for teacher collaboration to happen effectively and the reasons why schools choose to embrace teacher collaboration. This section also discusses some of the many forms that teacher collaboration can take.

Reasons and conditions for teacher collaboration

Teacher collaboration has been shown to have many benefits to all members of the school community. For example, some researchers have shown that teacher collaboration can lead to improved student performance (Davis, 2015; Dunne & Honts, 1998; E. Hargreaves, 2013; Hord & Southwest Educational Development Lab, 1997; Lee & Smith, 1996; Little, 2002; Markow, Macia, & Lee, 2013; Robinson, Passantino, Acerra, Bae, Tiehen, Pido, Kannapel, Duffy, &Langland, 2010; Ronfeldt, Farmer, McQueen, & Grissom, 2015; Stoll, Bolam, McMahon, Wallace, & Thomas, 2006; Yasumoto et al., 2001). Others have observed that teacher collaboration promotes innovation and positive changes within the classroom and the larger school organization (Brennan, 2015; Cohen & Ball, 2001; Fairman & Mackenzie, 2015; McLaughlin & Talbert, 2006). The conversations among teacher colleagues that are focused on improving instruction, aligning curriculum, and student performance on formative assessments, all of which ostensibly occur during teacher collaboration, enrich teacher practice (Chenoweth, 2015; Horn & Little, 2010; Saunders & Goldenberg, 2005).

Nevertheless, the literature also stresses that productive forms of teacher collaboration require a culture that supports collaborative work (Huberman, 1993; Louis, Marks, & Kruse,

1996). In a school culture that supports collaboration, teachers are able to develop their own goals for their collaborative work (Dunne & Honts, 1998). The culture of the school drives the content of what is discussed (Guzzo & Dickson, 1996; Huberman, 1993; Sterrett & Irizzary, 2015; Supovitz, 2002). In addition, the culture should support teachers taking a leadership role and having some control over their collaboration (Louis et al., 1996; Lumpkin, Claxton, & Wilson, 2014). The opportunities for collaboration must be frequent, continuous (Little, 1982), and must move in a cyclical process through planning, action, analysis, and reflection (Stewart, 2014). According to Lee and Smith (1996) and Little (1990b), teachers ideally will take collective responsibility over improving instruction throughout the school.

Scholars who have studied teacher collaboration also maintain that in order for collaboration to occur, several organizational structures must be present within schools. Schools must provide the time for collaboration and trust and respect must be present among the faculty members (Feiman-Nemser, 2001; Kaplan, Chan, Farbman, & Novoryta, 2014; Kruse et al., 1994; Markow et al., 2013). Teachers also must receive feedback on their instruction to improve (Darling-Hammond, 2015). Teacher collaboration must also incorporate reflection on experiences to create improvements (Cochran-Smith & Lytle, 1999; Darling-Hammond, 2015; Kaplan et al., 2014). Finally, teachers should also receive the proper training and materials to engage in collaborative work (Little, 1990a).

Although school culture is important, there are many factors and conditions that can inhibit teacher collaboration and make the productivity of collaborative groups less effective. For example, school administration may be met with resistance if it imposes changes that do not match up with teachers' desires (Louis et al., 1996; Szczesiul & Huizenga, 2014). Also, there is the possibility that not all forms of teacher collaboration lead to change (Little, 1990b; Ronfeldt

et al., 2015; Sims & Penny, 2015). The act of meeting and looking at data is not sufficient criteria to lead to lasting instructional change (DuFour & Reeves, 2016). The meetings must have clear goals aligned with the goals of the school to be effective (Kaplan et al., 2014; Saunders & Goldenberg, 2005). At the same time, school administrators must recognize that there is more than one way for teachers to collaborate successfully (A. Hargreaves & Fullan, 2012). In fact, a Metlife survey of American teachers conducted in 2013 found that collaborative practices vary widely across schools (Markow et al., 2013).

The Emergence of Teacher Collaboration

The ideas that support teacher collaboration and the characteristics of teacher collaboration have emerged from a variety of sources both related directly and indirectly to education. These ideas and characteristics have also gained support in other fields such as social network theory and organizational leadership studies because they have paralleled the developments in those same fields. These theories focus on how members of a group interact and how knowledge is generated and shared among a group. This section builds on the previous discussions of organizational learning and social network theory, and provides a glimpse of the different configurations of teacher collaboration that have existed.

Teachers: Critical instrument for reform. It is commonly thought that teacher collaboration is a fairly recent development, but the ideas that supported it have existed for nearly 100 years. Arising from the Progressive educational reform movement and the extensions of it that followed were various recommendations for teacher activity that stress the central role of teachers investigating their own practice. These reform movements and the lessons garnered from them have contributed greatly to the emergence of teacher collaboration and foreshadowed their development at the same time.

The Progressive reform movement began as "a product of discontent with traditional education" (Dewey, 1938, p. 18). Progressivism focused on the individual and the idea that learning should be through experience rather than through a textbook. It advocated for the freedom of choice for the student and believed that education should be a democratic experience. John Dewey, a major proponent of the Progressive movement believed that teachers should be involved in researching how to improve education. He stated that contributions to the body of knowledge about education "that might come from *class-room* (italics in original) teachers are a comparatively neglected field" (Dewey, 1929, p. 46). Dewey advocated for the role of teachers as investigators and believed that they were best suited for studying what occurs in the classroom because they were actively involved in designing the learning experiences with students and interacting with them on a daily basis. As such, teachers would have the most insight into the problems that were occurring in their classroom and in others.

Beginning in 1930 and ending in 1942, the Eight Year study sponsored by the Progressive Education Association was a research study in which 284 colleges agreed to relax admission standards so that thirty high schools and school systems could experiment with curriculum and pedagogy, with the idea that increased flexibility and autonomy in teaching would better serve students (Bullough, 2007). While involved in this study, teachers took greater control of their curriculum and increased their collaboration with their colleagues. Teachers became more focused on schooling as a democratic process and worked together to change the curriculum and school day to increase learning opportunities for students and involve them more in decisions about their learning. The flexibility and experimentation led to three powerful outcomes: a) the professional capacity of the teachers increased, b) teachers collaborated with students and

teachers alike on curriculum and assessments, and c) trust and relationships between teachers and students were developed.

In the 1950s and 1960s, schools became focused on curriculum reform following the launch of the Sputnik satellite into space. Schwab (1969) responded to the curriculum reform efforts and pointed out that they would collapse due to ignorance of the practical implications of reform. Schwab argued that curriculum reform efforts were based on theories that focused on ideal scenarios and did not take into account the actual classroom experience and the variations that come with them. He stated that it is necessary that we know "what is and has been going on in American schools" (p. 15). Studies of classrooms are needed to develop a baseline assessment of what is occurring in education and determine what changes are necessary for improvement. But in particular, Schwab stated that it was very important that teachers collaborate within schools, along with administrators and researchers, to develop a curriculum that determines what is important to study and the possible consequences of implementing changes. Schwab also stated that collaboration among teachers was necessary because the variety of perspectives engaged in a practical, deliberative process would produce a more complete curriculum that would better address student learning.

Similarly, Stenhouse (1981), writing about curriculum reforms in the United Kingdom, explored the idea of teachers as researchers of curriculum. He stated that teachers make ideal researchers because they are in charge of what happens in the classroom, and that "classrooms are the ideal laboratory for the testing of educational theory" (p. 109). Stenhouse (1984) also claimed that school improvement is dependent on increasing the number of good teachers and that as practitioners in the classroom, teachers are the ones responsible for improving teaching. He also advocated for observation of teachers by fellow teachers as a way of improving teaching.

Stenhouse (1980), therefore, regarded the improvement of schools as an experimental process

and thought that learning outcomes for students would not improve with the introduction of new

curriculum if teachers did not improve in their practice of teaching.

The reform efforts discussed above yielded valuable lessons that presaged the

development of teacher collaboration. The relevant messages from that literature are displayed in

Table 2. Dewey maintained that teachers should be involved as investigators into classroom

practices. The Eight Year study showed that teacher collaboration increased the professional

capacity of teachers and created trust between staff members. In addition, the learning

opportunities for students increased and became more authentic. Schwab's response to the

curriculum reform efforts of the 1950s and 1960s also advocated for collaboration among faculty

members and pushed for study of the teaching practices within classrooms to be able to

determine what changes need to be made to improve student learning. Stenhouse stressed the

significant role teachers have in improving student learning. These common ideas of

collaboration and inquiry into practice are present in teacher collaboration as it exists today.

Table 2

Proponents and Studies that Presaged Teacher Collaboration

Proponent/Study	Date	Teacher collaboration precursor
Dewey	1929, 1938	Teachers as investigators into practice because of their role in designing lessons and interacting with students
Eight Year Study	1930-1942	Increase in professional capacity of teachers and trust between staff members due to teachers' experimentation with curriculum and work with colleagues and students
Schwab	1969	Collaboration among faculty, study within classrooms of teaching practices. Use of teachers' knowledge of their own classrooms and what works best for their students
Stenhouse	1980, 1981, 1984	Central role of teachers in improving student learning because of their role in designing curriculum

Formalization of teacher collaboration

As interest in teacher collaboration has grown, several groups have made efforts to formalize the process of teacher collaboration. As these formalized processes developed, they took steps to position themselves to be distinctly different from the others. One example of this is Critical Friends Groups, a program started by the National School Reform Faculty in which members "commit to improving their practice through collaborative learning and structured interactions" ("National School Reform Faculty Frequently Asked Questions," 2014). Critical Friends Groups state that they are different from other forms of teacher collaboration because the training for other modes of teacher collaboration is often lacking in the methods and structures needed to meet improvement goals. The protocols used by Critical Friends Groups provide the support that they believe other types of teacher collaboration lack. Even with the extra structure provided by the protocols and the desire to be separate from other types of teacher collaboration, Critical Friends Groups can still be identified as a form of teacher collaboration because of their focus on collaborative efforts to improve teaching and learning and on building trust among the faculty using specific protocols to facilitate interactions and discussions (Dunne & Honts, 1998).

Lesson study groups represent another formalized process of teacher collaboration. These groups are prominent in Japan and focus on teachers working together to create a lesson (Stigler & Hiebert, 1999). This lesson is then taught by one of the teachers and observed by the others in the group. Following the lesson, the group reconvenes to discuss what occurred during the lesson and how it can be improved the next time that it is taught. The collective inquiry into teaching practices, observation and feedback on teaching, focus on student learning, and supportive nature of lesson study groups clearly suggest that lesson study groups are a form of teacher collaboration.

As the participants in the study work in contexts that promote teacher collaboration in a professional learning community format, a specific form of teacher collaboration, and the language used in the district centers on professional learning communities, the remainder of this literature review will focus specifically on professional learning communities.

Professional Learning Communities

One particular form of teacher collaboration is an approach known as professional learning communities. Though this is a very specific and increasingly popular term used to refer to teacher collaboration, the wide variety of definitions and implementations of professional learning communities can obscure the meaning of the term. This section seeks to clarify what is meant by the term professional learning communities and explores the different meanings educators have for professional learning communities. Connections to other leadership theories are also examined. This section will also consider how the professional and research literature addresses the conditions needed for successful implementation and sustainment of professional learning communities.

Definitions and Explanations of Professional Learning Communities

In their review of the existing literature at the time, Stoll et al. (2006) found that "there is no universal definition of professional learning communities" (p. 222). The authors do identify that there is a common theme of continual inquiry into practice among the different definitions. Stoll et al. (2006) also state that the defining characteristics vary depending on the context in which the professional learning community exists.

The definitions that exist, while sharing some similar elements, are still different enough to show the lack of agreement on a definition. DuFour (2004) listed three purposes behind professional learning communities: to be certain that students are learning, to embrace a

collaborative work environment, and to concentrate on results. Taking this idea a step further, DuFour and Eaker (1998) stated that professional learning communities have a shared mission, vision, and values, engage in collective inquiry, work in collaborative teams, are oriented towards action and experimentation, and are focused on continuous improvement and results. Hord and the Southwest Educational Lab (1997) described the characteristics of a professional learning community as having

> the collegial and facilitative participation of the principal who shares leadership…through inviting staff input in decision making, a shared vision that is developed from an unswerving commitment on the part of the staff to students' learning and that is consistently articulated and referenced for the staff's work, collective learning among staff and application of the learning to solutions that address students' needs, the visitation and review of each teacher's classroom behavior by peers as a feedback and assistance activity to support individual and community improvement, (and) physical conditions and human capacities that support such an operation. (p. 18)

Judith Warren Little (1982) in her studies of collegial relationships found that the groups that are the most beneficial to students and the school community support discussions around classroom practice, involve mutual observation and critique, prepare and design curriculum collaboratively, and participate as a group in improving instruction (pp. 331-332). Bullough (2007) provided yet another definition of professional learning communities, stating that they build teacher capacity, engage participants in teacher research, and require a foundation of trust, continuous growth, and thoughtful inquiry into practice (pp. 178-179). Louis et al. (1996) defined professional learning communities as having shared norms and values, a collective focus on student learning, collaboration among faculty and staff members, de-privatized practice, and reflective dialogue. Stewart (2014) defined professional learning communities as having a focus on content where teachers can engage in active learning about topics that are relevant to their teaching practices over a long duration of time. These definitions are summarized in Table 3.

Each of these definitions is slightly different from the other and raises questions about what

facets are most important to the successes and development of professional learning

communities. Despite the differences in language among the definitions, there is a common

focus on collective inquiry into teacher practice. This inquiry into teacher practice requires a

supportive, collegial environment so that teachers can focus on learning about what is working in

their classrooms for their students and what is not (Little, 1990a).

Table 3

Definitions of Professional Learning Communities

Author(s)	Date	Definitions
DuFour and Eaker	1998, 2004	Shared mission, vision, and values, collective inquiry, collaborative teams, action oriented, focus on improvement and results.
Hord and Southwest Educational Lab	1997	Principal shares leadership, shared vision, collective learning with focus on students' needs, observation by other teachers, conditions that support improvement.
Little	1982, 1990	Discussions around classroom practice, observation and critique, collaborative work on curriculum, participation in improving instruction.
Bullough	2007	Build teacher capacity, exploration as teacher-researcher, requires foundation of trust, growth, and inquiry.
Louis, Marks, and Kruse	1996	Shared norms and values, focus on student learning, collaboration, de-privatized practice, reflective dialogue.
Stewart	2014	Focus on content, active learning, topics relevant to teaching practice, meetings occur over a long duration of time

Theoretical Arguments and Empirical Research About Professional Learning Communities

As previously stated, professional learning communities are not an end goal in

themselves, but a means of achieving a goal. Both theoretical scholarship and empirical

evidence have shown that there are many advantages to employing professional learning communities and there are caveats that must be taken into consideration as well. This section aims to explore the arguments and research in support of professional learning communities and the cautions associated with professional learning communities. The examples used are meant to illustrate the ideas in support of professional learning communities and are not intended to be an exhaustive review.

Arguments and research as endorsements. Professional learning communities are focused on the collaborative learning experiences of a group of teachers in an educational setting. One of the theoretical arguments is that there are benefits that exist both within and outside of the classroom as a result of professional learning communities. One of the perceived benefits of professional learning communities is that they are important for building teacher capacity and improving practice (Loughran, 2002; Stoll et al., 2006). In addition, the theoretical arguments state that there is a positive correlation between the existence of professional learning communities in a school and student learning (Hord & Southwest Educational Development Lab, 1997; Stoll et al., 2006). Through participation in professional learning communities, teachers are able to build a common language, develop standards for practice, and create a shared knowledge (McLaughlin & Talbert, 2006). In addition, it has been theorized that participation in professional learning communities helps teachers to feel more empowered and influential. (National Middle School Association, 2003). The benefits of professional learning communities trickle throughout the school, leading to better organization and cohesion across classrooms (A. Hargreaves, 1994). Teachers are able to coordinate responses when students have difficulty with learning and make public what they learn as teachers about how to best meet their students' needs (DuFour, 2004).

The theoretical arguments that have been raised in support of professional learning communities have been corroborated by empirical evidence. These studies were conducted at the middle school and high school levels in both urban and suburban settings and included varying numbers of participants ranging from seventy-five up to over nine thousand. Dunne and Honts (1998) found that professional learning communities increased teacher capacity and improved teacher practice. In separate studies, Dunne and Honts (1998), Lee and Smith (1996), and Little (2002) found a positive relationship between the presence of professional learning communities and student learning. The collaborative work of professional learning communities provides teachers with a break from the isolation of the classroom, produces a larger pool of ideas, materials, and methods, and generates higher quality solutions to problems (Little, 1990a). Little (1990a) also found that professional learning communities led to the empowerment of teachers as measured by teachers' reports of their willingness to experiment in their classrooms and invite their colleagues in to observe. In addition, research has found that the benefits of professional learning communities spread throughout the school community creating a more cohesive and organized environment (Fairman & Mackenzie, 2015; Little, 1990a). Also, through the process of collaborative work, teachers are able to better understand the relationship between classroom and school (Curry, 2008).

Cautions raised in research and theory. While there are definite benefits to the practice of professional learning communities in schools, there are also some cautionary observations to consider that have been raised as research has been conducted and theoretical arguments made. Hargreaves (2003) warned that collaboration ran the risk of becoming superficial and discussing issues related to "student discipline, staff socializing, or task coordination rather than on teachers' making demanding improvements together that would benefit students' learning" (p.

165). Hargreaves (2003) also suggested that when collaboration is controlled by leadership it runs the risk of becoming contrived, robs teachers of the opportunity to inquire into their practice, and could lead to less collaboration among teachers. Little (2002) warned that "not all strong professional communities exhibit an orientation to practice that is conducive to change or concerned with improvement" (p. 935). This statement is echoed by Visscher and Witzers (2004). It is also possible that professional learning communities may improve the overal culture of the school without having a positive impact on student learning (Supovitz, 2002). In addition, the time demands that professional learning communities require may make them challenging to implement and sustain and may result in increased stress among teachers (Little et al., 2000). Teachers will be less likely to see the value in collaborative work if they do not value the opinions of their team members (Little, 1990a). Teachers need to be able to recognize the benefits of collegial work and understand that the collective resources that they develop outweigh the other myriad ways in which they could use their time (Chenoweth, 2015; Little, 1990a). There also is a concern that some professional learning communities may try to accomplish too much while still having a lack of continuity (Curry, 2008) or followthrough on the problems and ideas that are discussed (Curry, 2008; Szczesiul & Huizenga, 2014). In addition, teachers and school leadership alike must understand that the conflicts that can arise during professional learning community activities can foster productive discussion and advance the learning of team members (Achinstein, 2002; Ball & Cohen, 1999). Without the time necessary to devote to the professional learning community, understanding of the benefits of collective work, a focus on improvement, and the willingness to pursue the issues that are discussed, professional learning communities will not serve their purpose and will likely founder.

Implementing and Sustaining a Professional Learning Community

Efforts to establish professional learning communities in schools and school districts can be informed by scholarship from the more general fields of educational reform and organizational literature, as well as by literature directly related to professional learning communities. Therefore, selected perspectives from these fields of literature will be synthesized as they inform implementation, responses, and sustainability, respectively. During the implementation process, there are different responses from teachers that range from support of the change to open resistance against it. This section explores the general guidance for implementation, the different types of responses that a school leader may encounter, and the conditions that are needed to sustain the professional learning community once it is in place. In addition, this section will synthesize the different perspectives on implementation, responses, and sustainability, respectively.

Implementation. Professional learning communities are innovative practices. It is worthwhile, therefore, to consider briefly how the literature on implementation of innovation illuminates the challenges. Authors from both within the field of education and the field of organizational leadership have identified similar guidelines for how to implement changes, the criteria that must be met, and, in some cases, have specifically addressed the implementation of professional learning communities. For example, Lencioni (2002) stated that cohesive teams trust one another, willingly disagree and explore differences around important ideas, fully commit to decisions and plans of action, hold each other accountable, and focus on the achievement of the team (pp. 189-190). It takes time and effort to reach the ultimate goal of a fully cohesive professional learning community.

Kotter (1996) identified a process that leaders must follow to create lasting change in any type of organization. This eight-stage process is as follows:

1.   Establish a sense of urgency.

2.   Create a guiding coalition.

3.   Develop a vision and strategy.

4.   Communicate the change vision.

5.   Empower broad-based action.

6.   Generate short-term wins.

7.   Consolidate gains and produce more change.

8.   Anchor the new approaches in the culture. (p. 21).

Steps one through four are undertaken during the beginning of the change process. Steps five through seven happen concurrently as the change process is gaining steam and progressing forward. Step eight is recognized when the changes have become a natural way of life for the organization. These steps can be directly applied to the more specific approaches to professional learning community implementation.

Kruse et al. (1994) concluded that there are critical elements that all professional learning communities must have. According to the authors, professional learning communities must involve reflective dialogue, de-privatization of practice, a collective focus on student learning, collaboration, and shared norms and values. In order for these critical elements to be present, certain structural conditions need to be met so that professional learning communities can develop and flourish. There must be adequate time for groups to meet and talk. Teachers need to be able to meet in a place that is conducive to discussion. Teachers must be able to collaborate on lesson design and instruction, communicate with each other and feel empowered to do so.

School leaders are responsible for supporting collaborative work and creating a trusting environment to help foster the growth of the learning community.

McLaughlin and Talbert (2006) identified three phases of development in professional learning communities. In the novice phase of development, professional learning communities analyze baseline data to understand student progress and areas of concerns. They also work to understand the demands of the new expectations and requirements on their group. During this phase members of the professional learning community is developing their research skills and developing trust and collaborative norms. In the intermediate phase of development, the professional learning community clarifies goals for students and creates a common vision for the school, but has not begun critical inquiry into practice. In the advanced phase of development, the professional learning community investigates into teacher practice, collects and analyzes data, and acts on the data.

DuFour and Eaker (1998) took a specific approach to determining how to implement a professional learning community and broke the process down into what parts should be focused on and in what order so that a professional learning community can be established and sustained. According to DuFour and Eaker, the first focus of schools that are looking to implement professional learning communities should be establishing the mission of the school and determining specifically why the school does what it does. This allows the group to clarify its purpose for operation, particularly regarding what is expected for students to learn and what the response will be when students do not learn. To ensure that the school's mission will be achieved, "clarity of purpose and willingness to accept responsibility for achieving that purpose are critical" (p.61).

The second area of focus according to DuFour and Eaker (1998) should be creating a shared vision for the school. The vision establishes the direction for the school to grow towards, and also provides an impetus for that growth. "An effective vision statement articulates a vivid picture of the organization's future that is so compelling that a school's members will be motivated to work together to make it a reality" (p. 62). The school's mission and vision together combine to create the sense of urgency that Kotter (1996) describes in his eight steps for leading change, however the vision is likely to have little impact unless it is collectively created and connects with the individual visions of the stakeholders within the school (DuFour & Eaker, 1998). This means that parents, community members, business representatives, students and faculty alike must be involved in the process of creating the vision for the school. To accomplish this, surveys can be conducted of parents, community members, business leaders, and students to solicit their feedback on what they would like to see the school be like in the future. The faculty would undergo a similar, but more interactive, process of answering questions surrounding their vision for the school to create a vision statement that the faculty can be fully invested in.

The third area of focus should be on developing a set of shared, core values for the school. "A statement of core values asks people to clarify how they intend to make their shared vision a reality" (DuFour & Eaker, 1998, p. 88). Creating the set of core values is a shared process determining what the values of the school are based on the shared vision and what behaviors and attitudes are needed to move the school towards that shared vision. Students, parents, business leaders, and community members must create their own set of core values also to reflect the behaviors and attitudes that they will embrace to move the school towards its vision. In addition, DuFour and Eaker stated that "shared values provide the direction that enables individuals to act autonomously" (p. 98). The shared values provide all of the members

of the school community with the ability to engage in broad-based action that Kotter (1996) described in his eight steps for creating change in an organization.

The fourth item of focus that DuFour and Eaker (1998) identified is the creation of goals. "This task determines what must be accomplished first, the specific steps that must be taken to achieve the objectives, and the timeline for the process" (DuFour & Eaker, 1998, p. 99). Setting goals and achieving them provides a way of determining that progress is being made toward fulfilling the mission and achieving the vision. It also helps to sustain the change efforts throughout the process. This directly ties to steps five through seven of Kotter's (1996) eight steps for leading change. The setting and achieving of goals empowers broad-based action, creates short term wins, and results in the production of more change.

Each of these authors provided a different perspective on how implementation of professional learning communities can be effectively accomplished. These general guidelines for implementation are summarized in Table 4.

Each of these sets of conditions and criteria seem to indicate a common theme of collaboration and the creation of a common mission, vision, and goals. An environment conducive to trust, though not indicated in all of the guidelines, does appear to be necessary to be able to implement a professional learning community and to begin to conduct the types of investigations into teaching practices and improving student learning outcomes that professional learning communities entail.

Complications with implementation. With the implementation of any type of change effort, there are complications that leaders will encounter that, if not appropriately addressed, could lead to the complete failure of the initiative. Kotter (1996) identified eight common mistakes that leaders make related to each of his eight steps for leading change:

1. Not enough urgency is created.

2. The guiding coalition is not powerful enough.

3. The importance of the vision statement is underestimated.

4. The vision is not communicated to employees.

5. Allowing obstacles to block the vision statement.

6. Failure to create short term wins.

7. Victory is declared too soon.

8. The changes that are made do not become part of the culture. (p. 4-14)

Table 4

Guidance from Selected Authors for Implementing Professional Learning Communities

Author(s)	Date	Conditions/criteria needed for implementation
Lencioni	2002	An atmosphere of trust between team members, willingness to explore differing perspectives on ideas, commitment to action, all team members held accountable, focus on success of team.
Kotter	1996	Sense of urgency, guiding coalition, vision and strategy, communication of vision, empower staff to act, build short-term wins, consolidate gains, integrate change into the culture.
Kruse, Louis, and Bryk	1994	Reflective dialogue, sharing of practice, focus on student learning, collaboration, shared norms and values, time and place for discussion, supportive conditions and trusting environment created by school leadership.
McLaughlin and Talbert	2006	Three phases of development, beginning with novice in which group grapples with baseline data, intermediate in which group clarifies goals for students and created common vision for school, and advanced in which group investigates into issues of teacher practice.
DuFour and Eaker	1998	Common mission of school, shared vision, core values, and goals.

Lencioni (2002) also identified behaviors and factors that can lead to the downfall of a team, namely the absence of trust, a fear of conflict, lack of commitment, avoidance of accountability, and inattention to results. If these factors and behaviors are not corrected, implementation of any type of change effort will not be successful.

DuFour and Eaker (1998) recognized complications that schools may encounter when trying to implement professional learning communities. Often school leaders underestimate the strength of the culture that already exists within the school.

> Those who seek to initiate substantive change must recognize that an existing system with a well-entrenched structure and culture is already in place. In general, those working within that system will always resist, always fight to preserve the system. The fragmented, piecemeal approach to change that characterizes most school reform lacks the power and focus needed to overcome that resistance. (pp. 49-50)

The idea of resistance is echoed by Elbousty and Bratt (2010b). In their study of the implementation of a professional learning community, they discovered that the implementation was met with both active and passive resistance by some teachers. Those that actively resisted openly refused to participate, while those that passively resisted only wanted to work with one or two specific people. Both types of resistance can at a minimum impede the pace of implementation and could cause the effort to come to a complete halt. The professional learning community and school leaders must find a way to encourage participation by all faculty members, even those that resist the changes. One way of countering this resistance is by having a "critical mass" of participants in the professional learning community which will encourage any resisters to engage with the group (Little, 1982, p. 336).

In addition, new professional learning communities run the risk of becoming what DuFour and Reeves (2016) referred to as "PLC Lite" in which case a group is a

professional learning community in name only. It may examine data or discuss articles about improving teaching practice but fail to take action on any of the problems that they encounter. Sims and Penny (2015) agreed, stating that not every gathering of teachers can be called a professional learning community and that some types of teacher collaboration are in danger of having little impact because they have too narrow of a focus. Groups with too narrow of a focus like these may improve the school culture but will likely not have any effect on student learning (Supovitz, 2002). In addition, professional learning communities may be focused on maintaining consensus only, rather than engaging with the disagreements that can occur whenever groups try to make substantive changes to their practice (Achinstein, 2002).

Also, school leaders that mandate changes in collaboration such as changing to professional learning communities are likely to encounter difficulty with implementation (Szczesiul & Huizenga, 2014). Teachers are unlikely to internalize the mandated changes or look positively on them. In addition, the failure to use existing collaborative groups of teachers and change the group membership will also cause resistance on the part of teachers (Robinson et al., 2010).

Other types of complications that professional learning communities can encounter involve underestimating the difficulty of the process, even with careful planning on the part of school leaders and teachers (DuFour & Eaker, 1998, p. 50). These complications can be exacerbated through poor planning and follow through with core values and goals, leading to teachers failing to take the implementation seriously (Conley, Fauske, & Pounder, 2004; Szczesiul & Huizenga, 2014). Schools often stop their change process once the mission and vision are created and do not think about the attitudes and

behaviors that are needed in the present to reach the goals of the future (DuFour & Eaker, 1998). In addition, some schools will try to tackle too many goals at one time or will create goals that are too ambiguous and general to be accurately measured. A clear focus on the behaviors, attitudes, actions, and accountability needed to reach the vision and fulfill the mission for the school is needed when implementing a professional learning community.

Sustaining a professional learning community. Once a professional learning community has been implemented, there are steps that must be taken to sustain and continue the changes that were made. With regards to professional learning communities, there is more theoretical work regarding the sustainability of professional learning communities than there is research to support the theoretical ideas (Stoll et al., 2006). Fullan (2003) stated that "sustainability involves transforming the system in a way that the conditions and capacity for continuous improvement become built-in" (p. 91). This idea of professional learning communities becoming part of the culture in order to be sustained is repeated by DuFour and Eaker (1998). "Until changes become so entrenched that they represent part of 'the way we do things around here,' they are extremely fragile and subject to regression" (p. 105). The idea of changes becoming part of the culture is the final step of Kotter's (1996) eight steps of leading change. Ultimately, professional learning communities must become enculturated within schools for them to continue.

It is incredibly difficult to make changes last in schools (A. Hargreaves & Goodson, 2006). School leadership is central to ensuring that professional learning community activities are sustained (Anrig, 2015). There are five forces of change that can affect how a school operates over time. These forces are "waves of policy reform, changes in leadership and

leadership succession, changing teacher demographics and their impact on teachers' generational missions, shifting student and community demographics, and changing patterns of relations among schools" (A. Hargreaves & Goodson, 2006, p. 12). These forces can affect the culture of the school, the overall operation, and even the mission and vision of the school. Kilbane (2009) conducted a study of five different schools that engaged in comprehensive school reform by implementing professional learning communities. After three years, the school district abandoned the initiative in support of a different initiative. School leadership also changed in each of the five schools, with the new leaders in the schools not showing the same level of support for the professional learning communities. As a result of the change in leadership and the loss of support from the district, the professional learning communities in each of the five schools failed despite the willingness and attempts of some of the teachers to continue the professional learning communities on their own. School leadership can lead to the devaluation of professional learning communities if leaders feel threatened by the collaborative efforts of teachers. When professional learning communities are implemented, school leaders must plan for who will follow them as the next school leader as much as possible in order to help support and sustain the community, otherwise there is the distinct possibility that the professional learning community can collapse under new leadership that may not support it (Dunne & Honts, 1998; A. Hargreaves & Goodson, 2006).

