7-2018

Teacher Perceptions of Mandated Collaboration Through Professional Learning Communities

Carmen Cranford Horton

TEACHER PERCEPTIONS OF MANDATED COLLABORATION THROUGH PROFESSIONAL LEARNING COMMUNITIES

By

Carmen Cranford Horton

A Dissertation

Submitted to the Faculty of
Columbus State University
In Partial Fulfillment of the Requirements
For the Degree of
Doctor of Education in Leadership

Columbus State University

Columbus, GA

July 2018

Dedication

This doctoral project is dedicated to my family who never failed to provide support, encouragement, and comic relief throughout the process. You are my sunshine. To my husband and best friend Mitch, thank you for keeping me balanced with your incredible wit and unconditional love. To my children, Andi and Brett, thank you for keeping me grounded and your endless flexibility and patience. To my parents, thank you for your constant reassurance and unwavering faith in my abilities. I love you all more than you could ever know.

Acknowledgments

I would like to express my deepest appreciation for the individuals who contributed to this project and made it possible. First, I want to thank my dissertation chair, Dr. Robert Waller for consistently pushing me to produce quality work. Dr. Waller's commitment to his students was shown through his willingness to travel to various towns in Georgia to meet with individuals in my small cohort, giving us the personal feedback and resources we needed to stay on track. I would like to thank Dr. Michael Richardson who helped me bring focus to my project and supported me directly by conducting the focus group along with Dr. Pamela Lemoine whose detailed feedback was invaluable to my work. Dr. Thomas Hackett was always a phone call away and never failed to encourage me to step out of my comfort zone and explore new ideas to improve my work.

I also want to express my gratitude to my family, friends and colleagues who kept me motivated and focused on this task. Most of all I want to thank the administrators, teachers, and support staff who comprise my second family. These individuals have invested in me personally and professionally. They continually inspired me with their unfaltering commitment to their work and each other. I am extremely grateful to the teachers who participated in this study for their vulnerability and willingness to provide their honest and candid perceptions of their PLCs. These teachers gave voice to their experiences and represented their peers in a way that gave me valuable insights into my role as an administrator. To all of those who made this dissertation possible: Thank you.

Vita
CARMEN CRANFORD HORTON

ACADEMIC BACKGROUND
Doctor of Education in Curriculum and Leadership
Columbus State University, Columbus, GA. Anticipated July 2018

Specialist of Education in Educational Leadership
Columbus State University, Columbus, GA. July 2008

Master of Education in Educational Leadership
Columbus State University, Columbus, GA. December 2002

Bachelor of Education in Secondary Science Education
University of Georgia, Athens, GA. May 1994

GEORGIA CERTIFICATION
Secondary Science Education (6-12)
Gifted – Science
Educational Leadership (P -12) – Tier II

PROFESSIONAL EXPERIENCE

August 2010 – Present — Assistant Principal for Instruction
High school in middle Georgia

- Facilitator of the district's Assistant Principal induction and mentorship program
- Served on Superintendent's CCRPI advisory committee
- Served on the District grading and assessment committees
- Provided instructional guidance and support
- Facilitated professional learning including the implementation of Professional Learning Communities
- Evaluated teachers throughout the year using Georgia TKES instrument
- Title I coordinator

August 1995 – August 2010 — Teacher
High school in middle Georgia

- Department Chair and Better Seeking Team member
- Taught regular education, gifted and Advanced Placement Chemistry, and Physical Science

August 1994 – August 1995 — Teacher
Cedar Shoals High School, Athens, GA

- Taught regular education and Project Success Physical Science

ABSTRACT

Georgia Rule 505-2-.36, implemented in July of 2017, revised teacher recertification policy to include administrative evaluations of professional growth resulting from teachers' engagement in professional learning communities (PLCs). The rule represented the convergence of two possibly conflicting ideals: mandated change and PLCs. Districts were permitted autonomy over how to implement and develop rubrics for the evaluation of professional growth resulting from PLCs. The purpose of this bounded case study was to capture the perceptions of teachers concerning the structure, purpose and dynamics of required PLC meetings during the initial year of implementation. The goal was to give voice to the teachers at the intersection of mandated change and collaboration to provide administrators with the understanding necessary to facilitate and evaluate PLCs in a manner that met both teachers' and students' needs. Twelve core academic teachers from a middle Georgia high school provided data for the study. Data collection included participant prequestionnaires, participant drawing narratives, semi-structured interviews and a focus group. Eleven themes were constructed through data analysis. Two themes were presented for research question one, which probed participants' perceptions of the structure of required PLC meetings: degree of autonomy in meeting structure and influence of meeting logistics on perceptions of PLCs. Four themes were constructed for research question two, which explored teachers' perceptions of purpose: perceived purpose, meeting content, meeting decisions, and value of PLCs. Five themes were developed pertaining to research question three concerning the dynamics of mandated PLC meetings: interpersonal frustrations, leadership, member engagement, culture of PLCs, and conflict resolution. Participants indicated most structural aspects of their required PLC meetings were either administratively derived with elements of teacher autonomy or fully group determined. The structure was viewed as both an

enhancement and constraint to PLC engagement. Teachers' theoretical understanding of PLCs aligned with the communicated intent of the policy as well as the literature reviewed. A gap was identified in the application of PLC meeting content to instructional practice. The culture of PLCs as well as the collaborative skills of teachers were identified as crucial components resulting either in authentic collaboration or dysfunction behaviors during mandated PLCs.

TABLE OF CONTENTS

LIST OF TABLES AND FIGURES

List of Tables

List of Figures

CHAPTER I

INTRODUCTION

Georgia Rule 505-2-.36, which took effect in July 2017, represented the convergence of multiple initiatives aimed at increasing teacher effectiveness, accountability and student achievement (Hill, 2015). According to the rule, Georgia educators were required to engage in continuous job-embedded professional learning by active participation in professional learning communities (PLCs) in order to renew teaching certification (Georgia Professional Standards Commission (GaPSC), 2015a). Meeting the recommendations of the House Committee Task Force on Professional Learning, certification renewal was no longer granted based on Professional Learning Units (PLUs) or seat time (GaPSC, 2015b). Educators were required to demonstrate the "impact of professional learning on educator performance and/or student achievement" (GaPSC, 2015b, p. 4). The change was implemented to ensure teachers engaged in relevant and continuous professional development focused directly on student learning that also overcame barriers and use collaboration to maximize team talents (Hill). Administrators were to annually evaluate teacher participation in PLCs through the professional growth component of Georgia's multi-tiered evaluation tool, Teacher Keys Effectiveness System (TKES) (Wood, 2016a). The rubric for assigning value to teacher engagement and implementation of PLC work was left to individual districts to construct with the results submitted to the Georgia Professional Standards Commission (Woods).

Georgia Rule 505-2-.36 represented the culmination of decades of educational reform most recently articulated through the requirements of the Race to the Top grant (RttT) (Lohman, 2010). Influenced by outside factors such as changes in educational accountability and political and public pressure to provide evidence of educational success for all children, organizational

theory shifted from viewing administrators as operational managers of staff to leaders of teaching and learning (Lunenburg & Ornstein, 2008). In the 1980s, *A Nation at Risk* proclaimed that America's schools had lost their competitive edge stating the "rising tide of mediocrity" threatened "our very future as a Nation and a People" (Gardner, Larsen, Baker, Campbell, & Crosby, 1983, p. 1). Public and political frustrations led to external top-down decision making meant to exert increased control over all aspects of schooling (Hochschild, 2003; Mehta, 2015). The series of reforms launched during that time represented a fundamental shift in the weight of responsibility for student performance away from society and the family to educators (Mehta; Smith 2005). In 2001, the implementation of The No Child Left Behind Act (NCLB) mandated educator accountability connected directly to student outcomes (Smith; Wiseman, 2012). The RttT grant required the development of new multidimensional evaluation systems that directly linked teacher and administrator accountability to student and professional growth (Lohman).

Georgia Rule 505-2-.36 not only mandated teacher participation in and application of PLC work but also linked that work to their ability to maintain their teaching credentials (GaPSC, 2015a). The Georgia ruling added a new complex dimension to the way administrators interacted with teachers (Darling-Hammond, Amrien-Beardsly, Haertel & Rothstein, 2011). Administrators were required not only to facilitate professional learning but also to evaluate the application and outcomes of professional learning (Darling- Hammond et al; GaPSC, 2017; Woods, 2016a). Professional growth was measured through quantitative student achievement measures as well as attainment of teacher set goals (Darling- Hammond et al.; GaPSC, 2017; Woods). The GaPSC did not provide administrators with specific tools for evaluating teacher involvement and application of PLC work (Hill, 2015), nor were administrators required to articulate their methods of evaluation (GaPSC, 2017).

David Hill (2015), Division Director of Education Preparation and Certification at GaPSC, recommended that district leaders utilize the research of Guskey when developing their own rubrics for evaluating teacher participation in PLCs. The Georgia Rule required evaluation of teachers at the highest level of Guskey's scale, which is the translation of participation in professional development into professional and student growth (Guskey, 2002; Hill). Guskey (2002, 2014b), who created a 5-level hierarchy for evaluating professional development programs, stated the model was not appropriate for evaluating the individuals who participated in those programs. Researchers who attempted to validate Guskey's fifth level through practical application failed due to the complexities and impracticalities of documenting evidence and connecting adult participation in professional development to actual outcomes (Desimone & Garet, 2015; Grammatikopoulos, Tsigigilis, Gregoriadis & Bikos, 2013; Guskey, 2014a; Hill et al., 2013; Spelman & Rohlwing, 2013; Whitworth & Chiu, 2015). However, Guskey (2002) suggested his work was most applicable and beneficial when applied proactively through purposefully matching the content and methods of professional development to the desired goal of level five attainment.

Georgia policy-makers were not the only ones focused on professional development as a means of meeting the ever-increasing demands for accountability and school improvement (Calderhead, Denicolo & Day, 2012; Huber, 2011). Huber (2011) stated there was wide international agreement about the importance of "teaching of the teachers for the learning of the pupils" (p. 837). Despite the consensus surrounding the importance of professional development, finding evidence of direct links between professional development and positive change for students was a challenge (Desimone & Garet, 2015; Grammatikopoulos et al., 2013; Guskey, 2014a; Hill et al., 2013; Spelman & Rohlwing, 2013; Whitworth & Chiu, 2015).

Unfortunately, many methods of teaching, such as workshops, conferences, expert delivery of innovative practices during professional learning time, failed to translate into changes in teacher practice (Guskey; Spelman & Rohlwing). The absence of implementation on the part of the teachers made it impossible to determine the value of those learning experiences (Spelman & Rohlwing).

In order for administrators to ensure that professional development opportunities translated into improved instructional practices, they needed to take into account the needs of adult learners (Ozuah, 2016). Andragogy, the theory of adult learning, provided insights into how adults learn and react differently than children to a variety of learning experiences (Huber, 2011; Knowles, 1970; Knowles, Holton, & Swanson, 2014; Merriam & Beirema, 2013; Ozuah, 2016). In the study of pedagogy, young learners were described as blank slates while andragogy viewed adult learners as complex beings with existing foundations of knowledge and beliefs they consciously and sometimes subconsciously used to filter new knowledge as they decided what they would and would not learn (Huber; Knowles). Adults tended to disengage and resent situations where they felt imposed upon by the will of others (Knowles; Ozuah). According to Knowles (1970), adults were most motivated by an intrinsic desire to engage in problem and task centered learning that benefited them by building capacity for dealing with personally relevant issues and goal attainment. Differences in learning styles, paces, and preferences increased with age creating an increased need for teachers of adults to differentiate instruction based on individual needs (Knowles et al).

Georgia's implementation of PLCs as the framework for professional development began in 2010 with research conducted by the Georgia House of Representatives House Study Committee on Professional learning (GaPSC, 2015b). The committee consisting of educators and

policy makers from the House of Representatives, Georgia Department of Education, and the GaPSC concluded PLCs had the greatest potential to increase student acheivement (GaPSC). The value of PLC was rooted in transformational leadership theory characterized by teacher ownership, empowerment, informed dialogue, and purposeful collective problem solving aimed at reaching commonly held goals (Kegan & Lahey, 2009; Owen, 2014). Much of the literature found by the researcher, however, focused on the effectiveness of voluntary collaborative teams composed of teachers striving to improve their practices and ultimately increase the achievement levels of their students (Karadag, Kilicoglu, & Yilmaz, 2014; Levine, 2011). Voluntary collaborative efforts were characterized by positive outcomes in terms of teacher morale, professional growth, and student achievement (DuFour, DuFour, Eaker, Many & Mattos, 2016; Evans, 2015; Muhammad, 2009; Ning, Lee & Lee, 2015; Ostovar-Nameghi & Sheikhahmadi, 2016). These results were attributed to the paradigm shift away from professional development led by outsiders to ongoing action research led by the teachers directly connected to students (Datnow, 2011; DuFour et.al.; Evans; Muhammad; Ning et al.; Ostovar-Nameghi & Sheikhahmadi). The ideals and actions characterized by voluntary collaboration aligned with the postulates of andragogy (Knowles, 1970; Ozuah, 2016).

There was less clarity concerning how teachers experienced collaboration when it was mandated (Wilt, 2016). Mandated reforms over the past few decades had minimal impact on sustained changes in teaching and learning (Clement, 2014; Erne, 2016; Rees, 2014). Several researchers including Goldstein (2015), Knowles (1970), and Ozuah (2016) suggested this lack of effectiveness resulted from unintended consequences of top-down mandates such as teacher resentment, rejection, and withdrawal. The limited research specific to mandated collaboration provided a mixture of positive and negative outcomes (Evans, 2015; Goldstein, 2015; Wilt).

Benefits of mandated collaboration were associated with the creation of formalized organizational structures that provided time and space for collegiality and collective work toward shared goals as well as reduction in the isolation typically associated with the field of education (Evans; Goldstein; Ostovar-Nameghi & Sheikhahmadi, 2016; Stanley, 2011; Wilt). Conversely, when a top-down, mandated approach to collaboration was implemented or added to existing voluntary collaboration, negative socio-cultural behaviors such as withdrawal, tension, and resistance among educators resulted (Flessner & Stuckey, 2014; Goldstein; Maloney & Konza, 2011; Perry, 1993; Sayers, 2013). The negative outcomes were associated with qualities that were counter to the ideals of andragogy (Knowles; Knowles et al., 2014; Ozuah).

Statement of the Problem

Georgia Rule 505-2-.36 required administrators to verify effective engagement in PLCs as well as progress towards professional learning goals (GaPSC, 2015b). The rule represented a complex combination of potentially conflicting concepts: PLC and mandated change. While PLCs were grounded in the collaborative work of teachers guiding their own learning, mandated change was associated with externally directed actions. Review of the literature revealed that PLCs resulted in positive outcomes when characterized by teacher autonomy and empowerment. Mandated changes were shown to be vehicles used to induce school improvement but were also associated with lack of sustainability of change and negative behaviors such as resistance. It was clear in the language of the policy the intent of the ruling was to establish more meaningful and effective processes for teacher learning. However, little was known about how teachers actually perceived and engaged in PLCs when implemented as a mandate. To add to the complexity of the problem, Georgia was the only state at the time of the study to connect the evaluation of teacher participation in mandated PLCs to recertification. There was no research found

pertaining to the practice of linking recertification to administrator-derived ratings of professional growth through PLCs.

While the purpose and ramifications of the rule were clearly articulated, districts maintained autonomy over methods of implementing the rule as well as the rubric used to assess professional growth through PLCs. The ambiguity of the practical application of the ruling resulted in variations in implementation from district to district and even among schools within the same district. These variations created challenges associated with fair and consistent implementation of the ruling but also provided opportunities to learn from the teachers affected by the policy. In order to build capacity for leaders to guide, support and evaluate teacher collaboration through PLCs, administrators needed a better understanding of teachers' perceptions of policy-driven collaboration linked to recertification. Specifically, administrators needed a deeper understanding of how teachers perceived the structure, purpose, and dynamics of required PLCs to develop best practices for facilitating the work. Therefore, the researcher proposed to investigate high school academic teachers' perceptions of their engagement in PLCs as mandated by Georgia Rule 505-2-.36.

Purpose of Study

The researcher proposed to investigate teachers' perceptions of mandated PLCs to assist educational leaders tasked with facilitating and evaluating mandated collaboration through PLCs in developing a fuller understanding of the phenomenon. A gap in the research was found indicating a need to further explore teachers' perceptions of policy driven PLCs. The manner in which leaders implemented mandated change as well as PLCs was found to influence how teachers made sense of and engaged in both. To build capacity for Georgia administrators to best navigate the complexities of implementing Georgia Rule 505-2-.36, which combined mandated

change and PLCs, the researcher sought to determine what aspects of PLCs work were perceived as mandated and how those aspects affected teachers' perceptions and engagement in the work. The researcher engaged in a bounded case study aimed at capturing the perceptions of mandated collaboration by those affected most by the policy, the teachers. It was essential for the researcher to investigate how teachers actually interacted within state mandated collaboration and how they described their learning within the context of those meetings. For district and school leaders to develop effective protocols and procedures for supporting and evaluating mandated PLCs, it was essential to seek first to understand the unique and personal perceptions of the teachers involved. A qualitative approach was employed by the researcher to reveal themes and patterns in teacher perceptions in an effort to close any gaps in understanding of how teachers interact, learn, and apply knowledge within the context of mandated collaboration.

The researcher focused specifically on high school teachers because of the additional challenges at this level created by content-based course teams as opposed to the grade-level collaborations that take place in elementary and middle school levels (Goldstein, 2015). The highly specialized, content-driven curricula, and multiple preparations with limited vertical alignment between courses, typical of high school instruction, added to the complexity of the collaborative work of those teachers (Goldstein). Teachers were selected for the study using a purposive sample from a high school in a district in Georgia that could be described as a mixture of suburban and rural. The researcher proposed the use one specific school within the district because teachers at that school shared the same parameters, cultures, procedures, and protocols associated with the implementation of the rule.

Research Questions

The following research questions provided guidance for the study:

(1) What were high school academic teachers' perceptions of the structures of their required PLC meetings?

(2) What were high school academic teachers' perceptions of the purpose of their required PLC meetings?

(3) What were high school academic teachers' perceptions of the dynamics of their required PLC meetings?

Conceptual Framework

To gain insights that would benefit administrators as they navigated the complex dynamics of facilitating and assigning value to teacher engagement in required PLCs, the researcher sought to determine how teachers perceived those meetings, specifically the structure, purpose, and dynamics of the required PLC meetings. The researcher aimed to narrow the existing gap in the literature related to how teachers perceived professional development that was simultaneously teacher driven and policy driven. Professional learning communities were grounded in ideals such as teacher-directed learning, collaboration, and problem solving aimed at meeting collective goals (DuFour et al. 2016; Kegan & Lahey, 2009; Owen, 2014). Mandated change represented directives and decisions made externally (Clement, 2014). At the center of these two seemingly counter concepts were Georgia teachers engaged in the work of PLCs as a means of both professional development and accountability. The researcher proposed to capture the teachers' perceptions as they navigated the intersection between the two concepts (See Figure 1 below). The purpose of the case study was not to make judgements of the value of the mandate but rather to engage in a constructivist inquiry aimed at discovering emerging themes that could

describe and explain teachers' experiences to administrators. The researcher believed administrators would be better equipped to support and evaluate teachers in required PLCs if more was understood concerning how they experience the phenomenon.

Participants perceptions of which aspects of PLCs were mandated had to be determined to construct meaning from the data in this study. Aspects of interest included duration, location, frequency, content, purpose and member roles. Because districts, and even schools within districts, had a degree of autonomy over the structures and communication of the purpose of PLCs, it was important to collect data concerning teacher perceptions specific to those aspects and clearly report the context in which the case study took place. The researcher sought to construct an image of the unseen interpersonal dynamics and interactions that took place in PLCs. The teachers' perceptions of the structure, purpose, and dynamics of their mandated experiences were collected and analyzed for emerging themes. The researcher's development and communication of those themes could aid administrators in shaping the culture and context of mandated collaboration in their schools to maximize teacher engagement and learning.

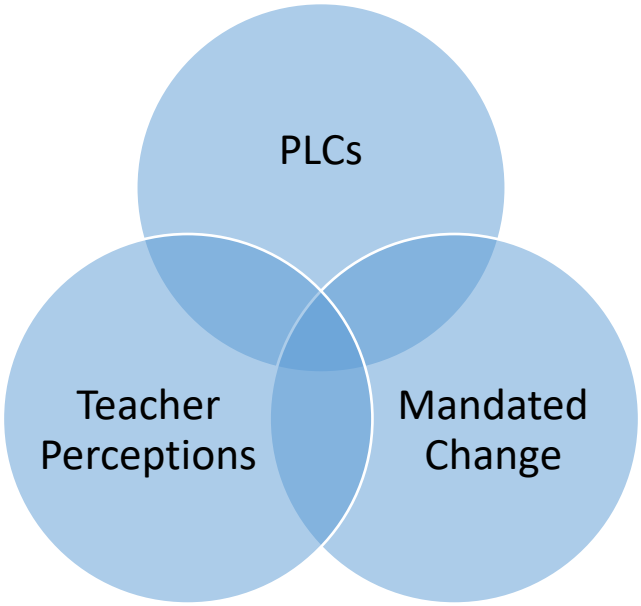


Figure 2. *Conceptual framework of analysis of study data*

Significance

Through this study, the researcher described the context of mandated collaboration through PLCs and teachers' perceptions of the structure, purpose, and dynamics of their mandated meetings. Understanding teachers' perceptions of mandated PLCs could provide administrators with valuable insights as they continued to strive to facilitate professional development opportunities resulting in positive and sustainable school improvement. Teacher collaboration had the potential to transform and improve student learning (Dufour et al, 2016; Ronfeldt, Farmer, McQueen & Grissom, 2015), but only if teachers engaged effectively in the work (Clement, 2014; Flessner & Stuckey, 2014). The researcher provided authentic descriptions from Georgia teachers as they reflected on their participation in mandated collaboration connected to their annual evaluations and recertification. The teachers' testimonies and the interpretation of their feedback contributed to the limited knowledge base of how of policy-driven collaboration through PLCs impacted their work. Gaining a better understanding of how teachers managed the seemingly conflicting ideals of mandated collaboration could potentially administrators with discernment into how to frame, structure, and monitor professional learning communities. Findings from this study could also assist district officials who sought to have consistency among schools in their task of developing and implementing rubrics for the evaluation of teacher involvement and successful implementation of PLC work. Finally, capturing teachers' perceptions of mandated collaboration could benefit government agencies in their continued reform efforts aimed at ensuring teachers participate in professional development that translates into increased student outcomes.

Procedures

Because the objective of this study was to explore teacher perceptions of required PLC meetings, the researcher employed a qualitative design. The qualitative approach was the best fit for this study because the researcher sought to capture perceptions and give voice to those involved in mandated PLCs in a way that uncovered the complexities of the practice (Airasian & Gay, 2005; Creswell, 2013; Yin, 2013). The flexibility associated with reporting results of qualitative research also honored the participants because it allowed the researcher to describe the phenomenon of PLCs under Georgia Rule 505-2-.36 using the participants' own words and rich descriptions (Creswell; Creswell & Poth, 2017; Denzin & Lincoln, 2011).

A purposive sample of high school academic teachers in a single middle Georgia school was used in this study (Airasian & Gay, 2005; Creswell, 2007; Patton, 2002). The researcher chose to use purposive sampling because it used specific criteria to select those participants most likely to provide rich insights into the phenomenon being examined (Airasian & Gay; Creswell). For the purpose of this study, core academic teachers were defined as teachers who taught mathematics, science, social studies, or English language arts in a regular education or special education capacity during the 2017-2018 school year. All teachers who participated in the study shared the same PLC implementation methods, participated in common collaborative planning periods with their specific content area teams within the school day for PLC meetings, and participated in both required PLCs and voluntary collaboration within the 2017- 2018 school year.

The research design that best fit this inquiry was a bounded case study. Using this method, the researcher investigated the complex dynamics involved using a variety of data sources that provided a holistic understanding from the perspective of those affected the most by

the policy (Baxter & Jack, 2008; Yin, 2013). Creswell (2007) and Patton (2002) described the importance of using multiple methods of data collection to yield study results that provide rich and detailed depictions of phenomena. The following data collection methods were used: participant drawing narratives, semi-structured interviews, and focus group. Six teachers participated in drawing narratives and semi-structured interviews while a separate group of six teachers participated in the focus group. The methods used with both data collection groups required participants to reflect on their experiences and communicate their perceptions of the structure, purpose, and dynamics of their PLC meetings. The separate samples allowed the researcher to triangulate data using a variety of data collection tools with varying levels of structure and interaction with the researcher.

The process of data analysis in qualitative research was inductive in nature (Merriam & Tisdell, 2016; Smith, 2015,). Unlike deductive quantitative methods, the purpose of this study was not to determine cause and effect relationships but rather to explore data for meaning that would give voice to the perceptions of the teachers in the study (Merriam & Tisdell; Smith). The constant comparative method originally developed for grounded theory research was used as the predominate means of data analysis (Creswell, 2007; Merriam & Tisdell; Patton, 2002). Although the purpose of this study was not to formulate theory, the cycles of repeated analysis associated with constant comparative method allowed the researcher to narrow the large amounts of data into themes that led to increased understanding of key views of teachers in this case study (Merriam & Tisdell). The themes that emerged were organized and reported by research question in a manner deemed most informative to educational leaders charged with implementing mandated PLCs in a way that supported teachers' and students' needs.

Limitations

Limitations were unavoidable aspects of research that threaten validity of a study (Creswell, 2007; Patton, 2002). This case study was inherently limited due to the small number of cases investigated (Patton; Yin, 2009). Generalization was not the intent of the research so a small sample size was an acceptable limitation (Merriam & Tisdell, 2016; Patton). Other limitations of a small sample size included lack of representativeness within the small sample could have resulted in distorted findings (Patton, 2002). Changes in the selection of participants within the purposive sample could have resulted in different themes (Patton).

Several assumptions were made during this case study. "Assumptions are important 'facts' presumed to be true but not actually verified" (Airasian & Gay, 2005, p. 91). The researcher assumed participants provided honest and candid responses communicating their perceptions of reality accurately. Because the researcher had a leadership role within the school, personal and professional relationships with participants, and professional experience with the topic of research, a degree of subjectivity and bias was assumed on the part of the researcher. Participants' associations with the researchers' job description may have resulted in more frank, unguarded responses but the opposite could also have occurred. Assumptions were also made concerning sufficient participant expertise.

The researcher assumed that participants had enough experience with required PLCs to provide rich data. Teachers were also required to have experience with voluntary collaboration in order to ensure they had a variety of collaborative experiences from which to draw. The researcher assumed teachers were able to reflect on both types of experiences and only articulate those connected with their mandated meetings.

Delimitations

This study had several delimitations. The flexibility and autonomy afforded to districts in the implementation and evaluation of Georgia Rule 505-2-.36 during the first year resulted in differences among schools within the same county. These differences made it necessary to conduct a bounded case study in order to investigate the intersection of mandated change and PLCs under a specific set of parameters. In this case, a single high school in a middle Georgia school district consisting of suburban and rural communities was chosen for the study. The use of the single setting allowed the researcher to describe the perceptions of teachers specific to the culture and implementation methods of that school. A homogeneous sample of academic teachers was recruited and included in the study, because they shared similar implementation experiences, resources, and accountability expectations. It was common practice in the district and school for academic teachers of the same course to have common planning periods during the school day for collaboration. Exceptions included Advanced Placement teachers who had county level PLCs because the Advanced Placement teacher was the only teacher in their school who taught those subjects. These teachers were provided with subs in order to collaborate during the school day.

The study was completed during the 2017-2018 school year. Conducting the research during the first year of implementation of Georgia Rule 505-2-.36 provided a unique opportunity to collect teacher perceptions and experiences as they first experienced it. Although it was not the first year of implementation of PLCs in the county, it was the first time protocols and documentation were formalized as a mandate resulting in rating of professional growth through PLCs and reported to the GaPSC. The timing of the research and the implementation of

mandated and documented PLCs created an opportunity for teachers to compare and contrast their experiences and isolate their perceptions specific to PLCs as a mandated change.

Definition of Terms

Agency (Collective or Teacher): Agency is the power to make a difference or effect change is a given environment or circumstance (Datnow, 2012).

Andragogy: Andragogy is the theory of adult learning often referred to as self-directed learning (Blaschke, 2012, Knowles et al. 2014).

Collaboration: Collaboration can be defined a joint planning and implementation of joint decisions (Hord, 1986). The term implies shared responsibility and authority in decision making and actions toward collective goals (Hord, 1986; DuFour et al., 2016)

Georgia Rule 505-2-.36: Georgia Rule 505-2-.36 outlined GaPSC certification renewal requirements, which included "making acceptable progress, as defined by the employing local unit of administration, toward accomplishing" professional learning goals or completing professional learning plans through full participation in ongoing PLCs "as documented by the educator's supervisor" (GaPSC, 2015a, p. 2).

Guskey's hierarchy of professional learning activity evaluation: Guskey outlined a hierarchy of five crucial components to consider when evaluating professional learning activities: teacher reactions, teacher learning, evidence of organizational change, application of the learning, and evidence of improved student outcomes (Guskey, 2002).

Heutagogy. Heutagogy: the science of self-learning, expanded andragogy from the development of adult competencies to the development of the capabilities for self-determined learning (Hase & Keyon, 2001).

Mandated change: Mandated change is "change initiated at the government or bureaucratic level and transmitted to schools, where it is adopted by the administration and communicated to teachers" (Clement, 2014, p. 40).

Mandated Collaboration: Mandated collaboration occurs when specific aspects of collaboration are designed for or dictated to teachers (Hargreaves, 2013).

Organizational citizenship behavior (OCB): Organizational citizen behavior described the expectation of employees to go beyond to scope of their jobs to support their peers and engage in collaboration centered on shared goals (Bolino, Hsiung, Harvey, & LePine, 2015).

Pedagogy: Pedagogy is the science of teaching children (Ozuah, 2016).

Powerbase: Powerbase is a term used by Nir and Hameiri (2014) to describe how leaders exercised their influence over teachers to elicit a desired response.

Positional authority: Expecting compliance or exerting power over others based on the leaders' position with the organization or job title (Diamond & Spillane, 2016).

Professional Learning Communities (PLCs: PLCs are characterized by "professional educators working collectively and purposefully to create and sustain a culture of learning for all students and adults" (Hord et al., 2010, p. 12).

Teacher Keys to Effectiveness System (TKES): TKES is Georgia's public education multidimensional annual evaluation system "comprised of three components that result in a teacher effectiveness measure (TEM) score: Teacher Assessment of Performance standards, Professional Growth and Student Growth" (Woods, 2016b, p.5).

Transformational leadership: Transformational leadership is leadership through empowerment and collaboration around a central vision (Nir & Hameiri, 2014).

Transactional leadership: Transactional leadership is based on a relationship of contingent rewards and sanctions. (Antonakis & House, 2014).

Summary

The purpose of this qualitative study was to provide insights on how high school academic teachers in a specific middle Georgia school perceived the structure, purpose, and dynamics of PLCs required by state policy. This study took place during the first year of implementation of Georgia Rule 505-2-.36, which required administrators to evaluate teachers' professional growth through their ongoing participation in mandated PLCs as a part of recertification requirements. Because districts were given autonomy over the method of evaluating the attainment of professional growth through PLC involvement, this study was designed to capture the internal dynamics of mandated collaboration from the perspective of the teachers who shared the same parameters of the mandate. Data were collected using drawing narratives, semi-structured interviews and a focus group in order to discover how teachers perceived their involvement in mandated PLCs. The triangulation of data resulted in themes relevant to how teachers experienced and perceived the seemingly conflicting contexts of mandated change and PLCs. The results of this study were significant because they contributed to a better understanding of how aspects of mandated collaboration influenced teacher engagement and learning through PLCs. By giving voice to the teachers' perceptions and experiences during mandated collaboration, this study provided administrators with tools to increase authentic teacher engagement in PLCs.

CHAPTER II

REVIEW OF LITERATURE

This study examined the perceptions of Georgia high school teachers regarding participation in PLCs as required by Georgia Rule 505-2-.36. In order to provide a sufficient background leading to the implementation of PLCs for teacher recertification, literature beyond the span of five years was included. Literature related to the evolution of administrative management, educational reform, teacher evaluation, and certification requirements in the state of Georgia provided the context for this study. It was appropriate to review the literature and existing research in the domains of PLCs and mandated change. Three foci were examined for the domain of PLCs: adult learning, characteristics of PLCs, and PLC dynamics. Four areas were investigated in the domain of mandated change: professional development and teacher change, teacher reactions to mandated change, mandated collaboration, and the role of administrators in implementing mandated change. These domains provided the conceptual framework for the study of how teachers perceived the structure, purpose, and dynamics of required their PLC work. The chapter concluded with a brief summary.