There are things that school leaders can do in the present moment to ensure that the professional learning community that was created continues during their tenure. Clear and constant communication within the professional learning community is needed to sustain efforts (DuFour & Eaker, 1998). This communication should focus on what is being monitored, what questions will be asked, what will be modeled, how time will be used, what the faculty is willing

to confront, what will be celebrated, and how to keep communication as simple as possible. Collaboration is also needed to ensure the continued success of the professional learning community, but collaboration by invitation does not work, it "must be systematically embedded into the daily life of the school" (p. 118). Schools must "create structures to ensure that every staff member is assigned to a team that works together on substantive issues" (p. 119). These teams could be based on grade level, department, or as a school-wide task force. In addition, time for collaboration must be built into the school year and day. School leaders also must have a deep knowledge of the teachers at their school and how to support them (McLaughlin & Talbert, 2006). Also, the importance of celebrations in sustaining the professional learning community cannot be overlooked. Celebrations reinforce what is important, make the recipients feel noted and appreciated, and sustains and gives energy to the change process (DuFour, 1998). School leaders can take steps once the professional learning community has been implemented to provide support to the group, sustain its energy and processes, and ensure that it becomes engrained into the culture of the school.

The scholarship regarding the benefits of professional learning communities, implementation, and sustainability is extensive. Although the claims of professional learning communities' benefits to schools are well supported, there is a need for more developed explanations of how teachers experience professional learning communities and the factors and conditions that support their work and learning together. The teacher's perspective provides insight into the structures that engender commitment and make collaborative work meaningful to teachers. This study attempts to address this need.

Conclusion

This chapter examined existing theoretical research and professional literature relevant to middle school teacher collaboration in urban public schools.   It explored the sociology of teaching and how the role of the teacher in society has changed over time. This chapter also looked at adult learning theory and how that relates to collaborative practices within schools. It examined the theories of organizational learning and social networks and how they relate to teacher collaboration. Finally, this chapter explored teacher collaboration and professional learning communities and looked specifically at the benefits of professional learning communities as well as how to implement and sustain them. The next chapter details the methods and procedures used to conduct the study.

CHAPTER 3: METHODS AND PROCEDURES

This chapter details how the study was designed and conducted. It describes and justifies the choice of research methods. Selection of participants, including the procedures for selection, ethical considerations and demographic information will be explained. The development of the instrumentation will also be described. Data collection and data analysis procedures will also be discussed, and will include information on how coding procedures were employed. Finally, this chapter will include information on the validity and the delimitations of the study.

Overview of Research Design

This study is a phenomenological study of middle school teacher team collaboration. It considers the experiences of 12 middle school teachers and one focused instructional coach[1] in an urban school district in a New England state. The middle school level was selected because the district began implementation of professional learning communities in its middle schools during the 2015-2016 school year. This provided an opportunity to study the perspectives of the teachers in the midst of a transition in how they work in collaborative teams.

Six of the participants are part of the same interdisciplinary team at the Crandall school, while the remaining seven are teachers at other middle schools in the district. Five of the interdisciplinary team's professional learning community meetings were observed. Each member of the Crandall team was interviewed twice. The non-Crandall participants were each interviewed once. The interviews and observations were focused around the teachers' perspectives on collaboration and their perceptions of what was expected of their collaboration by school leaders. The interviews included two questions that prompted participants to create

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[1] A focused instructional coach provides support to teachers in many ways, including through observations and feedback on lessons. In this particular district, the focused instructional coach is also responsible for facilitating the professional learning communities at his or her school, but does not hold a supervisory role.

pictorial representations of their team to deepen the understanding of the participants' experiences and perceptions and uncover topics that may not have been discussed in the interview. Two interviews were conducted for the Crandall participants so that teachers' perceptions of collaboration could be explored in more depth and so that any topics uncovered during observations could be further elaborated on in the second interview. One interview was conducted for the non-Crandall members to contrast teachers' perceptions of collaboration and understanding of what is expected of them with the perceptions and understandings of the Crandall participants. The viewpoints of the non-Crandall participants give a sense of the perceptions of collaboration and understandings of expectations that is occurring throughout the district. In addition, gaining the perspectives of a wider range of teachers in the district will address the hypothesis that schools with a coherent focus and staff buy-in would respond differently to a professional learning community mandate than schools without a coherent focus and staff buy-in.

The study was designed to answer the guiding questions as follows: What do teachers report as their reasons for collaborating with peers? What do teachers in an urban public middle school understand about the administration's expectations for teacher collaboration? What are teachers' perspectives on the factors and conditions that influence their collaborative work? What do teachers report are the effects of collaboration on their teaching and learning?

Orientation

This study was an interpretive, qualitative study that was phenomenological in nature. Creswell (2013) defines phenomenological study as having "an emphasis on a phenomenon to be explored" (p. 78) and states that a phenomenological study would examine the experiences of "a group of individuals who have all experienced the phenomenon" (p. 78). Similarly, Merriam

(2009) indicates that phenomenological study focuses on understanding experiences from participants' perspectives and aims to ascertain the essence of the experience and the underlying structure of the phenomenon.   Both Creswell and Merriam state that phenomenological studies often rely primarily on interviews and can include observations.

This study was created from a constructivist interpretive stance. Creswell (2013) and Bloomberg and Volpe (2012) describe the constructivist stance as understanding that reality is socially constructed and context specific. It values the idea that perspectives will differ based on the experiences of the people involved and therefore invites participants to describe their experiences in their own words. The constructivist stance, as mentioned above, understands that reality is socially constructed and explores the idea that group processes are constructed through mutual interactions. The constructivist stance also understands that researchers bring their own bias to their interpretations of the participants' experiences and seek to interpret the participants' experiences. Therefore, the researcher's background and experiences shape the interpretation of the phenomena being observed.

This study explored the experiences of several teachers in the midst of implementing district-instituted requirements for teacher collaboration. Semi-structured interviews and observations were employed to understand the experiences of the participants. The analysis of the data collected provided an opportunity to deeply explore the experiences and perspectives of middle school teachers participating in required team meetings and implementing new collaborative protocols and probe into the essence of the collaborative experience and the structures that support it. In addition, this study looked at the broader phenomenon of teacher collaboration while focusing on one particular team and explored how participants constructed the meaning of teams and collaboration individually and within their teams. The differences in

how meaning was socially constructed in the various school settings were also explored. These criteria fit with Creswell's and Merriam's respective definitions of phenomenological study and with Creswell's and Bloomberg and Volpe's definitions of the constructivist interpretive framework.

Participants in Study

This study took place at several urban middle schools in one district in a New England State and included 12 middle school teachers and one focused instructional coach. This section discusses the procedures for selecting participants, the ethical considerations for interacting with the population, and the demographic information for the participants and the settings.

Procedures for selection

The interdisciplinary team was chosen using convenience sampling. Their school, referred to in this study as the Crandall school, is one where collaboration among teachers is a well-established practice. At the time of this study, there were two middle school teams at Crandall, each containing five members. Both teams had one teacher that the researcher had worked with at her current school: one in the school year previous to the study and one five years earlier. The researcher chose to study the team that had the teacher that she had worked with five years prior to reduce any bias or personal influence as a result of recent interactions. In addition, the team chosen did not have any members in their first year of teaching, whereas the other team did. Therefore, the team chosen was considered to be a more established group.

The focused instructional coach for the Crandall school was included in this study because of his regular participation in the team's meetings. The coach does not have a supervisory role within the team and is not responsible for the evaluation of any of the team members. Although the coach is no longer a classroom teacher, his prior experience as a

classroom teacher and as a coach give him a valuable perspective that is considered a benefit to this study. As a regular participant in the group's meetings, the focused instructional coach is an integral part of the group's dynamic. His inclusion as a participant in the study should add an important viewpoint and enhance the study. The focused instructional coach serves as a conduit of information throughout the school and, as part of a group of sense-making individuals, the coach operates in the manner of a colleague or peer. His participation in the study does not dilute the teacher perspective but adds to it. The study remains focused on the teacher perspective, even with his inclusion.

Other middle school teachers at the remaining middle schools in the district were sent an email requesting participation. The text of this email is attached as Appendix F. A total of fourteen teachers responded to the interview request and seven were selected. The majority of these responses were teachers from the humanities. To ensure that the experiences and perspectives of teachers throughout the district were included, two respondents each from three of the other schools and the only respondent from the final school were selected to participate. In addition, respondents were selected to ensure that they represented what the district identifies as core academic disciplines. Details about the years of experience, years at school, years with the current team, and teaching assignments of the teachers are listed in Table 5. Two English Language teachers, one literacy teacher, two social studies teachers, one science teacher, and one math teacher were selected.

Ethical considerations

This study was designed to minimize any known risk to participation. Participants were reminded of the voluntary nature of the study and of their right to privacy. Each participant read and signed a consent form highlighting their rights and protections throughout the process and

indicating their willingness to participate and their agreement for the information they provide to

be used in the study. A copy of the consent form was provided to each participant and is

included as Appendices A and B.

Table 5

Participants' Identification Codes, Years of Teaching Experience, and Subject

ID Codes	Years of Teaching Experience	Years at School	Years with Current Team	Subject
Crandall Participants				
AH02	30	4	4	Social Studies
LS01	18	4	4	Math
CB07	13	4	4	Science
SS06	13	2	2	Math
LD03	5	5	4	English
Non-Crandall Participants				
TW04	15	12	1	English
RG09	15	10	1	Literacy
PM10	13	2	1	Science
KQ12	10	7	1	Social Studies
JM05	9	4	4	English
CW11	8	3	2	Social Studies
KX08	7	3	3	Math

In order to protect their privacy, the names of all participants and the names of the

schools at which they teach have been changed. The name of the school district and the state that

it is located in have not been included in this study as a further means of protecting their privacy.

All paper documents were kept in a locked filing cabinet in the researcher's home and all

computer files related to the study were password protected.

The interdisciplinary team members were all given a gift card as a token of thanks for

their participation in the study. The non-team teachers were entered into a raffle for a gift card as

a token of thanks for their participation in the study. No other compensation was provided to any

of the participants.

Demographic information

This study concerns the experiences of 12 middle school teachers and one focused instructional coach from an urban district in a New England state serving over 25,000 students from grades K through 12. The district is located in a middle-sized city with a population of approximately 180,000. Over 70 percent of the student population is considered low income and over 30 percent are English Language Learners.

There are a total of six middle schools in this district. Five of the teachers and the coach are members of an interdisciplinary teaching team at one of the schools. The remaining participants are from four of the other middle schools in the district. One middle school was excluded from the study because that is the school that the researcher teaches at.

The teachers in the study represent what the district identifies as core academic disciplines, including English Language Arts, Social Studies, Science, and Math, and one supplemental subject of Literacy. Participants had varied years of experience, with the shortest amount of time being five years and the longest amount being thirty-five years. In addition, the participants' time at their current school also varied, ranging from two years to twelve years. Participants' time with their current team was more consistent, with lengths of time ranging from one to four years. See Table 5 for this data. Collaborative experience among the participants varied as well. The Crandall team has been a collaborative group with its current members for two years, but four of the five members have been working together for four years. The non-Crandall teachers had collaborative experience ranging from one year with their current team to four years with their current team.

Instrumentation

This section describes how the data collection instruments used in the study were developed. It indicates the sources of the data collected. This section includes information on the development of the interview protocols and the observation protocols. It also indicates changes that were made to the initial interview protocol as a result of piloting the instruments.

Development

This study was conducted using semi-structured interviews with each of the participants. In addition, five team meeting observations were conducted. The interview protocols and observation protocols are included as Appendices C, D, and E, respectively. The interview and observation protocols were developed specifically for this study and were based on templates and examples provided by Creswell (2013), Spradley (1979), and Weiss (1994).

Descriptive questions were used to illustrate participants' perspectives on the experience of collaboration. Structural and contrasting questions were used to highlight the differences that participants notice in their experiences and to uncover the conditions that support their learning as a group. Two questions that required participants to draw a pictorial view of their team in different contexts were included in the initial interview to elicit information that the question and answer portions of the interview protocol might not have uncovered. These questions opened up the interview process for further discussion about the participants' experiences and perspectives. The works of Rose (2016) and Savin-Baden and Major (2010) support the collection of visual data as a method of eliciting deeper responses from participants. A script was used to provide clear instructions to participants and remind them of the reason for the study. Team participants were interviewed twice, with interviews occurring approximately eight weeks apart. Non-team participants were interviewed once. The follow-up interview focused on collaborative incidents

that occurred during the Crandall team meetings and gave the Crandall participants an

opportunity to elaborate further on their experiences.

The observation protocol focused on four subjects discussed during team meetings: the

agenda and time spent on agenda topics, student concerns, instruction and curriculum, and group

processes. This protocol provided an opportunity to observe how the Crandall team functioned

as a collaborative group and provided additional insight into the Crandall participants'

experiences. Five meeting observations were conducted over a span of seven weeks. The

different stages of the data collection process are depicted in Figure 1. Descriptive and reflective

notes were taken on all four of the areas of focus described above. A summary of the data

collection methods is provided in Table 6.

Phase 1: Crandall participants' first interviews and non-Crandall participants' interviews. Twelve participants and focused instructional coach interviewed. Occurred during first through fourth weeks of data collection.

Phase 2: Crandall team meeting observations. Five participants and focused instructional coach observed, with five meetings observed. Occurred during the first through seventh weeks of data collection.

Phase 3: Crandall participants'second interviews. Five participants interviewed. Occurred during the seventh through ninth weeks of data collection.

Figure 1. The three phases of data collection that occurred through the course of the study.

Sources of Data

The data analyzed in this study came from a multitude of sources. Transcriptions and

field notes from interviews and observations were the primary sources of data. Copies of

materials discussed during team meetings and interviews were also sources of data, including but

not limited to handouts discussed during meetings, forms from administration, and email

communication regarding meetings. Training materials from the district were also included as

sources of data.

Table 6

Data Collection Methods

Collection Methods	Participants	Frequency	Focus of Method
Interview	Crandall and non-Crandall	Crandall participants: Twice, eight weeks apart Non-Crandall participants: Once	To understand teachers' perspectives on collaboration, their reasons for collaboration, what they believe is expected of them as collaborators, and the effect of collaboration on their teaching and learning.
Observations	Crandall team	Once per week for five weeks	To observe a collaborative group in action and understand the topics that they discuss. The team members' experiences in the observations led to additional questions for follow up interviews.

Connection to Guiding Questions

During the development and revisions of the interview and observation protocols, great

care was taken to ensure that each of the questions and prompts connected to at least one of the

guiding questions. The questions were designed to elicit information about teachers'

understandings of the purpose of their meetings and the meaning of collaboration as well as their

understanding of the district's expectations for teacher collaboration. Table 7 shows the

correspondence between the guiding questions and the interview questions or prompts.

Interview Pilot

The interview protocol was piloted to test out the questions and determine how

interviewees understood the questions. The instrument pilot was conducted with three middle

Table 7

Relationship Between Guiding Questions and Interview Questions

Guiding Questions	Corresponding Interview/Observation Questions
What do teachers report as their reasons for collaborating with peers?	• How would you describe the purposes of your team meetings? • From your perspective, what is a team? • How does your team operate? • Based on your experience, how would you explain to someone not in education what we mean when we say that teachers are part of a team? • Can you recall an instance during one of your team meetings that is a good example of collaboration on your team? • What are signs that someone is a good collaborator? • What are the thoughts that your other team members have about good collaboration? • Does your group ever talk about what it means to be a good collaborator? • What do you expect your team members to do when you collaborate? • If I were present when something that you think of as effective collaboration is occurring, what would I see and hear?
What do teachers in an urban public middle school understand about the administration's expectations for teacher collaboration?	• Are your team meetings any different this year than last year? Why? What is the difference? • It's clear that your team wants these meetings to occur. What does your principal expect to happen at these meetings? • What does the district expect? • Do you think there are other people outside of your team that expect you to be meeting? • What do you think those people expect from you or your team? • Have you heard about the district's professional learning community initiative? • What do you think the district's goal is in starting professional learning communities? • What effect is this having on your team?
What are teachers' perspectives on the factors and conditions that influence their collaborative work?	• Based on your experience, how would you explain to someone not in education what we mean when we say that teachers are part of a team? • How would you explain what a team is? • How does your team operate? • Are there specific roles members have within your team? • How would you describe the structure of your meetings? • Would you describe your team as a collaborative group? • Can you recall an instance during one of your team meetings that is a good example of collaboration on your team?

	• Can you recall a portion of a meeting where you learned something useful for your classroom or witnessed someone else learning something useful? • Can you recall a time when you helped someone on your team because of what you said or did that could help them in their classroom? What made the learning possible? • Are your team meetings any different this year than last year? • It's clear that your team wants these meetings to occur. What does your principal expect to happen at these meetings? • Do you think there are other people outside of your team that expect you to be meeting? • What do you think those people expect from you or your team? • Can you tell me what you think the district expects from teacher collaboration? • Have you heard about the district's professional learning community initiative? • What do you think the district's goal is in starting professional learning communities? • What effect is this having on your team?
What do teachers report are the effects of collaboration on their teaching and learning?	• Please explain to me how you understand collaboration. • Can you recall an instance during one of your team meetings that is a good example of collaboration on your team? • What are signs that someone is a good collaborator? • What are the thoughts that your other team members have about good collaboration? • Does your group ever talk about what it means to be a good collaborator? • What do you expect your team members to do when you collaborate? • If I were present when something that you think of as effective collaboration is occurring, what would I see and hear? • Can you recall a portion of a meeting where you learning something useful for your classroom or witnessed someone else learning something useful? • Can you recall a time when you helped someone on your team because of what you said or did that could help them in their classroom? What made the learning possible? What supported the learning? • Some might say that when teams focus on improving instruction that teachers are learning. Does that happen on your team? What made the learning possible? What supported your learning? • Has your teaching practice changed as a result of your participation with your team?

school teachers from the same urban district in the study. These teachers were not included as

study participants and their responses were not included in the study's data. The pilot interviews

were conducted at a mutually convenient time to the participants and the researcher. The pilot

experience indicated that the flow and wording of most of the questions would provide useful

answers but that the wording of the two illustration prompts was unclear and could lead to some

confusion for the participants. The wording was adjusted to include information on the topics

that the team discussed in one drawing and to identify any outside influences on the team in the

second drawing. This helped to ensure clarity and provide some comparison between the two

visuals.

Data Collection Procedures

This section details the methods of data collection and includes the chronological

sequence of the data collection. It also describes steps taken to ensure the confidentiality and

anonymity of the participants.

Methods and Chronological Sequence

Crandall participants were interviewed twice during this study. The first phase of

interviews occurred during the first week of observations and the second interviews occurred

after Crandall meeting observations concluded, approximately eight weeks apart. Five

observations were conducted over a period of seven weeks during one of the team's weekly

meeting times. Non-Crandall participants were interviewed during the second through fourth

weeks of the study. A flow chart depicting the chronological sequence of data collection is

included as Figure 1. Two interviews were used for the Crandall participants to uncover

teachers' perspectives on what occurred during the observations. One interview was used for the

non-Crandall participants in to understand the collaborative experiences of teachers throughout

the district. In all cases, interviews were conducted at the participants' schools at times that were

mutually convenient to the researcher and the participant.

Participants were reminded about the importance of their viewpoint because of their

experiences with collaboration. They were invited to share their perspectives on how their team

operates, how members interact, and what they learn from those interactions. Participants were

informed that the goal of the interview was to understand team meetings from their perspective.

To ensure that the information in the interviews and observations was accurate, all

interviews and observations were audio-recorded. Field notes were taken during interviews and

observations to record any use of gestures, facial expressions, or other contextual details that

would not be conveyed in an audio recording. The recordings of all interviews and observations

were transcribed in full by the researcher. In addition, any available documents, emails, meeting

minutes, guidelines or other communication from the district or school leadership pertaining to

professional learning communities and the change in collaborative practices was collected. All

documents and illustrations were converted to .pdf files.

Management and Security of Data

In order to make data collection and analysis more manageable, Atlas.ti was used as

CAQDAS (computer assisted qualitative data analysis software). All audio recordings were

imported into Atlas.ti. Transcription was completed by the researcher within the Atlas.ti

software. All documents and illustrations were scanned into .pdf files and imported into the

software as well.

Many steps were taken to ensure the confidentiality and anonymity of the participants in

the study. The names of the participants have been changed to alphanumeric codes. The names

of the schools in which the participants teach have been changed. In addition, the name of the

district is not included in the study as a further method of protection. All consent forms, hard copies of field notes, interview data, and meeting documentation were kept in a locked filing cabinet in the researcher's home. All computer files pertaining to the study were password protected. Upon completion of the study, all computer files and hard copies will be destroyed.

Data Analysis Procedures

This section contains information about how the data analysis of the study was conducted. It describes the linking of the analysis of the interview data with the observation data. This section includes information on the use of Atlas.ti. It also describes the coding procedures and the connection of the codes to the guiding questions.

Linking Interview and Observation Data

The use of data from two sources is a benefit to this study. As Fielding and Fielding (1986) note, interview data or observation data alone are not enough to provide a clear picture of the phenomenon being studied. With observations alone, it is impossible to understand the participants' motives or thoughts. With interviews alone, the participants' actions cannot be analyzed. Both are needed to obtain a deeper understanding of the phenomenon of collaboration. Engaging in both interviews and observations establishes proximity to the phenomenon of teacher collaboration as it is occurring and allows for more legitimate inferences about consistency among what participants report during interviews and what is observed during their meetings. It is not possible to extend those inferences to the non-Crandall participants to make inferences about the consistencies or inconsistencies between what they report and what the Crandall participants report because data for the non-Crandall participants was only collected from one source.

Atlas.ti

All of the transcribed and scanned documents were coded using Atlas.ti software. The software stored all transcriptions, scanned documents, and definitions of all codes. It also allowed data to be sorted to show all of the pieces of data that belonged to specific codes and assisted with the discovery of patterns and common themes in the data. The codes also could be linked together to assist with deeper analysis to understand the participants' experiences more fully.

Coding sources and procedures

The coding procedures drew on the works of Bloomberg and Volpe (2012), Creswell (2014), Miles, Huberman, and Saldaña (2014) and Saldaña (2011). Coding occurred as data was being collected and transcribed (Creswell, 2014; Miles et al., 2014; Saldana, 2011). As each code was generated, a definition for the code was created and stored within the Atlas.ti software. The definitions for each code are included as Appendix G. These definitions were repeatedly examined and revised to reflect the most complete meaning of each code.

The interview pilot created an opportunity to practice coding data and to establish some preliminary routines and procedures for coding and data analysis. A set of descriptive codes was generated while open coding the transcriptions of the pilot interviews. These codes were used as a set of provisional codes (Miles et al., 2014) to guide the early stages of the coding of the study data. This set of provisional codes were influenced by the existing literature on teacher collaboration and professional learning communities and informed the creation of the initial meaning units.

For each piece of data, analysis took place in several rounds. Data was examined and reexamined prior to coding. In the initial round of coding, the provisional codes from the

instrument pilot were used to find general themes and descriptions in the data. While the

provisional coding was occurring, open coding was also being done simultaneously to identify

any meaning units that did not come to light in the instrument pilot. A second round of

descriptive coding was completed to locate any additional themes or descriptors. Within each

round of coding, analytical memos were made to summarize any thoughts on the analysis to that

point. A sample analytical memo is included as Appendix I. Following that, codes were

reorganized to find overall patterns and themes within the data. The codes were collapsed into

larger categories, creating a hierarchy of codes to reflect the major themes resulting from the

analysis. The remaining codes fell into subcategories under these major themes.

As the codes were organized into the major categories and subcategories, a description of

the experiences of the participants began to emerge. The definitions of each code and the

frequency of participants that had specific codes applied to their statements are provided as

Appendices G and H respectively. The hierarchical organization of codes is included in separate

sections of the analysis in Chapter 4. Information about what the participants experienced

during their collaboration with other teachers and how that phenomenon was experienced began

to coalesce into a clearer picture.

Connection to Guiding Questions

During the provisional code generation, codes were created directly from the guiding

questions. Subsequent rounds of coding uncovered additional facets of the guiding questions not

immediately evident in the original code creation. As additional codes were created and

definitions were refined, these definitions were cross checked with the guiding questions to

ensure that each code applied to a guiding question.

Validity

Due to the researcher's personal and professional life experiences, she has her own unique perspective that influences how she views the world and interprets and understands what occurs. In order to ensure that the development of the study would produce the most accurate results, it was necessary to reduce any bias that the researcher's own professional and sociocultural perspective would introduce. The choice of schools other than the one she works in and the choice of middle school over high school, the level at which she teaches, is meant to reduce some of this bias.

In addition, the interview and observation protocols were peer reviewed to ensure that the interview questions and focal points of the observations were clear and would not be impacted by my perspective. During observations, the researcher strived to remain a neutral observer so as not to influence the behavior of any of the team participants. As the instruments used in data collection were developed specifically for the purposes of this study, reliability of the instrumentation in other contexts cannot be confirmed.

Crandall participant interview data was triangulated with observation data to verify that the interpretations from the team participants' experiences was valid (Creswell, 2014; Fielding & Fielding, 1986). A qualitative codebook (Creswell, 2014) was maintained to ensure that definitions of codes remained consistent throughout the duration of the study. In addition, reliability and validity of coding was determined using intercoder agreement (Creswell, 2014). Another person coded three transcribed interviews using the codes generated from both rounds of coding to determine reliability. Approximately 85% of the coding was similar, but the other person did not use two of the codes that the researcher used. In addition, the other person generated two additional codes that were needed for the analysis. This led to further clarification

of the definitions of some of the codes and the addition of two new codes. This exercise helped to ensure that any biases that the researcher may bring to the data analysis were bracketed appropriately.

Delimitations

The participants in this study were limited to one urban interdisciplinary middle school teaching team consisting of five teaching members and one focused instructional coach, and seven teachers from other middle schools within the same district. The experiences of this small sample are not representative of middle school teams in other contexts. The setting of this study is not intended to be representative of other urban settings or other suburban or rural settings. Data collection continued for approximately three months. The data collection tools used were developed specifically for this study and were not used in other research. In addition, this study did not measure student progress, so the effect of a change in collaborative model on student learning cannot be determined.

Summary

This chapter provided information about the methods that were used to collect and analyze the data in this study. The phenomenological orientation of the study was described, as was the overview of the research design. Information about the selection of participants, ethical considerations for the participants, and demographic information for the participants was provided. This chapter also described the development of the interview and observation protocols and the results of the pilot study. The timing of the data collection, the use of software, the connection between the collected data and the guiding questions, and confidentiality and anonymity for the participants were also discussed. Next, the use of software in data analysis, coding procedures, and the connection of the codes to the guiding questions were described. The

validity of the instrumentation and coding procedures was also discussed. Finally, information about the delimitations of the study was provided. The next chapter will discuss the results of the data analysis and the findings of the study.

CHAPTER 4: RESULTS

The purpose of this study was to understand the experiences of middle school teachers who meet with colleagues in collaborative groups and their perspectives on how these collaborative groups serve their development as teachers. This study explored the following questions: What do teachers in an urban public middle school report as their reasons for collaborating with peers? What do those teachers understand about the administration's expectations for teacher collaboration? What are teachers' perspectives on the factors and conditions that influence their collaborative work? What do teachers report are the effects of collaboration on their teaching and learning? Participant interviews and observations along with various documents related to teacher collaboration provided data for this study. The data collected were analyzed according to topics suggested by the research questions. These categories were directly related to the guiding questions of the study and are: teachers' reasons for collaborating with peers, teachers' understandings of the administration's expectations for collaboration, the factors and conditions that influence teacher collaboration, and the effects of collaboration on teaching practices and professional identity. This chapter reports the results from the data analysis. It begins with a description of how the analysis was completed. It describes the participants and the context of their school environments. It reports the themes that arose from the data analysis and it presents the findings for each of the guiding questions.

Organization and Hierarchy of Coding

Analysis of all of the data collected in the study took place in several rounds. The analysis of the interview pilot yielded a set of provisional codes that were used as analysis of the study data was conducted. All participant interview transcripts, drawings, observation transcripts, and documentation from the participants and the district were coded using open

coding along with the provisional codes to develop the initial categories and meaning units. During the initial code development, all statements and ideas related to teachers' perceptions of collaboration, factors and conditions, their understandings of the administration's expectations and the effects on their teaching practices were recorded so as not to overlook any valuable information. The codes were then expanded using descriptive coding to include different situations that applied to the code and achieve a level of specificity that was lacking in the first iteration of coding. For example, the code "learning" was expanded to include the different people that the participants could learn from and the different topics that the participants could learn about, including, but not limited to learning about classroom management, learning about content, learning about pedagogy, learning through collaborative lesson planning, and learning through reflection. This process of code expansion included the expansion of seven preliminary categories into fifty meaning units. Several of the original meaning units were renamed to fit into these meaning units, but other codes did not require the expansion to achieve the specificity desired. Following this re-organization, the codes were examined for patterns and relationships among the codes and were collapsed into categories of similar codes. The codes continued to be refined and merged into a hierarchy of thematic codes. Following the final round of coding, the coding system had four major classifications that were influenced by and aligned with the guiding questions to the study: administration expectation, factors and conditions affecting collaboration, learning, and reasons for collaboration. Data tables displaying the organization and hierarchy for each of the thematic codes are included at the beginning of the analysis of each of the guiding questions. The definition of codes is provided as Appendix G and the frequency with which each code appears for each population is provided as Appendix H. The participant interview data was triangulated with the observation data and participant and district documents

to ensure that the data supported each other and was interpreted accurately. A table describing the types of data yielded from each source and how it reinforced data collected from other sources is included as Table 8. A depiction of the triangulation is included as Figure 2.

Participant Descriptions and Context Information

The study consisted of interviews and observations of twelve middle school teachers and one focused instructional coach from an urban school district in a New England state. Five of the participants were members of the same interdisciplinary collaborative team at the Crandall School, a middle and high school in the district. The focused instructional coach was a non-supervisory support colleague assigned to the same school. The seven remaining participants taught at four of the five other middle schools in the district.

Interview data

Crandall interview and observation data align. Non-Crandall interviews provide contrasting picture.

Participant and district documents align with interview data, showing expectations and understanding of the expectations.

Observation data

District and participant documents

Observation data supports expectations in district documents. Participant documents align with observation data, show how collaborative groups accomplish their work.

Figure 2. A depiction of how the different data sources are triangulated and support each other.

All but one of the participants taught at different schools prior to the one that they currently teach at. One participant had teaching experience at her current school only. For three of the participants, teaching is a second career. The remaining participants, including the instructional coach, have worked in education for the duration of their professional lives.

The district is led by a large group of administrators that govern and support all aspects of how the schools within the district function. The superintendent has responsibility for all school-related activities within the district. Every school has a principal, who reports to the superintendent, with most schools having at least one assistant principal as additional administrative support. Every school has an instructional leadership team that consists of the principal, assistant principal, focused instructional coach, and heads of each department. At the Crandall school, the focused instructional coach is responsible for supporting all professional learning communities within the school and assists the facilitators of each professional learning community with developing agendas and planning meetings. At some of the non-Crandall participants' schools, the instructional leadership team determines the agenda and meeting topics for all of the professional learning community meetings. At other non-Crandall schools, each team is responsible for setting its own agenda and discussion topics. At the remaining non-Crandall participants' schools, the principal and assistant principal determine the agenda and meeting topics for the professional learning community meetings.

In the spring of 2015, the district invited all middle school principals and members of the schools' instructional leadership teams to a three-day training on professional learning communities. The researcher, focused instructional coach, and participant LS01 from the Crandall school attended these training sessions. At the beginning of the first day of training, the assistant superintendent for the district reported having success with implementing professional

Table 8

Types of Data Collected and Supports to Data from Other Sources

Phase of data collection	Source of data	Participants involved	Data collected	Supports to other data
Phase one	Interview data	All Crandall and non-Crandall participants, including focused instructional coach. Total number = 13.	Responses to questions about their experiences during collaborative meetings, drawings of their team and influences on its work.	Crandall participant interviews is compared with observation data from Crandall team. Non-Crandall participant interviews provide perspective on collaboration throughout the district. Answers to some questions supported by district documentation.
Phase two	Observation data	Crandall participants and focused instructional coach. Total number = 6.	Field notes taken and recorded dialogue from a group of teachers while it is meeting.	Observation data is compared with interview data from Crandall participants. It is also compared with documents used by the Crandall participants and with the goals set in administration documents.
Phase three	Interview data	Crandall participants. Total number = 5.	Responses to questions about the observations and their perspectives on their meetings.	This phase of interviews is compared with the first phase of interviews and with the observation data. It also is compared with the documents collected from the Crandall participants and from the administration.
N/A	District and participant documents	Crandall and non-Crandall participants. Data also collected from administration training session. Total number = 7.	Documents provided by the district for professional learning community training purposes. Documents used by participants during their meetings.	Documents describe what was expected of participants and how they conducted their meetings. It is compared with what was stated in the interview data and the observation data.

learning communities at the elementary schools in the district and stated that it was time to begin

implementation at the middle school level. During these training sessions, a facilitator from the

Center for Collaborative Education provided learning experiences to the attendees so that they would understand the purpose of professional learning communities and explore how they could be implemented in their schools. The stated goal of the institute was "to examine the purpose, structures, and protocols for building professional learning communities that drive instructional improvement." An agenda from one of the training sessions containing the stated goals is included as Appendix J. Articles by DuFour (2004) and Kruse, Seashore Louis, and Bryk (1994) were provided to describe the structure of professional learning communities and what the outcomes of professional learning communities should be. The attendees also were provided with handouts showing the differences between team meetings and professional learning community meetings. An example of this handout is included as Appendix K. The facilitator of the training sessions supplied the principals and instructional leadership teams with access to a website with additional information and tools related to professional learning communities and improving instruction. Following this training, the principals and instructional leadership teams were expected to begin to work with the faculties at their respective schools to begin implementing professional learning communities into their practice.

Crandall Participants and Context

The Crandall participants' school experienced a major staffing turnover five years ago in a district-led effort to improve the school's performance. A new principal came to the school and teachers that chose to remain had to reapply for their jobs and commit to following the principal's vision for the school. One of the Crandall participants was at the school prior to the staffing change and chose to stay. Three of the Crandall participants were new teachers to the school, hired to replace those who chose not to stay. The final member of the Crandall participants' team joined two years after the staffing transition. The Crandall participants as a

whole have worked together as a team for two years, but four of the five members worked together for two additional years prior to the fifth member joining. The Crandall participants loop with their students, meaning that they start teaching them in seventh grade and continue with them in eighth grade. During this time, another middle school team works with the next seventh grade group. When their students move on to the ninth grade, the team begins the loop again with a new group of incoming seventh grade students. The Crandall participants each represent one of what the district considers to be core academic disciplines: English, Math, Science, and Social Studies. The Crandall participants all have different amounts of teaching experience, ranging from five years to thirty years. The focused instructional coach has been involved in education for thirty years and has been at the school for four years. For a summary of participant information, see Table 5.

At the Crandall school, administrative instructions specified the amount of time allocated for collaboration about students and school business and the amount of time allocated for collaboration focused on pedagogy, hereafter referred to as professional learning community time. The Crandall participants used this distinction. Transcripts of the interviews and observations indicated that the times designated for these two purposes were, for the most part, kept separate from each other. Topics discussed during the professional learning community meetings were largely teacher driven and were generated by the facilitator of the meetings and the team members themselves. Occasionally, items from the school administration would need to be discussed during professional learning community time. The role of facilitator was rotated among team members, with each team member acting as facilitator for one quarter of the school year.

Observations of weekly professional learning community meetings occurred over a period of seven weeks. The meetings all occurred in Crandall participant CB07's classroom, a spacious room with many windows. The room was set up as a science classroom with rectangular, standard-height tables instead of individual student desks. Each of the eight tables in the room had seating for four students. During their meetings, the Crandall participants moved chairs around the table in the front left corner of the room. Prior to their meetings, they would all have lunch together and would engage in informal discussion about students, their classes, and their lives. Their meetings always began on time. The Crandall participants met three times per week for approximately fifty-five minutes each meeting. They referred to their Monday and Tuesday meetings as team meetings, during which they would discuss school business items from the administration and any concerns about their students that they had. The Crandall participants' Thursday meetings were referred to as professional learning community meetings, during which they would discuss their teaching practices, engage in collaborative lesson planning, and analyze student work. The observations of the Crandall participants were conducted during their professional learning community meetings. In addition to the observations, the Crandall participants were interviewed twice, approximately eight weeks apart. These interviews occurred in the participants' classrooms. The focused instructional coach was interviewed once after all of the meeting observations had been completed. This interview occurred in an empty classroom at the Crandall school.

Non-Crandall Participants and Contexts

The four schools represented by the non-Crandall participants included in this study did not undergo major reorganization in the same manner that the Crandall school did. The amount of time that the seven non-Crandall participants had spent with their current team members

ranged from one year to four years. The non-Crandall participants also represented what the

district considered to be core academic disciplines. The non-Crandall participants had different

amounts of teaching experience, ranging from seven years to fifteen years. For the purposes of

this study they were each interviewed one time. These interviews occurred in the non-Crandall

participants' classrooms whenever possible. The interview of participants TW04 and CW11 each

occurred in their schools' conference rooms.

The non-Crandall participants' experiences with collaboration varied from school to

school, and, in some cases, there were varied perceptions between participants in the same

schools. From their accounts, it is possible to recognize that at the non-Crandall participants'

schools, the collaboration time and topics were inconsistently divided, with some of the

participants having separate times within their meetings to discuss their understanding of

students and to exchange ideas about teaching practices, and others having time to discuss only

their understanding of students or exchange ideas about their teaching practices. Even though

some of the non-Crandall participants did report spending time collaborating on their teaching

practices, it did not appear to be the primary focus of their meetings. The majority of the non-

Crandall participants reported spending their collaborative time focusing on their students and

school business. Some of the non-Crandall participants reported that the topics that they

discussed during their meetings were generated by their team, while others reported that the

topics they discussed came from members of the school administration.

Themes Uncovered in Data Analysis

There were both common and distinct themes that were reported when looking at the

responses and experiences of the Crandall participants and the non-Crandall participants. The

participants' responses indicated that there were themes concerning reasons for teachers to

engage in collaboration. The most common reasons were to connect with their colleagues, to

learn about teaching practices and about students, and to fulfill a professional obligation set by

the district and school administration. The participants' responses also indicated that there were

themes concerning their understanding of the administration's expectations of collaboration.

These themes included the improvement of teaching practices, the improvement of state and

standardized test scores, and the reduction of teacher isolation. The participants shared

experiences that revealed themes concerning the factors and conditions that most directly

influence teacher collaboration. These themes include the commitment, investment, and action

orientation of their colleagues, the attitudes and leadership practices of the administration, and

the presence of a unifying school culture. The participants' reports also revealed themes

concerning the effects that teacher collaboration has on teaching and teacher learning. These

themes include an improvement in teaching practices, an improvement in classroom

management, and an understanding of collective responsibility for the learning and development

of all individuals in the school. Each of these themes will be examined more closely in the

following sections.

Teachers' Reasons for Collaborating with Peers

The teachers that participated in the study expressed a variety of reasons for engaging in

collaborative activities with their peers. Examples of definitions of codes, the number of

participants from each population that the codes appeared for, and the finding that these codes

contributed to are provided as Table 9. The full set of definitions and frequency of codes are

provided as Appendices G and H respectively. The participants' reasons for collaborating with

their peers were both intrinsic and extrinsic in nature and included fulfilling desires for personal

Table 9

Examples of Codes Related to Teachers' Reasons for Collaboration, their Definitions, the

Number of Participants each Code was Applied to, and the Finding that the Code is Associated

With

Code	Definition	Number of Crandall Participants (n=5)	Number of non-Crandall Participants (n=7)	Finding
Ideas for Change	Any ideas for change in teaching or collaborative meetings that participants have	4	1	Finding 1
Reflection	The process of thinking about one's experiences and actions and the outcomes that they engendered	5	2	Finding 1
Teacher Leadership	Teachers taking leadership opportunities within their collaborative group	5	3	Finding 1

growth and connection as intrinsic reasons and satisfying requirements placed on them by

members of the administration as extrinsic reasons. The participants often expressed more than

one reason for participating in collaborative practices with their peers. Most of these reasons

could be placed into one of the following thematically organized categories – themes expressing

an interest in connecting with colleagues, themes expressing an interest in learning, and themes

expressing a need to fulfill a requirement set in place by the principal and district administration.

The following sections present data pertaining to these categories.

Intrinsic reason: Teachers collaborate to connect with their colleagues. Within the responses

from the participants, there was a high occurrence of statements reporting that connecting with

colleagues was a reason for collaboration. This was a common response from both the Crandall

participants and the non-Crandall participants. The Crandall participants' and non-Crandall

participants' responses regarding connecting with their colleagues could not be categorized in the

same way. The Crandall participants' responses fell into two categories: (a) connection as a way

to reduce teacher isolation and (b) connection as a means to find solace and relief from the stress

and demands of teaching in the company of colleagues. The non-Crandall participants'

responses did not include any meanings suggesting an interest in finding solace or relief, but did

reflect the thinking that connection with colleagues was a way to reduce teacher isolation. These

two categories will be explored separately.

>   ***Teachers collaborate to reduce feelings of isolation.*** Both groups of participants had a

high occurrence of reports of interest in collaborating as a way to avoid teacher isolation, with all

five Crandall participants and five of the non-Crandall participants providing similar responses.

The Crandall participants compared their experience at their current school with other schools

that they had taught at and mentioned experiencing loneliness and isolation while working in

previous schools. Crandall participant SS06 described his experience in other schools, stating,

> We didn't really collaborate at my other schools, so this is all new to me. It was kind of
> every person for himself…You had some classes and you taught them and if you wanted
> to bounce ideas off of someone it was on you. I was set in the way that I did things.
> People didn't really open up their classrooms to other people like they do here.

Crandall participant AH02 compared her time at Crandall with her experiences at other schools

saying,

> In other schools, it's as if you're an island upon yourself or within your department. Here
> you are not by yourself in the classroom. You are not by yourself as a History department,
> English department. You are part of a school, part of a community. You're not alone.

AH02 and SS06 both reported feeling isolated at previous schools, but stated that they do not

feel that they are working alone at Crandall. Their statements indicate that through their

collaboration with their team they are not isolated, but instead are connected with other teachers

and with the school as a whole. The desire to avoid feeling loneliness was a reason for the

Crandall participants to collaborate.

The non-Crandall participants also cited the need for collaboration as a way to avoid

teacher isolation and to feel connected with the larger school community. Non-Crandall

participant JM05 stated that a reason for her to collaborate is "to see what's going on with

everybody, so I don't feel like I'm in this on my own." Non-Crandall participant KX08 talked

about her team and why she meets with them on a daily basis, sharing that "we need to talk to

each other every day. It's easy to get caught up in the craziness of students and teaching and to

become lonely. Talking to each other keeps us grounded." The act of collaboration allows

participants to understand what is occurring throughout the school and prevents them from

leading an isolated practice. The participants' intrinsic motivation to avoid loneliness through

talking with their collaborative teams was a reason for them to engage in collaborative practices.

Teachers collaborate to find solace in a family-like group. All five Crandall participants

expressed a need to connect with their colleagues as a reason for collaboration. One of the most

common explanations that the Crandall participants cited for their need for connection was for

the sense of solace and relief from the stresses of teaching while meeting with their colleagues.

Crandall participant LD03 described her experiences with her team as being part of a close-knit

family, stating

> When I come to work I don't feel like I'm at work. It's more like I'm hanging out with
> family members. I think I'm very lucky because there's not a lot of people in the world
> that enjoy their job and it's usually because of the people they work with.

Three other Crandall participants used the word "family" to describe their team members.

Crandall participant CB07 reported that, in his team, "Everybody on my team is for the most part

a good collaborator. They're supportive and they push me to be the best teacher I can be. I

consider them to be my family." Participant AH02 described her team stating, "The humor is there. The respect and understanding that we're all in it together is there. The connections I have to my team have grown. They're my family." The context and tone of the Crandall participants' remarks suggest that they used the term family to describe a group of people that offers support, can be relied upon, provides a buffer from the stresses of teaching, and welcomes them completely as a member of their group. The Crandall participants maintained that membership in the community afforded each member a sense of relief, belonging, and security. Their responses also indicate that connections with their respective team members and the sense of community that their meetings generate was a reason for them to collaborate. In addition to their description of the familial community of their team, the Crandall participants also mentioned the friendly, supportive, light-hearted atmosphere present when they were meeting. The Crandall participants seem very focused on their current work at their meetings, but within the serious discussions about their collaborative lesson plans and analyses of student work were brief interludes of good-natured jokes and laughter. Their descriptions of their collaborative work and observations of the team during meetings suggest that, for the Crandall participants, collaborating fulfills a need for connection and provides a positive, welcoming space for teachers to share what is happening in their classrooms and is a reason for them to collaborate.

Five of the seven non-Crandall participants mentioned the same need for connecting with colleagues as a reason for collaboration, but their views on working with their colleagues were slightly different from the Crandall participants. The non-Crandall participants reported how much they appreciated the presence of their team members and having the chance to discuss what was happening in their classrooms. They stated that they enjoyed the discussions they had with their teams and that they respected their team members' opinions and what they had to say.

Non-Crandall participant TW04 stated that "we get along really well. We have a good respect for one another. We all think highly of one another and appreciate the job that we are doing in our classrooms." Statements such as this show that the non-Crandall participants have positive interactions with their team members and value the work that is done by others within their schools, but their comments reflect a more distant relationship between themselves and their colleagues and are lacking the closeness implied by the Crandall participants' statements and observations. None of the non-Crandall participants used the word "family" to describe their team. The non-Crandall participants did not report relationships that resembled the close-knit bonds described by the Crandall participants, but still viewed the connection with other teachers as an important reason to collaborate. The differences in colleague interaction and relationships are not unlike the differences in school culture between the Crandall and non-Crandall schools, which will be discussed in a later section.

Intrinsic reason: Teachers collaborate because of an interest in professional learning. Ten of the participants made statements identifying an interest in learning as a reason for collaboration. The analysis of the general reason of having an interest in learning will concentrate on two specific claims that are derived from their statements: (a) collaboration is a way to gain better understanding of students, and (b) collaboration is a way to reflect on teaching practices and deepen pedagogical understanding. Some participants viewed these as two distinct topics, but there were instances when these topical categories were intermingled when observed in Crandall sessions and when reported by participants during interviews. For example, information about student performance was often used to inform discussions about instruction, and discussions about instruction were also framed with particular students in mind. This intermingling of using one type of learning to inform the other is illustrated later in this section.

Teachers collaborate to have a better understanding of their students. Nine participants felt that time to discuss their understanding of their students with their team members gave the participants insight into how to better manage their classrooms and develop closer relationships with students in their own classes. Discussions about students provided the participants with valuable information about how students were performing in other classes. Crandall participant LS01 shared that she found it helpful hearing colleagues report about "different perspectives on kids. Like, this kid did really well on this, this kid is really struggling in this area. It helps me understand how to better approach my students when I know how they're doing in other classes." Non-Crandall participant TW04 shared similar ideas, stating that she values

> making plans for students and sharing out the way students respond in different classes because we find that they respond differently within the subject areas as well as to particular teachers…That is particularly helpful: to be able to come together and get a view of how students are responding in other classes because without that time to meet, we wouldn't really know that.

Understanding how students were performing in other classes gave the participants valuable information that stirred their own thinking and prompted them to make changes in their instruction to engage their students in their lessons more fully. In addition to student performance, the correct academic level placement of students was an important topic for some of the participants. For example, non-Crandall participant KX08 reported that

> we're frequently talking about students that may need to move (academic level) if they're really strong in math and science but weak in ELA. Can we support them as well by moving them into an Honors class? We're always going back and forth to see if we can support kids by getting them into the right spot.

KX08 further stated that it was imperative for her team to determine if students were in the appropriate level of classes before they became too far behind the rest of their classmates. Understanding students' lives outside of school also was important for the participants to know. All of the Crandall participants and two of the non-Crandall participants made statements

indicating that importance. Crandall participant LD03 indicated that she appreciated learning from her team members and other school staff about what was occurring in her students' lives outside of the classroom because that could affect how they behaved within her class. These discussions gave the participants the opportunity to determine if additional supports or resources were needed to assist struggling students and, for the Crandall participants, to reconsider the strengths and weaknesses of their students. Statements like these indicate that collaboration time enabled participants to enhance their understanding of their students in order to determine how to teach them effectively and to be certain that they are identifying and providing supports that students need. Moreover, having that opportunity was important to them. Their reports indicate that exchanges with their colleagues were a way to deepen that understanding.

Teachers collaborate to reflect on their teaching practices. Learning as a reason for collaboration with colleagues was also expressed by all of the Crandall participants and three of the non-Crandall participants as an opportunity to reflect on and critically examine teaching practices. Critical examination of teaching practices leading to learning could be accomplished individually, but the learning is more abundant when in a collaborative group of teachers because of the discussions generated within the group and the different ideas that each team member contributes (Ball & Cohen, 1999). The Crandall participants and several of the non-Crandall participants reported that their work as a collaborative group made reflection on teaching practices into a fruitful learning experience. There was, however, some variability among the non-Crandall participants about whether reflection on teaching practices was a reason to engage in collaboration. Two of the non-Crandall participants were doubtful that collaboration sessions were occasions for strengthening teaching practices.

Seven of the participants, including all of the Crandall participants, had specific collaborative meetings designated to learning about and reflecting on their instructional practices, which in the case of the Crandall participants and some of the non-Crandall participants were referred to as professional learning communities, a term also employed district-wide. Three of the remaining participants had portions of their meeting time set aside to consider new instructional methods. The learning about new methods occurred through the exchange of ideas between team members in the case of the Crandall participants and some of the non-Crandall participants, and through training from a member of the school administration for other non-Crandall participants. The participants that had professional learning community meetings reported that during their professional learning community meeting times, there was discussion and reflection aimed at improving their instructional practices. For example, all of the Crandall participants reported that they often engaged in collaborative lesson planning, in which one team member volunteered to teach a lesson that was planned together with all of the team members. Although planning protocols were available, the Crandall participants did not use a protocol to plan the lesson; some of the Crandall teachers reported finding them to be too constraining. The Crandall instructional coach stated that the use of protocols was largely abandoned because "so many of the meetings became such amazing discussions" that the use of a protocol stifled the flow of the discussion and made meetings too rigid. The group instead proceeded systematically through their preparation of the entire lesson without a protocol to regulate their talk. During their planning, the Crandall participants would try to plan ahead for any pitfalls or problems that their students would encounter. For example, the Crandall participants discussed how to support the students that had to organize information for a challenging math problem.

> SS06: For the organizing information group, I have them creating a table with dollar ranges and percentages. That could be good.

> AH02: How are you going to explain that to them? Because I'm confused. Are you going to give them an example or something on the paper?
> SS06: Like this (drawing a table), so income range, 0-9000, tax percent, 9001-15000.
> AH02: Ok, but you're going to do that for them, like give an example that they could see, like a model.
> LS01: Would you start it off?
> SS06: I might give them the first one, although there aren't that many. There are only really three.
> AH02: Well, you don't have to use those exact ones. I'd use the same percentages though, because I'd get thrown if you gave me different ones.
> SS06: So, the organizing information group, they can make a chart, a visual. See, this helps me, and I'm not a visual person. I just want to crank out the numbers. This right here, just visually, 0-85, you're paying ten percent. Anything beyond that, you're paying 15 percent. Thinking about pitfalls, what kids might be tempted to do is, let's say you have $34,000, to really solve the problem right, the first $8925 is taxed at 10% and then the difference is taxed at 15, but kids might be tempted to see that the number falls in this area and tax the whole $34,000 at 15%.
> LS01: I think it might be interesting to see what visuals they come up with.
> SS06: Just have them create a visual and see what they do.
> LS01: And then they can evaluate the visual when they get into their mixed groups.

After planning the lesson, the entire team would attend and observe the lesson, taking notes on what they noticed about the students' behaviors and interactions and their work during the lesson. At their next professional learning community meeting following the lesson, the team members would discuss what happened in the lesson, what could be changed in the lesson, and would analyze student work produced during the lesson using a protocol providing time limits for each step and directives for what the participants should be looking for during those specified times. According to the Crandall participants, the planning and discussion often revealed a strategy that one of the team members felt that they could use in their classroom. The Crandall participants viewed collaborative lesson planning as an activity that they enjoyed participating in and was one of the reasons that they collaborated, as illustrated by the comments made by CB07,

> I really enjoy when we do the CLPs (collaborative lesson plans). I like those and seeing what people bring. I'm all for new ideas and listening to what people are thinking about. I'm not paying attention just to the CLP, I'm also in the back of my mind thinking about using that in my classroom. I think overall we've become better teachers because of the professional learning community meetings.

Observations of the Crandall participants during their meetings revealed their eagerness to engage in collaborative lesson planning. Their learning as they designed a lesson together was evident in the following exchange, which occurred during a collaborative lesson planning session focusing on student collaborative work in SS06's math class. During this collaborative lesson, students were going to be working in groups to understand a complex math problem using different methods. Each group would then break apart into different groups so that there was one "expert" from each of the original groups to explain the method to the other students. Each student had to record on a paper what he or she learned from each expert in their group. This would provide the teachers with an indication of how well each student understood their task and each other. The following exchange occurred during a team meeting as they discussed this recording sheet.

> LS01: This is, for us, this is informative enough. This is probably more informative than the kids checking off a number to evaluate what they learned because we can't rely on that.
> AH02: Right, but with this, "What did I learn from the vocab person? What did I learn from the operations person?" That lets us know how well it was communicated, how well they were paying attention.
> SS06: So, each person fills this out as they go once they get to their group.
> AH02: And this is something they keep as they work. I mean, they'll give it to you eventually, but they'll keep it as they problem solve.
> LD03: It's also like note taking.
> AH02: That's exactly what it is.
> LS01: I like that. That's cool.

Later, during the same professional learning community meeting, participant LD03 expressed her appreciation of the work that her group accomplished during collaborative lesson planning, stating,

> If we did this all the time, it would be so easy to create our units. We each bring something different to the table, and I look at the lesson we're creating, and I'm thinking I'll take parts of it and use it in my classroom.

The Crandall participants and some of the non-Crandall participants were appreciative of the learning that occurred within their professional learning community meetings and viewed the learning as a valuable reason for engaging in collaborative practices with their colleagues. Two non-Crandall participants, however, had doubts or reservations about whether the learning intended to occur when they met as a collaborative group could be realized. These doubts and reservations will be discussed in a later section.

Extrinsic reason: Teachers collaborate to satisfy a requirement. Among the participants' responses regarding reasons for collaboration, all twelve participants reported that they were obligated to collaborate with their colleagues by either the school or district administration requirements. The Crandall participants appeared to be accepting of the requirement and seemed to think that the teacher collaboration requirement was reasonable. The tone of the non-Crandall participants' responses indicated that there was less acceptance than was present in the Crandall participants' responses.

Indeed, the Crandall participants all reported that one reason that they collaborated was because it was required. Team meetings were a fixed part of the schedule. Meetings to discuss school business and their understanding of students were conducted on Mondays and Tuesdays and professional learning community meetings were held on Thursdays. The Crandall participants reported that the principal expected that all teachers would comply and actively participate in all team meetings. Crandall participant LD03 reported this requirement in a way that reflected the other Crandall participants' responses, stating

> It's been a culture of the school since the principal has been here. We all know we're supposed to be meeting. We have team meetings, set times in our schedules for that purpose. On certain days the principal has said, "Seventh grade meets this day. Eighth grade meets this day," and so on. So, mandatory.

Crandall participant CB07 stated "I think they expect us to do what we're supposed to do. It's really simple." He later elaborated on these comments, explaining that the principal expected the teachers at the Crandall school to meet at their designated times and work together to improve their teaching practices. Crandall participant SS06 also mentioned that he believed it was part of the teachers' union contract with the district that schools provide time in the schedule for teachers to collaborate. Two other Crandall participants stated that they thought that meeting fulfilled a requirement set by the district administration that teachers collaborate on a regular basis. This reason of fulfilling a requirement was stated with a matter-of-fact tone. It was accepted by the Crandall participants that the requirement that teachers collaborate was reasonable and that they should fulfill that requirement. It is possible that the Crandall participants' positive experiences with teacher collaboration lend themselves to the willingness to meet the requirement for collaboration without any resistance. This is a pattern, well established in the leadership literature (Kotter, 1996) and the school improvement literature (Schmoker, 2004) that explains how positive personal experiences lead to the realization that those experiences have a greater value because they play a role in system-wide improvement. It also is reflective of the school culture that the Crandall participants actively participate in their collaborative work. The impact of school culture on teacher collaboration will be discussed in a later section.

The non-Crandall participants all had similar responses to the Crandall participants in terms of collaborating because it was a professional requirement, but the non-Crandall participants had strict processes they needed to follow to fulfill their obligation. In their respective schools, the non-Crandall participants needed to provide evidence of their meetings, which was not required for the Crandall participants. The non-Crandall participants stated that

one of their reasons for collaboration was that the principals of their schools required that they do so. Non-Crandall participant PM10 stated that at the start of the year, her principal goes over exactly what a meeting should look like and the agendas that must be filled out at meetings. Non-Crandall participant CW11 shared that his principal required logs and minutes as proof of their meetings. The non-Crandall participants viewed the written documentation expected by the principals of their respective schools as evidence that their principals expected them to meet on a regular basis. The non-Crandall participants also reported that they thought that the district administration expected that teachers meet to collaborate regularly. For example, non-Crandall participant JM05 stated that, "I think we meet because we have to. I think that's their (the district's) expectation is just to meet." In her description of the district's expectations, non-Crandall participant KX08 reported that, "they are allowing time and giving us space, so I would hope that they want us to be doing exactly what we're doing: finding the resources our kids need together." Non-Crandall participant RG09 maintained that the district "expects teachers to be able to collaborate." These responses of fulfilling an expectation of the principal and the district were the same as the Crandall participants, but there were differences in the level of accountability and amount of documentation required of the Crandall and non-Crandall participants. The participants' perceptions of what was expected of them will be discussed in the next section.

This section explored the Crandall and non-Crandall participants' reasons for participating in collaborative practices with their colleagues. These reasons were both intrinsic and extrinsic in nature. The participants engaged in collaboration to connect with their colleagues, to explore their learning as professionals and to satisfy requirements placed on them

by the school and district administration. Their understandings of the expected outcomes of their collaboration will be discussed in the next section.

Teachers' Understandings of the Administration's Expectations for Collaboration

The principals and instructional leadership teams of all of the middle schools in the district were required to participate in several training sessions on professional learning communities in the spring of 2015. On the first day of the training sessions, the assistant superintendent of the district stated that professional learning community work was already occurring at the district's elementary schools and that it was time to begin professional learning community work at the middle school level. The training documents provided by the district administration and the Center for Collaborative Education provide additional indication that the district administration expects teachers to participate in professional learning communities. These documents also provide evidence that the district intended that by introducing professional learning communities they expected improved instruction throughout the district. This section will explore what the participants perceive to be expected of them by school and district administrators when they are collaborating.

The Crandall participants and non-Crandall participants had common and distinct views on what the administration expected from teacher collaboration, with each group establishing differences between what the principals of each school expected and what the district expected. The participants' understandings of what the principals of their schools expected were more positive in tone, while the understandings of what the district administration expected were more pessimistic. Examples of definitions of codes, the number of participants from each population that the codes appeared for, and the finding that these codes contributed to are provided as Table 10. The full set of definitions and frequency of codes are provided as Appendices G and H

respectively. The Crandall and non-Crandall participants provided many different

understandings of what the administration expected of their collaboration, although the Crandall

participants were more consistent in their responses. Their responses concerning administrative

reasons for their collaboration have been categorized into three separate themes: improving

teaching practices, improving test scores, and improving teacher well-being. The following

sections focus on these themes individually.

Table 10

Examples of Codes Related to Teachers' Understandings of the Administration's Expectations for

Collaboration, their Definitions, the Number of Participants each Code was Applied to, and the

Finding that the Code is Associated With

Code	Definition	Number of Crandall Participants (n=5)	Number of non-Crandall Participants (n=7)	Finding
Administration presence at meetings	The presence of an administrator at collaborative meetings	4	3	Finding 3
Learning – from school culture	Any learning that is perceived to be from school culture	4	0	Finding 3
Outside expectations - administration	Expectations that the administration places on the group's work	5	5	Finding 2

Teachers think collaboration is expected to improve their teaching practice. Some of

the participants' perceptions of the administration's expectation for teacher collaboration were

consistent with their own reasons for participating in teacher collaboration. For example, the

Crandall participants reported understanding that the principal of the school and the district

administration expected that teacher collaboration would result in improved teaching practices.

Crandall participant LS01 maintained that the district wanted teachers to collaborate so that they

"are learning from one another" and that the principal's expectations were that teachers "are doing parts of the reflective process with the goal of improving instruction." Crandall participant AH02 stated that the district expected that through their professional learning communities, teachers were "supposed to be the best they can, learn from each other, (and) support each other." The Crandall participants reported understanding that the district's measures to promote the establishment of professional learning communities were evidence of that expectation. The training materials provided to the principals and members of the instructional leadership teams support the understanding of improving teaching practices as an expectation of teacher collaboration.

The Crandall participants also reported that the expectation of improving teacher practice was evident in the amount of time and encouragement provided by the principal to focus on inquiry based collaborative practices. The Crandall participants shared that they had engaged in collaborative lesson planning prior to having time specifically assigned for the district-required professional learning communities, but that the increase in professional learning community time gave them the opportunity for additional collaboration on lessons. The observations of the Crandall participants' sessions showed them over the course of several of their meetings collaborating on the creation of a lesson plan. They utilized the time provided to them to fulfill their perceived expectation of working on improvements to teacher practices. The scheduling of professional learning community time, a time explicitly for teachers to focus on instruction, indicated to the Crandall participants that it was expected by the principal and district administration that teachers focus on improving their teaching practice. The matter-of-fact tone of the responses from the Crandall participants seemed to indicate that they viewed the

expectation of improving teacher practice as a logical and reasonable outcome to the

collaborative work that they were doing.

In contrast to the similarity among the Crandall participants' responses, the non-Crandall

participants all agreed that the principal and district administration expected them to be meeting,

but mentioned different expected outcomes for these meetings. For example, non-Crandall

participant TW04's description of the administration's expectations does not include any

mention of improving teacher practice.

> The district certainly has expectations for what we are doing at team meetings. They're
> expecting us to be there, they're expecting us to be productive and use the time wisely.
> When the instructional coach comes with a task that's from the administration, they're
> expecting that we do that and accomplish whatever is being asked.

Although it was not the only sentiment expressed by non-Crandall participants, TW04's

emphasis on task completion and efficiency contrasts with other remarks that portray

collaborative meetings as a space for deepening understanding of students or refining practice.

Non-Crandall participant JM05 expressed the understanding that the administration expected that

teacher practice would improve through collaboration, stating that

> I think they were looking at this idea and thinking this common planning time, this
> discussing of ideas would turn around the school or perhaps give teachers more opinions
> or insight through all of these articles that they wanted us to read. I think they want us to
> spend the time talking about what we are doing for our kids, what's working, what's not.

For JM05, her understanding was that the school administration thought that teaching would

improve as a result of collaboration. Non-Crandall participant RG09 reported that the principal

expected that professional learning community meetings would "improve instruction and

improve how we present material to students and therefore help students be more successful."

Other non-Crandall participants thought that the expectation was that teachers would discuss

students in their meetings. Non-Crandall participant PM10 shared that,

in the beginning of the year, they go over exactly what a meeting should look like and how we should be collaborating over the students' test scores and students at risk. We have a template that we have to fill out for students who are at risk that we have to discuss with other teachers, then with the student, with the parent, and with guidance.