Background

Over the years, the landscape of education in the United States transformed from a hierarchical teacher-pupil relationship, where teachers worked in isolation to teach groups of students, to an inverted hierarchy, where groups of teachers worked collectively to facilitate the learning of individual students (Datnow, 2011; Hargreaves, 2013; Oliver & Huffman, 2016; Ostovar-Nameghi & Sheikhahmadi, 2016). As educational reform efforts in schools were increasingly dictated by external demands for transparency and accountability, “professional learning communities surfaced as a viable and sustainable option” for re-culturing schools

(Oliver & Huffman, p. 310). Hord et al. (2010) described PLCs as the "best hope for school reform" (p.1). In July of 2017, the GaPSC mandated PLCs as a means of improving student learning through the professional growth of Georgia educators (GaPSC, 2015a; GaPSC, 2015b).

Georgia Rule 505-2-.36 required educators to engage in continuous job-embedded professional learning through active participation in PLCs in order to maintain their teaching credentials (GaPSC, 2015a). Certification renewal was no longer granted based on Professional Learning Units (PLUs), which awarded credit for seat time in professional development activities, but required demonstration of the "impact of professional learning on educator performance and/or student achievement" (GaPSC, 2015b, p. 4). The transition from PLUs to PLCs was the GaPSC's response to recommendations made by the House Committee task force on professional learning (GaPSC, 2015b; Hill, 2015).

The change was implemented to ensure teachers were engaged in professional development that was relevant, continuous, overcame barriers, used collaboration to maximize team talents, and focused directly on student learning (Hill, 2015). In presentation concerning the implementation of Georgia rule 505-2-.36, David Hill (2015), Division Director of Education Preparation and Certification at the GaPSC, recommended using the work of Tom Guskey to guide the evaluation of professional learning through PLCs. Guskey's (2002) hierarchy called for five crucial components to consider when evaluating professional learning activities. The five components assessed the effectiveness of professional learning programs based on teachers' reactions, learning, organizational change, use, and finaly evidence of improved student outcomes resulting from the program (Guskey). The highest level of the scale, evidence of student improvement, was the component required by Georgia Rule 505-2-.36 (GaPSC, 2015a; Guskey).

Finding and documenting strong evidence that directly linked professional learning to the highest level of Guskey's scale proved to be a challenge especially given teachers and administrators tended to have different definitions of such evidence (Guskey, 2014a; Hill, Beisiegel, & Jacob, 2013). Interestingly, Guskey's research was intended to evaluate programs not the teachers who participated in those programs (Coldwell & Simkins, 2011). Guskey (2014b) did not endorse any particular method or structure of professional learning arguing instead effectiveness was more dependent on the circumstances, culture, and environment in which the professional development took place. In the case of Georgia Rule 505-2-.36, the GaPSC mandated professional learning committees as the method of professional development for all Georgia educators (GaPSC, 2015a).

Evolution of Administrative Management

Educational administration theories existed to explain and predict phenomena in educational organizations (Lunenburg & Ornstein, 2008). Theories were developed that assisted educators in determining relevant variables, classifying influences into functional groups, formulating constructs for unobservable behaviors, summarizing phenomena, using patterns to predict behavior, and identifying areas in need of further research (Lunenburg & Ornstein). Early educational administration theory was dominated by technical and managerial concerns (Murphy & Louis, 1999). Using industrial and business models as examples, educational administration was viewed in terms of work specialization, number of workers that could be managed by one administrator, span of control, and the factory model of top-down decision making (Hargreaves, 1994).

Educational bureaucracies existed with clearly written policies and procedures that outlined firm hierarchies (Hargreaves, 1994). Bates (1984) criticized those theories and the

application of administrative management because they addressed all aspects of education except education itself. Button (1966) stated doctrines at the time were heavily influenced by fields outside of education and expressed his hope that future doctrines would be "less ambiguous and more indigenous to education" (p. 154). Little regard was given to the actual practice of educating children (Bates).

As educational theory continued to evolve, aspects of human relations and motivation became factors considered within organizational structures (Lawrence & Lorsch, 1969). A shift occurred in administrative management when it became evident that a degree of decentralization was necessary because pure chains of command were inadequate when attempting to address the complex variables and contingencies involved in educational systems (Lawrence & Lorsch). The post-behavioral science era marked a major shift in the focus of educational administration (Murphy, 2002). Influenced by outside factors such as changes in educational accountability and political and public pressure to provide evidence of educational success for all children, organizational theory shifted from managerial to encompass aspects of teaching and learning (Finnegan & Kim, 2012; Drago-Severson, 2012; Lunenburg & Ornstein, 2008). The post-behavioral science era consisted of three interrelated concepts of "school improvement, democratic community, and social justice" (Lunenburg & Ornstein, p. 12). The concept of holding administrators and teachers accountable for the measurable learning outcomes of students had wide political and public appeal and forced administrators to recognize existing organizational structures were inadequate (Ingersoll, 2009). Structures were adjusted to focus on instructional matters through building capacity at the teacher level and providing greater external supports (Lunenburg & Ornstein). Organizational theory shifted to an open system where education was viewed as a democratic endeavor requiring collaboration within the educational

system where leadership was distributed and included families and communities in the task of increasing academic achievement for students (Bolden, 2011; Lunenburg & Ornstein).

Educational Reform

Educational reform was heavily influenced by legislation since the 1950s (Wiseman, 2012). Many reforms were founded on the fear that America's students failed to measure up to their international peers (Heitin, 2013). In the 1950s, Russia's launch of the Sputnik caused widespread concerns America was being surpassed and the educational system was not producing students who could help America win the space race (Anderson, Evans, Kozak, & Peterson, 2000). In the 1980s, *A Nation at Risk* proclaimed that America's schools had lost their competitive edge stating the "rising tide of mediocrity" threatened "our very future as a nation and a people" (Gardner, Larsen, Baker, Campbell, & Crosby, 1983, p. 1). The claims in the report launched public education into the forefront of a public and political debate as well as initiated countless reform efforts (Hochschild, 2003; Mehta, 2015). Any publications refuting the accuracy of the comparisons, such as the Sandia report which was released in 1990, were largely ignored as a negative culture surrounding public education emerged (Graham, 2013). Public and political frustrations led to external top-down decision-making meant to exert increased control over all aspects of schooling (Mehta). The series of reforms launched during this time represented a fundamental shift in the weight of responsibility for student performance away from society and the family to educators (Mehta; Smith, 2005).

Educational reforms in the form of legislative mandates continued at the national level most notably with the implementation of the No Child Left Behind Act (NCLB) of 2001 (Finnegan & Kim, 2012; Wiseman, 2012). NCLB established the most far-reaching accountability measures at the time it was passed (Simpson, Lacava & Graner, 2004; Wiseman).

The law required educational systems showed adequate yearly progress (AYP) through measurable gains on standardized assessments disaggregated by subpopulations (Lunenburg & Ornstein, 2008). Assessments were tied directly to published school accountability reports, as well as student grade level promotion and graduation (Simpson et al., 2004). New requirements for teacher quality were implemented with emphasis on content knowledge over pedagogy (PBS, 2013; Wiseman). School choice was offered to parents if their children's schools failed to meet the requirements of the legislation (Simpson et al.).

A new crisis in America's global status emerged as NCLB's AYP requirements were approaching 100% and President Bush's tenure in the White House was coming to an end (Heitin, 2013). This time the crisis stemmed from international comparisons on standardized assessments (Heitin). Based on results of the Program for International Student Assessment, American students' performance stagnated and even declined in some areas when compared to their international peers (Ryan, 2013; USDOE, 2015). Unlike the knowledge-based assessments that characterized NCLB, the Program for International Student Assessment measured literacy in reading, mathematics and science, focusing specifically on students' ability to think through problems they had never experienced (PBS, 2013). Again, there was an apparent gap in the status of America's educational system and the increasingly complex world students entered after high school (PBS).

The RttT grant represented a major shift in educational reform (McGuinn, 2012). Where NCLB relied on punitive federal mandates, which resulted in a culture of compliance in schools deemed underperforming, Race to the Top was introduced as a competitive grant that incentivized state government innovation and was proposed as a means of empowerment (McGuinn). The intent of giving states autonomy over how to accomplish the required goals of

the grant was to induce more authentic and sustainable improvements in education (McGuinn). In addition to calling for a change in standardized assessments from knowledge-based to literacy-based, President Obama's Race to the Top Grant (RttT) (2010) tied federal funds to the establishment of educator accountability measures requiring a minimum of 50% of teachers' yearly evaluations be based on quantitative student growth measures (Lohman, 2010). The grant also specified a need to improve teacher preparation and quality through reform of teacher preparation and certification processes (Baker, Oluwole, & Green, 2013). The federal mandates for increased testing and educator accountability were associated with an increased demand for teachers and schools to prove their worth in quantitative ways (Steward, 2011).

Evolution of Teacher Evaluation and Certification in Georgia

Prior to the RttT, teacher evaluations were conducted using the Georgia Teacher Evaluation Program (RESA Statewide Network, 2003). The Georgia Teacher Evaluation Program consisted of two observation-based instruments, the Georgia Teacher Observation Instrument and the Georgia Teacher Duties and Responsibilities Instrument (RESA Statewide Network). The Georgia Teacher Observation Instrument rated classroom instruction and management while the Georgia Teacher Duties and Responsibilities Instrument rated professionalism (RESA Statewide Network). Teachers gained certification through completion of an approved educational preparation degree and a satisfactory score on the state mandated certification assessment (GaPSC, 2014). Individuals with college degrees in certain non-education content areas were permitted to acquire certification through alternative pathways such as the Georgia Teacher Education Preparation Program (GaPSC, 2014). Regardless of the path taken, full certification was granted once requirements were met (GaPSC, 2014). Certified teachers renewed their certification by completing and submitting documentation for 10

professional learning units (PLUs) which was equivalent to participating in professional development activities for 100 hours over a 5-year period (GaPSC, 2010). Other professionals such as health care professionals, lawyers, accountants, engineers and commercial airline pilots also maintained certification through continuing education hours in their respective fields (Institute of Medicine, 2010).

Teacher evaluation methods, such as those implemented by the GaPSC prior to RttT, failed to provide constructive feedback for teacher improvement or assess teacher effectiveness for personnel decisions (Darling-Hammond et al., 2011). Factors related to the lower reliability of administrator only observations included insufficient number of observations, length of observations, minimal connection of results to student outcomes, evaluation checklists unrelated to research-based instructional strategies, and lack of constructive feedback and targeted professional development based on results (Daley & Kim, 2010). Changes in classroom dynamics due to the obtrusive nature of observations and personal relationships with the observed also contributed to questions about the effectiveness of the protocol (Kane & Staiger, 2010). Daley and Kim found teachers typically received the highest possible score from administrators with evaluations "generally conducted as infrequent and perfunctory events in satisfaction of bureaucratic requirements" (p. 4).

Given the changes brought about by the RttT grant, educational leaders were challenged to accurately evaluate teachers based on observable research-based best practices as well as support teacher professional growth (Darling-Hammond et al., 2011). The RttT grant required the development of new accountability tools requiring teacher and administrator evaluations to be directly linked to student academic growth as measured by high stakes testing (Lohman, 2010). Practically applied at the secondary level, 50% of each teacher's annual evaluation rating

was dependent on student growth on either existing state-mandated End of Course exams (EOC) or district-based Student Learning Objective (SLO) assessments (GaDOE, 2013). In 2014, the transition from the Georgia Teacher Observation Instrument to a multidimensional system known as TKES was complete (Barge, 2012; GaDOE, 2015). TKES quantified teacher effectiveness by assigning numerical values to two main components: Teacher Assessment of Performance Standards, based on observations, and student growth and achievement outcomes (GaDOE, 2013). The resulting Teacher Effectiveness Measure classified teachers into one of the following groups: ineffective, needs development, proficient, or exemplary (GaDOE, 2015).

Based on the original implementation plan, Teacher Effectiveness Measure scores reported to the GaPSC with two or more un-remediated ineffective or needs development evaluations in a 5-year period were to result in non-renewal of certification (GaPSC, 2015c). Originally, the student growth measure and the administrative observations each accounted for half of each teacher's overall score, which satisfied the emphasis on linking teacher performance to student data as required by the RttT grant (GADOE, 2013; USDOE, 2010). The GaPSC, however, had yet to include student growth data in any aspect of recertification or salary determination at the time of this study, instead the GaPSC used only observation based TAPPS summative ratings (Woods, 2015).

The GaPSC (2014) also developed new teacher preparation requirements and certification standards. Beginning September 2015, teachers entering the field had an additional requirement of passing the pre-certification assessment, the Education Teacher Performance Assessment (EdTPA) (GaPSC, 2014). Upon completion of all requirements, new teachers received induction certificates instead of the clearly renewable certification previously issued (GaPSC, 2014). EdTPA was a portfolio-based assessment commonly used in many states to determine the

readiness level of preservice teachers (Bhatnagar, Kim, & Many, 2017). The induction certificate was 1 of 5 tiered certification levels developed to ensure,advancement in the profession was "based on teaching effectiveness rather than just hanging on" (GaPSC, 2012, p. 6).

In 2017, Georgia Rule 505-2-.36 took effect changing certificate renewal requirements from submission of PLUs to administrative confirmation of effective engagement in job-embedded professional learning through PLCs (GaPSC, 2015b). The implementation aligned with the changes in the Teacher Keys Evaluation System, which took affect the same year requiring teachers show progress toward meeting an annual professional learning goal (King, 2016). This change to the TKES requirements was a result of Senate Bill 364 that split the original 50% weight assigned to student growth measures to 30% for student growth measures and 20% for professional growth (King; Woods, 2016a). Senate Bill 364 also called for reduced testing which necessitated a change in the way student growth would be calculated (King). In addition to reduced student achievement data available for teacher accountability, the requirements for inclusion of individual student data in accountability measures changed from a minimum of 65% course enrollment to 90% course attendance (King; Woods).

The practical application of both Senate Bill 364 and Georgia Rule 505-2-.36 resulted in an updated version of the TKES platform for the 2017-2018 school year (King, 2016; Woods, 2016b). Changes in the evaluation system for 2017-2018 included a requirement for all certified educators as well as noncertified contributing professionals to have TKES accounts that included either Professional Learning Goals (PLG) or Professional Learning Plans (PLP), as well as confirmation of participation in PLCs (Woods, 2016b; Woods, 2017a). Administrators were required to review, discuss, and monitor progress toward goals and plans through pre-evaluation, mid-year, and summative conferences (Woods, 2016b). Because individual districts were

responsible for creating their own rubrics to evaluate individual teacher growth, the TKES platform included simple check boxes for administrators to indicate both progress toward goals or plans for Senate Bill 364 (King) and participation in PLCs as required by the GaPCS (Hill; Woods, 2017d). Administrators were directed to choose either yes, no or in progress to document educator progress toward goals or plans and either yes or no for participated in professional learning community (Woods, 2017a). Teachers were required to write a reflection of their progress toward their Professional Learning Goal or Plan for the 2017–2018 school year and sign off on assurances they understood the Georgia Rule 505-2-.36 and its ramifications (Woods, 2017b; Woods, 2017c).

It is important to note there was no specific mention of evaluating the quality of educators' participation in PLCs in the TKES platform, teacher orientation for TKES, or TKES guidelines for educators (Woods, 2016b; Woods, 2017a; Woods, 2017d). Georgia Superintendent of Schools, Richard Woods (2017d), did document that districts should develop goals that mirrored the requirements of the GaPSC recertification rule 505-2-.36, which specified evaluation of the quality of teacher participation in PLCs (GaPSC 2015a; GaPSC, 2015b). Administrator comments concerning teachers' work in PLCs was only required within the PSC section of the TKES platform when the administrator indicated the educator was not making adequate progress toward PLGs or PLPs (Woods, 2017a). While a process was in place for educators to dispute the procedural aspects of the TKES process, the dispute process did not apply to teacher complaints concerning ratings of professional growth or PLC work (Woods, 2016b).

Evaluation of Professional Development

The GaPSC's recertification regulations went beyond requiring participation in professional development to requiring the establishment and verification of a cause and effect relationship between participation and professional and student growth (GaPSC, 2015b). This change represented a fundamental shift in the way professional development was conducted and evaluated, leading to concerns about the feasibility of documenting a direct correlation between professional development and educational outcomes (Hill et al., 2013). Prior to this ruling, most professional development was home-grown based on locally identified needs and interests, had a relatively short shelf life, and "proceeded with little or no formal evaluation" (Hill et al., p. 476). Mizell (2010) emphasized the importance of evaluating the quality of professional development postulating professional learning was the only means by which systems and leaders strengthened educator performance and improved student outcomes.

Mizell (2003) called attention to the lack of evaluation of the quality of professional development and a need to develop research-based means of determining effectiveness. Mizell suggested four factors of professional development that should be evaluated: delivery, teacher learning, teacher application, and student benefit. Kirkpatrick developed a four-level evaluation model in 1994 based on similar factors: "reaction, learning, behavior, and results" (Grammatikopoulos et al., 2013, p. 2). Initial critics of Kirkpatrick's model indicated it was more of a "taxonomy of outcomes" rather than a research-based evaluation system (Holton, 1996). Despite well-documented weaknesses of the model showing its over-simplification of complex factors and insufficient means of verifying or measuring the validity of the model in educational settings, it remained a popular means of professional development evaluation (Grammatikopoulos et al.; Bates, 2004; Coldwell & Simkins, 2011).

In 2002, Guskey modified Kirkpatrick's levels to include a level for organizational support and change placed between Kirkpatrick's level two, teacher learning, and level three, application (Grammatikopoulos et al., 2013; Guskey, 2002). This change aligned with Mizell's (2010) assertion that both teacher quality and organizational leadership were the most influential factors in improving student achievement. Guskey (2002) described a hierarchy requiring successive attainment of each lower level before the highest level of effectiveness, evidence of student growth, could be reached. David Hill (2015), Division Director of Education Preparation and Certification at GaPSC, recommended that Georgia administrators use Gutskey's five levels of crucial evidence for determining the effectiveness of teachers in respect to their ability to translate participation in PLCs into professional and student growth. It was important to note, the research of Mizell, Kirkpatrick, and Guskey were all aimed at determining the value of professional development programs and activities, not necessarily the quality of the teacher tasked with implementing the content and skills experienced through professional development (Grammatikopoulos et al.; Guskey, 2014a; Mizell 2010).

Grammatikopoulos et al. (2013) sought to do a systematic evaluation of induction level teachers in Greece using the five levels of Guskey's scale. The mixed method study assessed the value of a 100-hour induction training program as well as Guskey's sequential hierarchy of teacher evaluation using two quantitative measures of teacher reaction and use of knowledge learned through the induction training (Grammatikopoulos et al.). The researchers concluded that the full hierarchy could not be assessed accurately based on a number of factors including lack of control groups for comparison, insufficient means of measuring intended use of knowledge, and inability to isolate variables related to student outcomes (Grammatikopoulos et al.). The researchers were unable to measure the highest level directly due to the time consuming,

complex, and possibly costly procedures involved in determining cause and effect relationships between professional development and student outcomes in an educational setting (Grammatikopoulos et al.). Instead, Grammatikopoulos et al. inferred level five attainment using self-reported teacher self-efficacy, claiming a research-based connection between self-efficacy and student achievement.

The researchers' inability to assess level five directly was significant because it was the level that Georgia administrators were challenged to measure (Grammatikopoulos et al., 2013; Hill, 2015). In addition to the difficulty of finding and documenting evidence at this level, teachers and administrators tended to have different definitions of what qualified as evidence (Guskey, 2014a; Hill et al., 2013). Not only was professional development typically multifaceted, but the measures used to determine the corresponding student growth frequently did not align with the objectives of the professional development or were so complex that pinpointing a relationship between the two became impossible (Darling-Hammond, Amrien-Beardsly, Haertel & Rothstein, 2012; Desimone & Garet, 2015; Hill et al.). Differences in teachers' levels of engagement in professional development, as well as how they chose to translate what they learned into their established practices also complicated the task (Desimone & Garet; Huber, 2011). A mismatch in the purpose, quality, means, and content of the professional development to intended student outcomes also made evaluation challenging (Hill et al.). Finally, based on the length of a typical Institute of Educational Sciences grant, it took approximately a decade of valid implementation and research of a professional development program to determine if a connection to level five effectiveness was established (Hill et al.). Many programs had shorter lifespans than this because of the rapid change typically associated with educational policy and mandated initiatives (Desimone & Garet; Erne, 2016; Hill et al.).

There was a lack of evidence in the literature of direct relationships between professional development activities and improvements in student outcomes (Huber, 2011; Grigg, Kelly, Gamoran, & Borman, 2013; Grammatikopoulos et al., 2013). This gap in the research spoke to the lack of feasibility of application of Guskey's hierarchy to educators in the educational setting (Huber; Grammatikopoulos et al.). Guskey (2002) commented on his own research stating that proof of a relationship between professional development and improved student outcomes was an impossibility given the complex dynamics of real world settings. However, Guskey (2014b) suggested "most evaluation issues fall into place" (p. 50) when his work was used proactively to guide the development of professional learning and by purposefully and proactively matching content and methods to the desired goal of level five attainment.

Increased political pressure for accountability of educator practice not only brought attention to the need for valid ways to measure the effectiveness of professional development but also created additional structures for research (Finnegan & Kim, 2012; Desimone & Garet, 2015). More teacher evaluation systems, such as Georgia's TKES, required documentation of professional learning participation and feedback loops that provided data for longitudinal studies as well as immediate feedback for continued improvement (Desimone & Garet; Woods, 2016b). Hill et al. (2013) suggested systematic pilot structures expanded in phases to more accurately control for consistency of implementation, administrative support, environments, and measurement methods in order to find feasible ways to connect professional development to student outcomes in the educational setting.

Adult Learning

Georgia policy makers were not the only ones focused on professional development as a means of meeting the ever-increasing demand for accountability and school improvement

(Huber, 2011; Calderhead et al., 2012). Huber (2011) stated there was wide international agreement about the importance of "teaching of the teachers for the learning of the pupils" (p. 837). Administrators were challenged with creating conducive environments and learning opportunities for teachers, which resulted in sustainable application and ultimately increased student achievement (Guskey, 2014b). In order to meet these challenges, the specific learning needs of adults had to be taken into account (Huber).

In the 1800s, it became apparent pedagogy was insufficient for meeting the needs of adult learners (Ozuah, 2016). Pedagogy was built on the premise that the role of education was to impart universally accepted knowledge and skills that consistently served learners throughout their lives (Knowles, 1970). In the 1920s, Philosopher Whitehead postulated that the assumptions of pedagogy no longer applied because for the first time in history the life span of humans was longer than the life span of the applicability of knowledge and skills transmitted from teachers to students (Knowles, 1970). This same argument was implied in the demands for continuous growth and professional learning aimed at ensuring education continually evolved to meet the ever-changing needs of students in a now highly technological and global society (Blaschke, 2012; Huber, 2011).

Andragogy provided insights for effective instruction for adult learners (Merriam & Bierema, 2013). The systematic study of the needs of adult learners was credited mainly to the work of Eduard Lindeman in the 1920s, followed by extensive contributions by Malcom Knowles beginning in the late 1960s (Merriam & Bierema; Ozuah, 2016). Several assumptions from the works of these researchers and others had relevance for professional development (Ozuah). The first assumption was adults engaged in learning only after they determined the value of the knowledge or skills to them personally as well as the consequences of not acquiring

those concepts or skills (Ozuah). Adults consciously or subconsciously selected what they would and would not learn (Huber, 2011). Pedagogy assumed the student was dependent on the teacher to assign value to content and determine what was to be learned and how it was to be learned (Knowles, 1970).

Adults also demonstrated an intense need to be treated as such, directing their own learning (Knowles, 1970; Knowles, Holton & Swanson, 2014; Ozuah, 2016). Ozuah (2016) stated, "They resent and resist situations in which they feel others are imposing their wills on them" (p. 84). Adults filtered new knowledge through their extensive experience whereas children were assumed to be blank slates (Knowles; Knowles et al., 2014; Ozuah). Adults were most motivated by an intrinsic desire to engage in problem and task centered learning that benefited them by building capacity for dealing with personally relevant issues and goal attainment (Knowles; Ozuah). Differences in learning styles, paces, and preferences increased with age creating an increased need for teachers of adults to differentiate instruction based on individual needs (Knowles et al.).

Andragogy has been defined as self-directed learning (Blaschke, 2012; Knowles et al. 2014). The role of administrators in an andragogic approach was one of a facilitator who provided resources and guided adult learners on their self-directed paths to professional growth (Blaschke, 2012). Leaders navigated the complex landscape of guiding adult learners in self-diagnosis of needs and established relevance without prescribing learning outcomes (Knowles, 1970). Even though the learning was self-directed, teachers were not completely autonomous (Blaschke, 2012). Hase and Keyon (2001) argued due to increasingly rapid organizational change in an equally rapidly evolving and uncertain workplace, self–directed learning was no longer sufficient for success. The mercurial nature of society now called for flexible learners

with the capability to quickly adapt and assimilate knowledge by developing the skills needed to teach themselves (Blaschke, 2012; Hase & Keyon, 2001).

Heutagogy expanded andragogy from the development of competencies to the development of the capabilities for self-determined learning (Hase & Keyon, 2001). The role of the administrator was eliminated in this completely autonomous learning style (Blaschke, 2012). The requirements of Georgia Rule 502-02-.63 and TKES contained aspects of heutagogy but were more aligned with an andragogic approach since the administrator continued to act as the facilitator and evaluator of teacher learning (GaPSC, 2015b; King, 2016). Heutagogic aspects included individualized goal setting and documentation of evidence of self-growth (Huber, 2011; Woods, 2016). Unlike the self-determined nature of heutagogy, much of the content of professional development still consisted of implementation of external policies and standards along with locally or personally identified needs (Hill et al., 2013). The assumptions of andragogy had significant implications for leaders as they considered the environment, design, content, and evaluation of professional development (Merriam & Bierema, 2013).

When implementing professional learning endeavors, school climate and culture had to be considered (Huber, 2011; Knowles, 1970). In order for adults to fully engage in and apply learning, they needed to understand why they were asked to learn the content or skill and how it was relevant to their individual goals (Clement, 2014; Merriam & Bierema, 2013). When the qualities of the collaborative culture aligned with the assumptions of andragogy, teacher perceptions were more positive (Goldstein, 2015; Jones, Youngs, & Frank, 2013; Karadag et al., 2014; Owen, 2014; Schlichter, 2015; Wilt, 2016). Those aligned qualities included teacher autonomy, self-directed learning, personal and professional relevance, and learning, which took into account teachers' existing knowledge and life experiences (Knowles; Knowles et al., 2014;

Ozuah, 2016). The opposite was true when formalized structures or mandates removed those aspects from the teachers' learning opportunities (Clement; Flessner & Stuckey, 2014; Goldstein). Leaders had to consider the learners' biographies, attitudes, and the social cultures within the school as well as external forces that affected the teachers' ability to obtain optimum effectiveness as these dynamics permeated how teachers approached and responded to instruction (Calderhead et al., 2012; Fullan, 2014; Huber; Kegan & Lahey, 2009; Wlodkowski, 2011).

Knowles (1970) stated that adults were more likely to engage if the environment was less formal and they had a role in planning their learning experiences. The environment was more conducive when the role of an administrator was "more of a catalyst than an instructor" (Knowles, p. 49). Instead of prescribing what was to be learned and applied, administrators had a larger impact when they guided teachers in self-discovery of their needs, then joined them in setting and working toward collective goals (Fullan 2014; Kegan & Lahey, 2009; Knowles; Knowles et al., 2014). Once teachers saw their need, the professional learning served to bridge the gap between the need and the desired competencies (Kegan & Lahey; Knowles; Knowles et al.). Unlike children, teachers established mental maps through which they filtered knowledge (Huber, 2011). The role of the leader was to activate teachers' intrinsic need to take responsibility for their own learning and motivate them to recognize patterns in their thinking that were no longer relevant or useful (Huber; Wlodkowski, 2011). Knowles (1970) explained "nothing makes an adult feel more childlike than being judged by another adult; it is the ultimate sign of disrespect and dependency" (p. 49). He called this the "crowning instance of incongruity between traditional educational practices and adult self- concept given that pedagogy calls for those same adults to judge and assign grades to children" (Knowles, p. 49).

Characteristics of Professional Learning Communities

Educational systems frequently implemented PLCs for the purpose of improving individual and collective professional capacity in order to meet school-wide goals of improved academic outcomes and teaching practices (DuFour et al., 2016; Hairon et al., 2017; Schlichter, 2015). The characteristics found to result in teacher change were the cornerstones of the work expected within PLCs (DuFour et al.; Luft & Hewson, 2014; Whitworth & Chiu, 2016). DuFour et al. (2016) described PLCs as collaborative groups engaged in continuous cycles of inquiry, problem solving, action, and evaluation revolved around student mastery of content standards. Because the work was sustained over long periods and involved constant follow up of both teacher practice and student performance, this method of professional development was much more impactful than isolated sessions and one-time conferences (DuFour et al.; Whitworth & Chiu).

The effectiveness of PLCs was grounded in transformational theory in which the learner ideally improved practice because of informed dialogue and purposeful interactions with peers working toward common goals (Kegan & Lahey, 2009; Owen, 2014; Penuel, Sun, Frank & Gallagher, 2012). Datnow (2012) emphasized that to realize improvement through educational reforms, teachers must be active agents in all aspects of the work. DuFour et al. (2016) defined PLCs as an ongoing collaborative process where educators engaged in collective inquiry and action research for the purpose of attaining shared goals and improving educational outcomes for students. The implementation of PLCs represented a shift from professional development led by perceived experts to sustained professional development led by the action research of those working directly with the students (Ning, Lee & Lee, 2015). The emergence of PLCs represented the deprivatization of teaching and a significant shift in mindset from teachers working in

isolation serving their students to collaborating and cooperating with other teachers to accomplish shared goals and improve achievement for all students (DuFour et al., 2016; Evans, 2015; Muhammad, 2009; Otovar-Nameghi & Sheikhahmadi, 2016).

Teacher collaboration, which was widely recognized as a crucial component in professional growth and student achievement, referred to cooperative practices and activities aimed at meeting shared goals (Liberman, 1990, Ning et al., 2015). The work of PLCs went beyond the standard definition of collaboration because of two core dimensions conceptualized by Hord (1997): application of collective learning and shared personal practice. The practice of teachers engaging in collective action research led to improved teacher skills in prioritizing their professional learning and the ability to seek and implement new knowledge and skills directly targeted to identified student needs (DuFour et al., 2016; Mertler, 2016). Shared personal practice such as peer coaching, classroom observations, lesson studies, and continuous cycles of evaluating learning effectiveness using current student data led teachers to develop collegiality through their day-to-day work on a common self-directed vision and mission (Fullan, 2014; Ning et al.).

Perhaps the most profound difference between PLCs and traditional one directional professional development was the level of teacher autonomy and ownership in the work (Fullan, 2014: Muijs et al., 2014). Unlike top-down initiatives, PLCs provided a framework that honored teacher professionalism because teachers worked together to guide their own learning based on personally identifying student needs (Muijs et al.). Through work in PLCs, teachers collectively "investigated, challenged, and extended their current views" forming new knowledge with direct application to their personal needs and goals (Muijs et al., p. 247).

In a 7-year longitudinal study on professional development, Casey (2013) found that collective inquiry and teacher-led action research had the highest impact on teacher and student growth because teachers were guiding their own learning to address the needs of their students. Casey documented his personal experiences along with his peers through teacher and student observations and reflections comparing continuous professional development programs to other means of professional development including action research and informal collaboration. Hattie (2012) concluded self-directed learning and empowerment validated teachers as professionals and resulted in increased self-efficacy, teacher engagement in learning, and commitment to meeting challenging goals. When self-efficacy was collective in nature, Hattie found the resulting collaboration was the most impactful strategy on student learning.