For PM10, her understanding was that the administration expected that her group's focus should be on students at risk of failing. PM10 did not mention the expectation that this focus was in any way connected to improving teaching.

In addition to the variation in these different understandings of the administration's expectations, one of the non-Crandall participants reported not knowing what the term "professional learning community" referred to. When asked what she knew about professional learning communities, non-Crandall participant TW04 stated, "I'm not sure. I've never heard that terminology." She later explained that she thought that it was professional development that teachers would attend to learn more about their subject area. Others misidentified their time spent discussing their understanding of students as professional learning community activities. For example, non-Crandall participant CW11 characterized the meetings that his team had about their struggling students as professional learning community activities.   The variation in these responses suggests that there is a misunderstanding between the district expectation that teachers collaborate to improve teaching practices and what is communicated to teachers in the non-Crandall schools.

All of the non-Crandall participants cited the requirement that agendas be filled out and notes taken and submitted as evidence of the principal and district administration's expectation. The tone of these responses did not indicate that the non-Crandall participants had a clear understanding of the logic behind requirements for attending and documenting the meetings. Non-Crandall participant JM05 provided an example of this, stating,

> Somebody in administration had gone to a meeting where they had learned about this protocol for common planning time. The school that used it had this big turnaround so they said they were going to roll this out. It was a very formalized style. We were given articles to read and protocols with which to discuss them…It didn't seem very useful to spend fifty minutes on a Wednesday morning reading an article on poverty when I actually wrote a whole paper on it for my class last year for school. We were giving a little pushback. I think people got busier and decided not to continue with that model.

The tone of JM05's response suggests that she viewed the meeting expectations with skepticism.

This tone was evident in other non-Crandall participants' responses in the many statements about

the amount of paperwork required for every meeting and the need to keep records as evidence of

their collaborative work. It also can be seen in the visual representations created by non-

Crandall participants to the question about what influences their team during their meetings. For

example, Figure 3 shows non-Crandall participant JM05's depiction of a stack of paperwork and

a clock above it, which she described as a representation of "the immense amount of paperwork

and time" required for meetings and for teaching. The drawing, she maintained, also expressed

her frustration with how the documentation and lack of time complicated her work.   JM05's

statements provide further evidence that the district is not clearly communicating what the goals

of the professional learning community initiative are to the teachers in the district.
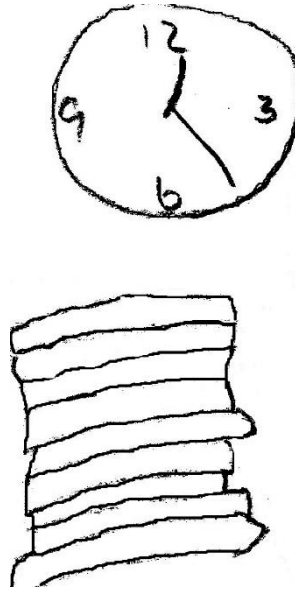
Figure 3. Non-Crandall participant JM05's drawing of an influence on her team

Teachers think that collaboration is expected to function as a mechanism for improving test scores. There were many reports from the Crandall participants who maintained that improving state test scores was an expectation of the district administration but not an expectation of the principal. Four of the five Crandall participants and the instructional coach all stated that they believed that the district administration's goal for teacher collaboration was that scores on the state standardized test scores would increase. For example, Crandall participant SS06 stated that the district expected teacher collaboration would "improve test scores and look better in the state rankings." In a drawing, (Figure 4), he showed the need to improve state test scores as an outside force that affects his team. Crandall participant CB07 further elucidated this understanding, saying

> There seems to be such a disconnect. Their (the district administration's) expectation is probably that, "Well if we have teachers collaborate then the scores will go up." I think that is their expectation. They're so focused on scores and the accountability with scores. I see that as a big disconnect because that's not telling you about the students or how they've grown or their successes, how hard the teachers work here. Anything like that. That's probably the only expectation.

The understanding of the district's expectation of improving test scores was expressed with some cynicism from the Crandall participants. This is evident in the response from the focused instructional coach, who said, "it seems like to the district, the only thing that matters is that your test scores go up." The instructional coach's statement about scores being the only concern to the district conflicts with the other expectation that instruction will improve as a result of collaboration. The difference in the perceptions of what the district expects on the part of the Crandall participants suggests some suspicion about what the district's true motivation is and show a level of frustration with the persistent expectation of the standardized testing and accountability environment present in the district schools.

Part of the reason for the cynical view of the district administration's expectations of the

improvement in test scores could be due to the perceived lack of follow through on several
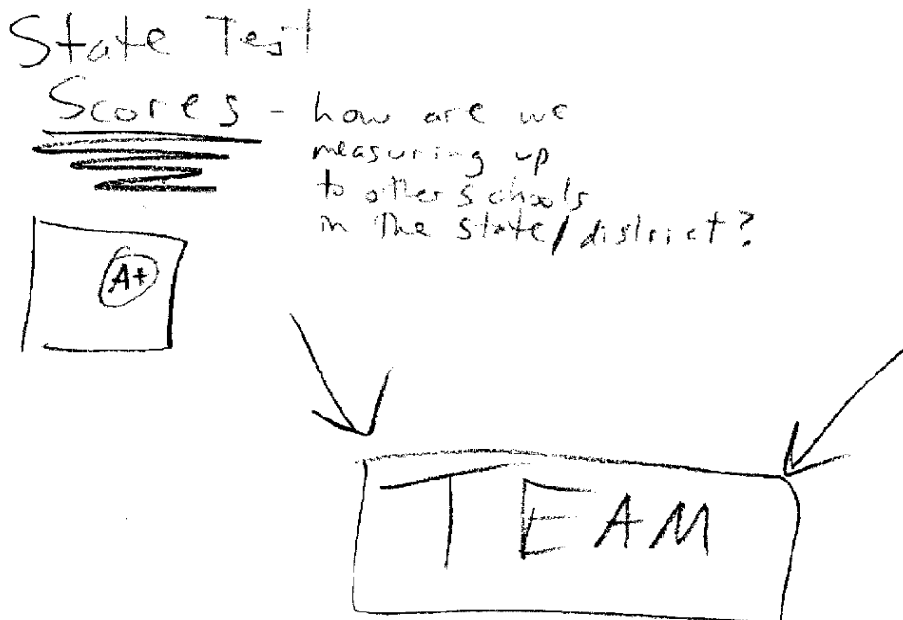
Figure 4. Drawing by Crandall participant SS06 of outside forces that influence how his team functions.

district initiatives. Both the instructional coach and one of the Crandall participants gave

examples of this lack of follow through. The focused instructional coach provided this example

of the training on professional learning communities,

> I think from the district's perspective, they saw that there was grant money and thought, "Oh, here's money. Let's follow that and see what happens." We were trained for three days. There has been no follow up since then. There is no structure to what the district is doing about it.

Three of the Crandall participants reported that the district administration will often invest a

great deal of time and effort in beginning new programs, like professional learning communities,

without any type of follow-up training or support opportunities and that these same new

programs would be abandoned shortly thereafter. These responses indicate that the Crandall

participants are inclined to call into question the district administration's intentions when a new

initiative is introduced. The inconsistencies in the district's communication about professional

learning communities are cause for the teachers' confusion. The district has emphasized the

importance of having professional learning communities, but does not articulate how changes

should be made or offer support in anticipating the effects of implementing a new form of

collaboration.

The non-Crandall teachers also reported their understanding that school and district

administration had the expectation that teacher collaboration would lead to increased state test

scores. The non-Crandall participants stated that there was a distinct pressure from the district

administration and to a lesser extent from their principals to improve test scores and that teacher

collaboration was a means to drive student scores up. This is evident in five of the non-Crandall

participants' drawings and descriptions of outside influences on their team. For example, non-

Crandall participant TW04 drew a picture (Figure 5) of a person standing next to some papers,

describing it as "an outside influence on our team is standardized testing and the pressure from

the main office to get our scores up and that look of horror you get from the pressure of the

Figure 5. Non-Crandall participant TW04's drawing of outside influences on her team.

expectations." To represent an outside influence, non-Crandall participant PM10 drew a picture

(Figure 6) of the Partnership for Assessment of Readiness for College and Careers, or PARCC,

exam. She reported that the PARCC was a recurring topic in her meetings as her team felt

Figure 6. Non-Crandall participant PM10's drawing of an outside influence on her team.

obligated to figure out how to get students to perform well on standardized tests. Clearly, non-Crandall participants are feeling pressured to improve state standardized test scores and felt the district administration expected that their work together would result in improvement on state test scores.

The understanding that teacher collaboration should improve test scores in the non-Crandall schools is also evident in the higher occurrence of meetings on students that are at risk of failing the state tests and the urgency for quick response and intervention to better support students to achieve proficiency. Non-Crandall participants PM10, CW11, and KQ12 maintained that their meetings tended to focus on struggling students. Non-Crandall participant CW11 explained that, "We discuss the students that are having difficulties with their grades…I think we're very proactive in keeping tabs on the students that are having difficulties." Similarly, non-Crandall participant PM10 stated that "students who are at risk for failing is the biggest issue that we discuss." The focus on student well-being and test scores are indicative of the expectation that test scores improve. Although, these non-Crandall participants use their collaborative time to consider what interventions to put in place so that student performance will improve, they did not describe interventions that involved making changes in their teaching practices. The interventions that PM10, CW11, and KQ12 described included extra help sessions, increasing parent involvement, and the use of special education and English language learning services as needed. For example, participant KQ12 explained that at her team meetings "we try to figure out who best can help the students, and sometimes that means getting them extra services like ELL interventions or referring them for a special education evaluation," but did not mention that she made any changes to her instruction to help her students to be more successful in class. The use

of teacher collaborative time in this way, although important, does not coincide with the district's expectation of using teacher collaboration to improve teacher practice.

Teachers think that collaboration is expected to improve teacher well-being. The Crandall participants all had responses that indicated that they perceived that the district expected that teacher collaboration would improve their well-being. Four of the Crandall participants compared their experience at other schools with their experience at Crandall and shared that at their other schools they felt alone and did not have the sense of community that they experienced at Crandall. They reported understanding that professional learning communities were part of a district wide effort to increase teacher collaboration. Crandall participant LS01 stated that the district's expectation for collaboration was "so that teachers aren't isolated and are learning from one another." Crandall participant LD03 stated that teachers benefit when they can collaborate and build off others' ideas, saying "it makes us stronger individuals if we work together." These statements suggest that the Crandall participants think that the administration expects that giving teachers the time and space to collaborate will result in a better teaching and learning environment and will lead to teachers feeling as if they are part of a community and will improve the quality of experience within their schools. The Crandall participants indicated that the guiding principles of their school culture, which were instituted by the principal, were evidence of that expectation that teachers should not be isolated and should work together.

The Crandall participants reported that the African philosophy of "Ubuntu" is a guiding principle of their school culture. The Ubuntu philosophy is focused around becoming better individually by becoming better collectively. The focus on the collective whole of the school's population means that teachers cannot work in isolation but that they must work together as part

of a group with a focus on the whole of the school's population rather than on the self. The leadership at the Crandall school implemented this guiding principle in an effort to have an orienting belief that has at its core a concern for the well-being of all members of the school community and a sense of responsibility for each other. This principle does not appear to have any connection to district expectations, but appears to be solely an orienting belief of the principal and the school itself. This principle is also discussed later in the chapter as part of the presentation of data regarding school culture.

The non-Crandall participants' responses did not include any indications that they perceived that one of the administration's expectation for teacher collaboration was to improve teacher well-being. Non-Crandall participant TW04 drew her school in a compartmentalized fashion (Figure 7), showing teachers in isolation. TW04 drew her school as teachers in individual boxes, showing their separation from each other, and then stated that teachers in the school did work together, saying, "this is all little teachers working in their classrooms, but it's supposed to represent a team effort because in general we have a really hardworking good faculty that comes together and supports each other as a whole." Each non-Crandall participant did explain that they thought that the expectation of teacher collaboration was that teachers would come together to meet. They did report that reducing isolation was a reason for them to collaborate, but none of the non-Crandall participants stated that they thought that improving the

Figure 7. Non-Crandall participant TW04's drawing of her school.

quality of their teaching experience or their sense of well-being was an expectation of the principal or district administration. They did not mention that the guiding principles of the school culture conveyed that expectation either. At the same time, the non-Crandall participants did not indicate that they felt isolated or alone within their schools. The non-Crandall participants all had people within their schools that they worked with on a regular basis. The fact that the non-Crandall participants did not report that the district or school administration expected that teacher collaboration would improve their well-being does not mean that the participants at those schools felt that their well-being was suffering. The difference between the Crandall participants' responses and the non-Crandall participants' responses could be related to the differences in the cultures of the schools, which will be explored in the next section.

Teachers' Perspectives on the Factors and Conditions that Influence Collaboration

In their spoken and visual explanations of their collaboration, the Crandall and non-Crandall participants all described several factors and conditions that influenced their collaborative experience. The factors and conditions were also evident in observations of the Crandall participants' professional learning community meetings. The responses were more consistent from the Crandall participants than they were from the non- Crandall participants. Examples of definitions of codes, the number of participants from each population that the codes appeared for, and the finding that these codes contributed to are provided as Table 11. The full set of definitions and frequency of codes are provided as Appendices G and H respectively. Of all of the factors and conditions reported, the three that appear to be the most common responses about the factors and conditions affecting teacher collaboration are the commitment, investment, and action orientation of other teachers in the school, the attitudes and leadership practices of the

administration, and the pervasiveness of the unifying spirit of the school culture. Each of these

topics will be discussed in more detail in the following sections.

Table 11

Examples of Codes Related to the Factors and Conditions that Influence Teacher Collaboration,

their Definitions, the Number of Participants each Code was Applied to, and the Finding that the

Code is Associated With

Code	Definition	Number of Crandall Participants (n=5)	Number of non-Crandall Participants (n=7)	Finding
Changes in meetings - time	Any changes in meetings related to the amount of time that the group meets	5	1	Finding 4
Conditions supporting learning - clp	Factors and conditions supporting learning that are perceived to be from collaborative lesson planning	5	0	Finding 4
Conditions supporting learning – school culture	Factors and conditions supporting learning that appear to originate from school culture	5	2	Finding 4

Teachers' commitment, investment, and action orientation can influence

collaboration. The degree to which teachers have vested interest in collaborative activities is a

condition that influences how successfully teacher collaboration proceeds. Teachers that have a

strong vested interest in collaboration and willingly participate in meetings and take action on

their learning will have a different experience than those that do not find collaboration to be a

worthwhile endeavor. The participants expressed a desire for a similar level of commitment

from their team members to ensure that their collaboration was effective, and the majority of

their team members met their expectations. The Crandall and non-Crandall participants

displayed various levels of vested interest in teacher collaboration, with some participants

showing complete vested interest leading to action on their learning, and others showing an

interest in participating without making any changes to their teaching practices. The

participants' level of expected commitment from their team members, the experiences of the

participants that joined in meetings without making changes to their practice, and the experiences

of the participants that joined in meetings and acted on their learning will be discussed in the

following sections.

       Teachers expect commitment to collaboration from their team members. Six

participants identified team members' attitudes and behaviors as having an effect on their

collaboration. Both the Crandall and non-Crandall participants all had similar expectations for

the commitments that their team members should make to their collaborative efforts. Crandall

participant SS06 stated that he expects his team members to

> share their thoughts in a respectful way and listen to others who want to share theirs. I
> think respect is a key to it on both ends, as a listener and also as a contributor. They
> should pull their own weight but also not be overly aggressive or demeaning to others
> when you share an opinion or disagree.

Crandall participant CB07 expects that his team members are "willing to listen. They're people

you can bounce ideas off and they're not going to be judgmental. They're supportive and are

going to push me to be the best teacher I can be and challenge me." In addition, Crandall

participant AH02 expects that her team members have "humor, patience, are on time. They try to

do their task. They may not always complete it, but the effort is there. They're non-

domineering, and present." Similarly, non-Crandall participant TW04 stated that she expects her

team members to have a "willingness to share, a willingness to participate, and a willingness to

see the other point of view and be flexible and bend towards things rather than digging in their

heels." Non-Crandall participant PM10 expects that her team members are "willing to share

ideas and not be passive." Non-Crandall participant CW11 expects that his team members have

"meaningful things to bring to the discussion. I prefer to work with people that are willing to accept everybody's input without negativity." The Crandall and the non-Crandall participants have similar expectations for the level of commitment from their team members. Their statements indicate that participants expect team members to commit to the work that their group is doing, and that they display that commitment through active participation in meetings and constructive, positive, and critical feedback on their investigations into their respective practices. Both the Crandall and the non-Crandall participants stated that team members that meet their expected level of commitment make the task of collaboration much easier for team members.

The Crandall and non-Crandall participants shared that when their team members do not meet their expectations of commitment, that collaboration can become very challenging. If a team member were to choose to behave differently and not listen, be disrespectful, or not have an open mind towards the ideas that their team members bring to meetings, then, as Crandall participant LD03 states, "they can't really be successful. The group can't accomplish as much, or anything at all, if the people in it aren't willing to work together." In talking about her school, non-Crandall participant KQ12 stated that "it's not the norm that every teacher in every cluster pull their weight here, which makes getting things done very hard for some clusters." Non-Crandall participant PM10, who returned to her school after a year at a different school said that her collaboration this year was different. "I just think that the participation is different. There was a lot more collaboration two years ago than there is now. The personalities are different, and not everyone on my team wants to contribute." Non-Crandall participant TW04 shared that "throughout the years, I've been on teams where it's taken fifty minutes to come to one little decision because people are disgruntled about not necessarily things with each other, but things going on with the school and complaints and getting off task." In addition, non-Crandall

participant KQ12 stated that, "if in the future the principal decided not have collaboration, it

would be because of the clusters that don't value it and think that it's just free time for them."

These statements illustrate the role that commitment to collaboration of other teachers on a team

plays in influencing collaboration.   If the Crandall participants were not willing to work

collaboratively with each other, then the group as a whole would have difficulty in planning

collaborative lessons, making any improvements to their teaching practices, or addressing their

understanding of students effectively. In addition, the non-Crandall participants' statements

show that they think that if team members are not willing to participate that collaboration and

productive work will be nearly impossible to accomplish. The statements from the Crandall and

non-Crandall participants also indicate that not every teacher in the district clearly understands

what the purpose of teacher collaboration is and may not find teacher collaboration to be a

valuable use of their time.

Teachers can be invested in collaboration without taking action on their learning.

Three of the non-Crandall participants that expressed an interest in learning about teaching or

about students as a reason for collaboration did not indicate that their learning led directly to any

type of meaningful action or change. Their learning instead appeared to be stored away for

possible use at a future time. For example, non-Crandall participant CW11 discussed his team

having time during part of one of his weekly meetings to listen to the curriculum director give a

presentation about different teaching strategies and resources. CW11 stated that he placed

materials shared by the curriculum director in a binder for reference, but never indicated that the

materials were used in any way. Similarly, non-Crandall participants PM10 and KQ12 regularly

discussed students that they were concerned with and would schedule meetings with parents and

with school support staff, but did not indicate that anything was done with the information that

they gathered after those meetings. According to the accounts offered by the participants, their

learning during collaborative meetings, whether new information conveyed or new strategies

introduced, does not appear in all cases to be put into practice in their classrooms. It is possible

that action did occur for these participants, but they seldom offered statements indicating that it

did. Because these non-Crandall participants did not act on their learning, they are not

displaying a complete vested interest in collaboration. Their statements indicate that they are

active participants in their meetings, but they make no mention of altering their practices based

on what they learn in their meetings.

   Teachers that are fully vested in collaboration act on their learning. The Crandall

participants consistently reported that they were invested in their collaborative work due in part

to their positive experiences with it and also to the action on their learning that was generated

within their collaborative work. In their analysis of student work following the collaborative

lesson plan for participant SS06, the Crandall participants found areas where their students

continued to struggle and saw that as an opportunity for further exploration, as illustrated by this

exchange, in which the Crandall participants are discussing their analysis of packets of work

produced by individual students over the course of the students' math lesson,

> CB07: I only saw two packets, but how do we organize their thinking? I look at those math pages and I think, "Oh no, they've got to be doing multi-step problems for PARCC," and they do the first part and can't find where they left off. On the answer sheets I couldn't figure out where they were going, what they were doing, or even what their answer was.
> SS06: I suppose we could have scaffolded the answer sheet more. I just gave them big boxes.
> AH02: I think your directions were very clear on the top.
> LS01: We need to get them to a place where we don't have to scaffold it for them.
> SS06: The packet, this thing was scaffolded for them to the hilt and there were groups trying to solve it. How hands on do we need to be?
> CB07: I'm just thinking since we're doing PARCC on paper, if they're trying to do these multi-step problems, I think that's something we have to work on with them.
> LS01: The kids are used to showing in one column and explaining in another.

>AH02: That's not what I'm seeing though. I couldn't make heads or tails.
>LS01: So, it gives us another topic to talk about. Organizing their thoughts and organizing their work.

Their work on the analysis of the results of the collaborative lesson plan yielded insight into how their students were thinking their way through a complex math problem, which led to further action on the part of the Crandall participants to help their students better organize their thinking.

In addition, there were other participants that translated their learning into action to improve on the instructional practices within their classrooms, thereby displaying a fully vested interest in collaboration. Eight of the participants used their professional learning community discussions about students to improve their teaching and used their learning about teaching to improve the performance of specific students. For example, non-Crandall participant TW04 took the feedback about how students were performing in other classes and made changes to her own classroom practices to better meet her students' needs. The Crandall participants cited many instances when they used their learning to change their teaching practices to better meet students' needs. During their collaborative lesson planning, the Crandall participants were regularly thinking about how their students would respond as they structured the lesson and made changes to make the lesson more accessible for their students. After the lesson was taught, the Crandall participants analyzed student work from the lesson and learned that most of their students were having difficulty communicating well while working in groups and decided that structuring group work more effectively would continue to be a focus as they were teaching. In addition, it became more evident to the Crandall participants that some of their students needed more English language and mathematics support. The Crandall participants made plans to work more closely with those students needing the extra help. For example, this discussion over one particular struggling student occurred:

AH02: This student seems to need a lot of supports because she copies excellently, but she's not showing independent thinking. You can see from her page the exact same wording on another page and it's concise and neat, but then on the next page where she's thinking on her own, it's messy and impossible to follow. She needs help.
LS01: I'll start working more with her after school and during lunch. She's also getting ELL support. I'll mention this to them.

For the Crandall participants and some of the non-Crandall participants, their changes in their understanding of students and their purposeful reflection on teaching practices translated into action on their learning. Their actions led to the collection of more information, which inspired further changes in understanding and more reflection, which led to additional actions. This pattern is consistent with what Stewart (2014) and Schnellert, Butler, and Higginson (2008) refer to as the cyclical nature of teacher collaboration.

The participants' embrace of collaboration appears to be connected to other factors and conditions that affect collaboration and to what teachers perceive to be expected of their collaboration by the administration. Learning about students or teaching practices would not be able to occur to the extent that it does for the participants without a school culture that supports learning, without team members to learn from, and without a school or district administration that supports learning. Lortie (1975) has maintained that it would be possible for teachers to learn on their own and without the support of other teachers, the school culture, and the school or district administration, but the learning would not occur to the same extent that it does with those supports. Similarly, the perceived expectations that teachers improve their teaching practice and improve standardized test scores through collaboration provide the impetus for learning. These specific topics will be discussed further in later sections of this chapter.

The attitudes and leadership practices of the administration influence collaboration.
The participants reported that the attitudes and leadership practices of the principals of each school and the district administration had an influence on teacher collaboration, but in different

ways. The participants' statements indicate that the principal's leadership practices appear to

have a more immediate effect on collaboration than the district administration's leadership

practices. The participants provided responses that suggest that several leadership practices of

the principal and the district could enhance or inhibit the development of collaboration among

teachers. The leadership practices of the principal and the district administration that affect

collaboration will be discussed separately.

   The principal has a direct influence on collaboration. There was a high occurrence of

reports from the participants that the attitudes and leadership practices of the principal had an

effect on teacher collaboration. Both the Crandall and non-Crandall participants made these

reports, but their views varied on how the principal influenced their collaboration. At Crandall,

the principal was an integral figure in establishing and leading the school culture. Crandall

participant LD03 reported that,

> before this principal came around, I didn't feel that family feel. I didn't feel like I was
> connected to my coworker next door. Well, he came and he instilled the whole culture in
> the school. Now it's a different feel. He modeled the behaviors that he expected from
> teachers and students.

The principal also gave the Crandall participants a sense of control, leaving decisions about

topics to focus on in professional learning communities up to the team. Crandall participant

CB07 explained that

> I like that there's a simple expectation and trust. We don't have to post meeting notes or
> email them to the principal. He expects us to do what we're supposed to do for the better
> of the students and trusts that we're going to do that. I think that's really the only
> expectation he has.

A discussion that occurred during one of the professional learning community meetings displays

the sense of trust that the Crandall participants reported experiencing. At this meeting, the team

was mapping out the year's curriculum to continue working on vertical alignment. The

instructional coach mentioned that one of the team leaders asked if they could map out the grade

that they would be teaching next year instead of the one that they were currently working with.

The coach stated that the official answer from the principal was, "Whatever you guys want to do

is fine with us." The principal's deference to the team's decision about which grade level to

map, along with the absence of requirements such as meeting notes and agendas put the control

of collaboration in the hands of each of the teams. In this way, the principal let the Crandall

participants know that he trusted them not only to do their work but also to use their best

judgement to investigate what would help them the most.

Despite this trust that the principal has in the team, the Crandall participants were still

guarded about the principal and other members of the school administration. The Crandall

participants all stated that they did not want the principal or any other building administrator to

be present at their professional learning community meetings because they would be less willing

to share their weaknesses and struggles. They also maintained that the presence of a member of

the school's administration at their professional learning community meetings would give the

Crandall participants the impression that they were being evaluated.

The Crandall participants' responses indicate that, to support teacher collaboration

effectively, it is important for the principal to establish a supportive, trusting community that

allows its members the freedom to investigate and explore the types of learning that would

benefit them the most. The Crandall participants' responses also suggest that it is important that

teacher collaboration is not used as an evaluation of their performance as a teacher. The Crandall

participants do not want to feel that the presence of a member of the administration interrupts the

flow of their ideas. Their worries suggest that having their collaboration evaluated is undesirable

to the Crandall participants. It also indicates that the relationship between the Crandall

participants and the principal needs to be developed further so that there is mutual trust between the principal and the teachers rather than one-sided trust from the principal to the teachers.

The non-Crandall participants also thought that the attitudes and leadership practices of the principal influenced their collaboration. In three of the four non-Crandall participants' schools, the principal and school leadership team determined what topics should be addressed during their meeting times. Two of the non-Crandall participants did not always see the strategies and topics presented as being relevant to them. Non-Crandall participant KX08 stated that,

> I don't always think professional learning communities are fantastic. Professional learning communities are very much tied to the turnaround plans for the school, but the carte blanche of the strategies doesn't always relate. It feels like we always have something new every week and we think, "That's tied to the turnaround strategy? Where is that?" It doesn't always feel cohesive.

The ever-changing topics discussed during her professional learning community meetings and the lack of direct applicability of those topics to KX08's classroom caused her to express her misgivings about professional learning communities and question whether the learning stemming from engaging in collaborative practices was a beneficial use of her time.

Non-Crandall participant JM05 shared that she thought that, "the best place for collaboration to start is with the teachers and not telling them what to collaborate on." She added that

> If you're going to have a professional learning community, it needs to be the professionals who are learning to make the decisions. They know their kids, they know what they're doing and they would be the best ones to make choices about it.

In JM05's opinion, for professional learning communities to be successful, the topics discussed should be decided upon by the teachers rather than coming from the school's administration. Having topics for learning about teaching handed down from the administration seemed

prescriptive to JM05. Her collaboration did not lead to any type of action for her, which could have been a contributing factor to her negative views of engaging in professional learning communities. She did not consider collaborative team meetings as opportunities for developing her teaching practices because the decisions about collaboration were out of her control. JM05 thought that decisions about collaboration were best when they were left to teachers working in classrooms due to their knowledge of their students and schools.

The responses of KX08 and JM05 indicate that for some of the non-Crandall participants, the disconnect between meeting topics and what teachers are doing in their classrooms and the lack of control over meeting topics makes the work that non-Crandall participants do when they are collaborating less effective than they could be if they were given more control over the topics discussed. Because KX08 and JM05 experienced collaborative teacher meetings when teachers were not in control of focus and topics, they both expressed disillusionment with the prospect of collaborative team meetings.

All of the non-Crandall participants were required to keep and submit agendas and meeting notes to the school leadership, while the Crandall participants were not. Non-Crandall participant KQ12 stated that the instructional leadership team at her school agreed that all teams submit an agenda so that it would be possible to monitor "how well we're using our time." In addition to the agenda, notes for her meetings had to be submitted to the principal electronically in addition to keeping a paper copy of notes in an easily accessible binder. Non-Crandall participant KX08 said,

> I think we're required to meet. They (school administration) have expectations that we take notes and make agendas…The district is allowing time and giving us space, so I would hope that they want us to be doing exactly what we're doing.

Some of the non-Crandall participants did not agree with some of their respective schools' methods of approaching collaboration. Non-Crandall participant JM05 did not appreciate the way that teacher collaboration was controlled at the start of the school year. She reported that,

> It was very driven by the top down…it was basically proscribed by the administration what our time was supposed to be spent on. It didn't seem like the topics were very useful…We were giving a little pushback. I think people got busier and decided not to continue with the model.

Over the course of the year, the level of control that the school administration exercised on that group waned, which left JM05 more satisfied with how the collaboration was working. JM05 expressed the idea that several teachers voiced their dislike with the level of control, causing the school administration to back off on the changes and for her group to abandon the professional learning community model. However, this does not match up with what participant TW04, another non-Crandall participant from the same school, reported experiencing. Non-Crandall participant TW04 indicated that there was a consistent level of control over collaboration at the school and did not seem to resent it because, in her experience, the meetings had always occurred in that way. The discrepancies between these two participants' reports illustrate the differences in perceptions of individuals and are an example of the variety of collaborative experiences present within the same school. It also indicates that there could be a division between the school administration's goals for teacher collaboration, teachers' understanding of the administration's goals, and the teachers' own goals for teacher collaboration.

In addition to the documentation requirements placed on them, the non-Crandall participants shared that at two of the schools a member of the school's administration would be present at meetings. At the two other schools, other staff members such as guidance counselors and school adjustment counselors would be present but members of the school administration

would not be. The non-Crandall participants that had members of the school administration in attendance at their meetings did not indicate if this affected the way that their discussions about teaching and students progressed or if they thought that the presence of an administrator at their meetings factored into their evaluations.

Some of the responses of the non-Crandall participants were similar to the responses of the Crandall participants in their indication that some leadership practices were important to collaboration. The responses from the non-Crandall participants show that their collaboration is subjected to a higher level of procedural accountability by the school administration than the Crandall participants. The non-Crandall participants understood that the documentation and accountability requirements were put in place by their respective schools' leadership and the district and state administration. The requirements to create agendas, take notes, submit copies of agendas and notes either electronically or on paper, and keep copies of them as a record created extra work that had to be completed for each collaborative team. While it is important that teachers document their collaborative activities, it is also important that teachers are involved in the decision-making process of collaboration and are able to exercise ownership of the activities in their meetings (A. Hargreaves, 2003). It is possible that the teacher evaluation system is connected to the difference in tone of the Crandall and non-Crandall participants. All of the non-Crandall participants mentioned that collaborating with other teachers was a requirement that had to be satisfied as part of their evaluations, which was not mentioned by any of the Crandall participants. It is also important that school principals trust their teachers to learn about what would help them to improve most and give control of collaboration to them (DuFour & Eaker, 1998; Kruse et al., 1994). The non-Crandall participants' responses did not suggest

whether the presence of an administrator was undesirable due to worries about their discussions factoring into their evaluations as educators.