In 2008, Vescio, Ross, and Adams conducted a comprehensive review of 11 studies to determine the value of PLCs. The studies spanned all grade levels and consisted of a mixture of qualitative and quantitative methodologies (Vescio et al., 2008). The researchers found empirical evidence of positive impacts on both teacher professional growth and student achievement. Increased student achievement was attributed to a shift in focus from teaching to learning (DuFour et al., 2016; Vescio et al.). Teachers involved in PLCs worked collectively to understand their students' needs and engaged in more student-centered instruction (Vescio et al.). Collective responsibility for all students and peer social support for achievement led to significant gains in student performance on high-stakes assessments (Vescio et al.).

Ronfeldt et al., (2015) also found a link between teacher self-reported perceptions of PLC work to academic achievement in both mathematics and reading. Ronfeldt et al. studied 9000 teachers in Miami Dade County public schools for two years. The researchers' quantitative study included Likert scale survey data as well as district-level achievement data (Ronfeldt et al.,

2015). Ronfeldt et al. found a direct relationship between quality of collaboration and student gains in both mathematics and reading. Teachers with significant student gains attributed their success to the authority and autonomy afforded them in terms of control of curriculum and pedagogy (Ronfeldt et al.; Vescio et al., 2008). Instructional decision-making based on collective analysis of student data and flexibility in developing instructional responses to identified student needs were contributing factors to the teachers' success (Marsh & Farrell, 2015; Ronfeldt et al).

Professional Learning Communities Dynamics

Several researchers documented positive professional outcomes of PLCs in terms of morale, collegiality, retention (Flessner & Stuckey, 2014; Jones et al., 2013; Wilt, 2016), shared ownership of the work (Owen, 2014), and self- efficacy (Goldstein, 2015). Teachers involved in the predominantly qualitative studies attributed outcomes to collaboration that was characterized by volunteer participation, shared vision, and self-directed learning (Goldstein; Karadag et al., 2014; Owen; Schlichter, 2015). Teachers attributed increased student achievement mostly to the informal collaborations with self-chosen peers and the act of non-structured advice seeking that had direct relevance and immediate application to their work (Flessner & Stuckey, 2014; Karadag et al.; Praise & Spillane, 2010). The same positive view of collaboration was observed in a school where teachers received intentional and direct support in learning how to collaborate effectively with peers (Evans, 2015). Given a supportive culture and a choice in participation, teachers learned to view collaboration as a means of reducing isolation, building collegiality, and considering ideas beyond their classrooms (Evans).

Moller, Mickelson, Stearns, Banerjee and Bottia (2013) found schools that identified themselves as having collective pedagogical teacher cultures had significantly higher student mathematics achievement and reduced achievement gaps among races and socioeconomic

groups. This study considered data from a longitudinal study of a nationally representative group of elementary students who were assessed repeatedly throughout their public school elementary years (Moller et al., 2013). The student growth was cross-referenced with survey results from teachers and administrators concerning the level of community and collective culture within the schools. Schools identified as possessing professional learning cultures met five requirements established by the researchers (Moller et al.). Among the requirements was evidence of a centralized vision communicated by leadership that was internalized and accepted by teachers as their own (Moller et al.). The researchers postulated the impact of the culture generated and diffused to the students by the elementary teachers was greater than it would be at the secondary level because of younger children's dependency on adults whereas older children were more influenced by their peers (Moller et al.). The researchers concluded the culture of collective teacher responsibility for all students and collaborative planning of individual student interventions had the most impact on increased student achievement (DuFour et al., 2016; Hattie, 2012; Moller et al.).

Wang (2015) found similar results in a qualitative study conducted in China. Wang investigated two high performing urban schools that were part of a larger study on PLCs. Based on analysis of the data including observations, documents, and interviews of 20 teachers, Wang concluded improved teaching and learning resulted from pervasive school-wide collaborative cultures. The PLCs at the high growth school had organizational structures that supported disciplined collaboration and a culture of shared responsibility, trust, and authentic emotional bonds among all educators (Muhammad, 2009; Wang, 2015). The inclusive and collegial culture provided the essential foundation for productive PLC work (Wang; Datnow, 2012). The growth and positive outcomes observed in these schools were absent in schools that had what Wang

described as “contrived collegiality” (p. 908) due to imposed collaboration. The act of leadership imposing the structure of PLCs on teachers without the essential cultural and structural supports needed for authentic collaboration undermined the ideals of PLCs (Hargreaves, 2013; Wang). DuFour et al. (2016) and Muhammad (2009) also emphasized the essential nature of transforming school culture and organizational structures to support the physical and emotional needs of teachers asked to engage in the vulnerable work of PLCs.

Datnow (2012) emphasized the dynamics of the social networks within PLCs could be leveraged for school improvement through PLCs but could also derail the work. Datnow cautioned leaders not to assume the mere grouping of teachers in PLCs would result in sustainable school improvements. Penuel et al., (2012) postulated professional learning through PLCs required protocols that created safe environments for teachers to vulnerably receive peer feedback and cohesiveness among teachers and leaders. Schools that were shown to have sustainable change due to PLCs were those with social networks among teachers characterized by informal structures, expertise in the expected work of PLCs, and deep trust among members (Coburn, Russell, Kaufman, & Stein, 2012; Datnow, 2012; Penuel et al., 2012).

The absence of these social dynamics and cultures within groups stifled collaborative efforts and resulted in contrived collegiality instead of authentic PLCs (Datnow, 2011; Finnegan & Daly, 2012). Datnow (2012) explained while appealing to policy makers, administrators, and teachers, “giving control to teachers and expecting good things to happen” (p. 193) is an unrealistic means of school improvement. Penuel et al. (2012) recommended the content and frequency of PLCs be differentiated based on levels of trust and expertise among the teachers to build authentic, functioning teams. Spillane and Kim (2012) emphasized how the social networks and interactions of informal teacher leaders either enhanced or impeded work within PLCs.

Professional Development and Teacher Change

The goal of professional development was to induce change in teachers, which ultimately resulted in positive change in students (Casey, 2013; GaPSC, 2015b; Whitworth & Chiu, 2015) Finding direct links and evidence in the research, however, was a challenge (Whitworth & Chiu). The traditional one-time workshops, conferences, and in-service experiences aimed at introducing teachers to innovative strategies and improved school culture rarely resulted in a change of teacher practice (Spelman & Rohlwing, 2013). Casey (2013) argued this lack of change resulted from a perception that professional development was something "done to teachers" (p. 79) on designated professional learning days with content unrelated to teachers' self-identified needs. This type of professional development failed to incorporate teachers as active problem solvers and resulted in lack of engagement in one-size fits all, isolated sessions designed to teach them new skills (Casey). Teachers judged professional development based on their perception of sufficient follow up and administrative support for implementation of content (Casey; Spelman & Rohlwing). When professional development failed to result in teacher implementation, determining potential value of the content of the mandated professional development was impossible (Spelman & Rohlwing).

Teachers also resisted implementation of professional learning content when they perceived the risks were too high (Le Fevre, 2014; Twyford et al., 2017). This perceived risk had many origins (Le Fevre; Muhammad, 2009; Twyford et al.). Teachers had difficulty taking risks when it meant potential loss of control, specifically the control they had over their students and their instructional time (Le Fevre). The perceived level of uncertainty associated with change also played a role in teacher resistance and risk taking (Clement, 2014; Twyford et al.). Teachers refused to engage when the expectations were not clearly articulated or they lacked trust in the

leaders proposing the change (Clement; Muhammad, 2009; Penuel et al., 2012; Spillane & Kim, 2012; Twyford et al.). Spillane and Kim (2012) postulated the lack of trust in administrator proposed change stemmed from teachers' perceptions that leaders were more focused on meeting external mandates than authentic support of school improvement. Teachers included in a case study of three schools, one primary, middle, and secondary, in New Zealand described intense feelings of vulnerability associated with learning externally derived initiatives that ultimately negatively affected their learning and application of content (Twyford et al.). Teachers described the loss of control required to implement new strategies as counter to their identity as the experts in their classrooms (Le Fevre).

Fear of public failure and accountability implications of possible failure also caused teachers not to implement strategies meant to improve student achievement (Le Fevre, 2014). Eleven of 12 teachers who participated in Le Fevre's (2014) case study spoke directly of their fear of immediate state-level ramifications should they try the new initiative proposed by external facilitators or administrators in their school. While Le Fevre described the teachers' fears of low test scores, job loss, and loss of possible pay raises as unfounded because they were not communicated by any of the administrators in the study, those fears paralyzed many teachers. Interestingly, the 12th teacher in Le Fevre's case study did not share her fellow teacher's fear of public failure or accountability measures. That teacher failed to implement change because she perceived the risk of nonconformity would result in loss of acceptance and friendship among her peers (Le Fevre).

Teachers also perceived a risk of losing their identities as knowledgeable experts in their classrooms (Le Fevre, 2014). That fear was intensified when combined with the possibility of losing that identity in front of peers, administrators, or external facilitators when trying

something new with students (Le Fevre). The risk was described as just too high for engagement in change (Le Fevre). Teachers communicated there was no safe place to learn, grow, or make mistakes in the educational setting (Le Fevre; Margolis & Doring, 2012). Margolis and Doring (2012) found even when teacher leaders created model classrooms with the intended purpose of creating risk-free environments, they ultimately never truly opened the doors of their classrooms because they could not overcome the logistical, social, and culture barriers that existed. The study followed six middle and high school teachers, four principals, and four central office staff members in four districts in a Northwestern state (Margolis & Doring). After a two-year implementation effort, Margolis and Doring validated the teachers' perceptions of social and professional risk in the education setting. Leaders who mitigated those fears by establishing safe, supportive, and empowering cultures had higher incidences of risk taking and therefore pedagogical change (Le Fevre).

Teacher Reactions to Mandated Change

Mandated change was defined by Clement (2014) as "change initiated at the government or bureaucratic level and transmitted to schools, where it is adopted by the administration and communicated to teachers, who will probably attempt to implement it with varying degrees of enthusiasm and success" (p. 40). Despite evidence that externally mandated reform had minimal impact on sustained changes in teaching and learning over the past few decades, the pace and magnitude of these reforms were increasing rather than decreasing (Clement; Erne, 2016; Rees, 2014). Recognizing the inevitable aspect of educational reform through top-down change efforts, Clement sought to gain insights on how teachers reacted to these mandates. Clement conducted a case study at two Australian schools that implemented the same mandated teaching initiative to compare the effects of the amounts and types of professional learning implemented on teachers'

reactions and application of the initiative. Through principal questionnaires and interviews with three teachers from each school, Clement discovered an additional variable influenced teachers' reactions to the initiative. Clement found even when teachers were not opposed to the content of the proposed change, the mandated nature and context of the implementation led to resistance.

Ostovar-Nameghi and Sheikhahmadi (2016) postulated teachers responded with resistance because dictated change presented a threat to their professional autonomy. Teachers tended to resist externally mandated change because their expertise and perspectives were not considered in the development or implementation (Clement, 2014; Knowles et al., 2014; Montgomery, 2012). Teachers rejected change that did not acknowledge or involve their perspectives given they were closest to the students, ultimately responsible for student outcomes, and possessed an insider, practical, common sense understanding of classroom dynamics impossible for outside stakeholders to comprehend (Clement; Montgomery). Casey (2013) argued that mandated change diminished teacher self-efficacy because it changed the role of the teacher to a passive recipient of knowledge rather than a professional, engaged problem solver. The degree to which teacher professionalism was acknowledged in the communication and implementation of mandates affected whether teachers chose to passively accept, actively engage, or reject the mandated change (Datnow, 2012; Knowles, 1970).

Spelman and Rohlwing (2013) studied teacher learning through a 3-year university grant that utilized professional development meetings, observations, and one-to-one coaching in an urban K-8 school inundated with grant programs and mandates aimed at improving the high poverty, high minority school. The mixed method study had 10 participants with detailed case studies conducted on the lowest, mid-point, and highest scoring teachers on a professional knowledge assessment (Spelman & Rohlwing). In addition to lack of consistent leadership,

teachers blamed an overabundance of manipulated variables and mandates for the culture which was characterized by pockets of teachers who became resistant to all changes regardless of quality (Clement, 2014; Spelman & Rohlwing).

Teachers described implementation of mandated change as rushed, lacking coherence, unsupported by resources, and lacking time for teachers to make sense of how the change interacted with their existing pedagogical roles and ideals (Clement, 2014). As Knowles (1970) pointed out in the theory of andragogy, adults were not blank slates and processed new learning as it related to their existing ideals and knowledge base. When implementation of mandates failed to provide teachers with the time necessary to understand how the proposed change aligned or challenged their personal and pedagogical beliefs and ideals, they rarely implemented the changes (Evans, 2015; Ketelaar, Koopman, Den Brok, Beijaard, & Boshuizen, 2014). This mismatch between teachers' skills and ideals, combined with often insufficiently articulated mandates led to frustration and toxic cultures (Clement; Muhammad, 2009). Muhammad (2009) argued that teachers needed time and support prior to being held accountable for mandated change.

Evans (2015) concurred with Muhammad (2009) stating with the correct balance of pressure and support by both administrators and teacher leaders, school improvement was attainable. Evans conducted a multi-tiered case study that included data from teacher surveys, interviews, principal and teacher focus groups, and principal reflection logs. The case study followed Australian teachers and principals at both the elementary and secondary levels as they worked through the implementation of their choice of professional learning projects from a defined list of options (Evans, 2015). Interestingly, teachers identified time as both an enabler and a constraint in the implementation of proposed changes (Evans). While claiming they needed

more time and structured professional development for sense-making and capacity building, teachers also claimed the structured training they did receive was too prescribed and failed to build the capacity needed to carry out the change (Evans; Fullan, 2014). Teachers in the study also indicated an inability to focus on the sense-making process due to perceived demands on their mental energy and physical time due to the operational aspects of their daily responsibilities as classroom instructors (Evans).

Mandates were typically communicated as vehicles for system and school improvement; however, processing those mandates based on their potential collective benefit was not an intuitive skill for all teachers (Evans, 2015). Teachers who successfully implemented change did so to meet their personal needs and did not instinctively consider the power of collective agency in bringing about school level improvement (Evans). Even when teachers were empowered with the knowledge and skills to guide their own learning, personal readiness and perceived personal relevance mitigated their level of engagement in new learning experiences (Ketelaar et al., 2014). In their 9-month case study of secondary vocational teachers in two schools in the Netherlands, Ketelaar et al. (2014) found teachers implemented new pedagogy only when it was perceived to assist them with meeting their individual goals. The coding of digital logs submitted by eleven teachers revealed that they assigned little importance to school level goals, targets, and mission statements (Ketelaar et al.). Teachers focused instead on personal responsibility, which indirectly led to school wide gains (Evans). Given that collective self-efficacy was not intuitive, Fullan (2014) argued that empowering individual teachers and grouping them with similarly engaged individuals led to a greater likelihood of change both individually and collectively.

Montgomery (2012) found teachers gave little or no consideration to mandated standards in their instructional planning. Despite varying experience levels, the nine teachers interviewed

in Montgomery's qualitative study based their instructional planning on their own expertise in pedagogy and their perceptions of what they believed their students needed (Montgomery, 2012). Teachers did not reject the mandated California standards on their merit but rather on their perception that the standards represented mandates created by an "anonymous committee" (Montgomery, p. 45). Similar to Clement (2014), Montgomery concluded that the teachers' actions were not "anti-authoritarian" (p. 55) but rather a thoughtful response to their belief in their own abilities to determine what was best for their students. When teachers were placed in conflict between professional identity and mandated accountability, they chose their professional identity (Montgomery). Montgomery found this trend was supported regardless of teaching experience and quality of the instruction associated with the strong professional identity.

In Clement's (2014) study on teacher perceptions of the management of mandated change, the researcher found when mandated changes were introduced as a means of allowing teachers and schools to meet their internal goals, implementation and positive outcomes were more likely. Teachers' responses were altered not because of the content of the change but the manner in which the change was framed and implemented (Clement, 2014). Utilizing a school-oriented approach, teachers were given input and ownership over the way the mandates were implemented thereby allowing the teachers to shape the reform and fit it into the context and needs of the school rather than the reform reshaping the teachers (Clement). This approach respected and validated teachers' knowledge and skills because those aspects were solicited and utilized during the implementation of change (Clement). When compared to another school implementing the same mandate, teachers in the school that used the school-oriented approach were found to be more likely to take charge of the initiative individually and collectively because they were deeply involved in all aspects of implementation (Clement). At the end of the study,

many teachers no longer discussed the change as a mandate but rather a result of self-directed change (Clement). The process of implementing the mandate using this approach also built resilience in teachers by giving them the tools to manage inevitable future mandated change initiatives (Clement). Fullan (2014) agreed stating the best way to induce change was to let the people charged with the change do it while surrounded by similarly burdened and like-minded individuals.

Mandated Collaboration

When participation in PLCs was mandated and the structures and protocols associated with collaboration were formalized, negative socio-cultural behaviors emerged (Flessner & Stuckey, 2014; Goldstein, 2015; Maloney & Konza, 2011; Perry, 1993; Sayers, 2013). Counterproductive behaviors included conflicts with peers, resistance, resentment, and disengagement (Flessner & Stuckey; Goldstein; Perry). Flessner and Stuckey (2014) illustrated how mandating and formalizing PLCs potentially negated any benefits of the practice. The research included interviews and analysis of 25 teacher and administrator final projects in an Indiana elementary school with mandated collective action research teams (Flessner & Stuckey). The research was of particular interest because it explored the practice of layering a mandate grounded in the use of negative reinforcement or punishment to accomplish a task, with PLCs that gained their transformative nature from teacher empowerment and self-directed learning (Ertmer & Newby, 2013; Flessner & Stuckey).

Flessner and Stuckey (2014) captured the reactions of teachers as they transitioned to a top-down restructuring of their collaborative work with peers. Motivated by the success of teacher-driven collaborative teams, leaders chose to expand the concept and mandate the practice for all (Flessner & Stuckey). Administrators altered the composition of the teams and mandated

the structure and agendas of the meetings (Flessner & Stuckey). Professional development that was once productive became a source of frustration because teachers resented being assigned to teams that included disengaged members, had gaps in teacher capacity, lacked focus on relevant content, and took time away from their existing self-chosen teams (Flessner & Stuckey).

In Goldstein's (2015) case study of 18 secondary teachers in a school located in the southeastern United States, the researcher sought to discover the benefits and barriers associated with mandated collaboration. Because of the increased workload, multiple preparations, and typical lower morale at the secondary level, the researcher specifically investigated the effect of collaboration on teacher morale (Goldstein, 2015). Goldstein found while most reported mandated collaboration had a positive impact on morale because it eliminated some of the isolation typical of this level of education, there were many references to negative socio-cultural behaviors. Teachers articulated power issues caused disengagement, stress, and counterproductive conflict among groups (Goldstein). The power issues were described on two levels, among peers and with administration (Goldstein). Teachers described power struggles and inequality among peers caused individuals to withdrawal when they did not believe they were respected, valued members of the team. Teachers resented the power administration exerted over their time, describing mandated collaborative meetings as a stressful addition to their already overwhelming list of responsibilities (Goldstein). In each of these studies, the aspect of choice was eliminated, which Evans (2015) identified as the singular factor that underpinned all other aspects of successful teacher learning experiences including on-going collaboration, research-based inquiry, content relevance, and reflective practices.

Dworkin and Tobe (2014) highlighted an additional dynamic undermined the intent of PLCs. High stakes testing and legislated accountability measures in a culture characterized by

critical public opinion not only increased stress and pressure on teachers but also created direct competition between them (Dworkin & Tobe, 2014; Drago-Severson, 2012; Rees, 2014). This competitiveness was counter to the requisite trust and vulnerability essential to developing the collective responsibility for all students linked to increase achievement (Dworkin & Tobe; Drago- Severson; Moller et al., 2013). Churchward (2016) postulated teachers disconnected from PLC work because they developed a fixed mindset in the face of top-down pressures to meet short-term gains in test scores. The climate of accountability redefined education as a means of economic growth for the United States as well as provided a tool for justifying or criticizing the use of public funds on the public education system (Churchward, 2016; Murphy, 2013). Those ideals were counter to the moral purpose of public good most educators associated with their roles and therefore resulted in disengagement from initiatives put forth by their administrators (Churchward; Montgomery, 2012).

Public education was not the only entity where mandating collaboration resulted in negative outcomes (Bolino et al., 2015). Bolino et al., (2015) studied organizational citizenship behavior (OCB) and citizenship fatigue for 273 employees and peers across 52 private universities in Taiwan. Organizational citizenship behavior described the expectation of employees to go beyond to scope of their jobs to support their peers and engage in collaboration focused on shared goals (Bolino et al.). These ideals and expectations paralleled those of PLCs in public education (DuFour et al., 2016). Similar to public education, the universities in this study had limited funding and resources which resulted in a dependency on employees' willingness to extend their efforts above their contracted hours and duties to function (Bolino et al., 2015).

The analysis of the survey results revealed an important paradox in that the strategy designed to improve culture, lessen workload, and reduce stress for employees could be the

source of a negative culture, increased workloads, and stress (Bolino et al., 2015). The mitigating factors that determined if the OCB was a help or a hindrance was the level of organizational support, quality of interpersonal relationships among employees, and the pressure to engage in OCB (Bolino et al.). Organizational citizenship behavior was designed to create a more positive and productive work environment; however, employees described OCB as stressful when they were pressured to take responsibility for others, especially when they felt they lacked support to complete their own job responsibilities (Bolino et al.). The more pressure applied to workers to engage in OCB, the higher incidence of reported stress, feelings of task overload, and burnout (Bolino et al.). Several participants reported the increased workload associated with OCB had negative effects on their ability to balance work and family life resulting in mental and physical fatigue (Bolino et al.). Perceived support from leadership, the level of trust among employees, and the pressure from leadership to engage in OCB were contributing factors to citizenship fatigue (Bolino et al.). Fullan (2014) summed up these same sentiments in education when he stated: "extreme pressure without capacity results in dysfunctional behavior" (p. 270).

In a case study of nine elementary teachers' perceptions of legislated mandated collaboration, Wilt (2016) reported positive feedback concerning the effectiveness of mandated collaboration. While these results initially seemed contrary to the majority of study outcomes found, further investigation into the case study revealed a different context of mandated collaboration (Wilt, 2016). The legislated, mandated collaboration in this study consisted of changes in the structure of the school day providing teachers designated time within the day to collaborate (Wilt). Teachers maintained their autonomy over all other aspects of the collaboration (Wilt). In their semi-structured interviews and reflective journals, teachers

expressed appreciation for the administrators' logistical work in creating the structures for collaboration and believed collaboration was an essential part of their work (Wilt).

The most common emergent theme when teachers described the content of their collaborative meetings was teacher challenges and frustrations (Wilt, 2016). Teacher challenges and frustrations had a frequency nearly double that of the second most identify theme, which was student needs (Wilt). Administrators in this study did not sit in on meetings or formalize protocols in any way, holding tight to only the mandate of collaborative time within the school day (Wilt). Wilt (2016) also found mandated collaboration reduced teacher isolation and built a collegial culture resulting in higher incidence of informal, voluntary collaboration among teachers. Teachers actually referenced those informal interactions more so than the mandated ones in their interviews and journals (Wilt). In a different study, Goldstein (2015) also found while teachers reported negative socio-cultural behaviors within the mandated PLCs, the positive outcomes such as increased morale, reduced teacher isolation, and collective problem solving outweighed the negative aspects. Teachers communicated that collaboration was a needed and necessary component of their work (Goldstein, 2015; Wilt).

Role of Administrators in Professional Learning Communities

The role of administrators as both facilitators and evaluators of teacher involvement in PLCs placed them in the intersection of what seemed to be two conflicting ideologies (GaPSC, 2015b; Wilt, 2016). While mandating PLCs enabled collaboration by guaranteeing time and resources for teachers to engage in transformational learning (Wilt), it also created overly formal and regulated environments that impeded authentic collaboration (Sayers, 2013; Schlichter, 2015; Spelman & Rohlwing, 2013). Stakeholders at all levels agreed collaboration was a

necessary and valuable tool for teacher growth with many acknowledging that without a mandate from administration, collaboration would fail to take place (Maloney & Konza, 2011; Wilt).

DuFour and Mattos (2013) recommended administrators refrain from micromanaging teachers and focus instead on collectively monitoring student achievement, which in a supportive environment naturally led teachers to engage in effective problem solving. Teacher feedback indicated a need for administrators to provide opportunities for capacity building for collaboration and to support teachers while empowering them to take ownership and guide their own work (Clement, 2014; Fullan, 2014; Muijs et al., 2014; Sayers, 2013; Schlichter, 2015; Wang, 2015). Muhammad (2009) and Hargreaves (2013) indicated the success of PLCs depended on leaders' ability to find balance between authoritative structures and teacher autonomy. Sustained growth rarely resulted from top-down mandates or mere suggestions (Muhammad, 2009). Hargreaves agreed stating the role of the administrator is to understand when to pull, push, or nudge teachers in PLCs. Hargreaves concluded "pulling should not be so weak that it permits no collaboration at all, and pushing should not be so excessive that it amounts to shoving or bullying" (p. 119). Instead administrators should nudge teachers by creating deliberate opportunities to enhance adult learning (Hargreaves).

Guskey (2014b) suggested administrators focus less on the method of professional development and more on creating conducive environments and learning opportunities that build capacity for teachers to learn how to best work together for sustainable improvements. Margolis and Doring (2012) concurred, recommending administrators focus less on teaching teachers updated strategies that had minimal chance of authentic implementation and more on building their capacity for reflective practices. When teachers were more reflective, identified their own needs, and pursued their own solutions, they were more likely to take risks and change personal

practices (Evans, 2015; Margolis & Doring, 2012). When leaders introduced mandated change as a means for teachers to address their personally identified needs, implementation was more successful (Clement, 2014; Evans; Muhammad, 2009).

Without a visionary leader who communicated and created centralized goals that built trust and collegiality among teachers, resistant subcultures and fear of risk taking undermined efforts to utilize PLCs to increase student achievement (Moller et al., 2013; Muhammad, 2009; Penuel et al., 2012). It was crucial, however, the principal contributed both passion and knowledge to the improvement process (Fullan, 2014). It was important for principals to model the connection between leading and learning by actively engaging in both alongside their teachers (Evans, 2015; Fullan; Whitworth & Chui, 2015). Successful change agents were those who validated their motivational message with authentic sensitivity to the needs of individual staff members demonstrating a willingness to change to support teachers' work (Fullan). Olivier and Huffman (2016) found that re-culturing schools into environments conducive to authentic PLC work required leadership beyond the school level. Oliver and Huffman found sustained change required capacity building and proactive decision making on the part of all levels of leadership including teachers, administrators, and central office staff. Authentic teacher professional learning required the support of "everyone who has a place in the chain of influence from policy to practice" (Muijs et al., 2014, p. 249). A proactive district approach characterized by transparency, trust, empowerment, and accountability provided school leaders with the autonomy and flexibility to lead in the manner necessary to induce change (Clement, 2014; Olivier & Huffman, 2016; Penuel et al.).

Successful leaders were those who nurtured a growth mindset in their teachers by overcoming the external push for accountability and building an internal accountability system of

shared leadership focused on the emotional connection teachers have to their moral role as educators (Churchward, 2016). Churchward (2016) based his conclusions on analysis of four teacher interviews and his personal reflective journal as the principal of a school he guided through the change process. Developing a culture of shared leadership was of particular importance at the secondary level where the principals typically had reduced influence on day-to-day teacher practices (Bendikson, Robinson, & Hattie, 2012; Nir & Hameiri, 2014). At the secondary level, middle managers, such as content area leaders and department chairs, tended to have greater influence on teachers in terms of pedagogy than the principal (Bendikson et al; Nir & Hameiri). This delegation and mediation of leadership and influence provided a broader support system for teachers, which was especially important at this level due to size and specialization of content (Bendikson et al.; Stewart; 2013). Olivier and Huffman (2016) agreed stating implementation of PLCs had to be utilized as a means of building leadership at all levels, not as a tool for managing teachers.

It was important to note, however, schools with the highest academic growth at the secondary level had principals who engaged in frequent direct instructional leadership focused on improving teaching as compared to those who relied more heavily on indirect leadership focused more on creating environments conducive for teacher learning (Bendikson et al., 2012). This distinction spoke to the need for teachers to trust in the instructional competency of their leaders as well as the instructional value of the mandates they passed along (Twyford et al., 2017). For the purposes of their study, Bendikson et al. (2012) defined direct instructional leadership dimensions in terms of "goal setting, ensuring quality teaching, professional development and a sense of collective responsibility by order of documented use" (p. 5). Indirect instructional leadership was defined as "ensuring a safe and orderly environment,

resourcing strategically, and complex problem solving" (Bendikson et al., p. 5). Bendikson et al. came to their conclusions through the analysis of questionnaires taken by 651 teachers at 29 secondary schools concerning frequency and type of leadership behaviors and school culture. Evans (2015) articulated the support needed for growth in PLCs as an equal partnership between the principal and the teachers in both collective leadership of time and space as well as collective agency in the on-going collaborative process. For this partnership to be possible, the principal needed to be equally competent as the teachers as an instructional leader and viewed as an internal source of change versus an external messenger of top-down mandates (Clement, 2014).

Nir and Hameiri (2014) investigated how leaders increased productivity within schools through their employment of different leadership styles and powerbases. Powerbase was a term used by the researchers to describe how leaders exercise their influence over teachers to elicit a desired response (Nir & Hameiri, 2014). In a study of 945 teachers from 191 public elementary schools in Israel, questionnaire analysis indicated the most positive outcomes for teacher engagement and school improvement occurred when leaders combined transformational leadership with employment of soft powerbases (Nir & Hameiri). For the purpose of their study, transformational leadership was defined as leadership through empowerment and collaboration around a central vision (Nir & Hameiri). Principals were described as utilizing soft powerbases in order to get teachers to buy in and work toward common goals when they used their charisma, interpersonal relationships, rational arguments, and mutual dependency to influence change (Nir & Hameiri). While effective leaders varied their use of powerbase depending on the dynamics of each situation, transactional leadership, characterized by rewards contingent on compliance, combined with the use of harsh powerbases resulted in the most detrimental impacts on school improvement (Nir & Hameiri). Leadership that employed the threat of sanctions, coercion and

the use of positional authority to force teachers into compliance not only created toxic cultures but also decreased productivity for both teachers and students (Nir & Hameiri).

Concept Analysis

The studies in the concept analysis charts found in Tables 1 and 2 below represented the major research findings related to how educators experienced and responded to professional development through policy-driven participation in collaboration. Each of the studies addressed some aspect of the intersection of mandated change and teacher collaboration. Clement's (2014) and Evans' (2015) studies both provided information not only pertinent to how teachers responded to mandated change but also how the administrators' role in implementing mandates affected teacher engagement. Clement's qualitative study identified the mandated nature of change as the source of teachers' negative emotions and behaviors when faced with top-down, externally derived initiatives. Negative reactions were associated with lack of time for sense-making, lack of knowledge and leadership on the behalf of administrators, the transitory nature of mandated change, and a sense of compulsion to change to satisfy external goals versus internal ones (Clement, 2014). Clement also discovered that the manner in which administrators invested in and implemented the mandated change could reduce negative socio-cultural behaviors. Clement found increased teacher engagement when administrators framed the implementation of external mandates as a way for teachers to meet their personal goals and actively engaged in the change by authentically participating and empowering teachers to decide how the mandate manifested itself in actual practice. Evans also found positive outcomes were more likely when leadership framed change as a means of meeting teachers' self-determined professional goals. Evans' research articulated the crucial role of leadership in creating environments conducive with transforming professional learning into actual instructional

improvements in teaching and learning. Evans illustrated that school improvement and teacher change were more likely when administrators shared leadership and embedded aspects of teacher choice in the implementation of external mandates. Table 1 below outlined the concept analysis of two studies related to the role of leadership in mandated change.

Table 1

Concept Analysis Chart: The Role of Leadership in Mandated Change

Study	Purpose	Participants	Design & Analysis	Outcome
Clement (2014)	Compared teachers' reactions to and implementation of mandated change in two schools based on different amounts and types of professional learning	6 teachers, 3 from each school 2 principals, 1 from each school	Qualitative: Case Study Principals: Questionnaires Teachers: Semi-structured interviews	Mandated nature of change had a negative impact on some teachers' emotions and implementation of change Negative reactions were associated with lack of time for sense-making, transitory nature of mandated change and a sense of compulsion. Principals' methods of framing mandates influenced teachers' reactions to and implementation of mandated change.
Evans (2015)	Investigated what processes enabled or constrained levels of teacher agency within professional learning for school improvement	48 Teachers 2 Educational consultants 1 principal	Qualitative case study Surveys – 48 teachers	Leadership, infrastructure, supportive cultures, and teacher agency affected teacher learning and transformation of professional learning to school improvement

	The purpose was also to determine principals' influence on Professional learning for teachers.		Interviews and focus groups – 7 teachers/ administrators Principal's reflective log	Increased levels of PL implementation when it aligned with teachers' professional goals

The studies in Table 2 below each addressed a specific aspect of mandated collaboration, which could have significance to this study. Flessner and Stuckey's study (2014) illustrated the change that took place when there was a transition from voluntary, effective collaboration within an elementary school to restructured mandated collaboration reinforced by possible punitive action. Teachers that were once productively engaged in collaboration became frustrated, resentful, and ultimately withdrew from the process (Flessner & Stuckey, 2014). Bolino et al. (2015) demonstrated a similar reaction of employees outside of education to what the researchers labeled organizational citizenship behavior (OCB). While OCB was implemented to reduce stress by creating an environment of shared work and collegial support, it actually resulted in increased frustration and stress because employees felt burdened and overwhelmed by the process (Bolino et al.). Wilt's (2016) study was of particular importance because teachers responded favorable to state-mandated collaboration. The findings of Wilt's study were significant because the mandate provided time and structures for collaboration but left all other aspects of collaboration to the authority of the teachers involved. Table 2 below outlined three significant studies pertinent to mandated collaboration.

Table 2

Concept Analysis Chart: Mandated Collaboration

Study	Purpose	Participants	Design & Analysis	Outcomes
Bolino, Hsiung, Harvey, & LePine (2015)	Investigated the relationship between organizational citizenship behavior and citizenship fatigue for employees	273 employees of 52 private universities	Quantitative Surveys given three times during the study	A paradoxical relationship was observed between OCB and citizen fatigue. Strategies meant to reduce burdens and stress resulted in increases in both for a significant number of employees.
Flessner & Stuckey (2014)	Investigated the effect of mandated school wide action research on school culture and improvement	25 teachers and administrators from an elementary school in Indiana	Qualitative Interviews and final project analysis	Imposed mandates resulted in resentment and frustration. Teachers craved choice, inclusivity and communication Teachers failed to buy into mandates absent those characteristics.
Wilt (2016)	Described teacher perceptions of the structure of and context of legislated mandated collaboration	9 elementary teachers in Iowa	Qualitative case study Semi-structured interviews and reflection logs	Teachers had positive perceptions of mandated collaboration because the mandate provided structures for collaboration but maintained teacher autonomy in all other aspects of collaboration.

Summary

Georgia Rule 505-2-.36, which mandated teacher collaboration through PLCs, was formally implemented in Georgia schools in July of 2017. For the first time, teachers were required to demonstrate professional growth through mandated PLC meetings and administrators were required to evaluate the practice. The rule represented a culmination of years of educational reforms aimed at increasing transparency and accountability in education as well as an increased focus on teaching and learning in accountability measures. The Georgia rule combined two possibly conflicting ideals: top-down mandates and collaboration through PLCs. Researchers validated the positive impacts of collaboration through PLCs on both educators and students when implemented in its purest form as a self-directed endeavor accompanied by a supportive and empowering culture. Top-down mandates, while effective in creating structures for collaboration and being a means of educational reform were characterized by counterproductive behaviors such as resentment, disengagement and ultimately an absence of sustained change. While literature was limited concerning the practice of policy mandated collaboration, the role of leadership and the culture established around the work of PLCs was linked to how teachers chose to engage in both mandated organizational change and PLCs. No literature was found concerning how teachers perceive mandated collaboration when linked to recertification.

The reseacher outlined a variety of collaborative environments that spanned from purely voluntary and autonomous, to mixtures of mandated and autonomous, to completely externally determined. Those variations resulted in changes in how teachers responded to and perceived the effectiveness of their collaborative meetings. Teachers responded more favorably when collaboration was purely voluntary and teacher self-directed or when administrators created time and space for collaboration but permitted teachers autonomy over all other aspects of their

meetings. A pattern of withdrawal, resentment, and interpersonal conflict was documented for the most authoritative implementation and regimented mandates. While the Georgia rule specified the requirement of teacher participation in PLCs in order to document professional and student growth, local districts and administrators had flexibility in the way the rule was framed and implemented in schools. That flexibility resulted in a variety of approaches and degrees of autonomy within Georgia schools as each implemented the rule in 2017.

CHAPTER III

METHODOLOGY

Introduction

The purpose of this case study was to understand how high school academic teachers in a middle Georgia school system perceived mandated collaboration through PLCs as required by Georgia Rule 505-2-.36. The policy required administrators to verify teachers' on-going, job-embedded participation in PLCs and evaluate how participation affected progress toward professional goals (GaPSC, 2015a; Hill, 2015). The outcome of these evaluations was particularly significant because the GaPSC linked the evaluations directly to teachers' recertification (GaPSC). The researcher sought to understand how teachers perceived their experiences when their collaborative work in PLCs was combined with a policy-driven mandate. Participant perceptions of how they recalled, interacted in, and made sense of their PLC meetings were elicited to illuminate the invisible world of teacher collaboration that took place when only PLC members were in the room (Gay & Airasian, 2003; Patton, 2002). This chapter outlined the research design, population, participants, sampling, instrumentation, access, researcher's role, methodological assumptions and limitations, ethical considerations, data collection, data analysis, and reporting methods utilized in the study.

Research Questions

The following research questions provided guidance for the study:

(1) What were high school academic teachers' perceptions of the structures of their required PLC meetings?

(2) What were high school academic teachers' perceptions of the purpose of their required PLC meetings?

(3) What were high school academic teachers' perceptions of the dynamics of their required PLC meetings?

Research Design

Because the objective of this study was to explore teacher perceptions of their required PLC meetings, the researcher employed a qualitative design. The qualitative approach was the best fit for this study because the researcher sought to capture perceptions and give voice to those involved in mandated PLCs in a way that uncovered the complexities of the practice (Airasian & Gay, 2005; Creswell, 2013; Yin, 2013). Quantitative methods would not have been sufficient to answer the research questions in this case because, while numerical analysis could determine if relationships existed between variables of mandated change and PLCs, statistical significance would not provide any description or insight into how or why any resulting relationships existed (Creswell & Poth, 2017). The qualitative approach allowed the researcher to capture teachers' experiences in a more intimate, personal manner with open-ended inquiry, which included strategies aimed at revealing underlying emotions and motivations (Airasian & Gay; Creswell & Poth; Yin). The flexibility associated with reporting the results of qualitative research also honored the participants and the ultimate goal of the study by giving voice to the teachers involved in PLCs under Georgia State Rule 505-2-.36 and brought meaning to the phenomenon from their perspective (Creswell; Creswell & Poth; Denzin & Lincoln, 2011).

The research design that best fits this inquiry was a bounded case study. This method allowed the researcher to investigate the complex dynamics involved using a variety of data sources that provided a holistic understanding from the perspective of those affected the most by the policy (Baxter & Jack, 2008; Yin, 2013). Because districts, and some schools within districts, maintained autonomy in how the mandated PLCs were implemented, a bounded case study was

used. Bounded case studies focused on specific issues or concerns limited to a single set of circumstances to understand the phenomenon given those specific parameters (Creswell, 2007; Yin, 2009). This study allowed the researcher to encapsulate the "meaningful characteristics of real-life events" (Yin, 2009, p. 4) as perceived by teachers within a single school based on the implementation of the rule in that setting. While bounded case studies lacked generalizability, multiple bounded case studies could be grouped to build a comparative understanding of how perceptions of phenomena differed as the settings and boundaries of the studies differed (Airasian & Gay, 2005; Baxter & Jack). The aim of this study was not for "generalization beyond the case, but for understanding of the complexity of the case" (Creswell, p. 75). Therefore, the single-school bounded case study design provided the most appropriate means of answering the research questions about the structure, purpose, and dynamics of mandated PLCs for teachers who shared the same implementation experience (Creswell; Yin, 2009).

The boundaries of this study consisted of the following parameters: a single high school in a middle Georgia school district and a sample of core academic teachers within the school that shared the same framing, and implementation of mandated PLCs including time allotted during the school day for collaborative meetings. Teachers selected for the study also had to attest to participating in both required and voluntary collaboration within the 2017-2018 school year. The study was also bounded within the 2017-2018 school year because this year represented the initial implementation of Georgia Rule 505-2-.36. It was the goal of the researcher to capture teacher's perceptions as they transitioned fully to the formalized structures associated with the implementation process.

Population

The study took place in a middle Georgia school district characterized by a diverse ethnic, racial, and socioeconomic population. The school district contained a mixture of suburban and rural communities. According to the Governor's Office of Student Achievement (2017), this district served approximately 32,000 students in pre- k through 12th grade. Approximately 64% of the overall population was economically disadvantaged, and approximately 43% of the student population was non-white. The district consisted of five traditional high schools, three that were classified as Title 1 and two that were classified non-Title 1 schools.

All high schools within the district had existing expectations for teacher participation in PLCs prior to the implementation of Georgia Rule 505-2-.36 and implemented the rule formally using accountability tools within TKES during the 2017-2018 school year. The high school chosen for this study ranked in the middle of all district high schools based on socioeconomic status of students and racial diversity. The school was chosen because it is most representative of the overall population of high schools within the district. The school had approximately 47% economically disadvantaged students and approximately 45% minority population in 2017.

Participants

The participants for this study were high school academic teachers from a single school in a middle Georgia school district. For the purpose of this study, core academic teachers were defined as teachers who taught mathematics, science, social studies, or English language arts in a regular education or special education capacity during the 2017-2018 school year. Academic teachers shared the experience of collaborating in PLCs organized around the common courses within their subject area. Teachers included in the study had participated in required PLC

meetings during the 2017-2018 school year as well as voluntary collaborative experiences with peers outside of those meetings. These teachers shared the same experiences and parameters related to the communication and implementation of Georgia Rule 505-02-.36 including common planning time within the school day for meetings, resources, and procedures for conducting and documenting their PLC work. The researcher provided participants a voice and the researcher hoped to inform administrators of how the teachers experience PLCs to help guide their work in facilitating and evaluating the process. By sharing their perceptions of the structure, purpose, and dynamics of their meetings in a way that could not be directly observed by administrators due to the intrusiveness of their presence, the participants assisted in closing the gap in literature of understanding of how teachers' truly experience mandated PLCs (Airasian & Gay, 2005; Kane & Staiger, 2010).

Sample

A purposive sample of core academic teachers in a middle Georgia high school was used in this study (Airasian & Gay, 2005; Creswell, 2007; Patton, 2002). Purposive sampling allowed the researcher to select those most likely to provide rich insights into the phenomenon being examined (Airasian & Gay; Creswell). The sample included only high school teachers of mathematics, science, social studies, and English language arts, who had actively participated in mandated PLC meetings during the initial year of Georgia Rule 505-2-.36 implementation (2017- 2018). The teachers taught at the same school and had the additional experience of collaborating with peers in a voluntary capacity within the same year. Academic teachers were chosen because PLC members in those departments had equal opportunities within the school day to collaborate through shared planning periods. Those teachers were also exposed to the same school-level protocols and procedures during the implementation of PLCs as a means of

recertification. The homogenous aspects of the sample outlined in this section and the common setting provided focus for the study and commonalities necessary for meaningful focus group discussion (Creswell).

Airasian and Gay (2005) pointed out even when individuals experience a phenomenon in the same environment, they each internalize and make sense out of it in different ways. Therefore, it was important to include multiple teachers in the case study to increase the likelihood data collected was representative of the population and data saturation was achieved (Airasian & Gay; Marshall, Cardon, Poddar, & Fontenot, 2013). Data saturation was defined as the point at which no new themes emerged with continued data collection (Creswell, 2007; Guest, Bunch, & Johnson, 2006). While there were no specific guidelines for sample sizes for qualitative studies, when a stopping criterion of six interviews was used, saturation typically occurred between 7 to 12 interviews (Guest, Bunce, & Johnson; Francis et al., 2010). Creswell (2007) cautioned researchers to limit case studies to no more than four or five cases when multiple data collection methods were used due to the typically large amounts of data resulting from this research design. In this study, four data collection methods were used, including prequestionnaires, participant drawing narratives, one-on-one interviews, and focus group. While a focus group could be conducted with as few as four participants, Ritchie, Lewis, Nicholls, and Ormston (2013) stated the typical effective group size was between six and eight participants. For this study, data were collected from two sample groups. One group of six teachers participated in data collection through drawing narratives and semi-structured interviews. A second group of six teachers participated in a focus group. Participants had equal chances of being selected for inclusion as well as equal chances of being placed in either the narrative and interview group or the focus group. All participants completed the prequestionnaire as a criteria

for selection in the study. Because saturation was more important than representativeness in qualitative research, no adjustments were made to balance demographics between groups within the sample (Airasian & Gay).

Instrumentation

Creswell (2007) and Patton (2002) described the importance of using multiple methods of data collection and sources of data to yield study results that provide rich and detailed depictions of phenomena. Because the same phenomenon was investigated in multiple ways, the convergence of data signified the study resulted in an accurate rendering of the phenomenon and properly communicated the perceptions of the individuals experiencing that phenomenon (Yin, 2013). This method of strengthening validity and reliability was known as triangulation (Creswell; Patton; Yin). Creswell recommended using established and rigorous methods of data collection such as interviews and focus groups but also found value in the use of "unusual forms" (p. 45) of data collection in order to elicit authentic responses from participants. To capture the teachers' perceptions of their required PLC meetings, the following data collection methods were used: participant drawing narratives, semi-structured interviews, and focus group. The methods all required participants to reflect on their experiences and communicate their perceptions of the structure, purpose, and dynamics of their PLC meetings.

One of the methods of data collection in this study was participants' drawing narratives. Participants were given a prompt (Appendix A) which instructed them to draw a typical required PLC meeting in a way that would depict the setting and interactions among members of the PLC. Once completed, participants were asked to verbally explain their drawing to the researcher. This method of data collection was chosen because it was reflective in nature and focused the participant on the most salient aspects of their experiences, drawing out emotional aspects of

their experiences that are more honest and many times more difficult to articulate verbally (Bailey & Van Harken, 2014; Gibbon, Clarke-Sayer, Herra, & Witte, 2016; Guillemin, 2004; Kearney & Hyle, 2004). In Weber and Mitchell's (1996) educational research, the researchers described "visual images (drawings) as representations and repositories of meaning, as well as mediators of meaning between the social and the personal" (p.111). Merriam and Tisdell (2016) praised the inclusion of art-based research tools because they not only honored that participants "make meaning and express it in different ways" but that sense-making could be expressed in "even deeper ways" when communicated through such creative acts (p. 65). Because there was no interaction between the participants and the researcher during the drawing process, the participants had the opportunity to frame their own experiences free from any preconceived or unintentional bias of the researcher (Kearney & Hyle).

Vince (1995) found drawings were a more specific and direct route to emotions and unconscious responses for feeling underlying behaviors during organizational change. These emotions and feelings were of particular interest in this study as the researcher sought to understand teachers' perceptions of the combination of mandated change and PLCs. Kearney and Hyle (2004) noted that drawing data strengthened studies because, while it was subjective and ambiguous, it was shown to tap into thought processes and emotions participants regulated and suppressed during direct interviews. It is important to note; however, that the drawings were not analyzed in this study but used as a mean of allowing participants to tap into those emotions prior to communicating with the researcher concerning the thoughts and ideas represented in their work.

The novelty of drawing as a data collection tool was shown to increase participant engagement in the task while the storytelling aspect of the narrative increased interaction and

rapport between the participant and the researcher (Creswell, 2007; Denzin & Lincoln, 2011; Nossiter & Biberman; 1990). This method allowed the participants to construct meaning during the creation of the drawings as well as reflect on, refine, alter, and expand meaning as they communicated the thoughts, feelings, and understandings behind their work (Bailey & Van Harkin, 2014; Guillemin, 2004; Kearney & Hyle, 2004). Guillemin (2004) emphasized the importance of participant narratives because the process of articulating the meaning and perceptions communicated by the drawings prolonged reflection on the phenomenon. The narrative served as a means of member checking or verification that the drawing was an accurate rendering of the participants' perceptions (Guillemin; Merriam & Tisdell, 2016; Stake, 1995). Because the researcher in this case study lacked expertise in the interpretation of participant drawings, the participants' narration of the content and reasoning used to construct the drawings was the data source analyzed. The drawings served as a tool to assist participants in reflection, sense-making, and communicating the structure and complex dynamics that may occur during PLC meetings (Guillemin).

Following the data collection by drawing narratives, the participants engaged in one-on-one semi-structured interviews with the researcher. The interviews served as a more direct way to gain insights into participants' perceptions (Airasian & Gay, 2005; Patton, 2002; Yin, 2013). The same group in the sample was used for both the drawing narratives and the interviews because the unstructured format of the drawing narratives were more exploratory and did not address all aspects of interest in the study (Airasian & Gay). The open-ended interview questions provided teachers with a different way of processing and communicating their experiences during required PLC meetings including their perceptions of purpose, which was not included in the drawing narrative prompt (Creswell & Poth, 2017). The interview questions were designed to

challenge participants to reflect on their perceptions and behaviors within the context of their required PLC meetings and not only make sense of their experiences but also to articulate the complexities to the researcher (Creswell & Poth). The interview questions also served to identify exactly which aspects of PLC meetings the teachers perceived as mandated versus autonomous.

The semi-structured interview format consisted of open-ended questions asked in a specific order that allowed for probing for deeper understanding throughout (Airasian & Gay, 2005; Ritchie et al., 2013). Because the researcher was inexperienced in the complexities of interviewing, the researcher developed an interview protocol and questions in advance of the interviews (Airasian & Gay; Creswell, 2007). The semi-structured interview protocol allowed the interviewer to be prepared and confident as well as flexible during the interviews (Patton, 2002). The semi-structured protocol ensured all questions were asked of all participants and opportunities to probe further were taken advantage of by the researcher (Airasian & Gay; Patton). The 11 interview questions (Appendix B) were a combination of questions from Wilt's (2016) study of state policy mandated collaboration, those constructed through reflection of the literature review, and collaboration between the researcher and the research methodologist. Permission to utilize selected interview questions from Wilt's (2016) study is located in Appendix C.

Ritchie et al. (2013) cautioned that semi-structured interviews could limit participant responsiveness and decrease the richness of detail provided by the participants as compared to more unstructured protocols. To lessen this possibility, open-ended questions were designed in a manner to elicit detailed and meaningful responses from participants and induce fluid conversation rather than a rigid back-and-forth question answer session (Patton, 2002; Rubin & Rubin, 2011). Rubin and Rubin (2011) stated that semi-structured interview methods allowed for

responsive interactions during the session while allowing the researcher to focus more on active listening than question formulation. Purposefulness was applied to the setting, content, and order of the questions in order to maximize participants' level of comfort with both the researcher and the questions asked (Creswell, 2007; Patton; Ritchie et al.).

Data from drawing narratives and interviews were triangulated with data gathered through a focus group (Creswell, 2007). The focus group was conducted with a second group from the original sample and was facilitated by an individual not associated with the school to remove perceived experimenter bias due to the role of the researcher as an administrator at the school (Airasian & Gay, 2005; Creswell). This individual was an experienced moderator of focus groups and therefore more capable than the researcher to manage and document the complex dynamics of group discussion (Creswell). When using this method, it was crucial that the moderator encouraged active and fluid engagement by all members of the group, redirected individuals who attempted to dominate the discussion, and created a conducive environment where those who expressed perceptions counter to the majority felt safe and validated when sharing (Creswell; Hughes & DuMont, 1993). The same questions (Appendix D) that were used for the interview also served as the guiding questions for the focus group; however, because the moderator was more experienced, the focus group was partially structured which allowed the moderator additional flexibility with the order of the questions (Airasian & Gay, 2005). Only the opening question differed from the interview protocol. The guiding questions allowed the moderator to "use participants' experiences to probe or introduce new topics" being careful to maintain a neutral tone throughout the interaction (Hughes & DuMont, p. 779).

The focus group approach was appropriate because it provided a means for participants to discuss their perceptions, attitudes, and experiences in required PLC meetings within a

homogenous group of individuals who shared common expectations and parameters for the work (Creswell, 2007; Hughes & DuMont, 1993). The strength of focus groups was found in the reliance on social interactions to help researchers glean knowledge about the group culture "as well as appreciate the range of different experiences individuals within a group may have" (Hughes & DuMont, p. 776). Unlike other methods, such as observation, that can be skewed or biased by the presence of the researcher (Hammersley & Atkinson, 2007), focus groups were designed to minimize this effect by creating social environments where participants discuss topics with each other instead of focusing on the researcher (Creswell; Hughes & DuMont). This approach was appropriate because the moderator was able to observe participants in a social setting similar to the PLC meetings that were the focus of the study. Focus group discussions allowed the researcher to better understand the nuances and complexities of what took place in mandated PLCs because participants could use each other's experiences to help articulate, clarify, compare and contrast their own perceptions and experiences (Hughes & DuMont).

Table 3 below outlines the data sources aligned to each research question.

Table 3

Data Sources for Research Questions

Research Question	Data Sources
(1) What were high school academic teachers' perceptions of the structures of their required PLC meetings?	Drawing narratives, Interviews, and Focus group
(2) What were high school academic teachers' perceptions of the purpose of their required PLC meetings?	Interviews, Participant Prequestionnaire, and Focus group
(3) What were high school academic teachers' perceptions of the dynamics of their required PLC meetings?	Drawing narratives, Participant Prequestionnaire, Interviews, and Focus group

Methodological Assumptions and Limitations

Assumptions

"Assumptions are important 'facts' presumed to be true but not actually verified" (Airasian & Gay, 2005, p. 91). Creswell (2007) postulated that certain assumptions regarding reality, relationships, and values provided the framework for qualitative studies. An assumption in this study was reality is subjective (Creswell). The researcher assumed participants provided honest and candid responses that communicated their perceptions of reality accurately. To increase the likelihood of genuine responses, participants were assured of confidentiality, data collection took place in familiar environments, and rapport was established between the researcher and participant (Merriam & Tisdell, 2016). Another assumption was the truthfulness of the researcher. Because the researcher had a leadership role within the school, personal and professional relationships with participants, and professional experience with the topic of research, a degree of subjectivity and bias was assumed. To diminish bias, data collection methods requiring minimal interaction between the researcher and the participants were employed and an alternate moderator was utilized for the focus group.

Axiological assumptions addressed the role of values within a study (Creswell, 2007). As an adult learner, the researcher acknowledged learning within the context of this study was filtered through prior personal and professional experiences (Knowles, 1970). Because it was not possible to eliminate prior knowledge, the researcher had to become aware of personal viewpoints and judgements that could result in bias, and then bracket those judgements by setting them aside to revisit the phenomenon anew (Creswell; Merriam & Tisdell, 2016; Moustakas, 1994). The researcher examined and acknowledged her role as an instrument and articulated possible subjectivity. Member checking also mitigated this assumption by allowing

participants to ensure the researcher accurately analyzed and communicated their message (Merriam & Tisdell; Stake, 1995).

Assumptions were made concerning sufficient participant expertise and sample size. It was assumed participants had enough experience with required PLC meetings to provide rich data. Only teachers who had experience with required PLCs within the 2017 -2018 school year were included in the study. Teachers were also required to have experience with voluntary collaboration in order to ensure they had a variety of collaborative experiences to draw from. The researcher assumed teachers were able to reflect on both types of experiences and only articulate those connected with their mandated meetings. The researcher assumed the sample size of 12 was sufficient because there was a convergence in the data resulting in saturation.

Limitations

Limitations were unavoidable aspects of research that threatened the validity of the study (Creswell, 2007; Patton, 2002). A case study was inherently limited due to small number of cases investigated (Patton; Yin, 2009). The small sample size was not a limitation due to lack of generalizability because that was not the intent of the research (Merriam & Tisdell, 2016; Patton). In this study, purposive sampling and small sample size were aimed at gathering rich data from those most likely to be able to provide answers to the research questions (Patton). The sampling within a single school allowed the researcher to communicate the perceptions of teachers who experienced required PLCs within the same context including communication, procedures, and protocols associated with required PLCs (Patton). Although saturation was achieved with the included sample, the lack of representativeness could have resulted in distorted findings limiting the validity of the study (Patton). Changes in the selection of participants within the purposive sample could have resulted in different themes (Patton).

Ethical Assurances and Negotiating Access

Prior to conducting data collection, proper steps were taken to ensure that research was conducted in an ethical manner. Principles mandated by the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research (1978) in the Belmont Report were followed with regards to respect for persons, beneficence, and justice. Multiple steps were taken to verify the study's adherence to these principles. After initial contact with the school principal explaining the purpose and procedures of the study, district approval was sought by providing written descriptions of the study details as well as measures taken to protect the safety and identify of the district and its employees. These permissions were included in the application for approval through the Columbus State University International Review Board (IRB). Written approval to conduct the study was obtained from the building principal, the authorized representative of the school district, and the IRB committee of Columbus State University (Appendix E).

Respect for persons was demonstrated in all aspects of the study. Participants were assured data would be collected in a respectful, safe, and non-judgmental manner. Participants were informed of the purpose of the study, expectations for participation, and possible benefits and risks associated with the study prior to providing informed consent (Ariasian & Gay, 2005). Participants were assured participation was voluntary (Creswell, 2007). No incentives were offered for participation nor did any coercion take place in the recruitment process (Patton, 2002). Participants were reminded throughout the study of their right to withdraw at any time, free of consequence (Ariasian & Gay). Teachers were not included in the study without a signed informed consent form (Creswell). The informed consent form was reviewed with each participant prior to data collection.

Confidentiality of identity was maintained throughout the study. Teachers were informed their data would be coded for their privacy during collection and analysis and pseudonyms used during data reporting (Creswell, 2007; Merriam & Tisdell, 2016). Physical documents with identifiable data were secured and maintained in a locked filing cabinet at the researcher's home and electronic files were password protected on the researcher's personal computer (Creswell; Merriam & Tisdell). After a period of three years from the publishing of the study, all such documents were shredded, and electronic files permanently deleted from the researcher's computer using a Secure Erase program.

The principles of beneficence, which demands the researcher protect the welfare of the participants, was honored with data collection methods that posed minimal risks to participants (Creswell, 2007). Data collection took place in private settings familiar to participants, after school hours, and at times convenient to their schedules (Creswell). These parameters provided a safe environment that did not place any undue physical or mental burden on participants (Airasian & Gay, 2005). The researcher and the focus group moderator took care to make sure participants did not experience any undue stress due to the topics or other participants within the group (Airasian & Gay). The principle of justice was satisfied as participants shared equally in the risk and benefits of the study. Each teacher who chose to participate accepted the responsibility of accurately articulating their perceptions in a way that could potentially benefit teachers and administrators by providing a deeper understanding of the structure, purpose, and dynamics of mandated PLCs.

Researcher's Role

A challenge of qualitative research was the requirement for the researcher to simultaneously utilize prior knowledge and expertise to guide the inquiry while ignoring

personal experience in order to gather authentic participant perceptions (Merriam & Tisdell, 2016; Probst & Berenson, 2014). Creswell (2007) acknowledged that despite efforts to eliminate researcher bias, a degree of subjectivity was inherent and necessary in qualitative research because the researcher must utilize their expertise as an instrument of the research. Given this aspect of subjectivity, it was crucial the researcher considered and disclosed potential issues associated with her relationship to the study (Merriam & Tisdell; Probst & Berenson).

When discussing the researcher's role in qualitative research, Merriam and Tisdell (2016) referred to the researcher as both an insider and an outsider in the study. Maintaining the status of an empathetic insider allowed the researcher to develop trust and rapport with participants as well as have the knowledge base necessary to probe participants for deeper meaning (Creswell, 2007; Merriam & Tisdell; Patton, 2002). The researcher also had to play the role of an outsider and continually bracket personal perceptions and knowledge to avoid influencing participants' responses (Creswell; Merriam & Tisdell; Patton, 2002). Maintaining the status of an outsider honored the purpose of the study, which was to view the phenomenon from the participants' perspectives (Creswell; Merriam & Tisdell; Patton). Patton (2002) asserted that a deep understanding of this duality of shifting between insider and outsider status along with the awareness that "experience affects perception" as much as "perceptions affect experience" (p. 335) was the key to qualitative inquiry.

Researcher as an Instrument

To address the positionality of the researcher, personal and professional characteristics were disclosed. At the time of the study, the researcher had been an educator for 24 years having worked in the same school district for 23 of those 24 years. The researcher is a white female with degrees from the University of Georgia in Science Education and Columbus State University in

Educational Leadership. She spent her first 14 years in the district teaching high school science before assuming her current position as an assistant principal for instruction. Part of her role as an administrator in the school utilized in this study was to facilitate and evaluate professional learning through PLCs.

The researcher was an insider because she was an administrator in the school studied and therefore was not only familiar with the implementation of required PLCs but was a leader of the process. The researcher maintained personal and professional relationships with the teachers which provided a common ground for the inquiry. The researcher's role as an insider allowed her to build on the existing trust and rapport to inquire about the teachers' perceptions of mandated PLCs. The researcher was also an outsider in the study. How the teachers internalized the structure and purpose of required PLCs and how the dynamics of the meetings affected their engagement in the practice was unknown to the researcher. It was this awareness of the limits to which the researcher could experience and understand this phenomenon as an insider that caused her to study it as an outsider to learn from the teachers collaborating behind closed doors. This awareness also guided the researcher's decisions and actions throughout this study to maintain an ethical balance of insider/outsider perspective.

Trustworthiness

Due to the naturalistic and inductive nature of qualitative research, terms such as validity and reliability were deemed somewhat incongruent with aims of the research method (Creswell, 2007; Lincoln & Guba 1985). "If, as in the case of qualitative research, understanding is the primary rationale for investigation, the criteria for trusting the study are going to be different than if discovery of a law or testing a hypothesis is the study's objective" (Merriam & Tisdell, 2016, p. 238). Denzin and Lincoln (2011), and Creswell (2007) agreed that while the terms used

for the legitimacy of qualitative studies were in flux, it was the responsibility of the researcher to establish that all aspects of the investigation were conducted in an ethical, rigorous manner and not a result of the researcher's personal biases. Lincoln and Guba (1985) used the terms credibility, transferability, dependability, and confirmability as substitutes for terms associated with validity and reliability. Trustworthiness was established by the researcher through the ethical assurances and thorough and rigorous methods used to ensure the findings accurately represented the data provided by the participants.

Credibility

Credibility was established in this study through the research design, data collection methods, and data analysis techniques. The research design of bounded case study was appropriate for the purpose of the study, which was to investigate how high school teachers in a given setting perceived the structure, purpose, and dynamics of required PLCs. The bounded case study approach was the best fit for this study because the researcher sought to capture perceptions and give voice to those involved in mandated PLCs in a way that uncovered the complexities of the practice (Airasian & Gay, 2005; Creswell, 2013; Yin, 2013). The flexibility associated with reporting the results of qualitative research also added credibility because findings were communicated using detailed descriptions and participants' direct quotations of participants and therefore communicated their perspective accurately (Creswell; Creswell & Poth, 2017; Denzin & Lincoln, 2011).

Credibility was strengthened through data collection and analysis methods. Because the same phenomenon was investigated in multiple ways, the convergence of data built confidence the study resulted in an accurate rendering of the phenomenon and properly communicated the perceptions of the individuals experiencing that phenomenon (Yin, 2013). This method of

strengthening validity and credibility was known as triangulation (Creswell, 2007; Patton, 2002; Yin). The data collection tools chosen for triangulation (participant prequestionnaire, drawing narratives, semi-structured interviews, and focus group) varied in the degree of structure to allow differing amounts of flexibility and interactions between the researcher and the participants. The drawing prompt and prequestionnaire allowed participants to construct meaning with no influences or interruptions from the researcher. During the drawing session, the participants chose how to verbally share their story and the researcher probed for additional details for clarification as needed. The interviews were semi-structured to ensure the researcher asked all pertinent questions and the focus group was partially structured to allow the participants to engage in lively discuss about their perceptions of their required PLCs. Data collection tools included participant reflection and open-ended inquiry, which minimized researcher bias and maximized participant voice (Airasian & Gay, 2005; Creswell & Poth, 2017; Hammersley & Atkinson, 2007; Yin). Data from each source was compared and cross-checked to ensure that the reader could have confidence the resulting themes were a product of rigorous research (Airasian & Gay).