The district administration has an indirect influence on collaboration. The Crandall participants described the influence of the district administration on teacher collaboration as more indirect than the influence of the school principal. Each Crandall participant referenced the district's desire for improved state test scores as influencing the topics that they discuss and the level of pressure on the team. Crandall participant CB07, in his drawing of influences on his team wrote the word "EMPIRE" to represent the district. He explained it in this way,

> This is all the bad influences, and if I had to state one in particular it would be the district listed under EMPIRE. It's all those influences that are 'musts': you must do this or must do that. You need to always be thinking about scores or evaluations. To me that's all the stressful stuff that influences teachers.

CB07 explained that he was thinking of the Galactic Empire in *Star Wars* when he used the word "Empire" to describe the district. The use of this analogy suggests that from CB07's perspective the district employs an imperious, authoritarian, and heavy-handed type of leadership that would inhibit the continuous learning that teacher collaboration is intended to establish. Crandall participant LS01 discussed how the principal did a good job of shielding the teachers from the demands of the district and protecting the site-based work that was being done at the Crandall school. The Crandall participants' statements indicate that some of them view the district's authoritarian leadership practices as inhibiting their collaborative work. There is a misunderstanding between the district's stated expectation of using teacher collaboration as a means of improving instruction and how the participants perceive the effect that the district administration has on their collaboration.

The non-Crandall participants felt similarly about the district administration's influence on teacher collaboration. These responses are summarized in Table 12. The non-Crandall

participants talked about the constant pressure to improve state test scores and how that impacted

how they focused their meetings. Non-Crandall participant PM10 also extended fault for this

pressure to the state and federal government, stating that "the rules from the district come from

the state, which come from the legislature and federal government." She described it as a

"trickling effect" that came from sources far removed from her classroom. Also, non-Crandall

participant JM05 talked about the amount of paperwork and records required for evaluations and

how that adds stress to her and her team members. Non-Crandall participant TW04 drew a

picture showing the stress that she feels from the expectations of the school and district

administration to improve test scores, included as Figure 5. These statements show that the non-

Crandall participants think that the district does not have a positive effect on their collaboration

and, rather than encouraging growth and improvement, increases stress and worries about

negative consequences.

Table 12

Summary of non-Crandall Participants' Responses about the District's Influence on

Collaboration

Participant ID	Responses
PM10	The rules from the district come from the state and the federal government. Their influence "trickles down" to her.
JM05	Large amount of paperwork and evidence of collaboration required for evaluations, which adds stress to the team.
TW04	Feels stressed from the expectations of the district and school administration to improve standardized test scores.

The Crandall and non-Crandall participants' responses indicate that it is important for the

district administration to be clear about what their goals are for the initiatives that are put into

place. The concerns raised by the participants suggest that the emphasis placed on standardized

test scores for students in the district complicates the understanding of teacher collaboration and how teachers do or do not become invested in the work of teacher collaboration. Therefore, it is also important that the district administration do more to clarify their goals for professional learning communities so that teachers can have a better understanding of the expectations placed on them.

The presence of a unifying school culture can enhance teacher collaboration. The Crandall participants strongly emphasized the culture of their school as influencing how they collaborate. The culture that they refer to is a symbolic, unifying force that guides their actions and provides a common language. As already explained, the school operates under the principles of "Ubuntu", an African philosophy meaning "I am because you are." This philosophy was directly observed in every corner of the school, from the signs on the bulletin boards in the lobby to the roles assigned to group members in classes. Ubuntu encourages reflection on the part of every member of the school about how they are doing and what they could be doing better to help others. The Crandall participants reported that they all fully embraced the philosophy and taught it to their students. This was something that was reported spontaneously by the team participants and observed during their meetings.

Even though questions about unifying school culture were not part of the interview protocol, the idea of Ubuntu was discussed in every interview with the each of the Crandall participants and the instructional coach. Crandall participant SS06 said that Ubuntu is "the foundation that holds all of us up." In participant LD03's drawing of influences on the team, she illustrated how the culture of Ubuntu permeates throughout the school from the principal to the faculty to the students and their families, shown as figure 8. In this picture, the principal is telling the faculty, "You are a reflection of me." The faculty is telling the principal, "They are a

reflection of us," referring to the students. The students are saying, "We are a reflection of

home." Over the entire drawing is the phrase, "We represent more than ourselves." Participant

LD03 explained her picture stating,

> I think that why we work so well together is because that's the culture that the principal
> brought to the school. He's modeled it. The way he wants us to conduct our classes is the
> way he conducts his meetings. When someone else comes into the classroom, the way
> the students function reflects on the teacher. If the principal is doing the right thing,
> which I believe he is, it trickles down to us, and if we're doing the right thing it trickles
> down to our students… We realize that it's not just us we have to worry about, that once
> again, together we need to be a team. We're collaborative for all of us to look good, for
> all of us to be successful, and I think the better off we're going to be and the more we're
> going to learn and we're going to gain.

This picture and LD03's explanation highlight the culture of collective responsibility for the

school's success. It illustrates how every person in the school reflects each other and the

responsibility that each person has to mirror the best in everyone else. The spontaneity with

Figure 8. Crandall participant LD03's drawing of factors that influence her team.

which the culture was discussed provides additional evidence that the sense of collective

responsibility is a genuinely held belief of the Crandall participants.

The Ubuntu philosophy and the faculty's acceptance of the philosophy was also evident

in observations of the Crandall team at work in collaborative meetings. During one observation,

the Crandall participants were discussing a new approach to vertical alignment of curriculum

with the focused instructional coach. This alignment focused on all disciplines, in which the

entire year's curriculum would be mapped out for each grade to determine if the progression of

skills and topics were appropriate for each grade. The new curriculum maps were intended to be

used in subsequent years to build off of and revise.

> LS01: You should have been here for our discussion because we were excited about the prospect.
> Coach: Yes. I understand, which is what made my day. Actually, almost every team has felt really good about the process.
> LD03: That's good.
> Coach: That means a lot to me, to us, because I think people really believe in what we're trying to do.
> AH02: They're invested.
> LD03: Yeah.
> Coach: And that's pretty special.

The instructional coach later reported that the "what we're trying to do" that he was referring to

was changing the culture of the school to one that incorporates the idea of cyclical improvement

through reflection on teacher practice. As evidenced by the Crandall participant interviews and

observations, the Ubuntu philosophy embraced by the school has created a culture in which the

faculty takes collective responsibility for the students and each other. The school culture has

created an environment that fosters learning for all and the belief that any goal is possible

through hard work and the support of others.

All of the Crandall participants maintain that teacher collaboration is a success at their

school and that the success is due primarily to the school culture. Nearly all of the Crandall

participants compared their experiences at Crandall with their experiences working in other

schools and stressed that the other schools' cultures did not foster the same level of collaboration.

Crandall participant AH02 stated that, "it's different here in the sense that you are not by yourself

in the classroom. You are not by yourself as a History department or English department. It's a

school, community thing." According to Crandall teachers, at their previous schools they and

their colleagues worked in isolation and hardly ever had meetings to talk to each other. Outside

of full faculty meetings, opportunities for teachers to meet or collaborate were rare.

Collaboration, for the most part, did not happen for the Crandall participants at other schools.

Only one of the Crandall participants had a similar collaborative experience to Crandall at the

other schools at which she worked.

The non-Crandall participants did not mention an underlying philosophy guiding

operations at their schools. There were no observations of guiding philosophies present in any of

the other school buildings. Despite this lack of overarching philosophy, several of the non-

Crandall participants reported that the teachers at their schools were close and worked together.

For example, non-Crandall participant TW04 explained that there is "a team effort because in

general we have a really hardworking good faculty that comes together and supports each other

as a whole."   Non-Crandall participant RG09 described the opportunities to interact with other

teachers at her school, stating,

> we know each other because the teachers get involved in other things in school and it's
> not a problem if you're isolated on another floor. Even if you're in a professional
> learning community with them on another floor it doesn't matter because you know them
> from other committees and other events.

Non-Crandall participant KQ12 shared that the cluster structure of her school "is set up for

collaboration." Her illustration is shown as Figure 9. The circles in the picture represent each

cluster of teachers. The clusters of teachers work together with the same group of students but

are separate from other clusters, and there is no mention of a larger unifying structure in the drawing or in KQ12's description other than "school." KQ12 did note that there are opportunities for collaboration with teachers in other clusters that happens during department meetings but that those opportunities are less frequent than occurs with her team meetings. She
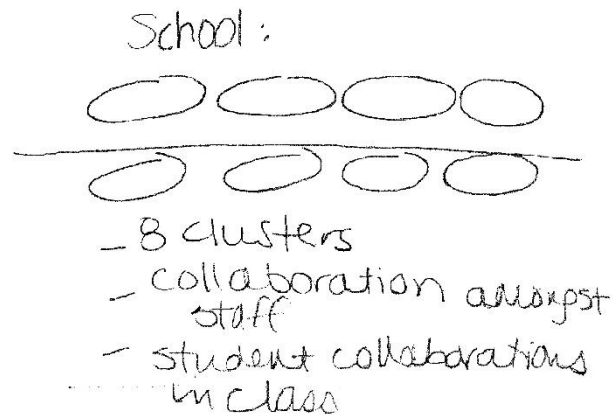
Figure 9. Non-Crandall participant KQ12's drawing of her school.

also maintained that students were expected to collaborate in class similar to the manner in which teachers were expected to collaborate.

Some of the non-Crandall participants reported that there was a lack of supportive culture at their schools. Non-Crandall participant JM05 described the mandated collaboration from the principal, stating

> It was driven from the top down and there was nothing common about the planning time. It was neither common nor planning, because it was basically proscribed by administration what our time was supposed to be spent on. It didn't seem like the topics were very useful.

She expressed the thought that teacher collaboration would be more worthwhile if teachers were in charge of it. JM05's statements show that, at her particular school, some teachers may disagree with the level of control over collaboration and would prefer a higher degree of autonomy. Her statements also suggest that the culture at her school is more controlled and less collective when compared to the culture of the Crandall school.

Another participant, KX08, drew the administration as being removed and distant from what occurs during her meetings. See Figure 10 for this picture. KX08 described the picture in this way, stating,

> So, I'm drawing a picture of my team, my school, and the topics we discuss. These are my team members (pointing to the people at the desks) and these are our topics (pointing to IEP progress and the world). This is our world and I feel like the administration is operating on a different world.

KX08 later elaborated that, when encountering discipline issues, she and her team members will deal with the issue themselves rather than send students to the office because they do not agree with how the school administration handles discipline. The drawing of the administration as being separate from the rest of the team and the explanation of how discipline is handled indicate that KX08 does not feel supported by the administration of her school.
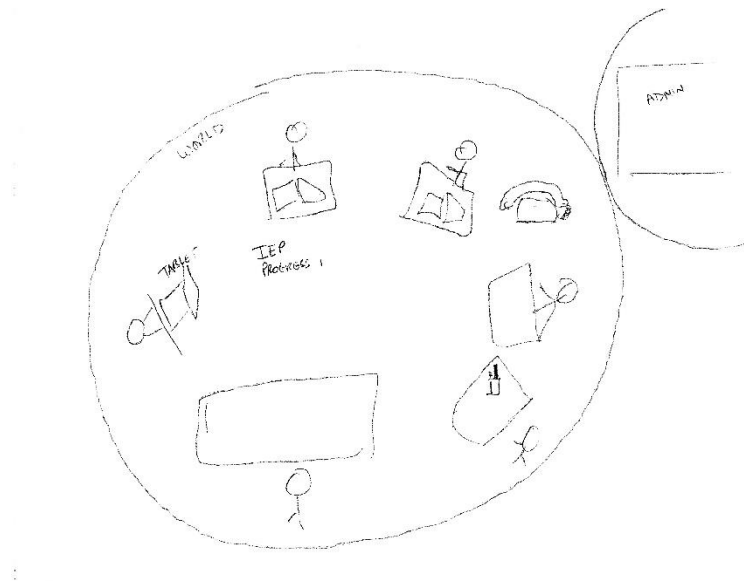
Figure 10. Non-Crandall participant KX08's drawing of her team while it is collaborating.

Missing from all of the non-Crandall participants' descriptions of their schools is a unifying philosophy that the entire school community has embraced in the way that the Crandall participants' school has embraced Ubuntu. While the non-Crandall participants maintain that they are able to work together and collaborate with their colleagues, the culture of their respective schools does not appear to have that same symbolic quality that guides the operations

at the school and provides a common goal and language to students, teachers, and other staff. The Ubuntu philosophy appears to be unique to the Crandall participants' school and appears to play a role in augmenting the collaborative efforts of teachers.   The philosophy has been integrated into the daily operations of the entirety of the Crandall school community and provides a common, overarching goal of improving individuals within the group through the process of improving the group as a collective whole.

The Effects of Teacher Collaboration on Teaching Practices and Professional Identity

All of the Crandall and non-Crandall participants felt that teacher collaboration had an effect on their teaching practices. Responses pertaining to this were fairly consistent between the Crandall and non-Crandall participants. Examples of definitions of codes, the number of participants from each population that the codes appeared for, and the finding that these codes contributed to are provided as Table 13.   The full set of definitions and frequency of codes are provided as Appendices G and H respectively. The Crandall participants described how collaboration furthered their understanding of themselves as learners and teachers. The Crandall participants' reports also indicated that they thought that teacher collaboration instilled a collective responsibility for the development of all individuals in the school. The non-Crandall participants noted the same collective responsibility, but not in the same way as the Crandall participants. These categories will all be discussed in the following sections.

Collaboration has an effect on classroom practices. All of the Crandall participants reported that their teaching practices had improved as a result of teacher collaboration. Each Crandall participant provided examples of how they learned about a new strategy or way of approaching a lesson from their interactions during their professional learning community meetings. For example, Crandall participant AH02 shared that

for the past month we've been helping SS06 come up with a lesson plan to encourage students to work in groups. We've also been looking at if something is working in their math class with SS06 if we can somehow translate that into something we can use in our classes.

Crandall participant SS06 talked about what he learned from the collaborative lesson plan,

stating

I've learned a lot in terms of running groups. LD03 has these group role cards that she used before in her English class. I took those and adapted them for the collaborative lesson plan that I'm doing this week. We talk a lot about holding kids accountable for doing what they are supposed to do in their groups. LD03 had used those before and shared them. I used them this week and I think it was a good way to hold kids accountable and make sure everyone has a role and knows what that role is. It seems a good way of getting people to collaborate and communicate more effectively in class.

Table 13

Examples of Codes Related to the Effects of Collaboration on Teacher Learning and

Professional Identity, their Definitions, the Number of Participants each Code was Applied to,

and the Finding that the Code is Associated With

Code	Definition	Number of Crandall Participants (n=5)	Number of non-Crandall Participants (n=7)	Finding
Learning – about classroom management	Any learning that occurred that led participants to have better classroom management	0	5	Finding 5
Learning – through clp	Any learning that occurred through developing a collaborative lesson plan	4	0	Finding 5
Learning – through coach	Any learning that occurred through interaction with the instructional coach during a meeting	5	1	Finding 5

The learning about teaching practices was not limited to Crandall participant SS06. During a

discussion about the response sheet that students would use during their collaborative lesson

plan, Crandall participant LD03 stated that, "if we did this all the time, it would be so easy to create our units, because we each bring something different. I look at this, and I'm thinking that I'll take it and use it in my class." Crandall participant LS01 observed the results of improved instruction in her classroom, stating, "The kids learn more. I think improving our rigor, improving the amount of time students are thinking for themselves and figuring things out and struggling and persevering, the better off they are in school." Crandall participant CB07 stated that, "I know a lot of ideas I got from teachers on my team that I wouldn't have thought of on my own. They've been so helpful." The Crandall instructional coach witnessed many changes in teaching practices that he attributed to collaborative team work, stating

> I can name many teachers who have changed over this year because of the way they are implementing strategies into their group work, because of the way they are increasing the writing that is happening in the classroom, because of the way they are pulling back from being the sage who gives all of the answers and instead becoming the conductor of a city out there. Working together with other teachers and learning from them helps them do that.

The Crandall participants' statements indicate that they have improved their teaching practices from having time to collaborate as a professional learning community. Communities of practice, such as professional learning communities, spur discussions and inquiries into teaching practices that lead to the development and growth of all of the team members.

Most of the non-Crandall participants felt that they improved their teaching from working with their team members although not all of the non-Crandall participants reported that they learned from working with their team. Non-Crandall participant TW04 shared that she regularly helps her fellow team members with "planning activities and then reflecting on why it worked or why it didn't work." Non-Crandall participant KX08 reported that "we learn new AVID[2]

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[2] AVID is an acronym for Advancement Via Individual Determination, which is a program designed to improve enrollment in four year colleges through building students' college-readiness skills.

strategies in our meetings that I'm always trying to put into practice." Non-Crandall participant

CW11 stated that at one of his weekly meetings

> we meet with the curriculum director. She comes in and gives us handouts on different approaches for rigor, teaching strategies. She'll work with us for half the period and give us ideas. We put what she gives us in binders for reference.

Non-Crandall participant RG09 found that she "brought some AVID strategies back to class that

were very useful." She also elaborated on instances where she has learned from observing other

teachers in her professional learning community to help her with implementing student-student

group work into her lessons.

Based on these responses, it can be inferred that some of the non-Crandall participants'

teaching practices improved after collaborating with their team members, but this was not a

universal occurrence. When asked about her teaching practice changing as a result of

participating with her team, non-Crandall participant JM05 stated that "I can't really say that it

has, but they are a phenomenal support group for me." In addition, non-Crandall participant

CW11 did not indicate that he used any of the materials provided by his curriculum director.

While some of the non-Crandall participants reported that they were learning about new

instructional techniques and were trying to implement them, not all non-Crandall participants

could say that they were implementing them or that they were learning at all. This shows that

teacher learning and its implementation occurs at varying amounts within and across schools in

the district.

In addition to improving teaching practices, the participants also reported improving

classroom management through collaboration with their respective teams. For example, during

collaborative lesson planning, Crandall participants designed group roles with expectations so

that students would have more guidance for how to behave and what to do during the lesson.

Several of the Crandall participants indicated that they would try these group roles in their classes to help their students know what was expected of them. In addition, Crandall participant LS01 reported that she was able to improve her classroom management by learning about "different perspectives on kids, like 'this kid did really well on this, this kid is really struggling in this area' kinds of things." Another way that the Crandall participants focused on improving classroom management was through developing the personal connections that they made with their students. The Crandall participants spent two of their professional learning community meetings and several of their team meetings planning a focus group to work on making connections with students that were failing multiple classes. In their implementation of this focus group, the Crandall participants tried to learn more about the students' successes and failures and shared some of their own successes and failures to develop deep connections with the students in the focus group. This focus group, as Crandall participant LS01 stated, was meant to "figure out how to connect with our failing students and help them realize that they're capable and trying to build their confidence and figure out what the stumbling block really is with them." The group had just finished with the focus group sessions right before the final observation of the team. During the final observed team meeting, the Crandall participants discussed the results and the positive changes that they were already observing in some of the students' behaviors. The Crandall participants' experiences in working with this focus group and in other activities with their team illustrates their learning about classroom management and strengthening their connections with their students.

The non-Crandall participants also used their time for collaboration to learn about classroom management. Non-Crandall participant PM10 learned about "ideas for what I can try in my room that I hadn't thought of. More for discipline than for anything else." Similarly, non-

Crandall participant CW11 shared that "we talk about different ways of approaching the kids, particularly the ones that are struggling." Non-Crandall participant KQ12 shared that she learned from the newest member of her team, saying, "She's got a fabulous insight into kids. She hits the nail on the head every time, and has showed me a lot about them already." The only non-Crandall participant that did not report learning as much about classroom management was RG09 because she participated only in a professional learning community that focused specifically on improving instruction, however it is possible that what she learned about improving instruction translated into improvements with classroom management. The information shared by the non-Crandall participants shows that they think that learning about classroom management helps them to be more successful in their classrooms with delivering instruction.

It is possible that learning about improving instruction and learning about classroom management are not independent of each other but mutually reinforce each other. The participants' learning about improving instruction helps lessons flow more smoothly and increases the engagement of students, leading to a better managed classroom environment. Similarly, the participants' learning about students helps to foster closer connections with students and increases understanding of how to engage students, leading to an improved instructional experience within the classroom. Both the Crandall participants and most of the non-Crandall participants thought that their experiences collaborating with other teachers caused them to improve their lessons overall.

Collaboration has an effect on teachers' understanding of their own development as teachers and learners. The participants that did recognize improvements in their teaching practices noticed parallels between their collaborative efforts as team members and their growth

as learners and teachers. The act of collaboration caused the participants to rethink their

development as teachers and often led to the realization that there was more to learn about how

to better educate their students. Non-Crandall participant RG09 regularly joined in peer

observations as part of her professional learning community activities and offered this glimpse of

how observing others plan and teach invited appraisal of her own practice and pushed her to

adjust her own practices.

> You learn a lot by watching another teacher…I did learn a lot by watching her lead her
> students through collaboration and what they were going to do for class. I was not doing
> too well with my students collaborating with groups. And so, I took a step backwards to
> do what she did and present the rules for collaboration and found it a lot better in my
> classroom. I learned something from that.

During one of the professional learning community meetings, Crandall participant LD03

provided further evidence of this kind of thinking. Following a discussion on how to structure

group work in their collaborative lesson plan, LD03 stated "If we did this all the time it would be

so easy to create our units…I look at this, and I'm thinking I'll take that and transfer it to my

class." These statements show that the participants understood themselves as resources to each

other and recognized the important interplay between individual and collective learning. The

participants reported that they felt that their learning had translated into better classroom

experiences for their students and fellow teachers.

The statements made by RG09 and LD03 illustrate how concentrated attention to another

person's teaching can still lead to improvements in the teaching practices of other teachers. Four

of the Crandall participants reported exploring their efforts as teachers to have their students

work in groups during a professional learning community meeting prior to the beginning of the

observations. These participants shared that during this professional learning community

meeting focused on student collaboration with the Crandall participants, the facilitator of the

meeting had each team member reflect on what qualities made a person an effective collaborator and what made a person an ineffective collaborator. Crandall participant LD03, the facilitator for that meeting, stated that,

> I created it in a way where we would have to reflect on ourselves because I feel like if we don't know exactly what helps us, how are we going to help the children? So, first we have to be reflective learners before we can teach the kids how to do that.

The Crandall participants then reflected on how they structured and modeled collaboration in their classrooms and if the techniques they were using at the time would yield the type of student-student collaboration they intended to foster in their classrooms. The Crandall participants used the information they gathered from this experience in their collaborative lesson planning. They decided that there was a need to be more explicit with what was expected of their students while working in groups and made changes such as handing out notes describing what was expected from each student while they were collaborating, modeling how to behave during a discussion, and providing discussion prompts to show students how to engage in more academic discourse while working in groups. The Crandall participants maintained that the changes they made in their classrooms led to improved classroom experiences for their students and a greater degree of participation.

In each of these instances, the participants recognized that they were "unfinished" in their development as teachers and that they had more to learn to better serve their students. Through their work with their collaborative teams, the participants were able to exchange information and ideas about different teaching practices that they employed in their classrooms and, in some cases, were able to develop lessons collaboratively using those teaching practices. This collaborative work was the means by which the participants improved through serving their students.

Collaboration has an effect on professional identity. The Crandall participants all reported that their experiences with teacher collaboration gave them a sense of collective responsibility for the growth and development of all of the individuals in their school. This is evident in Crandall participant LD03's drawing of the influences on her team, shown as Figure 8. The drawing of the principal, faculty, and students with the overarching statement that "we represent more than ourselves" illustrate the collective responsibility for all present in the school. LD03 further elaborated on the collective responsibility, saying that "it's not just us individually that we have to worry about. Together we need to be a team. We're collaborative for all of us to be successful." She added that "with collaboration and working together, we're all pieces to a puzzle, and all together the puzzle is complete. We're all independent, but together we make a group. When the group is successful, we are successful." Crandall participant LS01 also discussed the idea of collective responsibility when she drew a picture of her team working together, included as Figure 11, as four hands holding each other. She described the picture
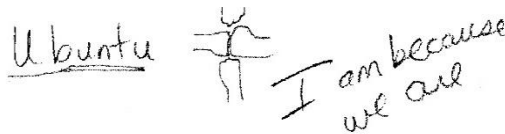
Figure 11. Participant LS01's drawing of her team while it is collaborating.

saying, "these are supposed to be hands coming together. It's the logo for our school. We're supposed to be working together. We're all in it together for the school." LS01 further elaborated on the idea of Ubuntu, shown in Figure 11 as the holding hands and the phrase "I am because we are," saying that it also means, "I'm not successful unless you're successful." Crandall participant CB07 also displayed the sense of collective responsibility for individual growth in his picture of his team and their focus on their individual students, shown as Figure 12. Each person on the team is represented by the small circles, joined together to make a larger

circle. The triangle represents their students, with each side representing an aspect of the

students' life that is important, namely the mind, body and spirit. CB07 explained

> I see us as a cohesive unit…our goal is to make the students the best they can be. You
> have the triangle, the person as a whole and you have the three parts: the mind, the body,
> and the spirit. The whole reason why I put it in the center is because that's our purpose
> for the students, to work as a group to help them grow.

The Crandall participants indicated that their work together would ensure the growth and

development of their students, and they trusted that all of the other adults within the school

would work to the best of their abilities to do the same. The Ubuntu philosophy embraced by the

school helped to support and reinforce this manner of thinking.
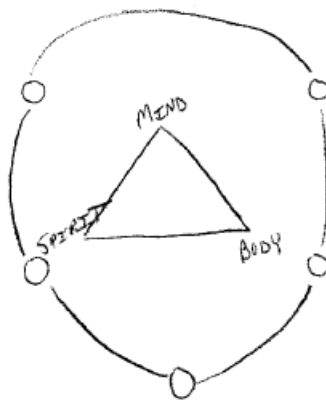
Figure 12. Crandall participant CB07's drawing of his team while collaborating.

The non-Crandall participants also reported a sense of collective responsibility for

individual growth although the scope of their collective responsibility was not as wide as that of

the Crandall participants. Non-Crandall participant TW04 discussed how her team shared the

same group of students and worked together to plan lessons and structure assignments to ensure

their progress. Similarly, non-Crandall participant JM05 described her team as "working

together for the common interests of our students." Non-Crandall participant KX08 described

her group's work in the same way as TW04 and JM05. Non-Crandall participant RG09 had a

more far-reaching view. She described her professional learning community's work as "working

together, developing strategies, and coming together as coworkers and colleagues to make

education better for everyone." The non-Crandall participants did not have the unifying, full-

school culture that the Crandall participants had, but some still experienced the collective

responsibility for individual growth. The difference between the Crandall participants and the

non-Crandall participants in this sense of responsibility is that, for the Crandall participants, the

collective responsibility appears to be directed towards the full school, while for the non-

Crandall participants, the collective responsibility appears to be for the students shared among

the team of teachers. Non-Crandall participant RG09 possessed a sense of collective

responsibility towards the education of all perhaps in part because the members of her

professional learning community did not all share the same group of students.

For each of the participants that experienced the sense of collective responsibility, their

identity as teachers changed. Teaching for them was no longer a solitary enterprise occurring

within the walls of their own classroom, but instead was a combined effort on the part of

themselves, their team, and even their entire school community. The participants had come to

the realization that their work alone was not enough to educate their students. It would take the

concentrated efforts of the entire group to meet the needs of their students and educate them in

the most effective way.

Findings

This section explores each of the research questions individually, stating the findings

gleaned from the analysis of the interview and observation data. Each of the research questions

are discussed independent of the other research questions.

The first research question, "what do teachers report as their reasons for collaborating

with peers?" isolated three themes from the participants' experiences and responses.

Collaboration was an opportunity for teachers to learn about students and reflect on teaching practices, but not all teachers viewed it as a reason to collaborate. Some teachers were enthusiastic about the learning opportunities that collaboration presented. Others were doubtful about the learning that could occur. Collaboration was also an opportunity for teachers to come together as a community. Some teachers held this community at a distance, engaging on a professional but distant level with their colleagues. Others engaged in the community at a deeper level, finding solace and relief from the stresses of their teaching practice through collaboration with their colleagues. In addition, collaboration was an opportunity to fulfill a professional obligation set by school, district, and state administration, but the amount of documentation and accountability required of teachers affected their receptiveness to fulfilling the obligation. These themes can be condensed into one finding.

> **Finding 1: Teachers' reasons for participating in collaboration vary and are based on extrinsic and intrinsic motivations. Teachers' desires to learn and connect with their colleagues are intrinsic motivations and fulfilling a professional obligation is an extrinsic motivation.**

Teachers' desire to learn and connect with their colleagues represent the intrinsic motivational factors because they stem from their own internal desires to learn and connect with their colleagues. The fulfillment of a professional obligation is an extrinsic motivational factor because it is a response to an expectation set by people other than themselves.

The second research question, "what do teachers in an urban public middle school understand about the administration's expectations for teacher collaboration?" identified three expectations that the participants perceived that the school administration, the district administration, or both established for them. If the participants perceived that the expectation

comes from the principal of their school, they were more likely to be receptive to and accepting

of the expectation. The participants understood that both the school and the district

administration expected that instructional practices improve. The participants understood that

the district administration expected that standardized test scores would improve, which was

viewed with some resentment by the participants. The participants also understand that the

school and district administration expect that collaboration will improve teacher's well-being.

The participants' responses and experiences can be condensed into two findings.

Finding 2: Teachers are more receptive to expectations for teacher collaboration that are perceived to be from their principal than from the district administration.

This is evident in the tone of the participants' responses about their principal's expectations and

the district administration's expectations. The participants viewed the principal's expectations as

valid and reasonable. The participants were pessimistic about the expectations of the district

administration.

Finding 3: Although teachers see the good intentions for collaboration to benefit the full school community, there are instances of both certainty and uncertainty about their own agency in achieving the intended outcomes.

The participants' responses about the improvements to instruction, test scores, and

teacher well-being reflect an understanding that collaboration is expected to benefit all members

of the school community, but the amount of control that teachers were able to exert over their

collaboration left some teachers with questions about the benefits to themselves. The

participants were able to view themselves as agents in terms of improving instruction and their

well-being because those are functions that are well within their control, but were uncertain

about their roles as agents in improving test scores, as they viewed that as being outside of their control.

The third research question, "what are teachers' perspectives on the factors and conditions that influence their collaborative work?" recognized three factors and conditions that influenced how the participants collaborated. The extent to which teachers have a vested interest in collaboration can influence how collaboration proceeds. That influence can be positive or negative. The participants expected that their team members be committed to their work together and to show that commitment in their actions and behaviors. Team members that are fully committed to the group's work make meeting the group's goals easier to accomplish. Team members that are not committed make their group's work much more challenging to accomplish. Sometimes, teachers will be committed to participating in their meetings, but not to taking action on their learning from their meetings. In other cases, participants are fully vested in their meetings, and act on their learning to make changes to their teaching practices. The leadership practices of the school and district administration can impact collaborative work in both positive and negative ways. School administrations that give control of collaboration to teachers lead to a more positive, fulfilling collaborative experience for teachers. School administrations that control collaboration through scheduling specific discussions at collaborative meetings restrict teacher collaboration and can cause participants to lose interest in collaborating with their peers. The district administration appears to have a negative effect on teachers' collaboration, and is viewed as exercising an imperial, heavy-handed measure of control focused on improving standardized test scores. School culture can be one of the biggest influences on teacher collaboration, and that influence can be positive or negative. If the school culture is one that unifies the school with a sense of purpose, then teacher collaboration will be much stronger and

more effective. If a unifying school culture is not present, then teacher collaboration will be much more challenging but not impossible. The variation in the experiences described by the participants leads to one finding about the factors and conditions that affect teacher collaboration, labeled as finding 4.