Despite efforts to eliminate researcher bias, a degree of subjectivity is inherent in qualitative research because the researcher must utilize their expertise as an instrument of the research (Creswell, 2007). Several steps were taken by the researcher to reduce researcher bias. At the onset of the study, the researcher examined and communicated any "past experiences, biases, prejudices and orientations" that could have influenced the researcher's approach to data collection and analysis (Creswell, p. 208). The researcher exercised bracketing, which was the practice of consciously committing to set aside personal knowledge and preconceived notions to view the data as if a stranger to the phenomenon studied (Creswell; Moustakas, 1994). Member

checking was utilized allowing the participants to review their data and verify that the data captured their perceptions and was not distorted by researcher bias (Merriam & Tisdell, 2016; Stake, 1995).

To increase credibility and the likelihood that participants in the focus group would provide candid and honest dialogue, a moderator other than the researcher facilitated the group. Because the researcher was an administrator in the building, it was possible that the group dynamics could have been affected by the researcher's presence. A moderator other than the researcher was utilized to reduce the possibility of participants reacting to any perceived bias of the researcher during the focus group meeting (Airasian & Gay, 2005; Kane & Staiger, 2010). The moderator was more experienced in the complex technique of facilitating a focus group than the researcher, which also led to higher quality data from this instrument.

Transferability

Transferability referred to the degree of congruity between the context of the study and similar contexts (Airasian & Gay, 2005; Lincoln & Guba, 1985; Patton, 2002). In a qualitative study, transferability is a measure of the degree to which the detailed descriptions of the context and events allowed the findings to be transferred or extrapolated to schools or districts other than those involved in the research (Lincoln & Guba; Patton). "Unlike the usual meaning of the term generalization, an extrapolation clearly connotes that one has gone beyond the narrow confines of the data to think about other applications of the findings" (Patton, pg. 584). Although this study lacked the level of generalizability associated with quantitative research, the detailed and rich descriptions of the sample, methods, and findings attempted to provide sufficient depth and breadth of understanding to allow readers to determine applicability in other contexts. The topic of study, mandated PLCs, had application to educators in Georgia due to the implementation of

Georgia Rule 505-2-.36 and could be extrapolated beyond Georgia to other states mandating similar policies. The transferability of this study was limited because of the narrow population utilized; however, because it was a bounded case study, findings could be compared and contrasted with other similar studies to build a comparative understanding of how teacher's perceptions differed as the settings and boundaries of the studies differed (Airasian & Gay; Baxter & Jack, 2008). From the detailed descriptions of all aspects of the study, educational leaders could find applicable insights for improved implementation of mandated change or mandated PLCs within their specific context.

Dependability

Dependability referred to the repeatability of the methodology and findings of a study (Lincoln & Guba, 1985; Merriam & Tisdell, 2016). Detailed descriptions of procedures and processes undertaken in data collection and analysis were outlined clearly to provide a road map for replication of this study. The meticulousness with which the study was designed, carried out, and communicated resulted in an audit trail that enhanced dependability (Lincoln & Guba; Merriam and Tisdell). Merriam and Tisdell (2016) stated dependability in qualitative research is limited due to the complexities of human behavior and therefore the focus was less on obtaining the same results and more on whether the findings were consistent with the data collected. In addition to manual open coding, the researcher used QRS NVivo software to aid in organizing, disassembling and reconstructing data into themes. This meticulous and thorough treatment of the data and to minimize the possibility of researcher bias and increase the trust that if repeated, similar results would be obtained from the data (Creswell, 2007).

Confirmability

The level of neutrality and fairness demonstrated in a study was referred to as confirmability (Lincoln & Guba, 1985). Reflexivity was demonstrated throughout the research process through the act of examining and bracketing potential researcher bias, utilizing a neutral moderator for the focus group, and triangulating data collection (Creswell, 2007; Merriam & Tisdell, 2016; Patton, 2002; Yin, 2013). Probst and Berenson (2014) described reflexivity as "both a state of mind and a set of actions" (p. 814) that demonstrate the researchers awareness of how their role in the research influences the study. The researcher provided transparency by disclosing her role in the research as well as her personal and professional connections that could have influence over the way the data was collected, analyzed, or communicated (Airasian & Gay, 2005). Steps taken and decisions made were clearly articulated and member checking was utilized for data collection instruments to ensure data represented the participants' perceptions, not the researcher's perceptions (Merriam & Tisdell; Stake, 1995).

Data Collection

After approval was granted from the Columbus State IRB, the school district designee, and the school level principal, participants were recruited for the study. Based on the criteria used for the purposive sample, only teachers within the school who taught core academic subjects and had experience in both required and voluntary teacher collaboration within the 2017-2018 school year were solicited for participation in the study. Within that group of mathematics, science, social studies and English language arts teachers, participants were solicited as volunteers with no restraints placed on gender, age, race, ethnicity, certification level, or years of experience. Teachers within the sample had an equal opportunity for selection for inclusion in the study as well as inclusion in the different data collection methods. Participants

were recruited using an emailed invitation (Appendix F) sent to all qualifying teachers simultaneously. The invitation solicited volunteers and included an informed consent form (Appendix G) detailing procedures and protocols of the study including any risk and possible benefits of participation. The email also included a participant questionnaire (Appendix H) that included confirmation the participants met all criterion for participation as well as demographic information useful for data analysis and communication of results. Preliminary questions related to the study were included in the questionnaire, as well. The first 12 teachers who volunteered and completed the preliminary paperwork were accepted into the study. The teachers were alternately placed in the drawing narrative and interview data collection group and the focus group based on the date and time forms were received. The first volunteer was placed in the drawing narrative and interview sample and the next placed in the focus group until a total of 12 participants was reached. Any additional volunteers' paperwork submissions were time stamped and retained in case saturation was not achieved with the initial sample size or any of the original 12 participants elected to withdraw from the study.

Three methods of data collection were utilized in this study: drawing narratives, interviews and focus group. Prior to data collection sessions, regardless of instrument, participants were reminded of the purpose of the study and their right to decline or withdraw participation at any time. In addition to the written consent, participants are asked to verbally confirm they were aware of their volunteer status as well as the use of a recording devise during data collection. Participants were reminded that the researcher was bracketing all prior knowledge or judgements related to the topics discussed and assumed a neutral non-judgmental role in the collection of their perceptions, thoughts and ideas related to their experiences in mandated PLCs. At the conclusion of data collection, each individual was informed of member

checking processes, thanked, and provided the researcher's contact information should they have any future questions or concerns pertaining to the research (Creswell, 2007; Merriam & Tisdell, 2016).

In this study, the six participants selected to provide data through drawings and interviews were each given the option of meeting in their classroom, a private conference room, or the researcher's office to maximize their level of comfort. Data collection was conducted on an individual basis for this group, with sessions taking place after school hours. Once ethical considerations were confirmed, and the recording started, participants were given the following prompt: "Reflect on a typical PLC meeting you are required to attend. To the best of your ability, draw that meeting including important physical structures and group member interactions." Participants were informed they could use words within their drawings and would be given an opportunity to explain the meaning behind their drawings once completed. Participants were given paper, pens, pencils, and color pencils. The researcher did not engage the participants while they constructed their drawings. In each case, a copy of the completed drawing was made in order to document the raw data prior to discussion. The researcher returned the original drawings, asked the participants to explain their drawings in detail, and probed for deeper understanding of the meaning and perceptions behind aspects of the drawings in order to gain insights specific to the research questions. The participants were told they were welcome to add details and alter their drawings as they shared their stories because the drawings represented a moment in time that could change as the individual continued to reflect and communicate (Guillemin, 2004).

Once the discussion of the drawings was complete, the researcher collected the drawings including any alterations and additions and asked the participants to engage in a one-on-one

semi-structured interview. Each participant was informed that some questions from the interview might require him or her to repeat some of the information already shared during the drawing discussion. The potential repetition was necessary to ensure the researcher addressed all aspects of the research questions related to the structure, purpose, and dynamics of their experiences with required PLC meetings. While the unstructured format of the drawing narratives left potential gaps in data, the semi-structured interview questions were designed to address all aspects of each research question (Airasian & Gay, 2005). The drawing activity allowed the researcher to develop a rapport with each participant and allowed the participants time to reflect quietly and make sense of their experiences prior to articulating them verbally.

The interview consisted of predetermined open-ended questions designed and ordered in a manner to engage the participants (Merrian & Tisdell, 2016). The interviews consisted of questions specific to each research question that were designed to solicit rich information about the complex nuances involved in the meetings. Interview questions related to the first research question probed participants' perceptions of the structure of their required PLCs and allowed the researcher to determine which aspects of the meetings were perceived to be controlled within the group and which were implemented as external mandates. Clarifying which aspects of required PLCs participants perceived as mandated versus autonomous allowed the researcher to probe the participants as to how each of those components may have affected their perceptions of the meetings.

The interview questions related to the second research question allowed the researcher to probe the participants' personal definitions of PLC and gather insights into the context and content of the meetings. The final set of questions, related to the third research question, probed the participants for their perceptions of the roles of members and the interactions that took place

within the meetings and to what extent the participants' perceptions of these dynamics either encouraged or inhibited their engagement in the group. Throughout the interview, questions were clarified as needed to ensure participants understood the intent, vocabulary, and content of each question. Follow-up questions were utilized to redirect participants to the topic, request clarification of ambiguous or conflicting information, and encourage elaboration of thoughts shared. The interview was closed by informing participants of their opportunity to review their data through member checking, thanking the participant, and providing an opportunity to make any final comments or ask any questions about the study (Creswell, 2007; Merriam & Tisdell, 2016).

A separate group of six teachers participated in a focus group moderated by an experienced facilitator other than the researcher. The focus group took place in a private conference room at the school at a date and time agreed upon by all participants. The moderator, who was a professor of the researcher, began the session by introducing himself to the group and restating the purpose of the study as well as his role as a neutral and non-judgmental facilitator of discussion. The moderator explained that in addition to audio recording, notes would be taken throughout the meeting to capture interesting ideas or bookmark comments to revisit for clarification or elaboration from one or more members of the group. A diagram of the room was also utilized to monitor participation and make notes of any nonverbal and social interactions that could be of interest when analyzing the data. Teachers were provided with a pen and notepad to use as they saw fit during the discussion. Suggested use for the pen and note pad was for writing key words or jotting ideas as they emerged while actively listening to others. Participants were informed the notepads would be collected and any content shredded after the session. The content of the participants' note pads were not used as data because the notes lacked

context for interpretation. The notepads were simply an aid used to help participants balance reflection and engagement in the group setting. Participants were not obligated to use the notepads in any way.

After reiterating ethical assurances and informed consent, the moderator explained the protocols and norms of the meeting. Participants were informed of the format, which included guiding questions and requests for elaboration and clarification. The role of the moderator was to facilitate not manipulate the discussion (Ritchie et al., 2013). Participants were encouraged to fully engage in the discussion by actively listening and responding without interrupting others and keeping interactions professional and respectful. The moderator sought data from all participants, as each person's experience was valuable. Participants were informed they could expect the moderator to facilitate the discussion in a way to ensure all voices would be heard. The moderator explained individuals would be asked to expound on their ideas and experiences in order to capture the complexities of their perspectives and experiences as they related to their experiences in required PLCs.

The focus group was facilitated using the same research questions used for the semi-structured interview questions. The use of these guiding questions allowed the moderator to "use participants' experiences to probe or introduce new topics" being careful to maintain a neutral tone throughout the interaction (Hughes & DuMont, 1993, p. 779). The guiding questions were designed to help focus the discussion around the participants' experiences in mandated PLCs and verbalize their perceptions of the structure, purpose, and the interpersonal dynamics of those meetings. The moderator probed for in-depth responses, managed the flow of conversation, and the dynamics of the discussion to ensure data collection included representation by all members of the focus group. The moderator sought to avoid bias by remaining neutral and reframing from

active participation within the discussion. At the closing of the focus group, all materials were collected and the moderator informed participants of member checking processes that would follow with the primary researcher. The moderator thanked participants for their willingness to share their experiences and gave them an opportunity to ask any questions about the study. The moderator provided the researchers' contact information for any future inquires. Immediately following the meeting, the moderator took field notes of any potentially noteworthy data based on his reflections and recollections of the meeting.

Table 4 below outlines the number of items included in the interview/focus group protocol aligned to each research question. The participant prequestionnaire includes two of the protocol items from research question two and one item from research question three.

Table 4

Interview and Focus Group Blue Print Table

Research Question Content Based Category	Number of items
(1) Structure of PLC meetings	5
(2) Purpose of PLC meetings	4
(3) Dynamics of PLC meetings	4

Data Analysis

The process of data analysis in qualitative research was inductive in nature (Merriam & Tisdell, 2016; Smith, 2015). Unlike deductive quantitative methods, the purpose of this study was not to determine cause and effect relationships but rather to explore data for meaning that would give voice to the perceptions of the teachers in the study (Merriam & Tisdell; Smith). The constant comparative method originally developed for grounded theory research was used as the predominate means of data analysis (Creswell, 2007; Merriam & Tisdell; Patton, 2002). Although the purpose of this study was not to formulate theory, the cycles of repeated analysis

associated with constant comparative method allowed the researcher to narrow the large amounts of data into themes that led to increased understanding of the key views of teachers in this case (Airasian & Gay, 2005; Creswell; Merriam & Tisdell). Data was collected from 12 participants using four different data collection methods: participant prequestionnaire, drawing narratives, semi-structured interviews and a focus group. Data from these methods were triangulated resulting in large amounts of rich information that converged into the findings of this study (Creswell; Merriam & Tisdell; Patton, 2002; Yin).

The processes outlined below were initiated during data collection to allow the researcher to discover initial themes that were continually compared, revised, and refined until data saturation was evident (Merriam & Tisdell). Following the recommendation of Creswell (2007) and Patton (2002), the first step in data analysis consisted of transcription of recorded data and developing a logical way to organize the data where it was easily located and managed by the researcher. Merriam and Tisdell (2016) recommended keeping track of thoughts during the initial immersion process requiring the researcher to exercise bracketing and review each piece of data in its entirety in an objective manner. The annotations made during the organization process along with notes made throughout the data collection process represented the first phase of data analysis (Creswell; Merriam & Tisdell). A computer software program, QSR NVivo was utilized in the tagging and labeling of initial codes.

In order to make sense of the data, the next step was to identify segments or units of data that were responsive to the research questions of the study (Merriam & Tisdell, 2016). Lincoln and Guba (1985) described units of data as small bits of information relevant to the research questions that could stand alone in bringing meaning or provoke deeper inquiry by the reader. Data analysis began with careful reading and rereading of the transcript of the first drawing

narrative and interview as if it was the entire case study. Bits of data that were deemed potentially relevant to the research questions or were found to be thought provoking in relation to the purpose of the study were labeled using descriptive words or phrases (Merriam & Tisdell). This method of documenting data analysis was referred to as open coding because the researcher was not comparing the data to a set theory but rather staying open to the participants' insights of the phenomenon (Merrian & Tisdell). As the researcher continued the process of coding subsequent pieces of data, those codes were continually compared and contrasted to previous coding, which assisted the researcher in refining and reevaluating salient aspects of the data (Airasian & Gay, 2005; Merriam & Tisdell). With each cycle, the researcher paused to revisit and bracket any biases that could affect how the data was viewed and examined the coded data for applicability to the purpose of the study (Merriam & Tisdell). Open coding was completed on all pieces of data including drawing narrative transcripts, semi-structured interview transcripts, focus group transcripts and participant prequestionairres.

Through the process of axial coding, open codes were grouped into initial categories or themes (Corbin, Strauss, & Strauss, 2014; Merriam & Tisdell, 2016). Unlike descriptive open coding, axial coding involved interpretation of the data across multiple pieces and sources of data (Merriam & Tisdell). The researcher examined the data for significance, meaning, convergence, and relationships within the data. This process utilized the constant comparative method to create comprehensive common categories from the combination of similar codes (Merriam & Tisdell). The process of refining and revising continued as the themes and subthemes were constructed and saturation was achieved (Merriam & Tisdell). The resulting themes and subthemes represented the findings of the study and provided the answers to the

research questions related to how high school teachers, at a given school, perceived the structure, purpose, and dynamics of their required PLC meetings.

The final step required the data be sorted, divided, and reassembled according to the resulting themes and subthemes. This process was slightly deductive as each piece of data was checked against the theme it was associated with during the previous steps of analysis (Merriam & Tisdell, 2016). This process served to strengthen the data analysis by verifying the relationship between data and the resulting findings (Merriam & Tisdell). Computer software, QRS NVivo, was used to assist the researcher with storing, coding and reassembling data into themes that would serve to create the description of teachers' perceptions of required PLCs (Creswell, 2007; Merriam & Tisdell).

Reporting Data

The purpose of the case study was to provide a description of the experiences and perspectives of participants in the context of the phenomenon studied, the combination of mandated change and PLCs (Creswell, 2007). Findings were organized by research question and represented in a manner deemed most informative to the target audience of educational leaders charged with implementing mandated change such as Georgia Rule 505-2-.36 or similar organizational changes within schools. Direct quotations, figures containing drawing samples, descriptions of themes, and frequency tables of common categories and themes were utilized to provide depth and breadth of support for the findings (Creswell, 2013; Creswell & Poth, 2017; Denzin & Lincoln, 2011). Using pseudonyms in place of participants' names and identities, the researcher gave voice to the teachers' experiences in a way that demonstrated the most salient aspects of their perceptions of their required PLC meetings (Creswell, 2007; Merriam & Tisdell, 2016).

Direct quotations and drawing samples were used as evidence to deepen understanding and provide insights for administrators on best practices for implementing mandated change (Merriam & Tisdell, 2016). This form of evidence was chosen carefully and used only when critical to the authentic communication of the themes and when participant confidentiality could be maintained (Renner & Taylor-Powell, 2003). The tables displaying data served to demonstrate the frequency in which specific themes and subthemes emerged which could indicate relative importance or illuminate noteworthy information (Renner & Taylor–Powel).

Summary

A purposive sample of 12 high school academic teachers from a school in middle Georgia participated in the case study. The data were collected from multifaceted instruments and included narratives of participant-generated drawings, semi-structured interviews, and a focus group. Data also included notes taken by the researcher and focus group moderator both during and following data collection sessions. The drawings served as a different modality of sense-making and a focal point for participants to share their perceptions. The unstructured aspect of the drawing narratives allowed the participants to determine the most salient aspects of their experiences. Tools used provided a means of collecting data with minimal researcher bias because all were reflective, open-ended, and included limited interactions between the researcher and participant. The focus group allowed individuals to tell their stories to those who understood and shared experiences while the interviews allowed participants to clarify and examine perceptions more directly linked to each research question. Both groups participated in data collection methods that were reflective and allowed them to articulate the nuances of their perceptions and experiences. The data provided rich information for analysis and resulted in themes that described the perceptions of the teachers included in the study. The findings of the

study were communicated by research questions using rich descriptions, participant quotations, samples of drawings, and frequency tables for themes and subthemes that were constructed from the data.

CHAPTER IV

REPORT OF DATA AND DATA ANALYSIS

Introduction

The purpose of this study was to investigate the perceptions of Georgia teachers engaged in mandated PLCs as a means of satisfying the requirements of Georgia Rule 505-2-.36 (GaPSC, 2015a; 2015b). The rule, implemented in July 2017, included administrator evaluations of teachers' abilities to translate participation in PLCs into student and professional growth (GaPSC, 2015b). The roles of administrators were transformed from facilitators of professional growth to both facilitators and evaluators of such (Wood, 2016). A gap was identified in the research pertaining to policy-mandated collaboration linked to accountability measures as well as best practices for administrators for navigating the complexities of the phenomenon in a way that supported teacher and student growth.

To minimize this gap, the researcher engaged in a bounded case study to capture teachers' perceptions as they completed the transition to mandated PLCs. This intersection of teachers' perceptions, mandated change, and PLCs was the focus in this study. The autonomy of implementation method and evaluation tools afforded to districts by the state resulted in differences among districts and even schools within the same district. Utilizing a single school created a more homogeneous environment allowing the researcher to provide rich descriptions of how teachers perceived the required PLC meetings within their unique set of parameters. Shared parameters included school culture, procedures, protocols, and implementation methods. The study included a purposive sample of 12 high school academic teachers selected based on their involvement in both mandated and voluntary collaboration during the 2017-2018 school year. Data resulting from the prequestionnaires, individual drawing narratives, semi-structured

interviews, and a focus group were coded using constant comparative method. The resulting themes were presented in this chapter. The following major elements comprised this chapter: research questions, research design, participants, findings, and data analysis, and results.

Research Questions

The following research questions provided guidance for the study:

(1) What were high school academic teachers' perceptions of the structures of their required PLC meetings?

(2) What were high school academic teachers' perceptions of the purpose of their required PLC meetings?

(3) What were high school academic teachers' perceptions of the dynamics of their required PLC meetings?

Research Design

In order to investigate teachers' perceptions of their required PLC meetings, the researcher employed a qualitative study. The bounded case study design allowed the researcher to capture teacher perceptions and give voice to those involved in mandated PLCs in a way that uncovered the complexities of the practice (Airasian & Gay, 2005; Creswell, 2013; Yin, 2013). The study took place during the initial implementation of Georgia Rule 505-2-.36, which provided a unique opportunity for the researcher to collect data as both teachers and administrators transitioned to yearly evaluations including professional growth ratings based on evaluations of PLC work.

Once approval was granted from the Columbus State IRB (Appendix E), the school district designee, and the school level principal, participants were recruited for the study. Based on the criteria used for the purposive sample, only academic teachers with experience in both

required and voluntary teacher collaboration within the 2017-2018 school year were solicited. Potential participants were contacted by email invitation. Participants joined the study by emailing completed informed consent and participant prequestionnaire forms attached to the invitation back to the researcher. Participants were alternately assigned to either the participant drawing narrative and interview sample and the focus group in order of receipt of the requested paperwork until six participants comprised each sample.

Data were collected from 12 participants. Data collection took multiple forms including participant prequestionnaires, participant drawing narratives, semi-structured interviews, and a focus group. While the semi-structured interview and focus group protocols addressed all research questions, the prequestionnaire included only three questions pulled directly from the interview and focus group protocols. The prequestionnaire items addressed the participants' perceptions of research questions two (purpose) and research question three (group dynamics). The data from the drawing narrative were unstructured, which allowed the participants to share their most salient thoughts about the structure and dynamics of the meetings. Participants in the drawing narrative and semi-structured interview sample were interviewed individually by the researcher after school hours at a time and location within the school convenient to the participants. The focus group also took place after school and was conducted by a moderator other than the researcher in the school's conference room. All data were electronically recorded, transcribed, and member checked prior to data analysis.

Each data collection source was coded and analyzed individually then compared to the next source using the constant comparative method. Because of variations in data structure ranging from the completely unstructured drawing narratives to the direct probing through interview questions, axial coding was utilized to analyze data over all sources. Rigorous cycles

of repeated analysis allowed the researcher to narrow the large amounts of data into themes that led to increased understanding of the key views of teachers in this case (Merriam & Tisdell, 2016). All participant data were coded by hand utilizing QRS NVivo software only as a tool for storing, dividing, and reassembling participant quotations into common categories and themes.

Participants

Core academic teachers from the high school selected for the study were recruited using an email invitation. The first 12 teachers to respond and submit consent forms and participant prequestionnaires were included in the study. Teachers were assigned alternately to participate in either individual drawing narratives and semi-structured interviews or the focus group. To protect the confidentiality of the participants, each participant was assigned a pseudonym. Participant pseudonyms and demographics appeared in Table 5.

Table 5

Participant Demographics

Pseudonym	Gender	Highest education	Years of teaching experience	Number of school settings
Tonya	Female	Ph.D.	14	2
Elaine	Female	Ph.D.	20	2
Rachel	Female	M.Ed.	26	2
Jason	Male	B.S.	29	4
Isabelle	Female	M.S.	17	2
Caroline	Female	M.Ed.	11	2
Nick	Male	M.Ed.	5	2
Brenda	Female	B.S.	27	1
Amanda	Female	Ed. S.	24	4
Nancy	Female	Ed. D.	24	3
Dawn	Female	B.S.	10	1
Mark	Male	B.S.	12	3

The criteria for inclusion in the study involved participation in required PLC meetings and voluntary collaboration during the initial year of implementation of Georgia Rule 202-5-.36. The academic teachers included in the study shared common implementation experiences and were provided time during the school day to attend required collaborative meetings. Participants included nine females and three males. Of the 12 participants, three had doctoral degrees, one had a specialist degree, four had master's degrees and four had bachelor's degrees. The average years of experience represented within the sample was 18.25 years. Only one teacher had less than a decade of experience.

Both regular education and special education academic teachers were included because both were expected to participate equally in required subject area PLCs. Of the nine regular education teachers, one began her career as a special education teacher and transitioned into the regular education classroom. Two of the three special education teachers began their careers as regular education teachers. The number of school settings teachers taught at ranged from one to four including their current school with the majority of teachers having taught at only one school prior to their current location. No restrictions were placed on participant demographics, as all teachers meeting the criteria were equally capable of sharing their perceptions of the structure, purpose, and dynamics of their required PLC meetings. Academic regular education and special education teachers shared common implementation experiences and school cultures.

Participants' Profiles

Participants shared the following professional information prior to data collection during the semi-structured interviews or focus group sessions. The first 6 participants listed below participated in the drawing narrative/semi-structured interview group and the last six participated in the focus group.

Tonya

Tonya was the Special Education department chair. She began her career 14 years ago teaching in a self-contained setting. She transitioned to interrelated duties when she moved into the department chair role. In her current job, she taught in both small group and co-taught academic special education classes. She also operated the school's reading lab with the assistance of a paraprofessional that provided reading accommodations for all special educations students. Her position exposed her to a multitude of classroom environments. She participated in the PLC for the EOC tested subject she taught.

Elaine

Elaine taught at the school in the study for 19 years. She taught regular education and Advanced Placement courses. She had a Ph.D. in Curriculum and Instruction.

Rachel

Rachel had taught for 26 years. She served as the department chair for her department and the gifted coordinator for the school. She was a member of the school's leadership team. She taught regular education, gifted, and Advanced Placement courses. She served as a College Board grader and had conducted professional learning sessions for AP teachers across the state.

Jason

Jason had taught for 29 years. He was the son of a retired English teacher. Jason followed his mother's example and chose to become a teacher and athletic coach. Throughout his career, he taught a range of grade levels ranging from 7th to 12th.

Isabelle

Isabelle had taught for 17 years and served as the department chair for her department. She came into teaching later in life. It was something she stumbled upon and therefore started

her career without formal training in pedagogy. She completed her training on the job through an alternate certification program. She served all levels of students including at-risk, gifted, and Advanced Placement. She also taught at a local community college and consulted as an educational professional on a grant.

Caroline

Caroline was in her 11th year of teaching at the time of the study. She taught six years at the middle school level before choosing to leave education due to career frustrations. However, when the opportunity to teach high school came available that same summer, she joined the staff of her current school. She taught seniors.

Nick

Nick had been teaching for five years at the time of the study. He began his career as a regular education teacher in another county in Georgia. He accepted a job as a special education teacher in his subject area at his current school. He taught both small group and collaborative special education courses. He was the special education member of the PLC for the subject he taught with a high-stakes assessment.

Brenda.

Brenda spent her entire career at the same school. In her 27 years, she taught multiple subjects. She taught regular education classes. Her honors included being voted teacher of the year by her peers.

Amanda

Amanda had 24 years of experience in teaching. She had taught at the school in the study for eight years. She taught regular education and Advanced Placement courses. She was also a parent of a student at the school, which gave her a unique perspective of the school.

Nancy

At the time of the study, Nancy had been teaching for 24 years. She served as the PLC leader for her course team. She taught both regular education and co-taught classes.

Dawn

Dawn had been teaching for 10 years at the time of the study. She started her career at the school in this study as a student teacher. She was hired as a special education teacher in her content area and when a regular education position came available in the department, she transitioned to that position. She taught both regular education and co-taught classes in an EOC subject.

Mark

Mark had previously taught for 12 years in public schools. He entered education later than a traditional teacher as a second career following a career in business. He started his educational career at the middle school level, then transferred to a high school. After years of teaching regular education, his principal at his current school asked if he would move to a special education position to meet the needs of those students. He shared he has found his niche working with those students because he found them to be extremely capable and talented.

Findings and Data Analysis

The purpose of this study was to determine teachers' perceptions of mandated collaboration as implemented through Georgia Rule 505-2-.36. Because a gap in research existed in how teachers experienced mandated collaboration linked directly to accountability measures, the study was conducted during the first year of implementation of the rule. The conceptual framework that guided the study was an inquiry into teachers' perceptions of the combination of the possibly conflicting ideals of mandated change and PLCs. The study was guided by three

research questions aimed at gathering teachers' perceptions of the structure, purpose and dynamics of their required meetings. Twelve participants were included in the study. Data were triangulated from the following sources: participant prequestionnaire, participant drawing narratives, semi-structured interviews, and a focus group.

The themes that were constructed from the data were organized and reported by research question in a manner deemed by the researcher to be most informative to the educational leaders charged with implementing mandated changes such as Georgia Rule 505-2-.36. Themes, subthemes, and common categories were displayed using frequency tables to demonstrate the number of times a given perception appeared within the data. Narratives using participants' actual words were used deliberately to communicate the major categories of each theme in order to give voice to their authentic perceptions of the complex combination of mandated change and collaboration through PLCs (Airasian & Gay, 2005; Creswell, 2013; Yin, 2013). Any references made by participants that indicated names of peers, subject areas taught, or specific lessons that could compromise the confidentiality of the participants were removed or altered with the use of pseudonyms. Two themes were constructed for research question one, which probed participants' perceptions of the structure of required PLC meetings: degree of autonomy in meeting structure and influence of meeting logistics on perceptions of PLCs. Four themes resulted from research question two, which explored teachers' perceptions of the purpose of PLCs: perceived purpose, meeting content, meeting decisions, and value of PLCs. Five themes emerged pertaining to research question three concerning the dynamics of mandated PLC meetings: interpersonal frustrations, leadership, member engagement, culture of PLCs, and conflict resolution.

Research question one: What were high school academic teachers' perceptions of the structures of their required PLC meetings?

The researcher sought to gain high school academic teachers' perceptions of the structure of their required PLC meetings. The six participants who were asked to draw were prompted to reflect on a typical PLC meeting they were required to attend and to the best of their abilities, draw the meeting including important physical structures and group member interactions. Then the participants were asked to explain the picture drawn providing as much detail as possible concerning the structure and interactions of the meeting. During interviews and the focus group, all participants were asked to share the frequency, duration, location, and documentation of required meetings and how each structural aspect was determined. Themes constructed for research question one were outlined in Table 6 below.

Table 6

Themes Related Structure of Required PLC Meetings

Themes	Frequency
1. Degree of autonomy associated with meeting logistics	50
2. Influence of meeting structure on teacher engagement in PLC work	64

Theme 1: Degree of autonomy associated with meeting logistics

It was important to determine teachers' perceptions of the degree of autonomy associated with meeting structures as these aspects influenced teachers' perceptions and engagement in PLC work (Hargreaves, 2013; Muhammad, 2009; Wilt, 2016). Table 7 below outlined the teachers' responses pertaining to the details of the structure of their required PLC meetings as well as their perceptions of the degree of autonomy associated with each aspect of the PLC. The frequency table listed the number of times each reference was made within the data by participants.

Table 7

Degree of Autonomy Associated with Meeting Logistics

		Meeting logistics determined by			
Meeting logistics	Range of responses	Group	Group leader	Administration	Administration with group flexibility
Agenda		3	6		8
Frequency	Weekly to monthly	7	1		8
Duration	20 minutes to full pull-out day	5		1	
Location	Teacher classrooms	6	4	1	

n = frequency of reference

When discussing the agenda, more references were made indicating teachers perceived the documentation and agendas for the meetings were administratively derived with elements of group flexibility. Six references indicated the group leader was the source of the agenda while three references indicated group autonomy over the agenda and documentation of meetings. During the focus group, Nancy (May, 2018) stated the agenda is comprised of four questions. She explained, "We don't have to answer all four questions at every meeting …you need to focus on one or two of these to help …keep us all doing the same kinds of ideas. They are very broad" (Nancy, May, 2018). Nick (May, 2018) agreed, stating, "There was this template that was just kind of universal that had a series of things …that we were going to be trying to do each time we met, but it wasn't like we had to do every single thing each time." In Tonya's interview,

she said, “I know in [subject], they might look a little bit more at a lab they want to do or something like that. That’s not mandated by you guys. That’s something the group needs to work on” (May, 2018).