Finding 4: Although some factors and conditions that influence teacher collaboration occur across many school settings, fostering teacher collaboration requires close attention to each school's particular circumstances, commitments, and orienting beliefs.

Each school has its own unique context. The leadership, school culture, and attitudes and behaviors of the teachers are different in every school, therefore different factors and conditions will have different influences in each school. No school will have the same factors and conditions influencing collaboration in the same way.

The fourth and final research question, "what do teachers report are the effects of collaboration on their teaching and learning?" underscored the effects of collaboration on the participants' teaching and learning. Collaboration can lead to improvements in instructional +practices if the participants see the value in engaging in collaboration and can lead to improvements in classroom management. Both of these improvements can reinforce the other. Collaboration helps teachers to recognize that they are unfinished in their development as learners and teachers. Collaboration can also lead to a sense of collective responsibility for the growth and development of all people in the school, especially if the school culture is one unifies the entire school. These perceived effects can be condensed into one finding that is labeled as finding 5.

Finding 5: Teachers that value collaboration recognize that it has a positive effect on the development of their teaching practices, professional identity, and sense of collective responsibility.

The teachers that valued collaboration were able to see improvement in their classroom practices and in their development as learners. The teachers that did not find value in collaboration did not perceive the positive effects on their development.

Teacher collaboration can be very empowering for teachers if the right factors and conditions are present in the school environment. The presence of a unifying school philosophy, though not integral, helps to provide teachers with a common purpose and builds the community of the school. The school leadership must trust their teachers to make decisions that are in their students' best interests and determine the best course of action to follow to improve their teaching practices. Teachers will be more likely to participate if they are given ownership of their learning and understand clearly what the purpose of their collaboration should be. Teacher collaboration, with the above conditions, can lead to improvements in the classroom learning community and the overall school environment, building a sense of responsibility for all individuals.

Essence of the Phenomenon

The experience of working in a collaborative team is not independent of the other endeavors occurring within a school or district; various projects, initiatives, and program components are inextricably linked and influence each other. Providing teachers with control over their collaboration leads to increased accomplishments of the collaborative group. The accomplishments of collaborative groups are influenced by the leadership practices that frame teacher collaboration within schools.

Summary

In this chapter, the analysis of the data from the interviews and observations was summarized to determine the findings of the study. The steps undertaken in the data analysis were explained. The contexts of the Crandall and non-Crandall participants were described. Each of the four guiding questions were examined and discussed independently of the others. The findings were then explained for each of the guiding questions. Finally, the essence of the phenomenon of teacher collaboration was discussed. The next chapter will discuss the implications of the study and opportunities for further investigation.

CHAPTER 5: SUMMARY, IMPLICATIONS, AND CONCLUSION

The purpose of this study is to explore the perspectives of urban middle school teachers on teacher collaboration. Interviews and observations were used to obtain teachers' perspectives on their experiences with collaboration and the meaning that they made from those experiences. This chapter summarizes the study and discusses the implications of the findings including implications for future research. It begins with a restatement of the problem studied and the purpose of the study. Brief synopses of the literature review and the design of the study are provided. The findings for each of the research questions is summarized. A discussion of the meaning of each finding follows, including implications of the findings for educational leaders and policy makers and relevance of the findings to existing scholarship. The chapter concludes with opportunities for future research and final reflections.

Summary of Chapters 1-3

This section includes a summary of the information presented in Chapters 1 through 3. A summary of the problem and the purpose of the study is presented. The literature review is summarized. Finally, a summary of the study design is given.

Statement of the Problem

Teacher collaboration and the benefits that it offers to schools has been widely promoted and extensively researched. Teacher collaboration and professional learning communities have been shown to have a positive impact on student learning (Davis, 2015; Dunne & Honts, 1998; Hord & Southwest Educational Development Lab, 1997; Lee & Smith, 1996; Little, 2002; Yasumoto et al., 2001). Teacher collaboration has also been credited with increasing the professional capacity of teachers (Dunne & Honts, 1998; D. H. Hargreaves, 1999; Little, 1990a; Loughran, 2002; Stoll et al., 2006). In addition, teacher collaboration can lead to greater

cohesion across classrooms in schools (Fairman & Mackenzie, 2015; A. Hargreaves, 1994; Little, 1990a) and empower teachers (Little, 1990a; McLaughlin & Talbert, 2006; National Middle School Association, 2003).

For teacher collaboration to be successful, the literature has shown that certain conditions must be present in schools. An atmosphere of trust must be in place in addition to allocation of time and space for teachers to work collaboratively (Feiman-Nemser, 2001; Kaplan et al., 2014; Kruse et al., 1994; Markow et al., 2013). The members of collaborative groups and professional learning communities must have a common mission, vision, and goals in which teachers work together to improve their teaching practices (DuFour, 2004; DuFour & Eaker, 1998; Hord & Southwest Educational Development Lab, 1997; Kruse et al., 1994), and must be willing to inquire into practice (Bullough, 2007; Kruse et al., 1994). In addition to inquiry into practice, collaborative groups must be focused on continuous improvement and obtaining results (DuFour & Eaker, 1998). The inquiry and results orientation means that teachers in collaborative teams must be willing to de-privatize their practice (Kruse et al., 1994) and accept observation and critique from their colleagues (Little, 1982). Teacher collaboration in its many forms also requires the support of the principal for teachers to be able to investigate issues of practice more deeply (Louis et al., 1996; Lumpkin et al., 2014).

While much research has been done on the benefits of teacher collaboration and the conditions that must be present, other contextual factors within schools can affect those benefits. The attitude of the school leadership towards collaboration (A. Hargreaves & Goodson, 2006) and of teachers within the school towards collaboration (Elbousty & Bratt, 2010b) can determine its effectiveness. The amount of training that teachers and school leadership receive on teacher collaboration can also influence the success of teacher collaboration (Little et al., 2000) as can

the amount of time and space allocated for collaboration (Davis, 2015; Kruse et al., 1994). The repeated attention in scholarship to the variability of teacher collaboration across educational settings and to the effect contextual factors have on teacher collaboration underscore the critical need for further research to understand how teacher collaboration occurs and develops within specific contexts.

In addition, the research on teacher collaboration does not account for any prior experience that teachers may have with collaboration and assumes that teachers have not collaborated with their colleagues in any capacity prior to beginning collaborative work. If teachers have prior experience with collaboration in any of its many forms, it could affect the implementation and success of teacher collaboration. Also at issue is whether teachers are best suited to determine the topics and scope of their collaborative meetings or if that responsibility lies within the domain of the school and district administration. Districts try to align programs, including teacher collaboration, to improve student learning and create uniformity (Ladd & Duke University Sanford School of Public Policy, 2011; Leithwood et al., 2004). Others, such as Dewey (1929), Stenhouse (1980), and Schwab (1969) have argued for the involvement of teachers as primary decision makers about the inquiry needed at the school and classroom level.

Though the benefits of teacher collaboration and the conditions necessary for successful implementation have been widely studied and documented, there are many facets of teacher collaboration, particularly the perspective of the teachers involved in collaboration, that require further exploration. For example, teachers' perceptions of the expectations placed on their collaboration, their reasons for collaborating with their peers, their perceptions of the factors and conditions that affect their collaboration, and the perceived effects of collaboration on their teaching practices have not been fully explored in the literature. A better understanding of the

teacher's perspectives of collaboration and their understanding of their role in collaboration is needed to ensure that teacher collaboration and professional learning communities will have the largest impact possible.

Purpose

The purpose of this study is to develop a deeper understanding of teachers' perspectives on the factors and conditions that influence their collaboration. The study explores teachers' perspectives on the effects of collaboration on their own learning and teaching practices using direct interviews with teachers and observations of collaborative meetings among teachers. It also seeks to understand what teachers perceive to be expected of their collaboration by the administration and examines teachers' accounts of the portions of their collaboration that they understood to be within their own control. The study also explores teachers' reasons for engaging in collaborative activities and seeks to determine whether prior experience with collaboration affects the implementation of new collaborative models.

The questions that guided this study are as follows: What do teachers report as their reasons for collaborating with peers? What do teachers in an urban public middle school understand about the administration's expectations for teacher collaboration? What are teachers' perspectives on the factors and conditions that influence their collaborative work? What do teachers report are the effects of collaboration on their teaching and learning?

Literature Review

The literature review examined what is currently known about teacher collaboration and professional learning communities in urban public middle schools. It explored the sociology of teaching, the historical isolation of teachers, and the justification for teachers' work in a collaborative context. It examined theories from adult learning that explain how teachers learn

and develop as professionals. The literature review also explored organizational learning and

social network theory to understand how organizations learn and how knowledge and ideas are

distributed throughout organizations. It examined the development of interdisciplinary education

in middle schools and the impact the reorganization of middle schools had on teacher

development and learning. The literature review also explored the development, purposes, and

guidelines for implementing and sustaining professional learning communities and the impact of

professional learning communities on teachers.

   Sociology of teaching. Schools are organizations in which social interactions are a key

part. The social structure of the school influences how teachers behave. The organization of

schools has limited the opportunity for teachers to interact with other teachers in a meaningful

way (Lortie, 1975; Waller, 1932). The lack of interaction between teachers affects the learning

and development of teachers as professionals. While the autonomy created when teachers work

in isolation provides the freedom to teachers to instruct students utilizing whatever methods they

choose (Little, 1990b), teachers lose the opportunity for their work to be recognized by their

colleagues and to develop meaningful connections with them (Lortie, 1975).

   Many scholars have developed arguments for decreasing isolation among teachers and

increasing collaboration. One of the common suggestions is that teachers must work together to

improve their teaching practices. Waller (1932) suggested loosening the structure of schools to

provide teachers with the freedom to inquire into teaching practices. Lortie (1975) and Cohen

(2011) argued that teachers must have the opportunity to observe each other and rely on each

other to improve their teaching. Hargreaves (1994) added that providing teachers with the

opportunity to collaborate increases their empowerment and sense of purpose. Little (1990b)

similarly stated that collaboration increases the sense of collective responsibility and increases

the resources available to teachers. Increasing teacher knowledge leads to an increase in the knowledge of the school as an organization.

Adult learning and development. The field of developmental psychology has established that adults learn more effectively when they learn from others. Mezirow (2000) described a process called transformative learning that led to a change in the adult's manner of thinking, with the outcome being that the person is more reflective and open to change. Kegan (1994) and Drago-Severson (2009) argued that adults construct meaning based on their interactions with others, with adults moving backward and forward through multiple stages of learning throughout the course of their lives. Drago-Severson (2009) proposed the idea that there are four pillars that support adult learning: teaming, providing adults with leadership roles, engaging in collegial inquiry, and mentoring. These four pillars directly relate to the teacher collaboration and professional learning communities. Teachers have the opportunity to work together in teams and take on leadership roles. Together the group enquires into teaching practices and can engage in both formal and informal mentoring relationships to help other teachers develop.

Organizational learning. In order for an organization to learn, knowledge must be transmitted between its members (Perkins, 2003). Schools have typically been structured to maintain a bureaucratic format so that information flows from the top down rather than laterally throughout the school (McDonald, 1996). Teachers, through the process of collaborating, can change this structure to move to a more lateral flow of knowledge transfer. Teachers can work together to determine what is collectively known, where there are gaps in knowledge, and can combine their resources to improve the knowledge of the group (D. H. Hargreaves, 1999). When teachers do this, they are engaged in a networked improvement process and are working to build

the collective knowledge of the organization (Bryk et al., 2015). The work of professional

learning communities adds to the collective knowledge of a school and must be transmitted

throughout the school so that all members of the school community can benefit from the learning

of collaborative teams.

One of the ways of examining knowledge transfer is through social network theory,

which is a way of measuring social and psychological interactions between people (Borgatti &

Ofem, 2010). Social networks form as a result of interactions between people that produce

social structures (Kadushin, 2012). The relationships can be constraining and cut off the flow of

information and resources or can provide opportunities for growth and allow the transfer of

information and resources between group members. Trust and safety are important to the

function of social networks (Cross & Parker, 2004). In addition, social networks help schools

build the professional capacity of individual teachers through their collaborative work (Deal et

al., 2009). The study of social networks in schools has yielded valuable information about

reform efforts and how social networks can affect the implementation of reforms. Also, the

principles of social network theory are aligned with the ideas of teacher collaboration and

professional learning communities and how they operate. Understanding how knowledge is

transferred within schools is helpful for school leaders when thinking about implementation of

professional learning communities (Deal et al., 2009).

Interdisciplinary education in middle schools. Prior to 1963, the years of schooling

between elementary school and high school were referred to as junior high school. Junior high

schools were structured similarly to high schools in which teachers were separated into

departments based on their subject matter and did not interact with other members of the school

staff (Erb, 1995). The term "middle school" was first used by William Alexander in 1963. As

an alternative to junior high schools, a middle school would individualize instruction to meet

students' needs and would prioritize education of the whole child (Alexander & Williams, 1965).

As schools began to use the middle school model, additional recommendations were made to

better meet the needs of students, including creating small learning communities for students and

empowering teachers and administrators to make decisions about their curriculum and

instruction (Carnegie Council on Adolescent Development & United States of America, 1989).

To accomplish this, middle schools began to institute interdisciplinary teams made up of teachers

from different academic disciplines that taught the same students and occupied the same area of

the school building (Wallace, 2007). Interdisciplinary teams provide teachers with the

opportunities to know their students better and set consistent expectations between classrooms

(Carnegie Council on Adolescent Development & United States of America, 1989). The use of

interdisciplinary teams led to increases in student achievement (Alexander & McEwin, 1989;

National Middle School Association, 2003; Schaefer et al., 2016; Wallace, 2007) and a stronger

learning community for teachers that encouraged pedagogical risk-taking that increased teachers'

sense of accomplishment (Erb, 1995; National Middle School Association, 2003). The

interdisciplinary middle school model continues to be used to this day and is of particular

relevance because the participants teach in schools that strive to adhere to the middle school

model and place high value on collaboration among interdisciplinary team members.

  Teacher collaboration. As stated previously, teacher collaboration has many benefits for

the school community. It can lead to improvements in student performance (Davis, 2015; Dunne

& Honts, 1998; E. Hargreaves, 2013; Hord & Southwest Educational Development Lab, 1997;

Lee & Smith, 1996; Little, 2002; Markow et al., 2013; Robinson et al., 2010; Ronfeldt et al.,

2015; Stoll et al., 2006; Yasumoto et al., 2001) and can promote innovation and positive changes

within the classroom and larger school organization (Brennan, 2015; Cohen & Ball, 2001; Fairman & Mackenzie, 2015; McLaughlin & Talbert, 2006). The culture of the school must be one that supports teachers developing their own goals for collaborative work (Dunne & Honts, 1998) and taking on leadership roles (Louis et al., 1996; Lumpkin et al., 2014). Teacher collaboration must move in a cyclical process through planning, action, analysis, and reflection (Stewart, 2014). Schools must provide time for collaboration and trust and respect must be present among the staff (Feiman-Nemser, 2001; Kaplan et al., 2014; Kruse et al., 1994; Markow et al., 2013). Despite its benefits, teacher collaboration may not be successful if the goals set by the administration do not match up with teachers' desires (Louis et al., 1996; Szczesiul & Huizenga, 2014). Collaborative meetings must have clear goals that align with the goals of the school to be effective (Kaplan et al., 2014; Saunders & Goldenberg, 2005).

Teachers as instruments of reform. The ideas supporting teacher collaboration have existed for nearly 100 years. Beginning with the Progressive educational reform movement were recommendations for teacher activity that stress their central role in investigating their practice. Dewey (1929) advocated for the role of teachers as investigators of their practice and believed that they were well suited for studying classroom activities because of their daily involvement in designing learning experiences and interacting with students. The Eight Year study showed that increasing the flexibility and autonomy in teaching increased the professional capacity of teachers, increased the teacher-student and teacher-teacher collaboration on curriculum and assessments, and developed trust and relationships between teachers and students (Bullough, 2007). Schwab (1969) advocated for the role of the teacher collaboration in developing curriculum to address student learning during the curriculum reform efforts of the 1950s and 1960s. Stenhouse (1984) argued that teachers have a central role as researchers because they are

responsible for what occurs in their classrooms and therefore responsible for improving the

practice of teaching as a whole.

   Formalization of teacher collaboration. As the idea of teacher collaboration has grown

in popularity, several groups sought to formalize their processes of teacher collaboration and

mark them as distinctly different from other forms. Critical Friends Groups are one example that

attempts to set themselves apart from other forms of collaboration due to their emphasis on the

use of protocols to support collaboration ("National School Reform Faculty Frequently Asked

Questions," 2014). Lesson study groups are another example of the formalized process of

teacher collaboration. These groups focus on working together to create a lesson which is then

taught by one of the teachers in the group and observed by the others (Stigler & Hiebert, 1999).

The group would then reconvene to discuss the lesson and develop strategies for how to improve

the lesson the next time that it was taught. Even though there are facets to each type of

collaboration that set them apart from the rest, they still are forms of teacher collaboration

because they all involve teachers working together. The remainder of the literature review

focused on professional learning communities, the form of collaboration used by the participants

in the study.

   Professional learning communities. Though professional learning communities have

existed, there has been no common definition of what the term encompasses (Stoll et al., 2006).

Some of the definitions have included a common mission, vision, and goals, engagement in

collaborative inquiry, collaborative teamwork, and action orientation (DuFour & Eaker, 1998),

while others focus on building teacher capacity, engaging participants in teacher research, and

developing a foundation of trust, growth, and inquiry into practice (Bullough, 2007). Louis et al.

(1996) stated that professional learning communities have shared norms and values, focus

collectively on student learning, involve collaboration among faculty, and the creation of de-privatized practice and reflective dialogue. Stewart (2014) maintained that professional learning communities focus on teachers engaging in learning about topics relevant to their instruction over long periods of time. Each of these definitions, though different, share the common idea that a focus on collective inquiry into teacher practice is a key idea behind professional learning communities.

Theoretical arguments and empirical research about professional learning communities. Both the theoretical scholarship and empirical evidence in support of professional learning communities show that there are advantages to using them and important points about them that must be considered in order to implement them effectively. Both theory and research show that professional learning communities are important for building teacher capacity and improving teaching practices (Dunne & Honts, 1998; Loughran, 2002; Stoll et al., 2006). Theoretical arguments and empirical evidence have also indicated that there is a positive correlation between the presence of professional learning communities in a school and an increase in student learning (Dunne & Honts, 1998; Hord & Southwest Educational Development Lab, 1997; Lee & Smith, 1996; Little, 2002; Stoll et al., 2006). Theory and research have also shown that teacher collaboration has led to the empowerment of teachers (Little, 1990a; National Middle School Association, 2003) and to benefits that spread throughout the school, creating a more cohesive and organized environment (Fairman & Mackenzie, 2015; A. Hargreaves, 1994; Little, 1990a).

Though there are many positive aspects to professional learning communities, there are some cautions to consider that have been raised from the evidence gathered around professional learning communities. Not all professional learning communities seek to make changes to

teaching practices or are concerned with improvement (Little, 2002; Visscher & Witziers, 2004).

Some professional learning communities may improve school culture without having a positive

impact on student learning (Supovitz, 2002). The time required for professional learning

communities may increase stress among teachers (Little et al., 2000). Teachers must recognize

the value of the opinions of their team members (Little, 1990a), the benefits of their work in

professional learning communities (Chenoweth, 2015; Little, 1990a), and that productive conflict

can arise that can foster discussion and advance learning (Achinstein, 2002; Ball & Cohen,

1999). Professional learning communities can also run the risk of trying to accomplish too much

(Curry, 2008) without following through on the problems and ideas discussed (Curry, 2008;

Szczesiul & Huizenga, 2014).

   Implementing and sustaining a professional learning community. There is extensive

scholarship that exists on how professional learning communities can be implemented and

sustained. Information in this section drew from both the fields of educational reform and

organizational literature. This section contains information on implementation, the responses

that a school leader can encounter during implementation, and the conditions needed to sustain

professional learning communities once they are in place.

   Implementation. The scholarship from educational reform and organizational studies

literature states that it takes time and effort to implement a professional learning community.

Kotter (1996) identified an eight step process that leaders must follow to create lasting change in

any organization. These steps include establishing a sense of urgency, creating a guiding

coalition, developing a vision and strategy, communicating a change vision, empowering broad-

based action, generating short-term wins, consolidating gains and producing more change, and

anchoring new approaches in the culture of the organization. McLaughlin and Talbert (2006)

identified three phases specific to the development of professional learning communities. In the novice phase, professional learning communities analyze data to understand student progress and identify areas of concern while developing their research skills, trust, and collaborative norms. In the intermediate phase, professional learning communities establish goals and a common vision, and as they progress into the advanced phase of their development, begin to inquire into their practice and take action on the data they have collected. DuFour and Eaker (1998) outlined specific steps that should be followed to implement professional learning communities. First, schools should establish their mission and then the vision for the school, both of which should be clearly articulated and align with the mission and vision of the individual stakeholders of the school. Next, the school should identify a set of shared, core values for the school. From there, goals for the school and the professional learning community should be determined to provide direction to the group's work. Common among all of these guidelines is the creation of a common mission, vision, and goals, and, although it is not directly stated in all of the guidelines, a trusting environment is implied.

Complications with implementation. With any type of implementation, there are complications that can arise that could potentially lead to the failure of the implementation if they are not appropriately addressed. Kotter (1996) described eight common missteps that can derail implementation of any new initiative. These mistakes include the lack of urgency, the guiding coalition is not powerful enough, the importance of vision is underestimated, the vision is not communicated to employees, obstacles are allowed to block the vision statement, short term wins are not created, victory is declared too soon, and the changes do not become part of the culture. Lencioni (2002) stated that the absence of trust, a fear of conflict, lack of commitment, avoidance of accountability, and inattention to results can lead to the downfall of

implementation. DuFour and Eaker (1998) maintained that one of the most common mistakes

that school leaders can make when implementing professional learning communities is

underestimating the strength of the existing school culture. Elbousty and Bratt (2010a) found

that some teachers actively and passively resisted the implementation of professional learning

communities. Little (1982) recommended engaging a "critical mass" of participants in the

professional learning community to draw the resisters into the group. DuFour (2016) cautioned

against the development of "PLC Lite" in which a professional learning community meets on a

regular basis but fails to take action on any of the problems or topics raised during their

meetings. In addition, mandating changes to collaboration or changing the composition of

collaborative groups will likely lead to resistance on the part of teachers (Robinson et al., 2010;

Szczesiul & Huizenga, 2014). Most often, the difficulty of the implementation process is

underestimated (DuFour & Eaker, 1998) and any poor planning and follow through leads to

teachers failing to take the implementation seriously (Conley et al., 2004; Szczesiul & Huizenga,

2014).

     Sustaining a professional learning community. Following the implementation of a

professional learning community, there are steps that must be taken to sustain the changes that

were made. The system must be altered so that the conditions and capacity for improvement

become a part of the culture (DuFour & Eaker, 1998; Fullan, 2003). Professional learning

cultures must be seen as an integral process in school function in order to be sustained. School

leadership is of utmost importance to ensuring that professional learning activities continue

(Anrig, 2015). Hargreaves and Goodson (2006) identified changes in school leadership as one of

the forces of change that can alter how schools operate. This was supported by Kilbane's (2009)

study which found that, even though teachers attempted to continue with professional learning communities, efforts to sustain them fell apart without the support of the school leadership.

To sustain professional learning communities, there needs to be constant communication between the members of the group focused on what will be explored, what questions will be asked, and how their time will be used (DuFour & Eaker, 1998). Time for collaboration must be regularly integrated into the school calendar. School leaders also must develop a deep knowledge of the teachers at their school and how to support them (McLaughlin & Talbert, 2006). In addition, the work of professional learning communities must be celebrated as that reinforces what is important, recognizes the efforts of people, and sustains the energy of the collaborative work (DuFour, 1998).

Although much research has been done on teacher collaboration and professional learning communities at the middle school level, there are areas that are in need of further exploration. Teachers' reasons for participating in collaboration, as well as their perceptions of what is expected of their collaboration by the administration have not been fully explored in the literature. In addition, the teachers' perspective on the factors and condition that support their collaboration and their perspective on changes in collaborative practices have not been examined. These gaps in the literature provide opportunities for further research, including the research that occurred in this study.

Design

This study was a qualitative, interpretive phenomenological study of the experiences of twelve urban public middle school teachers and one focused instructional coach in one district in a New England state. Five of the participants were part of an interdisciplinary instructional team that taught at the same school at which the focused instructional coach was placed. This school

was referred to in the study as the Crandall school. The remaining participants taught at four of the five remaining middle schools in the district. The participants each represented what the district considered to be core subject areas and were selected to be representative of the overall age and gender demographics for teachers in the district. The participants were all informed of the study by email and were invited to participate. They were informed of the risks and benefits of participating in the study as well as the voluntary nature of the study.

Data were collected through semi-structured interviews with each of the participants and observations of five professional learning community meetings. The Crandall participants were each interviewed twice, once at the beginning of the study and once after the meeting observations were completed to better understand their experiences. The non-Crandall participants and the focused instructional coach were each interviewed once. The interviews and observations were audio-recorded and transcribed by the researcher. Field notes were also taken during the interviews and observations to record experiences that were not evident in audio recordings. The interview and observation protocols were developed by the researcher based on templates and examples provided by Creswell (2013), Spradley (1979), and Weiss (1994) and included prompts that asked participants to provide visual representations of different aspects of their experience. The interview and observation protocols are included as Appendices C, D, and E, respectively.

The study was designed to answer the following guiding questions: What do teachers report as their reasons for collaborating with peers? What do teachers in an urban public middle school understand about the administration's expectations for teacher collaboration? What are teachers' perspectives on the factors and conditions that influence their collaborative work? What do teachers report are the effects of collaboration on their teaching and learning?

All of the interview and observation data and documentation related to collaboration were transcribed and managed using Atlas.ti qualitative data analysis software. The analysis took place in several rounds. Coding occurred as data was being collected and transcribed. A set of provisional codes was generated during the instrument pilot that guided the early stages of coding of the study data. During the initial rounds of coding, open coding was done simultaneously with provisional coding to identify any themes that were not evident in the instrument pilot. In subsequent rounds of coding, descriptive coding was done to capture the experiences and perspectives of the participants more fully. Within each round of coding, analytical memos were made to summarize any thoughts on the analysis to that point. An example analytical memo is provided as Appendix I. The meaning units captured during the initial stages were then reorganized into preliminary categories and thematic categories, creating a hierarchy of codes that reflects and aligns with the major themes from the analysis. The codes were organized into categories that directly aligned with the guiding questions of the study. This organization helped to develop a clear picture of the participants' experiences with and understandings of teacher collaboration.

Findings and Discussion

The analysis of the study data yielded five findings. This section summarizes those findings. Though the findings are all related to the same phenomenon, each finding will be discussed independently of the other findings. In addition, the discussion considers implications the findings have for policy, practice, and scholarship. Finally, the discussion revisits assumptions that were in place over the course of the study and examines the limitations and delimitations that may have affected the outcome of the study.

Finding 1: Teachers' Reasons for Participating in Collaboration Vary and are Based on Intrinsic and Extrinsic Motivation. Teachers' Desire to Learn and Connect with their Colleagues are Intrinsic Motivations and Fulfilling a Professional Obligation is an Extrinsic Motivation.

Collaboration provided an opportunity for the participants in this study to come together as colleagues. Teachers cited many reasons for participating, with some of their reasons reflecting an intrinsic motivation and others reflecting an extrinsic motivation. This section discusses these motivations.

Intrinsic motivational factor: Connecting with colleagues. All of the participants viewed collaboration as an opportunity to connect with their colleagues. The non-Crandall participants engaged with each other during their meetings, completed whatever duties were required of them, and returned to their classrooms and professional lives when the meetings were over. The Crandall participants engaged in their collaboration differently. They viewed their collaboration as an operation integral to their functioning both as a team and as individuals. They engaged on a professional level, but there was a measure of closeness that was not reflected in the statements of the other participants. The Crandall participants referred to their teams as "family" in a way that reflected a close-bonded group of individuals that could rely on each other whenever there was a need. The closeness experienced by the Crandall participants could be a reflection of the unifying school culture bringing together members of the school community in a way that created a safe space in which groups could function. The Crandall participants have a unifying school culture based on the African philosophy of Ubuntu that emphasizes the success of individuals through the success of the group. The sense of collective responsibility for the growth of all members of the school community at Crandall may have fostered the development

of the familial relationships cited by the Crandall participants. The implication of this is that it may be beneficial for teachers to be encouraged to develop closer relationships with the colleagues on their team to build trust and investment into the collaborative groups but that alone is not sufficient. The development of closer relationships among team members may be less likely to occur without a school culture that frames the environment for teams to collaborate in. The development of the school culture to foster closer relationships with colleagues would increase the amount of intrinsic motivation that teachers have for participating in collaboration.

Intrinsic motivational factor: An interest in professional learning. The second intrinsic motivation cited as a reason for collaboration evident in the data and findings was an interest in professional learning. All of the Crandall participants and some of the non-Crandall participants cited this interest in learning, but other non-Crandall participants did not recognize or find value in the learning that occurred with their professional learning communities. There could be multiple reasons for why the Crandall participants viewed learning as a reason for collaboration and some of the non-Crandall participants did not. As mentioned above, the Crandall participants have a unifying school culture that embraces the principles of the African philosophy of Ubuntu. Their adherence to this philosophy means that every participant understood that they needed to rely upon their group members to be able to learn. Another reason for the Crandall participants' willingness to learn from each other is their past success with collaboration. The Crandall participants, and some of the other non-Crandall participants, have witnessed how their work in collaborative groups led to positive changes in their classrooms. This success leads to a willingness to invest additional time and effort into collaborating with their peers. This idea is supported by the work of Little (1990a), Sterrett and Irizarry (2015), Schmoker (2004), and Kotter (1996) who all indicated that achieving success

with collaborative work leads to further investment and willingness to participate in more

collaborative work. The non-Crandall participants that discounted the likelihood that professional

learning that would result from their collaboration with colleagues may not have had the same

type of successes with collaborating with their peers and therefore were not able to find value in

it because they could not see any measurable improvement. Also, some of the non-Crandall

participants failed to see the applicability of the learning in professional learning communities to

their classroom practices. If the participants could not make the connection between what they

learned about in their professional learning community meetings and what occurred in their

classrooms, they would not be able to recognize any value in the professional learning

community meetings. DuFour and Eaker (1998) emphasized the importance of ensuring that the

goals of the participants in professional learning communities align with the school's goals for

professional learning communities, but this does not appear to be the case with the non-Crandall

participants that did not cite learning as a reason for participating in collaboration. Therefore, it

is imperative for these participants that the topics that are explored during professional learning

community meetings have direct applicability to the classroom. It also means that the

participants need to be able to provide more input on their collaboration and the topics that they

explore to ensure that their professional learning community activities align with their classroom

experiences. The goals set for professional learning communities should be achievable and

meaningful in order to create the short-term gains needed to sustain momentum towards growth

and generate investment in the learning that can occur in professional learning communities.

Extrinsic motivational factor: Fulfilling a professional obligation. The participants

also engaged in collaborative meetings with their team because it was required of them by their

principal and/or by the performance evaluation criteria set by the district and the state. This

reason can be viewed as an extrinsic motivational factor because it is connected to the

participants' responsibilities as professionals but is not an expectation that they created. For the

Crandall participants, fulfilling the requirement of teacher collaboration did not require any extra

work or documentation. They were not required to submit meeting notes or agendas to any

member of the school administration, although they still created agendas and recorded meeting

notes. The Crandall participants shared that they thought that their school administration trusted

them to collaborate and do what they were supposed to, and they fulfilled that requirement as

expected. The non-Crandall participants were required to submit agendas and meeting notes to a

member of their school's administrative team and keep copies of their meeting notes and work

for use as evidence in their evaluations. The documentation and accountability required of the

non-Crandall participants created additional work and stress for them. While it is very important

for teams to keep a record of what occurs during their meetings and to plan what will happen in

their meetings, the focus on documentation by administrators emphasizes the importance that the

meeting occurred but does not emphasize the importance of the collaborative work that occurred

during the meeting.

Finding 2: Teachers are More Receptive to Expectations for Teacher Collaboration that are

Perceived to be from their Principal than from the District Administration.

The participants' understandings of what the administration expected of their

collaboration were fairly consistent between the Crandall and non-Crandall participants. Their

level of receptiveness towards the expectation depended upon the level of hierarchy issuing the

expectation. If the expectation was perceived to be from the principal, it tended to be received

more favorably by the participants. Expectations perceived to be from the district administration

tended to be viewed unfavorably. This could be due in part to the distance between the person or

group with the expectations and the participants. The principals of each school in the study have day-to-day contact with the participants and have a better understanding of their contexts. They also are the person directly responsible for supervision of the participants. This physical and organizational proximity could contribute to their expectations being received better. The district administration is further removed physically and organizationally and as such, has less of a direct influence on the participants. They are not in the same building and do not have the same direct interactions with the teachers or students and therefore cannot have the same level of understanding that principals do. This distance could be part of the reason why their expectations are viewed with more pessimism.

In addition to the participants' receptiveness to expectations, there were some discrepancies between their understandings of what was expected of them. Several of the participants reported not being clear about what the district expected while they could clearly state what their principal expected. Again, this could be related to the physical and organizational proximity of the principal compared to the district, but it is also likely related to the way that the district administration communicates about initiatives to school leadership and then to faculty and staff. The implication of this is that it is very important that when new initiatives are proposed by the district administration that those initiatives and the expectations for them are clearly explained to school leadership and to the teachers within the district so that confusion about what is expected from those initiatives is minimized. In addition, when introducing new initiatives, district administration must show the alignment of the new initiatives with current programs so that they are not experienced as being separate from or on top of teachers' other work.

Finding 3: Although Teachers See the Good Intentions for Collaboration to Benefit the School Community, There are Instances of Certainty and Uncertainty About Their Own Agency in Achieving the Intended Outcomes

The participants understood that there were likely good intentions behind the idea of teacher collaboration regardless of its origination. They thought that principals and the district administration expected that instructional practices would improve. They also stated that the district administration expected that students' standardized test scores would improve. The participants' responses indicated that another expectation from the district administration was that opportunities for teachers to collaborate would be good for teachers' well-being. These expectations would benefit the entire school community, but the teachers' role in achieving these goals was not always clear to the participants.

The participants understood that the school and district administration expected that their instructional practices would improve as a result of their participation in teacher collaboration. This matches up with the district's stated goal of improving instruction through teacher collaboration. The participants' responses indicate that they viewed this expectation as a reasonable and likely outcome for participating in teacher collaboration. Their understanding of improving instruction as an expectation of both the principal and district administration could be a reason for their views, but it is also likely that they view improving instructional practices as a natural result of teacher collaboration and therefore a valid and reasonable expectation of both the principal and district administration. Their acceptance of this expectation also shows that teachers think that they have control over improving their instructional practices.

The participants also surmised the expectation that standardized test scores will improve. This expectation was not directly stated as a goal for teacher collaboration by the district

administration. The inferred expectation that standardized test scores would improve was reported by the participants with some cynicism and resentment, which could be an indication that teachers feel pressured by the current testing-heavy environment that exists in schools. Participants SS06, TW04, and KQ12 all made statements regarding the pressure that they felt from the district to improve standardized test scores. The participants' tone could indicate that they think that this is an expectation that is out of their control. The participants that stated that improving standardized test scores was an expectation followed up their statements with comments indicating frustration with the district administration's emphasis on standardized testing. One participant also extended that frustration towards the state and federal government's emphasis on standardized tests. Two participants questioned whether the district administration's intent was to pursue grant money and other resources. It is possible that the district does expect that standardized test scores will improve, but that could be as a by-product of improvements in instruction. Without having the goal explicitly stated, it is impossible to determine whether that is an expectation of the district administration. The implication of this is that it is important that members of the district administration and policy makers are cognizant of the stress that an emphasis on standardized testing places on teachers and that actions towards improving instruction could be perceived in a negative fashion because of the way such performance targets contribute to the intensification of teachers' work. Another implication is that the district administration may need to be clearer about their reasons for implementing professional learning communities and their expectations for them.

Despite their pessimistic views towards the expectations of the administration, some of the Crandall and non-Crandall participants did acknowledge that the district administration seemed to recognize the value gained if teacher collaboration also enhanced work experience,

job satisfaction or in other ways attended to teacher well-being. They stated that they thought the intent was so that teachers were not isolated, had a pool of resources to draw off of, and had colleagues that they could discuss issues of practice with. This understanding indicates that not all of the district administration's expectations are viewed unfavorably. The participants seem to understand that the district administration wants them to succeed as professionals and is willing to provide the support needed for that to happen. Improvement in their well-being is an expectation that the participants perceived to be within their control, which could contribute to their positive responses towards this expectation.

Finding 4: Although Some Factors and Conditions that Influence Teacher Collaboration Occur Across Many School Settings, Fostering Teacher Collaboration Requires Close Attention to each School's Particular Circumstances, Commitments, and Orienting Beliefs.

The participants mentioned several different factors and conditions that influence their collaboration. The most common responses were the amount of commitment, investment, and action orientation of other teachers, the attitudes and leadership practices of the administration, and the presence of a unifying school culture. These factors and conditions will be discussed in this section.

Teachers' commitment, investment, and action orientation influence collaboration. One of the factors and conditions that influenced the participants' collaborative work was their colleagues' investment in collaboration. The participants had expectations for how their colleagues should behave during their meetings and for their level of commitment to the work their group was trying to accomplish, and when those expectations were met, their meetings went smoothly. Those participants whose colleagues had a deeply vested interest in the success of their collaborative teams did not limit their participation to their meetings. They used what was

discussed in their meetings in their teaching practices and experimented with different methods of instruction to try to improve their teaching practices and then reported back to the group with what they learned. This mode of action on learning is what makes teacher collaboration particularly successful. The discussion about changes in teacher practice, experimentation with implementing changes in the classroom, and then discussion of results generates a cycle of inquiry that continually propagates as teacher learning increases (Schnellert et al., 2008; Stewart, 2014). Creating this cycle of inquiry was a goal in the Crandall school, but it was not clear if that was a goal in the other district schools.   The implication of this is that other schools should structure collaboration to encourage a cycle of inquiry to further the development of their teachers.

The attitudes and leadership practices of the administration influence collaboration. Another factor and condition that can influence teacher collaboration is the leadership practices of the school and district administration. The participants that were given control over their collaboration and were trusted to know and investigate how to best improve on their teaching practices expressed a level of satisfaction that was greater than the participants who had their meeting topics scheduled for them. For those participants, a member of the school administration, or the entire school administrative team would decide what topics would be discussed at each meeting and did not provide their teachers with the freedom to explore areas that could be of use to improving their teaching practices. When this occurred, some of the participants failed to see the applicability of their discussions in their meetings to their classrooms and had less of an interest in participating in their meetings.

For teacher collaboration to be as productive and effective as possible, teachers must be allowed to exercise control over their meetings and explore the areas of practice that they

determine to be the most beneficial to them. The implication of this is that school leadership may want to consider building trust with their teachers so that both teachers and the school administration can become comfortable with the idea of teachers determining the course of their collaborative meetings.

In addition, the requirements imposed by the district administration related to collaboration appeared to have a negative influence on collaboration. Their regulations and requirements appeared to some of the participants to be punitive, and the participants seemed to indicate that the mandatory nature of their requirements meant that there would be negative consequences if their requirements were not met. The implication of this is that it may be beneficial to the district administration to consider how the rules and requirements that they institute and their goals are communicated to the teachers in the district. The participants' lack of trust in the district administration's goals and apparent motivation in developing new programs indicate that improvements could be made in the way that changes are presented to the staff members and in the way that they are supported once the changes have begun.

The presence of a unifying school culture can enhance collaboration. Perhaps the most important factor and condition that can influence teacher collaboration is the presence of a unifying school culture. All of the participants experienced a culture unique to their schools and could identify a mission or theme to their schools' work, but the culture of the Crandall school was different. The principles of the philosophy of Ubuntu instituted by the principal of Crandall were adopted by the staff to the extent that it was a factor in every decision that was made in the school. Ubuntu united the Crandall school with a clear focus and purpose to the point that each member of the school community knew that their individual efforts were part of a collective effort to improve the lives of all. For the Crandall participants, the idea of Ubuntu was symbolic.

Bolman and Deal (2013) state that symbols speak to the souls of an organization's members. They maintain that "we create symbols to sustain hope and faith. These intangibles then shape our thoughts, emotions, and actions" (p. 246). Ubuntu fits this definition of symbol. It guides the actions of all members of the Crandall school.

The other participants in the study did not indicate that they had this same type of symbolic guiding principal nor was it evident in the operation or physical locations of each school. The other participants also did not appear to have the same connection to their team or the goals of the school. The implication of this is that school leadership at the other schools may want to consider ways to make their school culture one that all staff members can embrace and one that provides the school with a common goal and mission that can be easily verbalized and fully adopted by the school community.

Finding 5: Teachers that Value Collaboration Recognize that it has a Positive Effect on the Development of their Teaching Practices, Professional Identity, and Sense of Collective Responsibility.

The participants' statements indicate that collaboration had several effects on their teaching and learning. Collaboration led to improvements in instructional practices and classroom management when teachers saw the value in engaging in collaborative activities with their colleagues. Collaboration changed teachers' views of themselves as individuals, helping them to recognize that they are unfinished in their development as teachers and learners. Collaboration also transformed teachers' views of teaching as a solitary profession to one that is part of a collective effort to ensure the growth and development of all people in the school. These perceived effects are discussed in more detail in this section.

The participants reported that engaging in collaborative activities with their colleagues led to improvements in their instructional practices and classroom management, but the improvements were only present when the participants found value in collaboration. The participants that did not feel that their collaborative activities translated to their classroom did not cite any type of improvements in their teaching practices as a result of collaboration. As mentioned earlier, when teachers recognized the connection between the learning in professional learning community meetings and the teaching practices in their classrooms, they were more invested in participating in collaborative activities and accepted the learning that occurred. The implication of this is that the leadership practices of the principal and district should help to foster the idea of collaboration as a worthwhile activity and provide teachers with the freedom to choose what to focus their collaborative time on in order to increase the amount of investment that teachers have in collaboration with their peers.

Some of the participants also discovered through the process of collaboration that they were unfinished in their development as learners and teachers. The process of exploring different instructional practices, trying them out, reflecting on the experience, and listening to others in their group do the same helped the participants to understand that their development as educators is on-going and that they will always have more to learn as long as they continue to experiment with different instructional practices. During their meetings, the participants took part in activities similar to what their students experienced in their classrooms and deepened their learning about teaching. The participants that did not find value in teacher collaboration did not have these types of experiences and did not express the same perception that there was more to learn about teaching through the act of collaboration. The implication of this is that it is important that the purpose of collaboration be clarified and meetings structured so that teachers

understand that there is always more to learn about teaching and that one can never be "complete" in their development as an educator or a learner.

In addition, engaging in collaborative practices helped teachers to develop a sense of collective responsibility for the growth and development of others. For some of the participants, that sense of collective responsibility extended only to the students that they taught. For all of the Crandall participants and one of the non-Crandall participants, the collective responsibility extended to include not just the students in their classrooms but the entire population of students and staff members in the building. Even the participants that did not recognize the importance of collaboration experienced the sense of collective responsibility although it was not to the same extent as those that saw the value in learning about and exploring areas of their practice. The implication of this is that it is important that teachers have time to collaborate with their peers to develop their focus beyond what is occurring specifically in their classroom and gain a larger understanding and perspective of what is occurring throughout the school.

Implications for Policy, Practice, and Scholarship

The five findings from this study uncovered several implications for different stakeholders. These implications include follow through on collaborative learning, the teachers' role in determining topics, the perception of the district's intent for professional learning communities, prior experience with collaboration, the implementation of professional learning communities, which includes the decision to have professional learning communities and the documentation required, communication to teachers, the structure of collaboration to emphasize the importance of improving instructional practices, the creation of achievable goals, and the culture necessary to support collaboration, and the confirmation of existing research. Each of

these implications and their applicability to different stakeholders will be discussed in the sections that follow.

Follow through on collaborative work.   The implications for teacher teams that arise from this study involve following through on the collaborative work that occurs in their meetings. All of the Crandall participants and three of the non-Crandall participants were part of groups that made changes in their practices based on their learning. The remaining participants did not indicate that they attempted to make any changes to their practice based on their learning in their classroom nor did they mention any type of follow through based on their team's activities. In order for the learning that happens in meetings to be meaningful to teachers and have consequences for their students, learning must be put into action (DuFour & Reeves, 2016; Loughran, 2002; Schnellert et al., 2008). In order for teacher collaboration to lead to any type of lasting improvements, the work that occurs within meetings must be translated into action outside of the meetings. Teachers have a responsibility as professionals to develop their craft and make improvements. They may want to consider making changes in their classrooms based on their learning in their professional learning communities. They also may consider opening up their classrooms to the critiques and criticisms of their peers. The failure of individual teachers to take action on their learning, however, is not simply a shortcoming of teachers but is reflective of a systemic problem. Therefore, it is important for collaborative teams to determine if collaboration did or did not cause individual teachers to make changes and develop a process that investigates how the actions spurred by team meetings generate new questions. This may lead to continuity between team meetings and create a cyclical manner of improvement (Schmoker, 2004; Schnellert et al., 2008).

The teacher's role in determining collaboration topics. Two of the non-Crandall participants reported that they thought that collaboration would be more effective if they were able to determine what topics were discussed during their professional learning community meetings because what was discussed in their professional learning communities at the time did not align with what was occurring in their classrooms. The Crandall participants were able to exercise full control of what their professional learning community investigated. Scholarship from as far back as Dewey (1929) and the Eight Year Study that ran from 1930-1942 (Bullough, 2007) has argued that teachers should play a central role in determining what areas of their practice should be investigated. It is therefore important that school leadership consider the perspective of the teachers in their school and allow them to provide some input on the direction of their collaboration. This may lead to increased investment on the part of teachers because they will feel more of a sense of responsibility and ownership towards their collaborative work. It is important for principals to understand that allowing teachers to choose what to investigate does not lessen their role as a leader. Part of the learning experience for teachers is deciding which aspect of their practice to focus on. Selecting what teachers should collaborate on at each meeting robs teachers of an important part of their learning process and could lead to disenchantment with teacher collaboration, as was evident in two of the non-Crandall participants.

The perception of the district's intent for professional learning communities. The participants' understandings of the district's expectations for professional learning communities are something of which policy makers from the district should be aware. While it is important that schools be held accountable for the education they provide to their students, policy makers should reflect on whether the emphasis on one test as a measurement of the quality of education

is a valid representation of the teaching and learning that occurs in schools. Because more than a few participants were quick to identify greater success in meeting accountability performance targets as a policy reason or administrative reason for teacher collaboration, policies requiring or promoting any form of teacher collaboration deserve scrutiny for both their explicit and implicit messages to teachers. The stress expressed by the participants along with the skeptical views towards policy makers' intentions with mandating teacher collaboration indicate that the participants are placed under a great deal of pressure to improve and that policy makers' intentions and their goals for teacher collaboration and professional learning communities need to be clarified.

Teachers' prior experience with collaboration. This study sought to understand whether teachers' prior experience with collaboration would affect implementation of professional learning communities. The Crandall and non-Crandall participants all had prior experience with collaboration. Some of this experience occurred at other schools, and for others collaboration at their current school prior to implementation of professional learning communities was the participants' only experience. The Crandall and non-Crandall participants had very different experiences with collaboration. The Crandall participants were granted control of their collaboration and experienced a sense of support that was not present for the non-Crandall participants. In addition, the two populations were very different from each other. The Crandall participants experienced a reorganization and chose to stay at their school with the condition that they accept the new principal's style of leadership. The non-Crandall participants did not have the same experience with reorganization or the opportunity to choose to stay in the face of drastic changes to their school's culture. It is possible that the Crandall participants' investment in their school and their choice to remain affected their acceptance of the change to a

professional learning community model of collaboration. However, the scope of this study did not allow for a clear determination of the effects that prior collaboration experience could have on the implementation of professional learning communities.

Implementation of professional learning communities. This study revealed many implications related to the implementation of professional learning communities. These implications include the decision to have professional learning communities and the documentation of activities, communication to teachers, the structure of collaboration to emphasize the importance of improving instructional practices, the creation of achievable goals, and the culture to support collaboration. Each of these implications will be discussed separately in the sections that follow.

The decision to have professional learning communities and the documentation required. Policy makers may think that professional learning communities are a worthwhile endeavor for schools to engage in and choose to create policy stating that teachers must collaborate in professional learning communities. Policy makers must remember, however, that their policies, including those that advance professional learning communities, are not an easy or quick solution to problems. Professional learning communities are influenced by all of the other aspects of school culture present in schools and require training and long-term support for educators in each context to adapt to and learn from the process in a way that genuinely benefits the school.

While considering the long-term steps involved with the implementation of professional learning communities, teachers' perceptions of the role that accountability plays in their collaboration must be considered by policy makers and principals. Among the participants in the study, there was a clear difference in the amount of documentation of professional learning

community work required by the Crandall participants and the non-Crandall participants. Both the Crandall and non-Crandall participants were required to create meeting agendas and take notes during their meetings, but the non-Crandall participants were required to submit either paper or electronic copies of their agendas and meeting notes. Some of the non-Crandall participants had to keep copies in a binder in an easily accessible location. The Crandall participants did not have these types of requirements placed on them. This documentation was also required as part of the non-Crandall participants' evaluations. The required documentation increased the amount of stress that the non-Crandall participants experienced. The argument could be made that without the requirement to submit documentation that there is the chance that records of meetings would not be kept, however the experiences of the Crandall participants show that this is not the case. While teachers willingly comply with requirements to collaborate, the documentation that teachers must provide to supply evidence of their collaboration to meet the requirements for their performance evaluations intensifies teachers' work to supply the documentation while still meeting the other demands of their other work. Policy makers and principals should consider the amount of additional work that supplying evidence of collaboration creates for teachers and how requiring evidence of collaboration may have a demotivating effect on teachers. Policy makers and principals may also want to consider whether documenting evidence that collaboration occurred is the goal of professional learning communities or if engaging in the actual practices of professional learning communities is the goal. If the goal of professional learning communities is to improve teaching practices, requiring that meeting agendas and minutes be submitted as proof that meetings occurred ensures that the meeting happened but does not document the types of thinking and collaborative work that occurs during the meeting. Accepting other forms of evidence such as teacher dialogue during

meetings or evidence of student growth stemming from collaboration should be considered.

Policy makers and principals should also consider what resources and conditions must be in

place for collaborative work to happen.

   Communication to teachers. Both the Crandall and non-Crandall participants' statements

indicate that where an expectation is perceived to originate from is related to how that

expectation is received. The participants viewed expectations from their principal as though they

were reasonable and rational. They viewed expectations from the district administration with

skepticism. In terms of expectations for teacher collaboration, the district has a stated

expectation that teaching practices would improve. Most participants perceived the expectation

that teaching practices would improve as valid and reasonable. Their understanding that the

district administration expected standardized test scores would improve was shared with some

frustration and skepticism, with some participants stating that the district's reasons for

implementing professional learning communities was to pursue grant money and free resources.

These perceptions could be connected to how initiatives are communicated from the district to

teachers. In the current configuration of the district, the majority of the initiatives are

communicated from district administrators to principals and then from principals to teachers.

District administrators may need to think about how initiatives are communicated to principals

and then to the faculty and staff so that all members of the district community have a complete

understanding of what is expected of them. District administrators may want to consider ways to

collect feedback on initiatives from principals and from teachers and ensure that teachers

understand that their opinions are being heard and considered whenever decisions are being

made.

It is interesting to note that, although the participants had the cynical view about the district administration's expectation of standardized test scores improving, they also understood that the district administration expected that teachers' well-being would improve. The participants seemed to indicate that, although they may feel pressured by the administration to improve test scores, they also understand that the administration is trying to improve the quality of their professional lives by ensuring that they have time to discuss teaching practices with their colleagues, thereby reducing any loneliness or sense of isolation that teachers may experience. This response indicates that district administrators must understand that teachers are not aligned in an adversarial mentality and that teachers understand that the district administration does support them and expects them to improve.

Structuring teacher collaboration to emphasize its importance in improving instructional practices. The responses of the Crandall and non-Crandall participants indicate that if teachers do not value collaboration, collaboration will not help to improve their teaching practices. It is therefore important that school leaders should emphasize the importance of collaboration in a manner that makes teachers see the significance of collaboration. One of the first steps that principals can take to emphasize the importance of teacher collaboration is to schedule time so that teachers have the opportunity to plan and conduct investigations into their practice. Principals must be willing to provide teachers with some flexibility in their schedules, including having other teachers cover classes so that teachers can participate in investigations and observe other classes. This time must be held sacred; it cannot be postponed because of another school event or interrupted by other members of the school community as that could convey the message that collaboration is not as important as other school endeavors. Ensuring that collaboration is a regular part of teachers' schedules and routines underscores the importance

of collaboration to the school leadership and may cause resistant teachers to be more likely to participate.

In addition, teachers need to understand that collaboration is a means to help them to improve as teachers and is not another requirement that they can fulfill simply by being present. This means that school principals would need to provide additional resources or training to teachers so that they understand what it means to engage in collaborative work. It also may mean that principals may need to clarify the purpose of teacher collaboration to ensure that teachers understand that it is a method of helping them develop and helping their students to perform better in their classes. Above all, principals may need to do additional work to be certain that teachers do not connect the results of their collaboration with any type of punishment should their efforts at improvement not show immediate positive results. Principals may have to help teachers understand that collaboration is a cyclical, unending effort that prompts growth and questions about their practice.

The creation of achievable goals. Both organizational and educational reform scholarship have shown that the creation of short-term achievable goals leads to an increase in the investment of participants in a group setting (Kotter, 1996; Little, 1990a; Schmoker, 2004; Sterrett & Irizzary, 2015). By achieving a short-term goal, teachers can experience success with their collaborative work and observe improvements within their classrooms, leading to increased motivation to participate in professional learning communities. Along with structuring teacher collaboration to emphasize its importance and encourage participation, principals should work with professional learning communities to create short term achievable goals, particularly at the beginning of implementation to build investment in collaborative work. These achievable goals

should build towards larger efforts, with continued indicators of success built in to encourage continued effort towards improving teaching practices.

   Framing the school culture to support collaboration. School culture is an important influence on teacher collaboration. Principals must take steps to address several facets of school culture, including the amount of trust between faculty, the sense of collective responsibility, and the symbolic nature of culture, and frame them so that it supports collaborative efforts among teachers. Collaboration needs to be one aspect of an ongoing and interconnected school-wide dialogue about the schools' work and the educators' mutual commitment to that work.

   The Crandall participants referred to each other as "family" and indicated that they felt a deep trust for each other and felt that they could rely on their collaborative team members for any need. Their relationships created a safe space that was integral to the function of their group. This level of connection was absent from the non-Crandall participants' responses. Trust is one of the key components to the distribution of information and resources within a school (Cross & Parker, 2004) and to the success of the collaborative work that professional learning communities regularly engage in (Feiman-Nemser, 2001; Kaplan et al., 2014; Kruse et al., 1994; Lencioni, 2002; Markow et al., 2013). It is important that school leaders work to establish trust between faculty members and strengthen the existing relationships between teachers in their schools. The scholarship has also shown that work within professional learning communities results in increased trust (Bullough, 2007), so school leaders should also be cognizant that trust between faculty members can strengthen as collaborative work continues.

   When teachers are able to create a space that feels like "family", as the Crandall participants did, the trust that exists between the members of a collaborative group offers a comfortable zone for the group to inhabit. The nature of their work as a collaborative group,

however, necessitates that they push each other to grow and offer critiques so that improvements can occur. The National School Resource Faculty describes these types of collaborative meetings as "incredibly important, essential to the health of your school, oftentimes urgent, and sometimes work-life-threatening" and the members of the group as "true friends (not just 'congenial colleagues') who help you continuously improve your practice, celebrate successes together, and actually help solve your day-to-day problems" ("National School Reform Faculty Frequently Asked Questions," 2014). There is a duality of comfort and unsettledness that exist simultaneously when teachers are able to trust and rely on each other within their professional learning communities. The bonds that exist between the members of this type of collaborative group are able to withstand the constant strain caused by the tension between comfort and growth. Principals must work to ensure that this type of relationship is fostered within collaborative groups.

Related to the idea of trust between faculty members is the sense of collective responsibility that must be present for collaboration to be effective. All of the participants indicated that they felt some sort of collective responsibility for their students, but for some participants that sense of responsibility only extended to the students that they shared with their collaborative teams. The Crandall participants and one of the non-Crandall participants experienced a wider sense of collective responsibility that extended to the entire school community, which shows that the sense of collective responsibility is not a function of the Ubuntu school culture. Hargreaves (1994) stated that the actions and beliefs of teachers influenced the other teachers in the school. Principals may need to be cognizant of this fact and work to build the sense of collective responsibility so that teachers understand that their actions have a wider effect than on the students that they teach and their team members but also have an

effect on the larger school community. Their work to develop trust between faculty members

must also focus on growing the sense of collective responsibility for each other's work and

development.

Undergirding the ideas of trust and collective responsibility is the culture of the school.

Principals and school leaders should consider the culture present in their school and whether it is

something that is completely embraced by the full faculty. Each of the schools in the study had

their own unique mission, vision, goals, and culture, but the Crandall school stood apart from the

others in the extent to which the school's mission, vision, goals, and culture were absorbed and

carried out by the faculty. The Crandall school's principle of Ubuntu reached what Bolman and

Deal (2013) would refer to as a symbolic status. Ubuntu is something that the Crandall

participants can latch on to and follow. Ubuntu enhanced the amount of trust between the faculty

members and increased the sense of collective responsibility in the school. It guides the school's

actions and decisions and is visible in every corner of the building. Principals in other schools

must find a way to make the school's mission, vision, and goals something that the entire faculty

can rally around and adopt in the same way that the Crandall participants did. Principals may

need to work towards a school culture that fosters trust between faculty and staff and engenders a

sense of collective responsibility.

Confirmation of existing scholarship. The findings in this study have three implications

for scholarship and offer confirmation for existing research. These implications are related to the

creation of a cycle of inquiry, success leading to continued investment, and the difficulties with

implementation of professional learning communities. Each of these implications will be

discussed separately.

The creation of a cycle of inquiry. The focused instructional coach stated that the goal of professional learning communities at the Crandall school was to create a cycle of inquiry in which teachers investigated an area of their teaching practice, developed a strategy to address it, analyzed the results, and began another investigation. This was referred to as a cycle of inquiry by Schnellert et al. (2008) and Stewart (2014). This cycle was evident in the observations and interviews of the Crandall participants. During the observations, the Crandall participants developed a collaborative lesson plan to address some difficulties that their students were having, conducted the lesson, analyzed the data, and developed a new avenue of investigation based on those results.

Success leading to continued investment. The experiences of the Crandall participants with collaboration support findings from scholarship related to organizational change and teacher collaboration. The works of Little (1990a), Sterrett and Irizarry (2015), Schmoker (2004), and Kotter (1996) all state that success in organizational changes such as implementation of professional learning communities lead to continued investment. The Crandall participants all had successful experiences with their collaborative teams, which could have contributed to their continued investment in their collaborative work together.

Complications with implementation of professional learning communities. The experiences of some of the non-Crandall participants confirm the complications with implementing professional learning communities highlighted in the existing literature. The non-Crandall participants who were unable to choose their topics experienced contrived collaboration as described by Hargreaves (2003). For these participants, their work was superficial; they were not invested because the collaboration was not within their control and did not focus on practices relevant to them. In addition, some of the non-Crandall participants did not value time with their

team in manners similar to those described by Chenoweth (2015) and Little (1990a). Participant JM05 went as far as to say that there was no point to professional learning community activities. She, and others, did not value the collaborative time with their teams. In addition, for some of the non-Crandall participants, there was no follow through on the learning that occurred during their collaboration, which confirms the findings of Curry (2008) and Szczesiul (2014). These participants were not required to implement any of their learning into their classroom activities and, as such, there was less learning about or changes to instructional practices.

Limitations and Delimitations

This section will identify the limitations and delimitations that were in place in this study. The possible effects on the outcome of the study from the limitations and delimitations will also be described.

This study was limited to the experiences and perspectives of urban middle school teachers. It is not representative of other urban setting or other suburban or rural settings. This study was restricted to the perspectives and experiences of twelve middle school teachers and one focused instructional coach. These experiences may not be completely representative of all of the teachers within the district, nor are they representative of middle school teams in other contexts. In addition, meetings were observed for five out of the twelve participants in the study. Additional insight into the collaborative practices of the participants could have been obtained if meetings for other groups had occurred. One middle school was excluded from this study as it is the school that the researcher teaches at. This was done to limit the amount of potential bias within the study. The data collection tools were developed specifically for this study and were not used in any other research. Additional studies would be required to determine the reliability of the data collection tools. The perceived effect that teacher collaboration has on students or

their learning was not considered in this study. Therefore, student progress as a measurement of the effectiveness of teacher collaboration cannot be considered.

Future Research

This study yielded valuable information about teacher collaboration in urban public middle schools in one district in a New England state. There is the opportunity for much more research in the avenue of this topic. To obtain a clearer understanding of teacher collaboration within this district it would be important to interview more teachers within this district and to observe meetings in schools other than the Crandall school. This study could lead to additional research using the same type of study design to examine the teacher collaboration that occurs in other districts.

It also would be possible to combine the phenomenological research model from this study with one that analyzes the discourse in collaborative meetings. This would yield powerful information about the types of discussion that occur during collaborative meetings and the way that teachers perceive those collaborative discussions. The observations and interviews indicated that the participants pushed each other and unsettled their thinking. In addition, what teachers bring to the school culture and their frame of reference contributes to the level of discourse that occurs. It would be very important for researchers to consider this line of inquiry as neither the phenomenon of teacher collaboration nor the discourse within teacher collaboration exist separately from the other.

Teachers' understandings of what is expected of their collaboration is a segment that is largely missing from the existing scholarship on teacher collaboration and professional learning communities. Nehring and Fitzsimmons (2011) found in their study of professional learning community implementation that teachers did not understand what the expectations for their

collaboration were. What teachers understand to be expected of their collaboration requires

further investigation. The difference between what is perceived to be expected by principals and

the district administration and what is reported to be expected by the principals and district

administration is an avenue that can be explored further. In addition, the difference in

perceptions of the principal's expectations as compared to the district administration's suggest

the need for research into how teachers relate differently to policies and directives from different

levels of school administration. This study began to uncover some understanding of what

teachers perceive, but there is much more that can be learned than was possible during this

investigation. Pursuing research in this vein will provide further insight into how teachers

understand the requirements of their work and would add to the scholarship on implementation

of reforms in education and in organizations.