Team members also described meeting frequency most often as an aspect of required PLC meetings mandated by administration with a degree of group flexibility. This response was followed closely by the perception that meeting frequency was group determined. In Rachel’s interview (May, 2018), she stated, “Administration has an expectation of what we should be doing. One of the reasons we probably don’t meet as much as we probably should have: We see each other every day. We have the same planning period, and we can go find each other should we need to and we do.” Caroline (May, 2018) indicated, “I don’t know. We just decide together. The units dictate [when] we have to have a conversation.” The range of answers demonstrated the level of autonomy teachers exercised over the frequency of meetings. Two participants indicated they met weekly, three responded monthly, and five responded twice a month. When discussing how often her team met Nancy (May, 2018) said, “Officially twice a month but unofficially every day, all the time.”

Five out of six references to duration of meetings indicated teachers had autonomy over how long their meetings lasted. Again, there was a great deal of variation in meeting duration ranging from 20 minutes to a full release day requested by team members. When asked how the duration of meets were determined, Jason (May, 2018) replied:

> I don’t think we’ve ever been told how long it has to be. I know when we meet it counts toward professional learning. I think technically we probably need to be there a little longer than five minutes but we have never had one be that short. I don’t think we’ve been told, “You have to meet for this amount of time.” I think we usually just say, “Hey, this is what needs to be done. We’ve got to stay here until we do it.”

When asked about meeting locations, six participants indicated the location was determined within the group, four said it was determined by the group leader and Isabelle, whose PLC took place at the county level because she is the only one that teaches her AP course in her school, indicated it was determined by a county-level administrator. When the topic of meeting location was discussed during the focus group, Amanda said, "For some reason, whatever reason, people come to my room, I don't know why …I mean they just do it, it is just, I don't know, it happens. And like I said, it is organic. It is not something we have to force or contrive too much" (May, 2018). When asked how the location was determined, Tonya said the leader says, "'We are going to meet here, here in my room.' Then she kind of takes notes too so I guess she handles it all and we all just show up and talk" (May, 2018). Tonya had no idea why the leader determined the location. Caroline indicated meetings always took place in a member classroom usually the most centrally located.

Theme 2: Influence of meeting structure on teacher engagement in PLCs

In addition to providing details about the structure of their required meetings, participants were asked to share how those aspects either enhanced or inhibited their engagement in the collaborative process. Table 8 below indicated the common categories constructed.

Table 8

Influence of Meeting Structure on Teacher Engagement in PLC Work Listed in Descending Order

Structure			
Enhances		Inhibits	
Common Category	Frequency	Common Category	Frequency
Ensured valuable collaboration took place	14	Additional tasks and responsibilities	10

Provided time to collaborate during day	8	Agenda stifled natural collaboration	6
Agenda provided focus	4	Meeting did not result in collaboration	6
Built team unity	4	Time constraints	5
Documentation provided feedback to group and administrators	2	Met too often	3
Improved instruction for all students	1	Required	1

Several common categories were constructed from the data related to how the structure of PLCs enhanced their engagement in collaborative work. The most frequently communicated positive aspect was the structure of the required meetings ensured valuable collaboration took place. During the focus group, Mark spoke about his initial reaction to mandated PLC meetings:

> When it was first presented I thought, "Oh here we go, got another box to check, been there done that." And that is honestly the way I felt, that we have so many hoops that we jump, and we have to jump through because they put another hoop out there. But there is some benefit in this and we are a lot more comfortable and I feel like we are presenting better material to our kids. We are more unified. We are more standard in what we are doing and we are reaching all of our kids with comparable material instead of pigeonholing kids (May, 2018).

When Isabell (May, 2018) was narrating her drawing and explaining the structure and dynamics of her team, she said, "It has become more formal in recent years and it is just a really positive experience for all of us. We have really, really enjoyed learning and working together." When Rachel was asked how aspects of meeting structure influenced her engagement, she said, "I think personally, for me, it enhances it. I mean, it makes me mindful of what we should be doing …I

think it is good to talk to the others and find out where they are, what they are doing and have that collaboration" (May, 2018).

Teachers also appreciated designated time during the school day to collaborate with their peers. Brenda indicated the common planning time built into the master schedule provided a solution for the multiple coaches on her team who were unable to meet with their PLC after school due to extracurricular responsibilities. Amanda shared, "It has become a culture where we are drawn together because we have common planning" (May, 2018). Mark agreed stating, "We built it into our schedule and it helped me on that stand point that I know, on this particular day, at this particular time, this is what I am going to do. It has just become a part of the routine."

Through analysis of the data it appeared the structure of required meetings also enhanced teachers' engagement by providing them with a tool to keep meetings focused, build team unity, communicate needs to administrators, and improve outcomes for all students. Rachel (May, 2018) shared, "The agendas are good because they make us focus. I think just knowing we are doing this for a reason, sometimes it helps anchor us." Isabelle disclosed her team used the required meeting documentation not only as a tool to summarize their meeting notes but also as a means of communicating feedback and needs to administrators, including asking for additional collaborative time.

Teachers shared aspects of required meeting structures they perceived inhibited their engagement in the PLC process. The most often mentioned factor was added responsibilities and tasks associated with PLC meetings. During the focus group, Dawn shared, "On top of, like this year being a really stressful year where the standards are different, the pacing is different, on top of just teaching, it is just stressful anyway. It has just been tough" (May, 2018). Amanda agreed stating:

> I think the issue is that, with more being added to the roles and responsibilities of teachers, there is nothing being taken away …I know they want our voices and our input and our contributions, but somethings you are just …okay now I also have to run a committee, now I'll also have to get up and present at the faculty meeting, now I also have to do this. I think what happens is that is where I put the burn out (May, 2018).

During her interview, Rachel shared, "I think a lot of times when people come in there with that kind of attitude, there are other outside factors causing it. I don't think it is necessarily what we are doing in there. It is just one more thing they have to do. They don't want to be there" (May, 2018). Caroline (May, 2018) also shared in her interview "it is another thing to do, so sometimes that is problematic."

The agenda also emerged as a factor that inhibited authentic engagement in the required PLC meetings. When the agenda was discussed during the focus group, Amanda shared, "We have high intentions to meet with an agenda and minutes, and we fail at that a lot, and sometimes we succeed. We are not great at that but I think we are great at …natural organic conversations" (May, 2018). Nick (May, 2018) responded:

> Like she was saying it is kind of a natural thing for us to do. Just talk to each other about different things…impromptu collaboration without it being in a structured environment with an agenda that you have to follow and you are making sure you are hitting all the little thingies and you have to fill in a little sheet about what you talked about and document, document. That is the tedious part of it and it makes the collaboration part…less organic because you feel like we are pigeonholed. "We have to do this today. We can't talk about anything else but this right here because it is on the agenda and this is what we are turning into the board."

Lack of authentic collaboration during required meetings was perceived to inhibited engagement for some participants, as well. When narrating her drawing shown in Figure 2 below, Tonya (May, 2018) stated, "I feel like we are not collaborating, so my little bubble says, 'This is a waste of time. Why don't we actually collaborate?'"

Figure 2. Tonya (May 2018) response to the prompt, "Reflect on a typical PLC meeting you are required to attend. To the best of your ability, draw that meeting including important physical structures and group member interactions."

When asked how aspects of PLC structure either enhanced or inhibited her engagement, Elaine said, "Sometimes it hinders it because there is very little collaboration. It is more here is what I am doing, here is what I am doing, Okay, and here is this resource, bye" (May, 2018). Rachel had a similar response when she said, "I think sometimes it does get to be like, 'Oh, got to have a meeting, just to have a meeting.' I don't like that, when it gets to that point" (May, 2018).

Time restraints were listed also as an inhibitor to collaboration. Caroline pointed out most teachers on her PLC team also had other courses they taught that require their time. Isabelle found it "strange that we live in this technology age and we still don't have ways where we could just get together and meet without physically having to go" (May, 2018). Jason remarked,

> I think the frequency probably as much as anything made it seem like more of a negative process. It is not a negative process, but when we were meeting twice a month, I think it became a kind of burden for everybody (May, 2018).

Isabelle expressed "the simple requirement to have PLCs removes much of the intrinsic give and take of true community and growth" (May, 2018).

Research question two: What were high school academic teachers' perceptions of the purpose of their required PLC meetings?

Research question two was designed to tap into teachers' perceptions of the purpose of their required PLC meetings and challenge them to reflect and share how their conceptual understanding of PLCs aligned with their actual experiences. As outlined in chapter II, teachers' views of PLC's purpose and methods used by administrators to frame the work for teachers influenced their reactions to and behaviors during meetings (Clement, 2014; Evans, 2015; Flessner & Stuckey, 2014). The researcher probed the participants in the semi-structured interviews and the focus group by asking them to provide their personal definition of PLCs and describe to what extent their experiences within their required PLC meetings aligned with their definition. Teachers were asked these same questions as a part of the prequestionnaire in order to get their perceptions prior to any discussion between the researcher or moderator and the participants. The semi-structured interview and focus group protocols included questions meant to gather information about what types of topics were discussed and what types of decisions were made because of teachers' PLC discussions.

Four themes were constructed from the data gathered for research question two: perceived purpose, meeting content, meeting decisions, and value of PLCs. The frequency of references to the themes were displayed in Table 9 below in the order discussed in this section. The major categories for each theme were supported with the use of additional frequency tables and participant quotations.

Table 9

Themes Related to Purpose of Required PLC Meetings

Themes	Frequency
3. Perceived purpose	124
4. Meeting content	154
5. Meeting decisions	40
6. Value	54

Theme 3: Perceived purpose

When communicating their personal definitions of PLCs, participants articulated their understanding of the purpose of PLCs. Their responses were coded into nine common categories based on the frequencies of references related to each. Those common categories were displayed in Table 10.

Table 10

Common Categories Related to Teachers' Perceptions of PLC Purpose Listed in Descending Order

Common categories of the theme: Purpose	Frequency
Collaboration	23
Student achievement	21
Professional growth	18
Common goals	16
Reflective practices	12
Application to classroom instruction	8
Maintain autonomy over how to teach	7
Support peers and their students	5
Divide work load	4

Collaboration was the most referenced concept listed by participants across all data collection methods. Isabelle's (May, 2018) response summed up what most participants' responded when she defined PLCs as the following:

> an equitable, collaborative process that is ongoing and reflective. So it is not someone telling us what to do or how to do it or when to do it. It is intrinsic, natural, and dynamic in the sense that it changes.

During the focus group, Dawn stated:

> Collaboration is like the core idea, and so that I can learn from you. What are some things that you are doing that I can take and use for mine? The bottom line is I am trying to get my kids to do better. To me, it is all about collaborating (May, 2018).

While there was consensus that PLCs existed to provide teachers with opportunities to collaborate, their perceptions of the intended outcome of that collaboration were split almost equally between improved student achievement (21) and professional growth (18) with many mentioning both aspects, as it was perceived one influenced the other. Dawn represented many when she said, "The focus should be on improving outcomes for students" (May, 2018). When this purpose was postulated, Amanda replied:

> I look at it from a different lens. That is it more for our professional improvement. That it is a group that we use as a sounding board to try ideas out on, to discuss just the viewpoints of others as we are planning our own professional development (May, 2018).

In her interview, Isabelle viewed PLCs as a means for teachers to "improve themselves and their craft" (May, 2018). Rachel's interview response was similar. She explained:

> We teach the same subject so it is to help each other have a deeper understanding of how to deliver the material, maybe in a more strategic way, or to foster positive change within a department or within a course team.

Brenda's definition included both. According to her, "The main focus, and the main goal is to help our children succeed, but also to learn from each other…kind of sharing as we go" (May, 2018).

Many (16) definitions of PLCs included the concept of teachers collaborating to reach a common goal. During the focus group, Mark explained,

> From a [subject] perspective, we are a very diverse group and we come together, and share ideas, what works, what does not work, all for that common goal. No matter what your working level is, you still have to be exposed to the same things. You have got to. That is the angle that we go at it, and we are just a diverse group with a common goal. That is the simple way I would describe it (May, 2018)

Marks words also demonstrate another category that emerged, the importance of reflective practices. "Collaboration would be…what is working, what is not working, the reflection piece. How are you doing things, how could I help with this, what can I add, what can I take away, the deeper" (Elaine, May, 2018).

Other categories of purpose that were present across the data sources were application to classroom instruction, maintaining autonomy over how to teach, supporting peers and their students, and, lastly, a means of dividing the workload. Nick, among others, expressed the work should translate into changes in the classroom. Brenda (May, 2018) emphasized that PLCs should protect the "creativity to do it the way you want to" while still heading in the same direction as your team members. In her interview, Tonya expressed the importance of dividing the actual workload of creating resources and assessments for students while Caroline spoke of rotating leadership and the task of documentation associated with PLC work.

The commentary above represented participants' understanding of the ideals of the PLC process as well as their views of what PLC work should entail and produce. Two questions were used to cause participants to compare their theoretical version of PLCs with their experiences during the first year of formal implementation of required PLCs meetings. The participant prequestionnaire, the interview, and focus group protocols all included the question: To what extent do your experiences in your meetings align with your definition of PLCs. In answering

that question, participants revealed their practical experiences with PLCs. To ensure their experiences were fully explored, the interview and focus group protocol also included questions about the topics discussed and decisions made during their required PLC meetings. After data were coded, the common categories developed were included in Table 11 below.

Theme 4: Meeting content

Table 11

Meeting Content Common Categories Listed in Descending Order

Common categories of theme: Meeting content	Frequency
Reflective practices and problem solving	24
Shared ideas	21
Instructional strategies	20
Pacing and planning	16
Examined data and student work	14
Assessment development	11
Relayed information from admin, county or other	11
Unit development	8
Identified and targeted student needs	7
Standardized test preparation	7
Shared resources	7
Common grading of assessments	4
Improved content knowledge	3
Venting	1

When discussing what took place during required PLC meetings, reflective practices and problem solving emerged as the most frequent activity. These reflective practices were most commonly communicated as a series of questions participants used to explain what steered their discussions and thought processes while meeting. For example, Tonya's list included:

> What can we do to help our students? Where are we not failing our students? Where could we do better? Where are we lacking? What are our needs? What do I need to do to get these kids relating to me? (May, 2018).

When Jason was narrating his drawing of a typical PLC meeting, he communicated reflective practices and problem solving from the perspective of what was learned from the practice if PLCs. He said,

> We get together and talk about those things that work. It is a neat way to bounce ideas off each other and find out what does work and of course sometimes we learn, "Hey, this didn't work very well," or "I did it this way. I had to modify it this way to make it work" (May, 2018).

Meetings not only included reflecting on professional practice but also on the performance of individual students in order to target students or identify student needs. Amanda explained, "We are kind of reflecting on why students perform the way did …to assess student work" (May, 2018).

Brenda said, "It is more sharing ideas, sharing techniques" (May, 2018). Isabelle shared, "Sometimes people have read a new book or tried a new approach or a new technique so we always bring something to share" (May, 2018). Jason's PLC built sharing ideas into their routine by allotting "an opportunity at the end for anybody who wants to share anything that worked really well" (May, 2018).

Those shared ideas were often related to instructional strategies and assessment development and preparation. The assessment of student data and work was incorporated in those topics. When describing her drawing of a typical PLC meeting, Rachel volunteered:

> We will talk about common assessments, strategies that we are using in our classrooms. We will look at the tests, the course team tests for the units and we will go through the test and look at what needs to be fixed or maybe what needs to be discarded. (May, 2018).

Brenda shared:

> We did a lot of outcome-based discussion, especially with assessments and student performance. So when we come to the meeting we all bring and we all have the statistical data, you know? How many students missed this, why did they miss this (May, 2018)?

In addition to instructional topics, operational concerns were included in PLC meetings. Two categories were operational in nature: planning and pacing lessons, and relaying information from administrator. Tonya shared, "They decide how long they are going to focus on a specific topic. They try to plan …there is room for teachers to teach in their own way, but they try to plan when their tests are going to be" (May, 2018). Elaine (Mat 2018) explained her PLC meetings consisted more of planning than collaboration. She said the department chair "passes down information from better seeking teams, admin or even county level information." Elaine continued, "We have the same conversation every single time, 'Where are you at?'" Jason shared, "Most of the time, the [subject area meeting] is about the calendar and what we are supposed to be doing for the six-week chunks that are on our calendars" (May, 2018). "We also have a list of different things Mary (pseudonym for department chair) has passed down" (Jason, May, 2018). Other activities included sharing resources, developing unit plans, engaging in common grading of student work, improving content knowledge, and venting.

Theme 5: Meeting decisions

The researcher probed participants concerning not only the content of their PLC discussions but also what decisions and actions resulted from those discussions. Four common categories were developed for decision types: logistical decisions, common assessments, what to teach, and how to teach. Teachers also shared to what extent they felt those decisions were honored by their fellow team members. The types of decisions made were discussed first,

followed by teachers' perceptions of member follow through. Frequency of coded categories related to decisions resulting from required PLC meetings were outline in Table 12 below.

Table 12

Meeting Decisions Common Categories Listed in Descending Order

Common Categories of theme: Meeting Decisions	Frequency
Follow through	21
Logistics	6
Common assessments	5
What to teach	5
How to teach	3

Similar frequencies for decision types shared by teachers emerged with logistical decisions having the highest occurrence (6) followed by common assessments (5), what to teach (5), and finally, how to teach (3). Logistical decisions shared included "tutoring schedules" and "what days are good to have meetings" (Rachel, May, 2018). Jason also mentioned tutoring scheduling stating, "We had to decide what ways we were going to do it," explaining that the team had to balance their schedules to make sure both mornings and afternoons were covered (May, 2018). Decisions related to common assessments included what standards should be assessed on specific assessments and what form the assessments would take (Caroline, May, 2018; Isabelle, May, 2018; Jason, May, 2018; Rachel, 2018). Jason and Caroline (May, 2018) discussed selection of text resources to use for particular standards while Nick (May, 2018) described the decisions in terms of selecting the best lesson plan or instructional activities to use when teaching a concept. Isabelle (May, 2018) said, "We made decisions like, how to go about allowing student choice, but still moving forward with whole class instruction in effective ways" (May, 2018).

When discussing the extent to which either the participants or their peers followed through with decisions made during PLC meetings, of the 21 references to decision follow through, 15 indicated inconsistent follow through while six indicated unity among team members. When discussing possible reasons for inconsistent follow through, a variety of possibilities were shared. Caroline felt "like everyone in the group tries to follow through on those decisions" but "the logistics piece messes us up occasionally" (May, 2018). Elaine shared, "I do believe that we have teachers that will just do whatever they want, and they show up to PLC and say that this is what they are doing …but they change things" (May, 2018). Tonya shared a similar account: "There is four people in the room and three of them do what we talked about and one of them does not" (May, 2018). Tonya disclosed, "I know that those tests are not common because the role that I am in …and I have always been under the impression that that shouldn't be the case" (May, 2018).

Dawn confessed:

> You have that person, and I know I have done this in the past, I know of one particular instance with a test where you say, "I'm not doing that, I'm going to do this" and you don't tell anybody. You just go and you do it this way because you feel like that is best for your kids.

Isabelle stated her team presents a "united front" (May, 2018). She explained:

> It is a little bit different for us because the curriculum is very flexible for us and so there is no rigidity there. So, if someone didn't want to do it, they didn't have to, but generally we have such respect for each other that if we come to a decision, then we are solid with it (May, 2018).

Theme 6: Value of PLCs

The theme, value of PLCs, emerged organically from teachers' narrations of their drawings of a typical required PLC meeting as well as their explanations of PLC purpose and practices during the interviews and the focus group. As teachers reflected and shared their

experiences, they naturally assigned value to those experiences. While there was no specific prompt or questions related to assignments of value, 54 references developed during the constant comparative coding process. The common categories that comprised the theme were listed below by frequency in Table 13.

Table 13

Coded Common Categories Related to Teachers' Perceptions of the Value of PLCs Listed in Descending Order

Common categories of the theme: Value of PLCs	Frequency
Learn from teachers of same subjects	13
Roles based on members' talents and strengths	13
Diversity of perspectives	11
Reduced isolation	10
Provided a safe space to learn	3
Improved instruction	2
Transparency of practice	2

The top four categories were as follows: learning from teachers of same subjects, roles based on members' talents and strengths, diversity of perspectives, and reduction of isolation had similar frequencies (13, 13, 11, and 10 respectively). Nancy (May, 2018) represented views of her peers during the focus group when she shared:

> I have learned something from others and I think that it is really important to have these smaller, professional learning communities because I have grown. I have learned so many things and I have gotten so many new ideas where this is my 24th year. I have taught [subject] for many years and I have been doing the same thing for many years. I come into this situation where we all talk about what works for us and I am like, "Oh gosh, I'll use that." It is very positive.

Brenda shared the value of utilizing each person's strength to form a unique community: "It is like the gears of a machine, to me, it all comes together" (Brenda, May, 2018). Mark agreed stating,

> We all have different strengths and we play to those. If we are working on a standard that I am stronger in than someone else is, I'll say "This is what works for me, I'll format the thing and shoot that to them in an email, "tweak this, tell me what you think." They do the same thing back. (May, 2018).

Jason shared through PLC work we "don't recreate the wheel…just make the wheel better" (May, 2018).

Mark found value in having "someone to share the workload with and someone that knows the frustration that goes along with the profession" (May, 2018). He expressed, "It is just the community part of that that I take a lot away from" (May, 2018). Jason appreciated the opportunity to collaborate and interact with his peers. Prior to his current position, he worked at other schools where "you would have a department meeting once a semester maybe" (Jason, May, 2018). Referring to his current frequency of PLC meetings, Jason concluded, "It is a good thing" (May, 2018). Nick said:

> The good is that we do have that respect for one another and we can glean information from one another. We can come up with the best way to present the material to our students and then we can always go back to the drawing board and say, "OK, that didn't quite work out."

Nick's observation demonstrated PLCs as a safe place for teachers to engage in authentic collaboration. While most teachers discussed the value of PLCs in relation to their professional growth, indirect references to student achievement were also included. Mark (May, 2018) pointed out all students directly benefit from the transparency created by PLC work "because you can't hide. You have to do your part. Everyone has to do their part."

Research question three: What were high school academic teachers' perceptions of the dynamics of their required PLC meetings?

The researcher sought to construct an image of the unseen interpersonal dynamics and interactions that took place during participants' required PLC meetings. As outlined in chapter II,

a gap in research existed in how teachers experienced the combination of mandated change and collaboration through PLCs when linked to accountability measures. The framing of and culture surrounding mandated change and collaboration were shown to greatly influence the socio-cultural behaviors that took place behind the close doors of teacher collaboration (Bolino et al., 2015; Evans, 2015; Flessner & Stuckey, 2014; Goldstein, 2015; Le Fevre, 2014). The interview and focus group protocols included the following questions aimed at gathering information on the interpersonal interactions specific to the implementation of Georgia Rule 505-2-.36 at the chosen school for this study:

1. Describe the roles of each member in the group.
2. What steps were taken to determine or establish the roles of the members within the group?
3. When (if) conflicts arise during meetings, how are they typically handled?
4. To what extent does the composition of the group enhance or inhibit your engagement in the collaborative process?

Also, question three was included in the participant prequestionnaire to allow the researcher to collect data on group dynamics for all participants prior to any direct contact between the participant and the researcher and moderator. The six teachers who were interviewed were also asked to explain the pictures they drew representing a typical PLC meeting providing as much detail as possible concerning the dynamics of the interactions between members of their PLCs.

The large amounts of resulting data were analyzed meticulously through repeated cycles of open coding followed by axial coding across all sources in a process known as constant comparative method (Creswell, 2007; Merriam & Tisdell, 2016; Patton, 2002). The researcher developed five themes resulted from the data: interpersonal frustrations, leadership, member

engagement, culture of PLCs, and conflict resolution. The frequency of occurrence across all data sources associated with each theme was outlined in Table 14 below. Each theme was broken down into the common categories that comprised it and illustrated through examples and direct quotes of participants.

Table 14

Themes Associated with Group Dynamics of Required PLC Meetings

Themes	Frequency
7. Interpersonal frustrations	112
8. Leadership	69
9. Member Engagement	44
10. Culture of PLC	43
11. Conflict Resolution	35

Theme 7: Interpersonal frustrations

Interpersonal challenges and frustrations were references in the data 112 times. The 13 common categories that made up this theme were listed below in Table 15 based on frequency of occurrence.

Table 15

Coded Common Categories Related to Interpersonal Frustrations Listed in Descending Order

Common categories of theme: Interpersonal frustrations	Frequency
Personality differences caused difficulty	16
Unequal distribution of responsibility	12
Voice not valued	12
Passive personalities and behaviors	11
Dominant personalities	10
Peer accountability	10
Meetings lacked focus or authentic collaboration	10
Differences in expertise and experience	9
Members did not apply content	8

Off task behaviors	7
Negativity	3
Lack of relationships outside of PLC	3
Passive aggressive behaviors	1

Difficulties due to personality differences were the most commonly referenced interpersonal frustrations across all data sources. Tonya began her explanation of her drawing by stating her PLC "typically has a very stressful meeting environment" (May, 2018). Later in her interview, Tonya expounded on her thoughts by stating, "I just think that for whatever reason the personalities in the room do not lead towards a collaborative effort. I do not know that it is any one person's fault" (May, 2018). During the focus group, Brenda described her PLC team as "a very diverse group with different ideas. Sometimes that poses difficulties" (May, 2018). Dawn provided a more specific example of interpersonal interactions within her team when she said:

> I am going to be honest. I am going to tell the truth. It is too much. Well, one will try to out talk the other and get louder and they will just make the decisions. If a third party over there tries to say, "How about we do this?" It is kind of like "No we already did that, it didn't work." And just like that … nothing (May, 2018).

Dawn's candor was an example of the frustrations caused by what she perceived as dominant personalities within groups. Strong personalities were listed most often as a cause of team member conflict or withdrawal. Brenda shared a similar example of how dominant personalities inhibited collaboration:

> If a PLC member has a suggestion or idea that does not align with the two dominant members, they are thanked for their input and the idea dies there. If a group member presents a "problem" in search of a solution, it is viewed as a "complaint" and that member is quieted abruptly. (May, 2018)

In her interview, Rachel communicated, "We have a lot of strong personalities in our group, so I think sometimes that can inhibit what happens in the group. Everybody's got to have their say" (May, 2018).

Passive personalities and behaviors within PLCs caused a different type of interpersonal frustration for the participants. Brenda (May, 2018) illustrated, "It is really difficult to pull the passive people…that is just their nature, but to get them to participate in it and have some input so they are not just going, "I'll just follow you whatever direction you go." This lack of participation by passive team members created a perceived inequality of distribution of responsibility within teams. Elaine articulated this frustration when prompted to explain the double-sided arrow and what appeared to be a weight drawn between two desks in her drawing of a typical, required PLC meeting (See Figure 3 below).

Figure 3. Elaine (May 2018) response to the prompt, "Reflect on a typical PLC meeting you are required to attend. To the best of your ability, draw that meeting including important physical structures and group member interactions."

Elaine (May, 2018) replied:

> Yeah, I put a weight …it is usually heavily weighted that these two teachers are usually responsible. They carry the heaviest load of assessments, study guides, decisions ..., tutoring, facilitation of curriculum development and planning. Teacher number three is …constantly nodding his head, "Nod, nod, yeah, whatever you say."

During the focus group, Amanda postulated the passive behaviors described by her focus group peers resulted from "the lack of recognition of voice that makes someone feel that they do not have …value. That is why those roles emerge" (May, 2018). Dawn (May, 2018) agreed sharing:

> Either you got that one person, or sometimes there are two people who say, "Ok, well I am just going to do this. I don't like it but I am going to do it. I am just going to shut up because I am not going to win today."…You just hush and you do it and you go along with the flow.

Isabelle demonstrated how differences in experience levels also caused perceived imbalance of responsibilities. When prompted to draw a typical PLC meeting, Isabelle drew two pictures, one of her PLC prior to 2017 and one during the 2017-2018 year (See Figure 4 below). Between school years, her PLC group experienced some member turnover resulting in different group composition and levels of expertise.

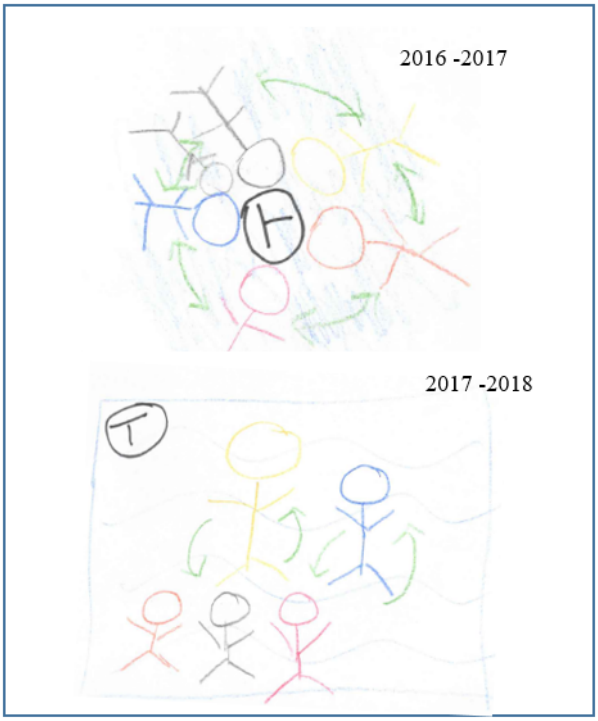


Figure 4. Isabelle's (May 2018) response to the prompt, "Reflect on a typical PLC meeting you are required to attend. To the best of your ability, draw that meeting including important physical structures and group member interactions."

When explaining the top drawing in Figure 4, representing her PLC group in 2016-2017, Isabelle said the arrows symbolized a "kind of give and take between everyone. We were all in a circle because there was no person that was greater than another person" (May, 2018). In her 2017-2018 drawing, Isabelle was probed about the change in size and orientation of the group members. She explained her group members made her "larger":

> It is like everybody looks at me now and asks me all the time what to do. I do not feel that same energy that we had before because I feel like now, it is everybody looks at Isabelle. There is still give and take, but these teachers just don't have as much experience (May, 2018).

In her interview, Rachel (May, 2018) commented, "It would be nice if some of the younger members would be more engaged …I think it is just inexperience somethings."

Peer accountability also emerged as a major source of frustration for the participants in the data. Isabelle shared:

> It is really hard for me because I felt like in our last meeting, we really got off track and I didn't know how to get back on track without being the bad guy or the enforcer. I did not want to be the enforcer. (May, 2018)

When Tonya pointed out people in her group refused to follow through on decisions made during meetings she confessed, "I don't know how to hold people accountable for that. I don't know who is supposed to" (May, 2018). Nancy (May, 2018) shared a similar sentiment in the focus group when she stated, "A lot of times we all know that the decisions can be made, but then you go back to the classroom and we really don't have any accountability to each other…Is somebody going to come check on that?" Amanda agreed, "Occasionally you will have an outlier or person who just…you can't force an adult to do something, and you are dragging them by their tails and they are over here doing something totally different" (May, 2018).

Theme 8: Leadership

While the interview and focus group protocols contained direct questions related to PLC member roles and teachers' perceptions of the source of those roles, the role of the PLC leader dominated the commentary. References to leadership not only emerged from those direct questions but throughout all aspects of the data collection process including the drawing narratives and prequestionnaire data. The 65 references were divided into two subthemes: leadership roles (39) and source of leadership roles (26). As discussed in chapter II, the actions of leaders either empowered or imposed on teachers elicited a variety of socio-cultural behaviors ranging from authentic collaboration to withdrawal (Hargreaves, 2013; Knowles, 1970; Wang, 2015). Table 16 below outlined the subthemes and common categories that the researcher constructed from the analysis of the data. The common categories that comprised the subthemes are listed in descending order from the most frequently referenced.

Table 16

Coded Subthemes and Common Categories of Theme 8: Leadership

Subtheme	Common Category	Frequency
Leadership roles		39
	Leader as organizer	13
	Leader as group facilitator	10
	Leader as authority	9
	Passive leader	2
Source of leadership role		26
	No leader/Shared leadership	9
	Emerged from group dynamics	7
	Appointed by members	5
	Appointed by Administration	3
	Self- Appointed	2

Leadership roles were broken into four distinct categories based on the behaviors and actions described by the participants: leader as organizer, leader as group facilitator, leader as authority, and passive leader. The highest number of references in the data described PLC leaders as organizers (13). Dawn described that leadership meant "you are the one in charge of [the logistics] … 'we are going to meet this date, we are going to meet in my room, this is what we are going to do'" (May, 2018). The leader "coordinated" and sent the "monthly calendar" (Dawn, May, 2018). She recognized that "with PLCs now, we don't necessarily need a course team leader, the whole goal is that everybody collaborates together" (Dawn, May, 2018). Elaine also described the leader as an organizer of the agenda but also a source of authority because her leader "sticks to the agenda and constantly says, 'Let's move on'" (May, 2018).

Figure 2. Tonya (May 2018) response to the prompt, "Reflect on a typical PLC meeting you are required to attend. To the best of your ability, draw that meeting including important physical structures and group member interactions."

When Tonya was explaining her PLC drawing (see Figure 2 above), she demonstrated the authoritarian nature of her team leader by pointing to the leader and saying, "The head person right here, who shouldn't be the head but I guess feels like she is …she is saying, 'I'm the head.

I'm making the plans.' Since we meet in her room, she tends to stay up there like she is still lecturing to her students versus sitting with the group" (May, 2018).

To avoid the inequity associated with authoritative leadership, Caroline's group shared leadership by rotating the role. She explained having the same person lead year after year results in "one person ending up with more authority and knowledge and power, or assumed authority, knowledge, and power" (May, 2018). Rachel, the leader of her PLC, said:

> I have them all in a circle …I will sit in the circle with them. I don't like to stand up in front of them …I like the equal level of eye contact. I don't like to be like, "I am over you, telling you." (May, 2018)

Brenda spoke of the need for the leader to act as a facilitator:

> It really …makes or breaks it. You have to have a leader who appears not to be a leader, who appears to be a part of it so everybody has input and at the same time take the very dominant persona and help that dominant person be more accepting of other ideas and there are different positions we can attach this problem from. (May, 2018)

Brenda's (May, 2018) actual PLC leader was described as passive and "very non-confrontational." The leader "misreads many comments and potential rising conflicts and waves them off" (May, 2018).

In addition to the references to shared leadership discussed above, Nick (May, 2018) stated there was "no designated leader" in his group. Nick explained the natural strengths and talents of the members determined roles within his PLC. For example, if the task was going over EOC scores, the naturally "analytical" person would lead. Elaine assumed the department chair was also the leader of the PLC "because of the title …it was given by admin …that has always been …I guess it has been tradition" (May, 2018). Nancy agreed previous or existing titles did play a role in the source of PLC leadership. She said, "I think it goes back to that course team leader. I was the course team leader for a long time…then when it went to PLCs and it was a community, they still wanted me to lead. So I did" (Nancy, May, 2018). Rachel shared a similar

story stating: “I don’t know that anybody ever said deliberately, ‘Okay, Rachel, you do that,’ It just became my role. I think it is just my experience, I suppose. I’m not sure that everybody is always following my lead, but I would like to think I am a leader” (May, 2018).

Theme 9: Member engagement

The theme of member engagement emerged organically from the testimonies of the participants. References to member engagement were not isolated to the interview or focus group question responses linked to research question three or participants’ narratives of their PLC drawings. Descriptions of member engagement were included also in participants’ definitions of PLCs and their reflection of how that definition aligned to their experiences in their PLC groups. Commentary containing or related to group member engagement appeared 44 total times in the data. The seven common categories that made up this theme were outlined below in Table 17. Examples of the common categories were given below using the participants’ own words and drawings.

Table 17

Coded Common Categories Related to the Theme: Member Engagement Listed in Descending Order

Common categories of theme: Member engagement	Frequency
Shuts down due to group interactions	11
Unequal participation	10
Equal, authentic engagement	9
Abdication of role/passive	7
Competitive instead of collaborative	4
Withdrawals due to lack of content knowledge	2
Withdrawals due to perception of lack of relevance	1

The most frequent reference in the data related to member engagement was group member withdrawal due to the composition and dynamics of the required PLC groups. Elaine confessed to withdrawing because she viewed the meetings as more of a "contest as to the content matter" between two of the members of the group instead of collaboration that included all members (May, 2018). Elaine explained she did not wish to engage with those she perceived to be turning meetings into a competition. Dawn disclosed, "You just have those people that have personalities that just kind of take over and then when that happens you have people who shut down" (May, 2018). Dawn confessed she too withdrew from meetings and thought to herself, "I am just going to sit there and I am not going to say anything" (May, 2018).

Figure 2. Tonya (May 2018) response to the prompt, "Reflect on a typical PLC meeting you are required to attend. To the best of your ability, draw that meeting including important physical structures and group member interactions."

Tonya (May, 2018) explained her drawing (see Figure 2 above) by pointing out, "this little bubble says, 'She never listens, so I am not going to talk' …When you talk outside of the meeting, they are like 'Well, she doesn't care what I say anyway.'" As demonstrated in the

previous quotation, Tonya used the term "they" instead of "we" when describing her group. She shared two reasons for her withdrawal. The first was perceiving interpersonal "tensions are too high" (May, 2018). She shared: "I don't want to get myself in that triangle of unhappiness" (Tonya, May, 2018). She also attributed her lack of engagement to her lack of content knowledge. Tonya's perceived weakness in content knowledge stemmed from her primary background in special education and a recently added content area certification in her PLC subject area.

Rachel postulated lack of experience was a possible cause of disproportionate participation by group members. She stated: "It would be nice if some of the other members would be a little more engaged, some of the younger members" (May, 2018).

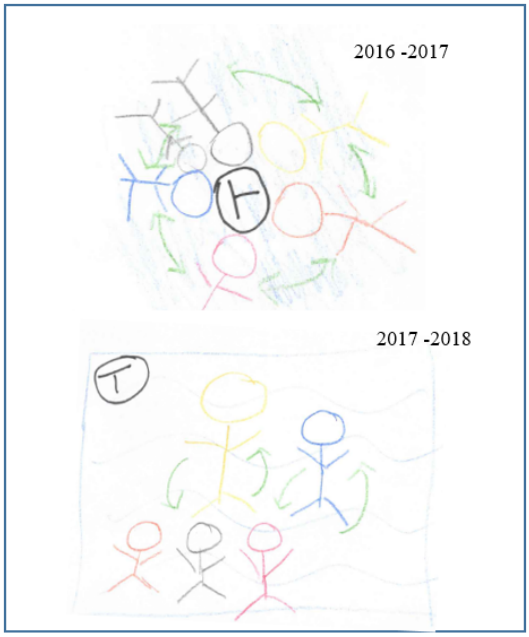


Figure 4. Isabelle's (May 2018) response to the prompt, "Reflect on a typical PLC meeting you are required to attend. To the best of your ability, draw that meeting including important physical structures and group member interactions."

Isabelle shared a similar theory when she explained why she drew members the same size in her first drawing and different sizes in the second drawing representing the 2017-2018 school year (see Figure 4 above). The sizes represented unequal participation; however, she hoped after one

of the members attended a state level training, she would "come back with a lot more experience and information…that is going to help level things out again." (Isabelle, May, 2018)

Brenda expressed frustrations in "getting everybody to say, 'I like that or I don't like that, or let's talk about it'" (May, 2018). Elaine (May, 2018) postulated some members are "more consumed by extracurricular activities as opposed to content and collaboration. These members give a lot of 'yeah, whatever you all want to do is fine'-very complacent" (May, 2018). Other participants shared experiences of members abdicating their roles within required PLC meetings. Speaking of a specific member of her group, Nancy (May, 2018) said: "He is not lazy, he just says, 'You just tell me what to do and I'll do it.'" She elaborated stating, "You don't always have participation in PLCs, you don't. [Members wills say,] 'I'll just listen' …I believe they trust us a lot but they don't care to participate" (Nancy, May, 2018).

Caroline (May, 2018) drew a picture of equal participation (see Figure 5 below). To articulate equal participation she explained, "Everybody is talking, all four of us. Everyone is present; we don't have any empty desks because somebody had to go somewhere else …Someone is leading us. It could be anybody."

Figure 5. Caroline (May 2018) response to the prompt, "Reflect on a typical PLC meeting you are required to attend. To the best of your ability, draw that meeting including important physical structures and group member interactions."

Jason also described equal engagement by all members: "It is equal share, everybody …I mean because one of the special education teachers that has been here for a long time, he has accountability just like anybody does…Nobody carries any more weight that the other. Everybody's opinion counts" (May, 2018). Amanda explained the members of her small group are "authentically invested" (May, 2018). Mark (May, 2018) shared, "Our group in particular is willing to step in and do their share. We all work well together" (May, 2018).

Theme 10: Culture of PLCs

DuFour et al. (2016) emphasized the essential role of culture in supporting the physical and emotional needs of teachers asked to engage in the vulnerable work of PLCs. Datnow (2012) emphasized the dynamics of the social networks within groups could be leveraged for school improvement through PLCs but could also derail the work. For those reasons, the emergence of references to the culture within participants' PLCs experiences were noteworthy. While aspects of PLCs culture were not assessed directly through any particular drawing prompt, interview, or focus group question, the participants naturally shared those aspects of their work in mandated PLC meetings. The theme, culture of PLCs, surfaced in the data 43 times. Table 18 below outlined the common categories of equality, respect, safe space, and trust associated with the participants' perceptions.

Table 18

Coded Common Categories Related to the Culture of PLCs Listed in Descending Order

Common categories of theme: Culture of PLCs	Frequency
Equality	18
Respect	9
Safe space	9
Trust	7

Equality was referenced twice as much as the other cultural ideals of PLCs (18). Several participants used their seating arrangements in their drawings to communicate either the presences or absence of equality within groups. Rachel said, "all of us in a circle together …so we are all equal level. I like the equal level of the eye contact" (May, 2018). Jason shared:

> We don't put ourselves as the head. We almost do it like the Knights of the Round Table, so there is not one person more important than the other. We usually kind of circle them up so we are facing each other. (May, 2018)

During Caroline's drawing narrative she explained:

> The desks are the same size…nobody is sitting at the teacher's desk. We are not meeting in front of anyone's desk; we all are sitting at student desk, so that we are collaborating similarly, to how the students work together in groups. (May, 2018)

Tonya also used seating arrangements to demonstrate the lack of equality experienced in her group because her leader stands at her table "like she is still lecturing to her students versus sitting with the group" (May, 2018).

Brenda commented on the importance of being trained on "how to respect as well as use the strengths each individual brings to the table in order to maximize performance" (May, 2018). Nick agreed: "It is very important to have respect for each other in order to safely exchange ideas" (May, 2018). Mark agreed using an example of his team's reaction to analyzing empirical data: "We will look at the test and say, 'Alright 78% of our kids missed 14. That is not them, that is us…We have got to fix that.' We are comfortable with each other doing this kind of thing" (May, 2018). Amanda used the team "safe space" to describe the culture of her group. "For me, it is a safe space…It is a place for you to go and have a dialogue with people of the same job that teach the same courses and can give you some feedback to help you grow" (May, 2018).

In Isabelle's drawing narrative, she explained the blue squiggles and shading drawn through the scene during 2016-2017:

> The blue is kind of reflective of that energy that flows, that safe space between us, like there was no competition, there was no threat. It was just completely safe space when we came together …That is magical, this space in between. I felt like the green arrows were the kind of give and take between everyone. We were all in a circle because there was no person that was like greater than another person. It was completely collaborative. There was no greater person. We all worked for the benefit. (May, 2018)

Isabelle also compared the culture of trust as her group composition changed from one year to the next. She explained the 2016-2017 drawing "reflects …that we are a very tight community …We had a lot of trust between us. This is what the Capital T is." For the 2017-2018 drawing, she placed a T "in the corner because I don't feel like it is in the center or our relationship anymore" (May, 2018). See Figure 4 below.

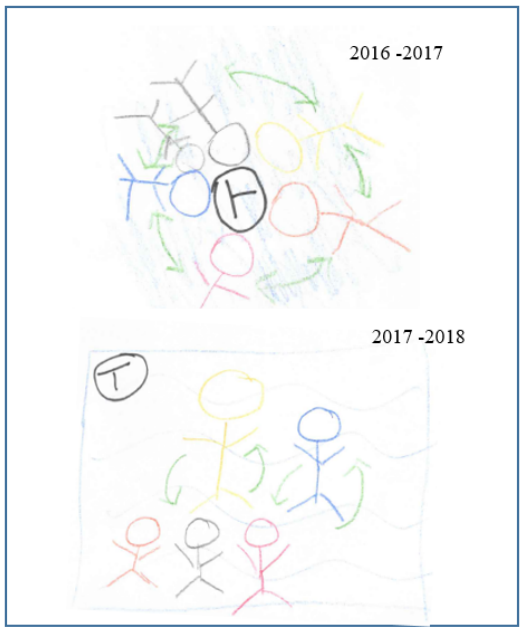


Figure 4. Isabelle's (May 2018) response to the prompt, "Reflect on a typical PLC meeting you are required to attend. To the best of your ability, draw that meeting including important physical structures and group member interactions."

Theme 11: Conflict resolution

In order to gain a better understanding of the dynamics within the groups, the researcher probed the participants to determine how they managed conflicts. The following question was asked on the participant prequestionnaire as well as during the semi-structured interviews and

focus group: When (if) conflicts arise during meetings, how are they typically handled? The common categories developed from coding of this question over each data source were outlined in Table 19.

Table 19

Coded Common Categories Related to Conflict Resolution During PLC meetings Listed in Descending Order

Common categories of theme: Conflict resolution	Frequency
Avoidance behaviors	15
Open dialogue	8
Compromise/Consensus	7
Sought administrative support	3
Leader took control	2

Behaviors associated with conflict avoidance were the most commonly listed responses by participants. Dawn confessed to disengaging from the meetings by shutting down. Tonya explained when conflicts arose "the point is finished by whomever decided not to shut down, and then it just kind of goes from there" (May, 2018). Brenda shared: "If a group member presents a problem in search of a solution, it is viewed as a complaint and that member is quieted abruptly" (May, 2018). Elaine (May, 2018) said conflicts are usually "laughed off or dismissed" and the meeting moves on to the next thing. Rachel, a PLC leader, said she does "try to be humorous. I try to be professional …I try to remind everybody what we are here for. 'We are here for the kids,' that kind of thing" (May, 2018).

Other participants described conflict resolution through open dialogue and consensus building. Amanda explained conflicts were resolved by "giving the professional in question an opportunity to express themselves, and then consensus or compromise is reached through an attempt to find common ground" (May, 2018). Mark explained, "Everyone is professional

enough and confident enough to handle differences of opinion using open dialogue. We simply talk thing out and share our viewpoints" (May, 2018). Jason also shared, "We just talk them out …We are always trying to figure out ways to still do things as a unit together …You just have to tweak it because teachers all teach differently" (May, 2018). Caroline described a problem solving process where a decision was made then revisited to determine if it "was the right choice, and sometimes we change it for the next year" (May, 2018). Similarly, Jason said his group "discussed the pros and cons of each side and when data was available we used that to try and resolve the conflicts" (May, 2018). Nick shared a similar method: "Usually, each side presents and as a group the best idea is chosen" (May, 2018). When Jason's group was unable to arrive at consensus, they sought assistance from their administrator. Isabelle also sought guidance from an administrator when she became uncomfortable with the need to redirect unprofessional behavior within the group.

Results

Data from participant prequestionnaires, drawing narratives, semi-structured interviews, and focus group were triangulated. Eleven prominent themes were developed by the researcher from the analysis of the data. These themes provided the findings for the study by illuminating teachers' perceptions of mandated collaboration through PLCs. Findings were organized by research questions to isolate teachers' perceptions specific to the structure, purpose, and dynamics of their required PLC meetings. For the purpose of this study, structure was defined as the agenda, frequency, duration, and locations of the required meetings.

Two themes emerged for research question one, which probed participants' perceptions of the structure of required PLC meetings. Degree of autonomy in meeting structure and influence of meeting logistics on perceptions of PLCs. The theme of degree of autonomy in

meeting structure provided information relevant to teachers' perceptions of the origin of the structures that characterized their required meetings. The greatest frequency of responses (8) related to meeting agendas originated from administration in the form of a template that permitted group flexibility. Six responses communicated a perception that the group leader created the agenda while three references were made to group derived agendas. The majority of teacher responses also indicated meeting frequency was a result of administrative expectations with permitted group flexibility. Seven responses indicated teachers had full autonomy over how often meetings took place and only one reference indicated the group leader set the frequency of meetings. The variations in frequency were evidence of a degree of autonomy as meeting frequencies reported ranged from weekly to monthly. A similar pattern emerged in meeting duration with meetings reported as lasting from 20 minutes to full release days based on team requests. Five out of six references indicated duration was autonomous. Six out of 11 responses concerning location also indicated teacher autonomy. Group leaders determining and hosting meetings in their rooms occurred four times and one reference was made to administratively determined locations.

The theme of influence of meeting structure on teacher engagement occurred 64 times in the data, 33 references were examples of how the implemented structure enhanced participant engagement while 31 represented ways it was inhibitive. The most frequently referenced benefit was the structure ensured the valuable practice of PLCs took place (14). Fewer references (6) indicated the structure inhibited engagement because the meeting content was not characterized by collaboration and therefore was not viewed as a valuable use of their time. The second highest overall frequency category indicated the structure inhibited teacher engagement because of the additional duties and responsibilities required with the formalized process. Teachers appeared to

appreciate the arrangement of time during the school day, typically through common planning periods that allowed them a consistent time to meet with their teams. Five references indicated time constraints inhibited engagement even with allotted time built in the school day. Perceptions were divided with regard to the agenda. Six references indicated the agenda stifled the organic collaboration characteristic of their voluntary encounters while four references indicated the agenda served as a tool to keep teams focused on the work of collaboration. Team unity, communication with administrators, and improved instruction for all students also emerged as factors enhancing member engagement in required PLCs. Meeting frequency was listed three times as an inhibitor, in each case the reference was to meeting too often and when deemed unnecessary by PLC members. One participant disclosed that requiring meetings inhibited engagement on principle.

Four themes resulted from the data collected to answer research question two, which explored teachers' perceptions of the purpose of PLCs: perceived purpose, meeting content, meeting decisions, and value of PLCs. When articulating their understanding of the purpose of PLCs, the category that emerged the most from participant data was collaboration (23). Twenty-one references demonstrated that teachers perceived the purpose of that collaboration was to influence student achievement while 18 references indicated it was for professional growth of the teachers. Working toward common goals (16), engaging in reflective practices (12), and translating collaboration to changes in classroom instruction (8) were mentioned to describe the work of PLCs. Seven references were made to clarify that PLCs permitted teachers to maintain autonomy concerning how they taught while collaborating with their peers. Five references emerged indicating participants perceived PLC work was designed in such a way that teachers supported their peers and the achievement of all students, not just the ones in their personal

classrooms. The lowest frequency response indicated PLCs provided teachers with a method of dividing the workload during unit and assessment development.

The theme of meeting content was developed to communicate participants' perceptions of their experiences in their required PLC meetings. Reflective practices and problem solving were referenced the most, with a frequency of 24 followed by sharing ideas (21) and instructional strategies (20). The references to examining data and student work (14), as well as identifying and targeting student needs (7) indicated teachers used student performance to make instructional decisions during these meetings. A relatively large frequency of responses (11) compared to other categories indicated operational concerns were included in PLC meetings for example relaying information from school level or county level administrators. Responses indicated meetings were used also for pacing and planning (16). In addition to setting dates for meeting and assessments, time was spent developing assessments (11), planning units (8), preparing for standardize tests (7), and sharing resources (7). Some lower frequency but unique items that emerged were the use of PLC time to engage in collaborative grading of common assessment (4) and taking time to increase content knowledge (3). One participant included venting as a typical occurrence in her team meetings.

The theme of meeting decisions illuminated the actions resulting from the discussions and collaboration that took place during required PLC meetings. Of the four types of decisions that emerged from the data, logistics had the highest frequency (6). Logistical decisions named by participants included items such as setting after school tutoring calendars, pacing, and dates for major tests and meetings. Common assessment decisions including what items to include and what form assessments would take had the next highest occurrence (5) followed by decisions concerning lesson content (5) and instruction methods (3).

The highest frequency reference for this theme was not related to the types of decisions made but rather participants' perceptions of the level of follow through by peers. Of the 21 references to follow through, 15 indicated inconsistent follow through while six indicated unity through consistent follow through. A variety of reasons for the inconsistent follow through were shared including logistical conflicts and issues with group dynamics such as conflict avoidance and lack of peer accountability. Those reasons were discussed in further detail in the themes associated with group dynamics.

The theme, value of PLCs, was constructed from the participants' testimonies and provided insights into how participants assigned value to their PLC work as they compared their theoretical definitions with their practical experiences. The frequency of comments related to value of PLCs numbered 54. The process of learning from teachers who taught the same subjects and faced similar challenges (13) as well as the utilization of the individual talents and strength of members to positively impact the overall instruction of the group (13) were mentioned the most. Participants also perceived PLC meetings reduced the isolation typical of their work (10) and the diversity of perspectives caused teachers to reflect on their practices (11). Three references described PLCs as safe spaces to learn. Two comments attested PLC work led to improvements in instruction and two referred to the value of transparency of practice that ensured all students benefited from collaboration regardless of the teacher they were assigned.

Five themes emerged pertaining to research question three concerning the dynamics of mandated PLC meetings: interpersonal frustrations, leadership, member engagement, culture of PLC, and conflict resolution. The largest response to questions related to group dynamics was interpersonal frustrations (112). Personality differences that impeded the collaborative process were the most frequently mentioned interpersonal frustration (16). Teachers also referenced

frustrations due to perceived unequal distribution of responsibility in the group that leading to resentment on the part of those who believed they carried more weight than their peers (12). An equal number of references emerged from participants who felt their voices were not valued by their peers. Both passive behaviors (11) and dominant personalities (10) were frequently voiced as the source of frustration within meetings. Dominate personalities were referenced most often as the reason participants failed to engage or were dismissed when attempting to collaborate. Passive personalities and behaviors were referenced as a barrier to authentic collaboration because those individuals chose to abdicate their involvement and role in their groups. The inability to hold peers accountable for their actions within and beyond the meetings was referenced frequently, as well. Participants perceived the dynamics between PLC members resulted in meetings that lacked focus and collaboration. Differences in PLC member experience and level of expertise also emerged as a challenge with many references made to the difficulty of new or inexperienced members either willing or able to collaborate effectively in the meetings. Off-task behaviors (7), such as personal conversations and clock watching, general negativity (3), lack of personal relationships outside of the meetings (3) and passive aggressive behaviors (1) were mentioned also as frustrations characteristic of required meetings.

The theme of leadership permeated participant perceptions of their required PLCs. Responses fell into two main subthemes: leadership roles and source of leadership roles. Most comments described the leader as the organizer of the group (13), the individual tasked with ensuring meetings took place, agendas were communicated, and documentation of the process occurred. Ten comments depicted the leader as a facilitator of collaboration with many references to shared or rotated leadership based on the tasks and strengths of team members. The role of leader as authority was brought up nine times and associated with negative feelings of the

participants. Passive leadership, which occurred with the smallest frequency (2) was also communicated as a negative dynamic because the leader failed to manage the strong personalities within the group in a way that made collaboration possible.

The second subtheme of leadership demonstrated participants' perceptions of the origin of the leaders' roles within their groups. Shared leadership or lack of a designated leader was mentioned with the highest frequency. Shared leadership was described as a designated agreement to rotate responsibilities or as a natural result of matching team member's strengths to tasks. Participants, who identified themselves as PLC leaders, described a phenomenon of leadership appointed by PLC members. Either because these individuals were leaders under the old structure of course teams or their presumed experience, expertise, or willingness, the members informally decided who the leader would be and behaved as such resulting in the designation. Three comments indicated the participants perceived the leaders were appointed by administration and two believed the leader was self-appointed.

The theme of member engagement surfaced 44 times in the data and provided information on how members interacted within their required PLC meetings. Of all of the references that comprised this theme, only nine described equal authentic engagement by all members of the team. The largest frequency of comments was related to members withdrawing from the collaborative process either due to interpersonal interactions (11), lack of content knowledge (2), or a perception the meeting lacked personal relevance (1). Ten references were made indicating perceived lack of equality of participation with nine comments made pertaining to team members abdicating their roles by either passive behaviors or overt agreement of compliance with any group-made decisions. Members engaging competitively instead of collaboratively also emerged as a form of participation in meetings (4).

Aspects of PLC culture communicated by participants provided insights into how the environment of the PLCs and the intangible aspects of group dynamics influenced participants' perceptions of the work. By far the greatest number of references to culture was equality. Among the 18 comments related to equality within groups, participants had divergent experiences with equality resulting in opposing perceptions. Either participants shared positive influences on their PLCs due to deliberate actions that ensured equality or participants shared the negative influences resulting from inequality. All 18 occurrences, including both positive and negative, underscored the participants' perceptions of the importance of the quality in influencing the effectiveness of PLC meetings. Participants also mentioned the importance of respect (9), trust (7), and safe spaces to make mistakes and be vulnerable with peers (9). Participants with teams described as possessing those characteristics reflected positively on the culture while participants of teams described as lacking these characteristics pointed to those qualities as the reasons for dysfunctional group dynamics.

The theme of conflict resolution demonstrated participants' perceptions of their teams' abilities to deal with differences of opinion or opposing ideas. The highest frequency of responses was related to conflict avoidance (15). Examples of conflict avoidance emerged in the form of member disengagement from the collaborative process or ignoring the conflict by moving the meeting forward without resolution. An equal number of references were related to conflict resolution through open dialogue (8), and compromise and consensus building (7). Seeking administrative support for unresolved conflict was shared as a strategy three times. Two references were made to the leader taking control and resolving the conflict using positional authority.

Major Findings

Research question one sought to elicit participants' perceptions of the structure of required PLCs and how those aspects influenced their engagement in meetings. For this study, structure was investigated in terms of meeting frequency, duration, location, and agenda. The findings consisted of a mixture of perceptions related to the level of autonomy teachers had over aspects of PLC structure. While participation in PLCs were mandated, the majority of responses indicated agendas and meeting frequency were administratively derived but permitted aspects of group flexibility and autonomy. Group leaders emerged as the second most frequent source of agendas but in all other aspects of structure, references to group autonomy were most abundant. Only two references were made indicating the perception of a sole administrative mandate pertaining to the location and duration of the meetings.

Participants indicated the structure of their PLCs served to both enhance and inhibit their engagement in the work. While the implementation of Georgia Rule 505-2-.36 at the school in the study ensured time within the school day for what was perceived as a valuable practice, participants viewed meetings as inhibitive because of additional tasks and responsibilities associated with the work. Participants also reported mixed feelings concerning the agendas with some viewing them as a tool to focus teachers on the work of PLC and others viewing them as a tool that restricted conversations and stifled natural collaboration.

In answering research question two, which required participants to reflect on their theoretical and practical understanding of PLCs, the findings revealed common categories of perceived purpose, meeting content, meeting decisions, and value assigned to PLC. Combining the most frequently referenced ideals of PLCs, participants defined the practice as a collaborative and reflective process whereby teachers worked together to achieve common goals of improved

student achievement and professional growth. When discussing what took place in meetings, participants referenced actions that aligned with high frequency perceptions of purpose such as reflective practices, group problem solving, sharing ideas, instructional strategies, and examining student work to identify and target student needs. Meeting content also contained operational aspects not included in perceptions of purpose such as relaying information from administration and logistical planning. Decisions resulting from PLC meetings were characterized by participants most often as logistical, pertaining to operational concerns such as dates for assessments, meetings, and tutoring schedules. Common assessments, lesson content, and instructional strategies were agreed upon during meetings, as well. Participants expressed concerns about their peers inconsistently following decisions made during meetings.

After reflecting on the purpose, content, and decisions made during meetings, participants found value in the process of learning from teachers who taught the same subjects and faced similar challenges. The talents and strengths of individuals resulted in perceptions of collective improvements in instruction. The meetings also served to reduce isolation and expose the teachers to diverse perspectives that helped them reflect on their own practices.

Participants revealed the inner working of their PLC meetings, which aided the researcher in answering research question three. The finding indicated interpersonal frustrations dominated teachers' perceptions of group dynamics. Overcoming difficulties associated with strong personality differences, whether dominant or passive, presented the largest barrier to collaboration. In addition, stress associated with perceived unequal distribution of responsibilities combined with participants' feelings of powerlessness to hold peers accountable for lack of participation and work within the group was evident in the data. Differences in levels of expertise and experience also emerged as a source of frustration within groups.

Teachers' perceptions demonstrated the importance of leadership within required PLCs. The most prominent role for leaders of PLCs was organizer of people and tasks. Positive associations were made with shared leadership, the lack of a designated leader, leadership emerging from the group dynamics, and leadership exercised as a means to facilitate the collaborative process. Negative associations were made when participants perceived the leader as either overly authoritative or passive as well as when the leader perceived to be self-appointed or appointed by administration. Participants also described a phenomenon where the group appointed the leader without soliciting the position because participants viewed that individual as the most experienced, having the most content expertise, or based on past leadership positions under the old course team structure.

When discussing participant engagement in required PLCs only a fifth of the responses indicated the perception of equal and authentic engagement by all members of the teams. Perceived unequal participation and participant withdrawal were attributed most to personality conflicts. Participants also shared beliefs of not being valued, meetings not having personal relevance, and participants lacking the necessary content knowledge to contribute to the team as possible reasons for withdrawal. The culture of PLC was revealed as a crucial aspect of meetings that either provided the environment necessary for collaboration or provided a barrier to collaboration. Equality, respect, trust, and a safe space to be vulnerable with peers was a necessity for the work according participants. The absence of those characteristics led to conflict avoidance while the presences of the characteristics allowed for open dialogue and consensus building when PLC members had differences of opinion or sought to make decisions.

Summary

The purpose of this chapter was to report the findings constructed from the triangulation of participant prequestionnaires, participant drawing narratives, semi-structured interviews, and focus group data containing participant perceptions of required PLC meetings. Findings were separated according to research question to give voice to participants' views of the structure, purpose, and group dynamics of the meetings required by state policy. The themes resulting from the analysis of data were communicated using frequency tables and direction quotations from participants to answer the research questions in a way that would be informative to administrators charged with leading and evaluating PLCs.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The implementation of Georgia Rule 505-2-.36, which took effect July 2017, represented a major shift in the role of administrators from facilitators of professional development to both facilitators and evaluators of teachers' professional growth through PLCs (Hill, 2015). As outlined in chapter I, teacher recertification was no longer granted based on participation in a required number of hours of professional development activities but instead partially based on administrators' evaluations of the impact of teacher participation in PLCs "on educator performance and/or student achievement" (GaPSC, 2015b). The policy represented the culmination of decades of educational reform aimed at increasing accountability for educators to satisfy public and political pressure to demonstrate evidence of educational success for all students (Hochschild, 2003; Lohman, 2010; Lunenburg & Ornstein, 2008; Mehta, 2015), as well as a research-based response to the need for more effective methods of professional growth for teachers (GaPSC, 2015b).

In the implementation of the policy, districts were afforded autonomy in the creation and application of rubrics used to evaluate teacher application of required PLC work (Hill, 2015). A gap in the research existed concerning the complex combination of mandated change and collaboration through PLCs, specifically linked to high stakes accountability measures. The purpose of this study was to investigate how teachers perceived the potentially conflicting concepts of PLCs and mandated change. The goal was to provide administrators charged with implementing the policy the understanding necessary to evaluate teachers' participation in required PLCs in a way that supported both teacher and student growth.

The literature reviewed in Chapter II provided the historical background leading to the implementation of Georgia Rule 505-2.36. Literature related to the evolution of administrative management, educational reform, teacher evaluation, and certification requirements provided the context of the study investigating the combination of mandated change and PLCs. Adult learning, characteristics of PLCs, and PLC dynamics provided the foci for the examination of the domain of PLCs. Four areas were investigated in the domain of mandated change: professional development and teacher change, teacher reactions to mandated change, mandated collaboration, and the role of administrators in implementing mandated change. The review of literature provided the framework for the study of how teachers perceived the structure, purpose, and dynamics of required PLCs. Chapter III outlined the methodology used in the bounded case study including the research design, selection of the purposive sample, data collection methods, triangulation of data the through constant comparative method, ethical considerations, methodological assumptions, and procedures.