In addition, examining the effect that specific factors and conditions such as teachers'

vested interest or the presence of a symbolic, unifying school culture has on teacher

collaboration could also be very beneficial to the field of education. The Crandall school's

embrace of the Ubuntu philosophy and the effect that had on teacher collaboration provide an

opportunity for further study. While McLaughlin and Talbert (2006), Kilbane (2009),

Hargreaves (1994), and Huberman (1993) have stated that school culture is a requirement of

collaboration, studies connecting a symbolic school culture similar to Crandall and teacher

collaboration are needed. This study did not measure the relationship between the symbolic

nature of the school culture and the effect that it had on teacher collaboration, but that is

something that could be studied further. It would be important for scholarship to research other

schools that have this same type of symbolic school culture to find if they experience the same

strength in teacher collaboration. The effects of a symbolic school culture on teacher

collaboration in other contexts, such as rural or suburban schools or in elementary or high

schools, is also worth exploring. The sense of collective responsibility that develops as a result

of engaging in collaborative activities is also something that should be investigated in more

detail. It also would be informative to examine the idea of control in greater detail to better

understand what occurs when teachers determine what to do in their collaborative meetings and

what occurs when school administration controls collaborative meetings. It is possible that there

is an opportunity for shared decision making between teachers and school administrators that

could provide teachers with the flexibility that they desire while still providing the same level of

accountability that school and district administrations prefer.

Final Reflections

After having completed several years of coursework, I thought I understood the

complexities of studying education in close detail, but I was mistaken. Now that I have studied

an educational problem, transcribed and analyzed the data for countless hours, and tried to write

about what I learned in a clear and concise manner, I can humbly say that I am only beginning to

understand the complexities. This process has taught me that even the smallest of studies can

yield an enormous amount of data that can provide valuable information to the field of education.

At any point in time, countless efforts are underway to improve education as it stands. It is of

paramount importance that these efforts are connected to each other to obtain the clearest picture

of the myriad contextual factors, conditions, and occurrences that take place. Through the

process of conducting this research and writing this dissertation, I have learned that I am

completely fascinated with education and all of its challenges, particularly when teachers are

working together to try to improve their practice. I thoroughly enjoyed being able to discuss

collaboration with other teachers and to learn what collaboration is like at other schools. Teacher

collaboration is an area that I will continue to be interested in and would like to study further.

After finishing this experience, I know that I would relish the opportunity to continue to conduct

research and learn more about teacher collaboration directly from the experiences of other

teachers.

I do think that teacher collaboration can greatly enhance the quality of education

delivered in the United States. Though it is cliché, I do think that there is no such thing as "one

size fits all" in education. Just as teachers must customize their instructional practices to meet

the needs of their students, teacher collaboration should also be customized in a way that fits the

context of the school, which also means that schools in the same district would not collaborate in

the same way. With that said, after completing this study, I think that the more that schools can

create a school culture that unifies all of the school members with a common purpose, the more

that teacher collaboration will become a more successful enterprise. I think that school and

district leadership also need to understand that the process of beginning or changing

collaborative practices is not a simple one. It is one that is filled with challenges and pitfalls, and

can easily go awry if the grit necessary to maintain the changes does not continue. Change is

easy to abandon when it becomes challenging, but if there are ways to integrate tiny successes

into the change process, it can generate positive momentum that can keep the change process in

motion.

My experience as a teacher and from conducting this research lead me to expect that

there is a balance that can be achieved between teacher control of collaboration and school

administration control. It is important that both the district and school administrations and

teachers work to build trust between each other because they are all working together towards

the same goal. Even in the Crandall school, where there was a high amount of trust between the

school administration and the teachers, that trust was one-sided. The teachers did not want the

school administration to be present at their collaborative meetings for fear of being evaluated for

their perceived weaknesses as teachers. That is a very real concern for teachers that should not

be held against them. Teachers need to be able to trust that their school administration will not

evaluate them negatively for needing to grow and develop skills in specific areas of instructional

practice. In an ideal situation, teachers and administrators would work together to develop plans

and gather resources to ensure that teachers are developing as educators without any fear of

negative recourse.   To ensure that teachers continue to grow and develop as educators, they

need the support of their administrators, teachers on their team, other teachers in the school, and

the support and understanding of the district and state administration. Without this support,

teachers' development as professionals will continue to be a solitary, challenging journey to

complete.

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APPENDICES

Appendix A

Letter requesting participation and consent for team participants

Title: Middle School Teacher Collaboration: The Intersection of Teacher Collaboration and Administrative Purview

Principal Investigator: Paul Naso, Ed.D., Lesley University, Director of Ph.D. in Educational Studies, (617)349-8284, pnaso@lesley.edu
Lead Researcher: Jessica Beaudoin, Lesley University, doctoral candidate in Educational Leadership, (978)602-5820, jbeaudoi@lesley.edu

Description and Purpose:

This letter is a request for a team of teachers to volunteer to participate in a research study. You are being asked to volunteer because teachers in your school currently collaborate regularly. The purpose of this study is to understand teachers' perspectives on collaboration. The expected duration of this study is three months. There will be one collaborative team that will be studied and a minimum of five individual participants outside of this collaborative team. The number of participants will be limited to twelve. Upon completion of the study, participants will be compensated for their time with a $25 gift card to Barnes and Noble.

Procedures:

Participants in this study will agree to be interviewed a minimum of two times during the study. In addition, a minimum of four team meetings will be observed. The interviews and observations will be audio recorded and field notes will be taken by the lead researcher.

Participants will be expected to answer questions as honestly and completely as possible. During observations, participants will conduct team meetings as they normally would. The interviews and observations will be conducted by the lead researcher and will take place at the participants' school. The observations will happen during regular team meeting times beginning in October and continuing through early January. Initial interviews will be conducted in early October at the interviewee's school at a time mutually convenient to the participant and the lead researcher. Ending interviews will be conducted in early to mid-January at the interviewee's school at a time mutually convenient to the participant and the lead researcher. Both interviews will take approximately an hour.

Throughout the study, the lead researcher may need to contact the participants to clarify their statements or elaborate on remarks. These follow up conversations will happen in a brief interview setting. The clarifying statements will be audio recorded and field notes will be taken. Any follow up interviews will take place at the interviewee's school at a time mutually convenient to the participant and the lead researcher.

Risks:

There are no known discomforts or risks as a result of participating in this study. The anonymity of all participants will be maintained throughout the duration of the study and the subsequent dissertation. All transcriptions will be kept in a password protected file on the lead

researcher's personal laptop. All paper copies of documents pertaining to team meetings and interviews, including but not limited to field notes and meeting agendas, will be kept in a locked file cabinet at the lead researcher's home. The names of all participants, the school, and the district will be changed to protect the identity of all participants. Upon completion of the study, all documents and recordings will be destroyed.

This research may not provide any benefit to the participant. It is, however, possible that this research may benefit society as a whole.

Participation in research is voluntary. You have the right to refuse to be in this study. If you decide to be in the study and change your mind, you have the right to drop out at any time. You may decline to answer questions. Whatever you decide, you will not lose any benefits to which you are otherwise entitled.

Confidentiality, Privacy and Anonymity:

You have the right to remain anonymous. If you elect to remain anonymous, we will keep your records private and confidential **to the extent allowed by law.** We will use aliases rather than your name on study records. Your name and other facts that might identify you will not appear when we present this study or publish its results.

If for some reason you do not wish to remain anonymous, you may specifically authorize the use of material that would identify you as a subject in the experiment.

The lead researcher will give you a copy of this consent form to keep.

Signatures and names:

Investigator's Signature:

_____ _____ _____
Date Investigator's Signature Print Name

Subject's Signature:
I am 18 years of age or older. The nature and purpose of this research have been satisfactorily explained to me and I agree to become a participant in the study as described above. I understand that I am free to discontinue participation at any time if I so choose, and that the investigator will gladly answer any questions that arise during the course of the research.

_____ _____ _____
Date Subject's Signature Print Name

There is a Standing Committee for Human Subjects in Research at Lesley University to which complaints or problems concerning any research project may, and should, be reported if they arise. Contact the Committee Chairperson at irb@lesley.edu.

Appendix B

Letter requesting participation and consent for individual participants

Title: Middle School Teacher Collaboration: The Intersection of Teacher Collaboration and Administrative Purview

Principal Investigator: Paul Naso, Ed.D., Lesley University, Director of Ph.D. in Educational
Studies, (617)349-8284, pnaso@lesley.edu
Lead Researcher: Jessica Beaudoin, Lesley University, doctoral candidate in Educational
Leadership, (978)602-5820, jbeaudoi@lesley.edu

Description and Purpose:
This letter is a request for a teachers to volunteer to participate in a research study. You are being asked to volunteer because teachers in your district regularly collaborate. The purpose of this study is to understand teachers' perspectives on collaboration. The expected duration of this study is three months. There will be one collaborative team that will be studied and a minimum of five individual participants outside of this collaborative team. The number of participants will be limited to twelve. Upon completion of the study, participants will be entered into a raffle for a $25 gift card to Barnes and Noble.

Procedures:
Participants in this study will agree to be interviewed at least one time during the study. The interviews will be audio recorded and field notes will be taken by the lead researcher.
Participants will be expected to answer questions as honestly and completely as possible. The interviews will be conducted by the lead researcher and will take place at the participants' school. Interviews will be conducted in January or February at the interviewee's school at a time mutually convenient to the participant and the lead researcher. Interviews will take approximately an hour.
Throughout the study, the lead researcher may need to contact the participants to clarify their statements or elaborate on remarks. These follow up conversations will happen in a brief interview setting. The clarifying statements will be audio recorded and field notes will be taken. Any follow up interviews will take place at the interviewee's school at a time mutually convenient to the participant and the lead researcher.

Risks:
There are no known discomforts or risks as a result of participating in this study. The anonymity of all participants will be maintained throughout the duration of the study and the subsequent dissertation. All transcriptions will be kept in a password protected file on the lead researcher's personal laptop. All paper copies of documents pertaining to team meetings and interviews, including but not limited to field notes and meeting agendas, will be kept in a locked file cabinet at the lead researcher's home. The names of all participants, the schools, and the district will be changed to protect the identity of all participants. Upon completion of the study, all documents and recordings will be destroyed.
This research may not provide any benefit to the participant. It is, however, possible that this research may benefit society as a whole.

Participation in research is voluntary. You have the right to refuse to be in this study. If you decide to be in the study and change your mind, you have the right to drop out at any time. You may decline to answer questions. Whatever you decide, you will not lose any benefits to which you are otherwise entitled.

Confidentiality, Privacy and Anonymity:

You have the right to remain anonymous. If you elect to remain anonymous, we will keep your records private and confidential **to the extent allowed by law.** We will use aliases rather than your name on study records. Your name and other facts that might identify you will not appear when we present this study or publish its results.

If for some reason you do not wish to remain anonymous, you may specifically authorize the use of material that would identify you as a subject in the experiment.

The lead researcher will give you a copy of this consent form to keep.

Signatures and names:

Investigator's Signature:

_____ _____ _____
Date   Investigator's Signature   Print Name

Subject's Signature:
I am 18 years of age or older. The nature and purpose of this research have been satisfactorily explained to me and I agree to become a participant in the study as described above. I understand that I am free to discontinue participation at any time if I so choose, and that the investigator will gladly answer any questions that arise during the course of the research.

_____ _____ _____
Date   Subject's Signature   Print Name

There is a Standing Committee for Human Subjects in Research at Lesley University to

which complaints or problems concerning any research project may, and should, be reported if

they arise. Contact the Committee Chairperson at irb@lesley.edu.

Appendix C

Start of Study Interview Protocol: Middle School Teacher Collaboration: The Intersection of

Teacher Collaboration and Administrative Purview

Time of interview:

Date:

Place:

Interviewer:

Interviewee:

Position of interviewee:

(Read to interviewee) Thank you very much for agreeing to participate in this study. This is the

consent form for the study, please take a moment to read through it and let me know if you have

any questions. In this interview, we will be discussing how your team operates, how members

interact and what you learn from those interactions. My goal is to understand your team

meetings from your perspective.

The interview is going to be recorded and transcribed. If you wish, I can share the transcription

of this interview with you once that is complete. As a reminder, this is voluntary. Everything

you say in the interview will be confidential, and what occurs and is said during the observations

will be confidential as well. Do you have any questions?

Please sign the consent form on the line indicated, and I will sign as well. I will make a

copy of it for you to keep.

During the interview, please think only of the team you work with during your

interdisciplinary team meetings. Are you ready to begin?

Question groups (Note: Not all questions in each group may need to be asked of each participant. It is also possible that additional questions not listed may be asked to probe further in the participant's thinking and experiences):

1. Teacher information: How long have you been teaching? How long have you been at this school?

2. Team: How long have you been a part of this team? How often does your team meet? How would you describe the purposes of your team meetings?

3. Understanding or definition of team: Based on your experience, how would you explain to someone not in education what we mean when we say that teachers are part of a team? How would you explain what a team is? How does your team operate? If roles are mentioned, ask: Are there specific roles member have within your team? Probe about structure: How would you describe the structure of your meetings?

4. Collaboration: (If collaboration is mentioned in previous line of questioning) Please explain to me how you understand collaboration. (If collaboration is not mentioned) Some people describe teams as needing collaboration. Does that word apply to your team? Would you describe your team as a collaborative group? Why do you say that? Can you recall an instance during one of your team meetings that is a good example of collaboration on your team? What happened? What are signs that someone is a good collaborator? What are the thoughts that your other team members have about good collaboration? Does your group ever talk about what it means to be a good collaborator? What do you expect your team members to do when you collaborate? If I were present when something that you think of as effective collaboration is occurring, what would I see and hear?

5. Improving instruction and teacher learning: Can you recall a portion of a meeting where you learned something useful for your classroom or witnessed someone else learning something useful? Can you recall a time when you helped someone on your team because of what you said or did that could help them in their classroom? Could you please describe that? If the participant mentions an instance where they felt learning happened ask: What made the learning possible? What supported the learning? If the participant does not mention learning say: Some might say that when teams focus on improving instruction that teachers are learning. Does that happen on your team? Can you describe an instance where that happened to you? What made the learning possible? What supported your learning? Has your teaching practice changed as a result of your participation with your team?

6. Administrative expectations: Are your team meetings any different this year than last year? Why? What is the difference? If participant mentions the district's influence in collaboration say: It's clear that your team wants these meetings to occur. What does your principal expect to happen at these meetings? What does the district expect? If the participant does not mention an administrative influence in collaboration say: Do you think there are other people outside of your team that expect you to be meeting? What do you think those people expect from you or your team? Can you tell me what you think the district expects from teacher collaboration? Have you heard about the district's professional learning community initiative? What do you think the district's goal is in starting professional learning communities? What effect is this having on your team?

7. Illustration: The last thing that I'd like you to do for me today is draw two pictures of your team. The first picture will be of your team while it is collaborating. In this picture,

I would like you to draw something to represent each person on your team, something to represent your school, and something to represent any topics you discuss in your meetings. The items can be as big as you like and can be placed in any way you wish. (Wait for participant to finish). Now that you're done with the picture, tell me about your drawing. If you want you can use arrows, line or something else to show me how the items are connected. When the participant is finished ask for an explanation of what the picture shows.

For the second picture, I would like you to draw a different view of your team. Again, I would like you to draw something to represent each person on your team, and something to represent your school. I would also like you to add in all the things outside your team that influence your team and what it does. The items can be as big as you like and you can arrange them in any way you wish. You can add an additional shape, word, or phrase for any other person, group, or idea that might have an effect on your team. (Wait for participant to finish). Tell me about your drawing. If you want you can use arrows, lines or something else to show me how the items are connected. When the participant is finished ask for an explanation of what the picture shows. Ask the participant to compare the two drawings and if they would like to make any changes to their first drawing based on their second drawing.

Thank you again for participating in the interview. Again, all of your responses will be held in the strictest confidence.

Appendix D

End of Study Interview Protocol: Middle School Teacher Collaboration: The Intersection of

Teacher Collaboration and Administrative Purview

Time of interview:

Date:

Place:

Interviewer:

Interviewee:

Position of interviewee:

(Read to interviewee) Thank you very much again for agreeing to participate in this study. Just

as before, we will be discussing how your team operates, how members interact and what you

learn from those interactions. My goal is to understand the team meetings from your

perspective. The interview is going to be recorded and transcribed. If you wish, I can share the

transcription of this interview with you once that is complete. As a reminder, this is voluntary.

Everything you say in the interview will be confidential. Do you have any questions?

During the interview, please think only of the team you work with during your interdisciplinary

team meetings. Are you ready to begin?

Questions:

1. Goals: What are the goals for your school? What are they? Does your group have any

   goals for what you would like to accomplish as a plc? Why or why not? Do you think

   these goals are important? If you could set a goal for your group, what would it be?

2. Facilitation: Have you had the opportunity to facilitate the plc yet? What did you

   learn while you were facilitator? Did you set goals for what you wanted the group to

accomplish? How did you choose what topics to work on? What was your experience

working with Bob like? Would you facilitate again? Do you think it's important that

the facilitator role switches from person to person? Who have you learned the most

from as facilitator? What are the benefits of focusing on improving teaching

practices? Are there disadvantages to it? What are the benefits of focusing on

connections with students? Are there disadvantages to that? Which would you pick to

focus on if given the choice as facilitator?

3. Outside influences: Tell me about your work with Natty. How did it start? What does

she help your group accomplish? Do you or your group work with other people

outside your school besides Natty? Do you think that work with outside groups like

Natty and Clark is important? Why or why not? Tell me more about the role Bob

plays with your group. Was Bob part of your meetings in the past? Do you think his

presence at your meetings is important? Why or why not? Do you think other

administrators should be included in your plc meetings? If so, which ones, and why,

or why not?

4. Changes: If there is one thing that you could change about your plc meetings, what

would it be? Why did you choose that? How do you think your team has benefitted

from having plc time? How have you benefitted from having plc time? What makes

your experiences within your plc here different from at other schools you have

worked at? Why do you think it is different?

That is the last question I have for you. Are there any final thoughts you would like to add?

Here is the gift card you were promised for your participation. Again all of your responses will

be held in the strictest confidence. Thank you again for your time.

Appendix E

Observation Protocol: Middle School Teacher Collaboration: The Intersection of Teacher

Collaboration and Administrative Purview

The general focus of observations will be on the different subjects discussed during collaborative

team meetings. These observations will record data about the physical setting of the meetings,

the dialog about students, discussion on instruction and curriculum, and dialog about the group

processes as a whole.

Length of Meeting: 60 minutes	
Descriptive Notes	Reflective notes and questions
Comments about physical setting of room, agenda, time spent on agenda topics:	
Dialog about students	
Dialog about instruction and curriculum	
Dialog about the group processes	

Appendix F

Email to individual participants

Hello,

My name is Jessica Beaudoin. I am a teacher at XYZ school and a Ph.D. candidate through Lesley University. I am conducting my dissertation on middle school teacher collaboration and am looking for teachers who are willing to participate in an interview lasting approximately 45 minutes to an hour. This study is completely voluntary. All of your responses and your identity will remain confidential. As a token of gratitude for your participation, you will be entered into a raffle to win a $25 gift card to Barnes and Noble when the study is complete. If you are interested in participating, please respond to this email or send an email to jbeaudoi@lesley.edu.

Best regards,

Jessica Beaudoin

Appendix G

The Definitions for Each of the Codes Used in the Study

Code	Definition
Administration expectations	
Administration presence at meetings	The presence of an administrator at collaborative meetings
Challenges of meeting – administration	Any challenges with meeting perceived to be from administration
Challenges of meeting – expectations	Any challenges with meeting perceived to be from expectations of the collaborative group
Changes in meetings – expectations	Any changes in meetings perceived to be from expectations of the collaborative group
Conditions supporting learning – administration	Factors and conditions supporting learning that are perceived to be from administration
Frequency of meetings	How often collaborative group meets
Learning – from administration	Any learning that is perceived to be from administration
Learning – from school culture	Any learning that is perceived to be from the school culture
Outside expectations – administration	Expectations that the administration places on the group's work
Outside influence – administration	Any influence that the administration has on the group's work
Reason for collaboration	Any reason cited that explains why teachers collaborate with their colleagues
Factors and Conditions affecting collaboration	
Administration presence at meetings	The presence of an administrator at meetings
Changes in meetings – coach	Any changes in meetings perceived to be from the focused instructional coach or involving the focused instructional coach
Changes in meetings – expectations	Any changes in meetings perceived to be from expectations of the collaborative group
Changes in meetings – goals	Any changes in meetings perceived to be related to goals for the group or individual members of the group
Changes in meetings – leadership	Any changes in meetings related to the leadership of the group
Changes in meetings – learning	Any changes in meetings related to how or what members of the group learn
Changes in meetings – structure	Any changes in the structure of meetings
Changes in meetings – team members	Any changes in meetings involving members leaving or joining the group

Changes in meetings – time	Any changes in meetings related to the amount of time that the group meets
Changes in meetings – topics	Any changes in meetings related to the topics discussed during meetings
Characteristics of team members	The behaviors and personality traits of team members
Collaboration outside of meeting	Any collaboration that occurs outside of a normally scheduled meeting time
Conditions supporting learning – administration	Factors and conditions supporting learning that are perceived to be from the administration
Conditions supporting learning – clp	Factors and conditions supporting learning that are perceived to be from collaborative lesson planning
Conditions supporting learning – coach	Factors and conditions supporting learning that are perceived to be from the instructional coach
Conditions supporting learning – community	Factors and conditions supporting learning that are perceived to be from outside the school
Conditions supporting learning – leadership	Factors and conditions supporting learning that are perceived to be from leadership of the group
Conditions supporting learning – other teachers and staff	Factors and conditions supporting learning that are perceived to be from teachers or staff members that are not part of the collaborative group
Conditions supporting learning – reflection	The act of reflection as a support to learning
Conditions supporting learning – resources	The resources in place that support learning
Conditions supporting learning – school culture	Factors and conditions supporting learning that appear to originate from school culture
Conditions supporting learning – team members	Factors and conditions supporting learning that are perceived to be from team members
Conditions supporting learning – time	The amount of time for meetings dedicated to learning
Culture of team	The dynamics and interactions of the collaborative team
Frequency of meetings	How often the collaborative group meets
Meeting roles	The specific roles assigned to group members during meetings
Outside expectations – administration	Expectations that the administration places on the group's work
Outside expectations – coach	Expectations that the instructional coach has for the group's work
Outside expectations – district	Expectations that the district has for the group's work
Outside expectations – effect on team	The effect that outside expectations has on the group's work
Outside expectations – parents	Expectations that parents have for the group's work

Outside expectations -state and federal government	Expectations that the state and federal governments have on the group's work
Outside influence – administration	Any influence that the administration has on the group's work
Outside influence – coach	Any influence that the instructional coach has on the group's work
Outside influence – community	Any influence that the community outside the school has on the group's work
Outside influence – district	Any influence that the district has on the group's work
Outside influence – family	Any influence that team members' families could have on the group's work
Outside influence – other teachers or staff	Any influence that teacher or staff that are not part of the group may have on the group's work
Outside influence – parents	Any influence that parents may have on the group's work
Outside influence – state or federal government	Any influence that the state or federal government may have on the group's work
Outside influence – students	Any influence that students may have on the group's work
Outside influence – team members	Any influence that team members may have on the group's work
Protocol use	Whether and how protocols are used in meetings
School culture	The dynamic interactions that occur between school staff, students, and administration creating an environment unique to the school
Structure of meetings	The typical way in which meetings are conducted, any routines that are regularly followed
Teacher leadership	Teachers taking initiative in leadership opportunities within the group
Teaching experience	The length of time that the participant has worked as a teacher
Time at school	The length of time that the participant has worked at the school
Time with team	The length of time that the participant has been a member of the collaborative team
Learning	
Changes in teaching practice – no change	No changes occurred in teaching practice as a result of working with the collaborative team
Changes in teaching practice – resources	New resources available due to working with the collaborative team
Changes in teaching practice – risk taking	Willingness to experiment with teaching as a result of working with the collaborative team
Changes in teaching practice – supports	New supports available due to working with the collaborative team
Changes in teaching practice – techniques	New techniques and strategies available as a result of working with the collaborative team
Learning – about classroom management	Any learning that occurred that led participants to have better classroom management

Learning - about collaboration	Any learning that occurred about how to collaborate with group members
Learning – about content	Any learning that occurred to strengthen knowledge in the participant's content area
Learning – about pedagogy	Any learning about teaching practices from working with the group
Learning – about resources	Any learning about resources available from working with the group
Learning – about students	Any learning related to students that occurred while working with the group
Learning – from administration	Any learning that occurred from working with the administration
Learning – from school culture	Any learning that occurred from working within the school culture
Learning – helping others as leader	Any instance where the participant helped other group members to learn
Learning – through clp	Any learning that occurred through developing a collaborative lesson plan
Learning – through coach	Any learning that occurred through interaction with the instructional coach during a meeting
Learning – through reflection	Any learning that occurs during the process of reflection
Reflection	The process of thinking about one's experiences and actions and the outcomes that they engendered

Reasons for collaboration	
Characteristics of team members	The behaviors and personality traits of team members
Culture of the team	The dynamics and interactions of the collaborative team
Definition of collaboration	How the participants define what it means to collaborate
Discussion about collaboration	Any discussion that participants have with their team about their collaboration
Frequency of meetings	How often group meetings occur
Ideas for change	Any ideas for change in teaching or collaborative meetings that participants have
Purpose for meeting	Why participants meet with their collaborative teams
Reflection	The process of thinking about one's experiences and actions and the outcomes that they engendered
School culture	The dynamic interactions that occur between school staff, students, and administration creating an environment unique to the school
Teacher leadership	Teachers taking leadership opportunities within their group
Topics discussed	Any topics or ideas that are discussed within collaborative meetings.

Appendix H

The Frequency of Participants that had Specific Codes Applied to their Statements

Codes	Number of Crandall participants (n=5)	Number of non-Crandall participants (n=7)
Administration expectations		
Administration presence at meetings	4	3
Challenges of meeting – administration	2	3
Challenges of meeting – expectations	2	1
Changes in meetings – expectations	0	1
Conditions supporting learning – administration	2	2
Frequency of meetings	5	7
Learning – from administration	0	1
Learning – from school culture	4	0
Outside expectations – administration	5	5
Outside influence – administration	5	7
Reason for collaboration	5	7
Factors and Conditions affecting collaboration		
Administration presence at meetings	4	3
Changes in meetings – coach	3	0
Changes in meetings – expectations	0	1
Changes in meetings – goals	3	1
Changes in meetings – leadership	3	0
Changes in meetings – learning	0	3
Changes in meetings – structure	1	2
Changes in meetings – team members	2	3
Changes in meetings – time	5	1
Changes in meetings – topics	5	3
Characteristics of team members	4	7
Collaboration outside of meeting	1	2
Conditions supporting learning – administration	2	2
Conditions supporting learning – clp	5	0
Conditions supporting learning – coach	2	4
Conditions supporting learning – community	1	0
Conditions supporting learning – leadership	0	1
Conditions supporting learning – other teachers and staff	0	1
Conditions supporting learning – reflection	1	1
Conditions supporting learning – resources	5	6
Conditions supporting learning – school culture	5	2
Conditions supporting learning – team members	5	7
Conditions supporting learning – time	2	1
Culture of team	5	7
Frequency of meetings	5	7
Meeting roles	5	7
Outside expectations – administration	5	5
Outside expectations – coach	1	2
Outside expectations – district	5	6
Outside expectations – effect on team	2	0

Outside expectations – parents	0	1
Outside expectations -state and federal government	1	1
Outside influence – administration	5	7
Outside influence – coach	5	4
Outside influence – community	5	3
Outside influence – district	5	7
Outside influence – family	2	2
Outside influence – other teachers or staff	5	4
Outside influence – parents	3	4
Outside influence – state or federal government	4	1
Outside influence – students	4	0
Outside influence – team members	3	0
Protocol use	5	2
School culture	5	7
Structure of meetings	5	7
Teacher leadership	5	3
Teaching experience	5	7
Time at school	5	7
Time with team	5	7
Learning		
Changes in teaching practice – no change	0	1
Changes in teaching practice – resources	5	4
Changes in teaching practice – risk taking	2	0
Changes in teaching practice – supports	1	3
Changes in teaching practice – techniques	1	4
Learning – about classroom management	0	5
Learning - about collaboration	2	0
Learning – about content	0	1
Learning – about pedagogy	5	6
Learning – about resources	3	5
Learning – about students	5	4
Learning – from administration	0	1
Learning – from school culture	4	0
Learning – helping others as leader	3	5
Learning – through clp	4	0
Learning – through coach	5	1
Learning – through reflection	2	2
Reflection	5	2
Reasons for collaboration		
Characteristics of team members	4	7
Culture of the team	5	7
Definition of collaboration	5	7
Discussion about collaboration	5	6
Frequency of meetings	5	7
Ideas for change	4	1
Purpose for meeting	5	7
Reflection	5	2
School culture	5	7
Teacher leadership	5	3
Topics discussed	5	7

Appendix I

Example Analytical Memo

I have completed my first and second coding rounds and amassed a total of 28 different codes. Before I begin organizing and condensing the codes into bigger categories, I am struck by a couple of different thoughts after going through the data.

1) Collaborative experience varies widely between schools and within schools. Teachers either have positive experiences or they don't. Even the FIC states that there are groups that are more and less cohesive than the group I worked with at Crandall.

2) Not all teachers are clear on what the purpose of the plc is. Interdisciplinary meeting time appears to be devoted primarily to student concerns in the majority of schools. Teachers appear to get little time to work on improving their teaching practice. I wonder if they wish that they did, or if they know what they are missing out on? The plc term appears to be used in name only. The only learning that is done appears to be in terms of classroom management. Actual plcs appear in only two schools - and even then it's not consistent.

3) Opinion of downtown's influence appears to vary also. Some teachers are very cynical and believe that the district is only chasing after money. Others believe that the district has teachers and students best interests at heart. There appears to be a striking duality among teachers in this and other experiences.

What will emerge from this data as larger themes? Will it lead to confusion or just more questions?

Appendix J

Agenda from one PLC Institute session (June 2015)

Center for Collaborative Education

PLC Institute Day 3 Agenda

Mary Anne Connery-Simmons

Institute Goals

1. To examine the purpose, structures, and protocols for building professional learning communities that drive instructional improvement
2. To engage in the practices and tools of effective PLCs
3. To create a common understanding of the PLC Expansion Project and Modules
4. To assess the current status of PLCs and begin planning and goal setting to move toward introducing PLCs

8:00   Agenda Review/ Norms Review

8:10   Connection – 4 Corners

8:30   Data Inquiry Cycle – Analyzing School Data

9:30   Whole Group Reflection

9:40   Using Data to Plan PLC Agendas

10:00 Break

10:15 Atlas Looking at Data Protocol

11:15 Team Sharing

11:30 Lunch

12:00 Chalk Talk

12:30 Looking to the Future

1:30   Sharing

1:45   Reflections

CCE/ DESE PLC Website with additional information and tools   plcexpansionproject.weebly.com

Appendix K

Handout Provided at PLC Training Showing the Difference Between PLC and Group Meetings

(June 2015)

Grade Level Team Meetings	Professional Learning Communities
Data Driven	Data Driven
Weekly/Bi Weekly	Weekly/Bi Weekly
Agenda Driven by Administration	Agenda Driven by Data and Teachers
Meeting by grade level	Grade Level PLC, Vertical PLC
Norms not developed	Norms developed by entire faculty
Jobs not established	Roles for teams: *facilitator, record keeper, time keeper*
School Business: *class lists, lesson plans, dismissal, holiday celebration, homework packets*	Agendas established by teachers
Professional Development: *close reading, accountable talk, note taking, Scholastic News*	Facilitators: Teachers and Coaches
	Defined purpose to improve teaching and learning
Parking Lot Issues took over	Sharing of student work, and deeper reflection on data
Monitored through Exit Slips	Minutes shared with entire staff
	Parking Lot=School Business: 5 minutes at the end of each meeting