The researcher presented in Chapter IV the findings of the study organized by research questions. Findings were reported using frequency tables and a preponderance of participant quotations to give voice to their perceptions of the structure, purpose, and dynamics of required PLC meetings. Two themes were constructed for research question one, which probed participants' perceptions of the structure of required PLC meetings: degree of autonomy in meeting structure and influence of meeting logistics on perceptions of PLCs. Four themes resulted from analysis of data relevant to research question two, which explored teachers' perceptions of the purpose of PLCs: perceived purpose, meeting content, meeting decisions, and value of PLCs. Five themes were constructed from the data pertaining to research question three concerning the dynamics of mandated PLC meetings: interpersonal frustrations, leadership,

member engagement, culture of PLCs, and conflict resolution. These themes comprised the major findings of this study, which gave voice to teacher perceptions of mandated, policy-driven PLCs.

Analysis of Research Findings

Data analysis consisted of the triangulation of multiple data sources collected from 12 high school teachers who met the criteria of having taught an academic subject at the chosen school during the 2017-2018 school year. Each teacher in the sample also met the requirement of having participated in both voluntary collaboration with peers in addition to the required PLC meetings associated with the implementation of Georgia Rule 505-2-.36. The large amounts of data resulting from participant prequestionnaires, participant drawing narratives, semi-structured interviews, and the focus group were reduced to the major findings of this study through a rigorous and thorough treatment of the data known as constant comparative method (Creswell, 2007; Merriam & Tisdell, 2016; Patton, 2002). The analysis and discussion of the 11 themes that represented participants' perceptions of mandated collaboration resulting from the implementation of Georgia Rule 505-2-.36 presented below.

Research question one: What were high school academic teachers' perceptions of the structures of their required PLC meetings?

When participants discussed aspects of structure, a mixture of perceptions related to the degree of autonomy afforded to members emerged. Participants also articulated how the structure of PLCs within the school either enhanced or inhibited their engagement in the required meetings.

Theme 1: Degree of autonomy associated with meeting logistics

The theme of degree of autonomy in meeting structure provided information relevant to participants' perceptions of the origin of the structures that characterized their required meetings. Views were mixed with most revealing a belief the structure of agendas and frequency of meetings were either administratively derived with elements of flexibility and group autonomy or decided within the group. There was more agreement on teachers' autonomy to decide location and duration of PLC meetings with most comments demonstrating group autonomy over those aspects of the meetings.

Theme 2: Influence of meeting structure on teacher engagement in PLCs

Participants indicated the structure of their PLCs served to both enhance and inhibit their engagement in their meetings. The structure implemented at the school in the study ensured PLCs took place within the school day, which enhanced participants' engagement in the process. The structure was viewed as inhibitive due to stress resulting from the additional tasks and responsibilities associated with the work. Participants also reported mixed feelings concerning the agendas with some viewing them as a tool to focus teachers on the work of PLC while others viewed them as a tool that restricted conversations and stifled natural collaboration.

Research question two: What were high school academic teachers' perceptions of the purpose of their required PLC meetings?

In answering research question two, participants reflected on their theoretical understanding of the purpose of PLCs. They also shared the content of and decisions made within their required meetings. As participants shared their experiences, they revealed the aspects of the required PLC meetings they valued the most.

Theme 3: Perceived purpose

Combining the highest frequency ideals shared by participants concerning the purpose of PLCs resulted in the following definition of purpose: Professional learning communities should consist of a collaborative and reflective process whereby teachers work together to achieve common goals of improved student achievement and professional growth.

Theme 4: Meeting content

When discussing their meeting experiences, reflective practices and group problem solving were mentioned with the highest frequency, followed by sharing ideas such as instructional strategies. Specific foci of the participants' PLC work included examination of data and student work to identify and target student needs. Pacing and operational planning were also tasks included frequently in the data which highlighted other tasks such as planning units, assessment development, standardized test preparations, and shared resources. Participants also shared that PLCs consisted of communicating information from school and county level administrators.

Theme 5: Meeting decisions

When participants discussed the decisions resulting from required PLC meetings, the predominant concern was inconsistent followed through by team members. The most common types of decisions made were logistical pertaining to operational concerns such as dates for meetings, major assessments, and tutoring. Decisions on content for common assessments, lessons, and instructional strategies were listed also as types of decisions made during meeting.

Theme 6: Value of PLCs

As participants reflected on the PLC process, they organically communicated ways they viewed their PLC meetings as valuable and beneficial. Participants most valued the opportunity to learn from teachers who taught the same subjects and faced similar challenges. They felt the process allowed them to capitalize on the individual talents and strengths of the members to improve instruction for all students. The meetings also reduced teacher isolation and exposed them to diverse perspectives that challenged them to reflect on and reevaluate their personal practices.

Research question three: What were high school academic teachers' perceptions of the dynamics of their required PLC meetings?

In answering research question three, participants illuminated the interactions that took place behind the closed door of required PLC meetings when only the team members were present. Interpersonal frustrations were communicated as the greatest concern. Participants also discussed the influence of leadership, member investment and participation, the culture surrounding their PLCs, and conflict resolution on the effectiveness of their collaboration efforts.

Theme 7: Interpersonal frustrations

The largest barrier to collaboration communicated by participants was interpersonal frustrations with the highest frequency of responses related to difficulties overcoming strong personalities within the group. Participants expressed most personality conflicts resulted from dominant personalities who shut down the collaborative process or overly passive personalities who failed to invest fully. The latter led to perceived inequality of distribution of responsibilities. Participants expressed frustration associated with their inability to manage the effects of these strong personalities as well as a sense of powerlessness to hold their peers accountable for their

actions within the group. In addition, frustrations were shared concerning challenges associated with differences in team members' levels of expertise and experience as well as competitiveness among members.

Theme 8: Leadership

Teachers' perceptions demonstrated the importance of leadership within required PLCs. Participant responses related to leadership were broken into two subthemes: leadership roles and source of leadership roles. The role of the leader took four distinct forms based on the descriptions of the participants. In order of frequency in the data, leaders were described as organizers of people and tasks, facilitators of collaboration, authoritative decision makers, and passive leaders. Positive associations were made when leaders were viewed as facilitators of collaboration, and when the source of leadership was viewed as shared. Shared leadership was described as the lack of a designated leader and rotational leadership that emerged naturally from matching member strengths with tasks. Negative associations were made when participants perceived the leader as either overly authoritative or passive as well as when the leader was viewed as self-appointed or appointed by administration. Participants also described a phenomenon in which the group appointed the leader without the leader soliciting the position because of the individual's past leadership roles, experience, or expertise in the content.

Theme 9: Member engagement

When discussing member engagement in the required PLC meetings only a fifth of the responses indicated a perception of equal and authentic investment and participation by all members of the group. Participant withdrawal and unequal participation comprised the highest frequency of responses of these perceptions. Participants attributed these behaviors mostly to personality conflicts within the groups. Other justifications disclosed by participants pertaining

to withdrawal behaviors included participants not feeling valued, feeling meetings lacked personal relevance, and lacking the content knowledge necessary to contribute to the work of the team.

Theme 10: Culture of PLCs

The culture of PLCs was communicated by participants as a crucial component that either created environments conducive to collaboration or provided a barrier to the work. Participants communicated equality, respect, trust, and a safe space to be vulnerable with peers as a necessity. Participants who included these qualities in the descriptions of their PLCs had positive associations with the required meetings. The opposite was true for those who described meetings lacking those intangible qualities.

Theme 11: Conflict resolution

Participants' descriptions of conflict resolution were polarized. When discussing their team's ability to manage differences of opinions and opposing ideas, participants referenced conflict avoidance with the same frequency as open dialogue and consensus building. Participants' perceptions were divided with those perceiving a positive culture describing conflict resolution through either open dialogue or consensus building. Those with negative perceptions predominantly communicated conflict avoidance behaviors. Examples of conflict avoidance included member disengagement and dismissing potential conflicts by moving meetings forward without resolution. Consensus building took place when team members talked through differences as well as incorporated data into the decision-making process.

Discussion of Research Findings

Triangulation of multiple sources of participant data resulted in 11 major themes that represented the findings of this study. These themes were compared and contrasted with the literature reviewed in chapter II and discussed below.

Research question one: What were high school academic teachers' perceptions of the structures of their required PLC meetings?

When participants discussed aspects of structure, a mixture of perceptions related to the degree of autonomy afforded members were disclosed. In addition to describing degree of autonomy, participants also articulated how the structure of PLCs in the school in this study either enhanced or inhibited their engagement in the required meetings.

Theme 1: Degree of autonomy associated with meeting logistics

It was important to understand the degree to which teachers in this study perceived the level of mandates versus autonomy associated with their PLCs. Knowles (1970) and Ozuah (2016) postulated that adults were more likely to engage in learning if the environment was less formal and they had a role in planning their own learning experiences. Likewise, resentment and resistance emerged when adults felt "others were imposing their will on them" (Ozuah, 2016, p. 84). The most profound difference between PLCs and traditional one directional professional development was the element of teacher autonomy and ownership (Fullan, 2014; Muijs et al., 2014). Evans (2015) stated teacher choice was the singular factor that underpinned all other aspects of teacher learning. The degree to which teachers felt their professionalism was acknowledged in the communication and implementation of mandates determined whether they chose to passively accept, actively engage, or reject the mandated change (Datnow, 2012; Knowles, 1970).

Participants in this study had mixed views on the degree of autonomy associated with the structure of their PLCs. In terms of the agenda of meetings, most believed it resulted from an administrative mandate, but teachers maintained a degree of flexibility and autonomy. The next most frequent reference was to the group leader as the source of the agenda followed by pure group autonomy. Participants also viewed frequency of meetings as administratively determined with group flexibility and some autonomy followed by completely group derived. There was more agreement among participants on the location and duration of the meetings with most comments demonstrating group autonomy over those aspects of the meetings. According to the teachers in this study, the implementation of required PLC meetings was mandated but teachers maintained a degree of flexibility and autonomy over aspects of the PLC process.

Theme 2: Influence of meeting structure on teacher engagement in PLCs

Participants indicated the structure of their PLCs served to both enhance and inhibit their engagement in their meetings. Participants shared their engagement was increased by the required aspect of their PLC meetings because it ensured the valuable collaborative process took place within the school day. Maloney and Konza (2011) and Wilt (2016) found similar findings reporting stakeholders at all levels agreed collaboration was a necessary and valuable tool for teacher growth with many acknowledging that without a mandate from administration, collaboration would fail to take place. Participants in Wilt's study of policy-driven collaborations also expressed appreciation for the administrators' logistical work in creating structures for collaboration during the school day. The benefits of mandated collaboration were associated with the creation of formalized organizational structures that provided time and space for collegiality and collective work toward shared goals (Evans 2015; Goldstein, 2015; Ostovar-Nameghi & Sheikhahmadi, 2016; Stanley, 2011; Wilt).

Parallels were found in the research relative to the participants' views that the structure was inhibitive due to stress resulting from the additional tasks and responsibilities associated with the work. In a study of OCB, which mirrors the processes and ideals of PLCs, an important paradox was identified. The strategy designed to improve culture, lessen workload, and reduce stress for employees could be the source of a negative culture, increased workloads, and stress (Bolino et al., 2015). Bolino et al. (2105) explained the greater the pressure to engage in OCB, the higher the incidence of reported stress, feelings of task overload, and burnout. The stress resulted from pressure to take responsibilities for others when employees felt they lacked support to complete their own duties (Bolino et al.) In Evans' (2015) mandated change study, teachers identified time as both an enabler and constraint in the implementation of change. Teachers indicated an inability to focus on the sense-making process because of perceived demands on their mental energy and physical time due to the operational aspects of their daily responsibilities as classroom instructors (Evans, 2015). Because of larger workloads, multiple preparations, and lower morale typical of the high school level, stress of mandated change was magnified at that level (Goldstein, 2015). Teachers in this study articulated both the paradox associated with the additional stress linked to a practice intended to relieve stress through shared work as well as the paradox of simultaneously valuing and resenting time spent in required PLC meetings.

Participants also reported mixed opinions concerning the agendas with some viewing them as a tool focusing teachers on PLC work and others viewing them as a tool stifling natural conversations and collaboration. Participants' who felt a set agenda inhibited collaboration were validated by the research postulates of Knowles (1970), who stated adults were most motivated by an intrinsic desire to engage in problem and task-centered learning that benefited them by building capacity for dealing with personally relevant issues and goal attainment.

Research question two: What were high school academic teachers' perceptions of the purpose of their required PLC meetings?

In answering research question two, participants reflected on their theoretical understanding of the purpose of PLCs. They also shared the content of and decisions made within their required meetings. As participants shared their experiences, they revealed the aspects of the required PLC meetings they valued the most.

Theme 3: Perceived purpose

The following definition of PLC purpose resulted from a combination of the highest frequency ideals shared by participants: PLCs consisted of a collaborative and reflective process whereby teachers work together to achieve common goals of improved student achievement and professional growth. The teachers' collective definition of PLCs aligned with the intended purpose communicated by Hill (2015). Hill (2015) communicated the GaPSC policy was implemented to ensure teachers were engaged in professional development that was relevant, continuous, overcame barriers, used collaboration to maximize team talents, and focused directly on student learning.

The components the participants named when discussing their understanding of purpose also permeated the research on the ideals of PLCs. The components included: collaboration, reflective practices, common goal attainment, improved student achievement and professional growth permeated the research on the ideals of PLCs. DuFour et al. (2016) described PLCs as collaborative groups engaged in continuous cycles of inquiry, problem solving, action, and evaluation centered on student mastery of content standards. Liberman (1990) and Ning et al. (2015) postulated teacher collaboration was widely recognized as a crucial component in student achievement and professional growth. The effectiveness of PLCs was grounded in

transformational theory in which the learner ideally improved practice because of informed dialogue and purposeful interactions with peers working toward common goals (DeFour et al., 2016; Harion et al., 2017; Kegan & Lahey, 2009; Owen, 2014; Penuel et al., 2012; Schlichter, 2015).

Theme 4: Meeting content

When discussing their meeting experiences, reflective practices and group problem solving were mentioned with the highest frequency by participants, followed by sharing instructional ideas. Identifying and targeting student needs through the examination of student work and data was named as a focus of meetings. Pacing and operational planning were tasks included frequently in the data, as well. Unit planning, assessment development, standardized test preparations and sharing resources were frequent activities mentioned. The actions described by participants were consistent with the expected work of authentic PLCs as described in the literature review. In a 7-year longitudinal study, Casey (2013) found collective inquiry and teacher led action research had the highest impact on teacher and student growth. Other researchers also concluded the culture of collective teacher responsibility for all students and collaborative planning of individual student interventions had the most impact on increased student achievement (DuFour et al., 2016; Hattie, 2012; Moller et al., 2013; Vescio et al., 2008). March and Farrell (2015) and Ronfeldt et al., (2015) indicated instructional decision-making based on collective analysis of student data and flexibility in developing instructional responses to identified student needs contributed to teachers' success.

High frequency responses in this study indicated PLC meetings included the redelivery of information from school and county level administrators in addition to instructional collaboration. Nir and Hameiri (2014) indicated these operational actions were more consistent

with traditional top-down, one-directional professional development. Based on the frequency of categories found within the data, required PLC meetings consisted of elements of both authentic PLCs and traditional top-down course teams.

Theme 5: Meeting decisions

Decision making associated with the work of PLCs resulted in teachers taking risks and changing personal practice as a result of their collaboration (Evans, 2015; Margolis & Doring, 2012). Hord (1997) explained the work of PLC went beyond the standard definition of collaboration because of the application of collective learning to the classroom and shared personal practices. Dufour et al., (2016) and Mertler (2016) also emphasized the importance of the cycle of implementing new knowledge as a team and collectively reflecting on the results of team action research. It is in this regard, the participants' feedback within this study deviated from the definition of PLCs found in the literature review. In this case, participants discussed lack of consistent follow through of team decisions as the most frequently emerging concern. The most commonly reported type of decisions (logistical) also deviated from targeted instructional decisions characteristics of authentic PLC work (DuFour et al., 2016; March &Farrell, 2015; Ronfeldt et al., 2015). Participants' references to decisions of common assessments, lesson content, and instructional strategies were more aligned with the characteristics of PLCs but were described by participants in general terms not as responses to specifically identified student needs.

Theme 6: Value of PLCs

As participants reflected on the PLC process, they naturally communicated the ways they viewed their PLC meetings as valuable and beneficial. Participants most valued the opportunity to learn from teachers who taught the same subjects and faced similar challenges. They felt the

process allowed them to capitalize on the individual talents and strengths of the members to improve instruction for all students as well as increased team unity. Fullan (2014) echoed the value of empowering individual teachers and grouping them with similarly engaged individuals because similarly burdened and like-minded individuals had a greater likelihood of creating sustainable change both individually and collectively. The value of increased team unity shared by the participants was also evident in the literature review. The day-to-day shared personal practices and work on a common self-directed vision and mission built a collegial culture within teams (Fullan, 2014; Ning et al., 2015; Wilt, 2016).

Participants revealed they valued the reduction of isolation associated with required PLC meetings as well as the exposure to diverse perspectives that challenged them to reflect on and reevaluate their personal practices. Evans (2015) articulated it best when he concluded, given a supportive culture and a choice in participation, teachers learned to view collaboration as a means of reducing isolation, building collegiality, and considering ideas beyond their classrooms. The positive impact on morale associated with the elimination of teacher isolation within PLC was commonly references in the literature (Evans, 2015; Goldstein, 2015; Ostovar-Nameghi & Sheikhahmadi, 2016; Stanley, 2011; Wilt, 2016). Goldstein (2015) indicated reduction in isolation, along with the moral boost associated with collective problem solving outweighed the negative socio-cultural behaviors reported by teachers experiencing mandated collaboration.

Research question three: What were high school academic teachers' perceptions of the dynamics of their required PLC meetings?

In answering research question three, participants illuminated the interactions that took place behind the closed door of required PLC meetings. Interpersonal frustrations emerged as the

greatest concern. Participants also discussed the influence of leadership, member investment and participation, the culture surrounding their PLCs, and conflict resolution on the effectiveness of their collaborative efforts.

Theme 7: Interpersonal frustrations

The largest barrier to collaboration communicated by participants was interpersonal frustrations. These frustrations associated with mandated collaboration were evident throughout the research. Datnow (2012) stressed the dynamics of the social networks within PLCs could be leveraged for school improvement through but could also derail the work. The group dynamics created by the diversity of learners' biographies, attitudes, and the social cultures within the school as well as external forces that affected the teachers' abilities to obtain optimum effectiveness permeated how teachers approached and responded to the process (Calderhead et al., 2012; Fullan, 2014; Huber; Kegan & Lahey 2009; Wlodkowski, 2011).

Difficulties overcoming strong personalities within groups emerged most as a barrier to PLC work for the participants in this study. Participants described dominant personalities who shut down the collaborative process by creating toxic cultures as well as overly passive personalities who failed to invest fully in the work. The latter led to resentment and the perception of unequal distribution of responsibilities. The same frustrations associated with mandated collaboration along with negative socio–cultural behaviors were reported multiple times in the literature reviewed (Evans, 2015; Flessner & Stuckey, 2014; Goldstein, 2015; Maloney & Konza, 2011; Perry, 1993; Sayers, 2013). Teachers articulated power issues among team members caused disengagement, stress, and counterproductive conflicts within groups (Goldstein).

Participants expressed frustration associated with their inability to manage the effects of these strong personalities as well as a sense of powerlessness in holding their peers accountable for their actions within the group. Evans (2015) warned positive views and engagement required intentional and direct support to equip teachers with the skills and capacity necessary to collaborate effectively with their peers. Fullan (2014) stated a mandate without the capacity to carry it out led to dysfunction. Datnow (2012) cautioned leaders not to assume the mere grouping of teachers into PLCs would result in sustainable improvements. Based on the frequency of the concerns brought by teachers in this study, some lacked the necessary capacity to manage these types of frustrations.

Frustrations were communicated concerning difficulties associated with wide ranges of expertise and experience within teams. Experienced teachers expressed difficulty collaborating and learning from inexperienced teachers and inexperienced teachers reported withdrawing due to feeling they were not qualified to contribute effectively. These concerns were evident in prior research. Flessner and Stuckey (2014) shared when mandated collaboration replaced teachers' voluntary, organic collaboration with peers, collaboration that was once productive became a source of frustration because teachers resented being assigned to teams that included disengaged members, had gaps in teacher capacity, lacked focus on relevant content, and took time away from their existing self-chosen teams. Knowles et al. (2014) explained that differences in learning styles, paces, and preferences increased with age creating an increased need for differentiation of adult learning experiences based on their individuals needs as learners. Penuel et al. (2012) also recommended the content and frequency of PLC work be differentiated based on levels of trust and expertise among the teachers in PLC groups in order to build authentic functioning teams. The competitiveness among members reported by the participants was shown

within the research to be counter to the requisite trust and vulnerability essential to developing collective responsibility for all students (Dworkin & Tobe; Drago-Severson, 2012; Moller et al., 2013).

Theme 8: Leadership

Participants' perceptions demonstrated the importance of leadership within required PLCs. Leadership roles and source of leadership roles were the subthemes that comprised this theme. The role of the leader took four distinct forms based on the descriptions of the participants. In order of frequency in the data, leaders were described as organizers of people and tasks, facilitators of collaboration, authoritative decision makers, and passive leaders. Positive associations were made when leaders were viewed as facilitators of collaboration, when the source of leadership was viewed as shared or rotational due to the lack of a designated leader, and when leadership emerged from matching members' strengths with tasks. Negative associated were made when participants perceived the leader as either overly authoritative or passive as well as when the leader was viewed as self-appointed or appointed by administration. Interestingly, group members also appointed leaders without the leader's solicitation based on their perceptions of the individuals' experience, expertise, or past leadership positions under the traditional course team structure.

Similar to the sentiments shared by the participants in this study, shared leadership was shown to be most conducive with PLC work (Bendikson et al., 2012; Blaschke, 2012; Churchward, 2016; Nir & Hameiri, 2014; Olivier & Huffman, 2016), while authoritative positional power was the most toxic to the culture of collaboration (Knowles, 1970; Ozuah, 2016; Nir & Hameiri). Olivier and Huffman (2016) explained implementation of PLC must include the crucial component of empowerment and building leadership at all levels and should

not be used as a tool for managing teachers. Leadership that employed coercion and positional authority to force teachers into compliance not only created toxic cultures but also decreased productivity for both teachers and students (Nir & Hameiri). Developing a culture of shared leadership was of particular importance at the secondary level where principals typically had reduced influence on day-to-day teacher practices (Bendikson et al.; Nir & Hameiri). At the secondary level, middle managers, such as content area leaders and department chairs, tended to have greater influence on teachers in terms of pedagogy than the principal (Bendikson et al; Nir & Hameiri). This phenomenon was apparent in this study as participants predominantly referred to their perceived leaders of their PLCs instead of school level administrators when discussing the role of leadership in PLCs.

Theme 9: Member engagement

When discussing member engagement in the required PLC meetings only a fifth of the responses indicated equal and authentic investment and participation by all members of the group. Participant withdrawal and unequal participation comprised the highest frequency responses. Participants attributed these behaviors mostly to personality conflicts within the groups. Other justifications that emerged pertaining to withdrawal behaviors included participants' perceptions of not being valued and belief the meetings lacked personal relevance. Participants also postulated members disengaged because they believed they lacked the content knowledge necessary to contribute to the work of the team.

Member engagement was shown to be a critical aspect of improvement (Datnow, 2012). Datnow (2012) emphasized improvement could only be attained if teachers were active agents in all aspects of the work. Studies illuminated resistance, resentment, and disengagement when conflicts emerged among their peers within mandated collaboration efforts (Flessner & Stuckey,

2014; Goldstein, 2015). In Goldstein's (2015) research, teachers articulated power issues caused disengagement, stress, and/or counterproductive behaviors. In addition to the power struggles associated with personality conflicts, Goldstein also shared inequality among peers caused individuals to withdrawal when they did not belive they were respected, valued members of the team.

Knowles (1970) and Ozuah (2016) postulated adults were most motivated by an intrinsic desire to engage in problem solving and task-centered learning that benefited them by building capacity for dealing with personally relevant issues and goal attainment. Ketelaar et al. (2014) found even when teachers were empowered with the knowledge and skills to guide their own learning, personal readiness and perceived personal relevance mitigated their level of engagement in new learning experiences. Teachers tended to decide what learning experiences to engage in only after assessing the value of the knowledge or skill in terms of relevance to their individual goals (Clement, 2014; Huber, 2011; Knowles, 1970; Merriam & Bierema, 2013; Ozuah, 2016). Participants in this study provided the reasons for withdrawal found in the research when describing the behaviors within their groups associated with unequal participation: not feeling valued, lack of personal relevance, and peer conflicts.

Theme 10: Culture of PLCs

The culture of PLCs emerged as a crucial component that either created environments conducive to collaboration or resulted in a barrier to the work. Participants communicated equality, respect, trust, and a safe space to be vulnerable with peers as a necessity. Participants who included these qualities in the descriptions of their PLCs had positive associations with the required meetings. The opposite was true for those who described meetings lacking those intangible qualities.

The polarizing effects of the presence or absences of the cultural aspects of equality, respect, trust, and a safe space were validated in the research found in the literature review. Penuel et al. (2012) postulated professional learning through PLCs required protocols that created safe environments for teachers to open themselves up to peer feedback and cohesiveness among teachers and leaders. Sustainable change due to PLCs was found in schools with social networks among teachers characterized by informal structures, expertise in the expected work of PLCs, and deep trust among members (Coburn et al., 2012; Datnow, 2012; Penuel et al., 2012). DuFour et al. (2016) and Muhammad (2009) also emphasized the essential nature of transforming school culture and organizational structures to support the physical and emotional needs of teachers asked to engage in the vulnerable work of PLCs. Through their research, Margolis and Doring's (2012) and Le Fevre's (2014) demonstrated the importance and perceived elusiveness of safe spaces for teachers to learn, grow and make mistakes in the educational setting.

Professional learning communities at high growth schools had organizational structures that supported disciplined collaboration and a culture of shared responsibility, trust, and authentic emotional bonds among all educators (Muhammad, 2009; Wang, 2015). The inclusive and collegial culture provided the essential foundation for productive PLC work (Wang; Datnow, 2012). The act of leadership imposing the structure of PLCs on teachers without the essential cultural and structural supports needed for authentic collaboration undermined the ideals of PLCs (Hargreaves, 2013; Wang). The absence of these social dynamics and cultures within groups stifled collaborative efforts and resulted in contrived collegiality instead of authentic PLCs (Datnow, 2011; Finnegan & Daly, 2012).

Theme 11: Conflict resolution

Two factions emerged among participants: those with positive views of PLC culture and those with negative views. The participants who described the PLC culture as positive viewed conflict resolution in terms of open dialogue and consensus building. However, those with negative views of PLC culture largely described avoidance behaviors in response to differences of opinion and opposing ideas. Examples of conflict avoidance included member disengagement and dismissing the differences by moving meetings forward without resolution. Consensus building took place when participants talked through differences as well as incorporated data to make decisions. Many references were made in the literature concerning the importance of informed dialogue and purposeful interactions among peers working toward common goals (Kegan & Lahey, 2009; Owen, 2014; Penuel et al., 2012). Conflict avoidance would be an absence of those interactions while open dialogue and consensus building were examples of interactions characteristic of authentic team collegiality (Datnow, 2011; Finnegan & Daly, 2012).

Accountability

When the researcher reflected on the literature review in light of the themes constructed from the data, the absence of participant dialogue concerning fear of accountability measures and pressure associated with high-stakes test scores was of particular interest, especially given the implementation of Georgia Rule 505-2.36 linked student achievement and professional growth through PLCs directly to teacher recertification. Le Fevre (2104) and Twyford (2017) indicated teachers resisted or disengaged from professional learning when they feared public failure or when they felt the accountability implications of implementing content was too high. Teachers described a paralyzing fear of low test scores, job loss, or loss of pay raises if mandated initiatives failed to be effective (Le Fevre, 2014). Churchward (2016) described the development

of fixed mindsets in the face of top-down pressures to meet short-term gains in test scores. Participants in this study made no references to fear due to impact of mandated PLCs on high-stakes testing or the recertification ramifications of their PLC participation in any of their comments concerning their required meetings.

Relationship to Research

The concept analysis charts found in Table 1 and 2 of chapter II represented the major findings related to how educators experienced and responded to policy-driven collaboration found in the literature. Each of the five studies in the chart addressed an aspect of the intersection of mandated collaboration and teacher collaboration. Those five studies were compared to the findings of this study in order to determine possible correlations or deviations between this study and the existing research.

Recognizing the inevitable aspect of educational reform through top-down change efforts, Clement (2014) sought to gain insights on how teachers reacted to these mandates. Clement conducted a case study consisting of principal questionnaires and teacher semi-structured interviews comparing teachers' reactions to the mandated change based on the implementation and framing of the same professional development initiative at two different schools. Negative emotions and behaviors resulted when teachers were faced with top-down, externally derived initiatives (Clement, 2014). Clement found even when teachers were not opposed to the content of the proposed change, the mandated nature and context of the implementation led to resistance. This resistance was a result of teachers' belief their expertise and perspectives were not valued, given teachers were closest to the students and ultimately responsible for student outcomes (Clement). Clement also discovered the manner in which administrators invested in and implemented the mandated change could reduce negative socio-

cultural behaviors. Clement found increased teacher engagement when administrators framed the implementation of external mandates as a way for teachers to meet their personal goals and actively engage in the change by authentically participating and empowering teachers to decide how the mandate manifested itself in actual practice.

The researcher in this case employed a bounded case study to investigate teachers' reactions to a policy-driven mandate upon initial implementation of the mandated change. Unlike Clement's (2014) study, there were very few references to participants resisting or rejecting the mandate because of the way it was implemented by administrators. Clements indicated implementing change as a means of empowering teachers to meet their personal goals minimized negative emotions and behaviors. Teachers in this study indicated a degree of autonomy in the structure of their work. They also indicated the structure of the mandate ensured valuable collaboration took place. Teachers assigned value to the process of learning from like-minded teachers to meet shared goals. Their descriptions of implementation aligned with the school-oriented approach described in Clement's study. The participants' perceptions gathered in this study were not void of the negative emotions and behaviors found by Clement's, however. Participants did express negative emotions and disengagement when they did not believe they were valued as equals within their PLCs.

Like Clement, Evans (2015) also found positive outcomes were more likely when leadership framed change as a means of meeting teachers' self-determined professional goals. Evans explained while mandates were typically communicated as vehicles for school improvement, processing potential collective benefit was not an intuitive skill for all teachers. Teachers were more likely to implement change when it applied directly to meeting their personally identified needs (Evans, 2015). In the qualitative study consisting of surveys,

interviews, focus groups and a principal's reflective log, Evans investigated what processes enabled or constrained teachers' agency within professional learning for school improvement. Given supportive cultures and choice in participation, teachers learned to view mandated collaboration as a means of reducing isolation, building collegiality and considering ideas beyond their classrooms (Evans). Evans determined effective collaboration strategies were not intuitive to all teachers. Positive views of collaboration were found in schools where teachers received intentional and direct support in learning how to collaborate effectively with peers (Evans). Teachers reported time as both an enabler and a constraint to collaboration indicating an inability to focus on the work due to perceived demands of their daily responsibilities as classroom teachers (Evans).

There were many parallels between teacher reactions in Evan's (2015) study and this study. Evans found teachers were more likely to engage in change when they determined it met self-determined needs. As discussed in relation to Clement's study, teachers in this study assigned value to the required PLC structures and processed it as a means of meeting professional and student needs. Participants also described the implementation of the structure of PLCs as having some degree of autonomy. Lack of personal relevance also emerged as a justification for member disengagement from collaborative work. Supportive cultures and choice were indicated as crucial components of effective engagement in PLCs. The categories of isolation reduction, team unity, and ideas beyond their classrooms all emerged naturally from the participants' discussions of the value they assigned to their PLC experiences. Participants in this study also reported interpersonal frustrations and counterproductive behaviors. Many shared they did not feel equipped to manage those types of challenges including holding peers accountable for dysfunctional behaviors during meetings. In alignment with Evan's work, time was reported

as both an enhancement and inhibitor to teacher engagement in required PLCs. They appreciated the time allotted during the day to collaborate but also shared feelings of stress due to the additional responsibilities and workload associated with their PLCs.

Bolino et al. (2015) studied OCB and citizenship fatigue for 273 employees and peers across 52 private universities in Taiwan. Organizational citizenship behavior described the expectation of employees to go beyond the scope of their jobs to support their peers and engage in collaboration centered on shared goals (Bolino et al., 2015). The initiative mirrored that of PLCs, and like public education, the universities in this study limited funding and resources which resulted in a dependency on employees' willingness to extend their efforts beyond their contracted responsibilities to function (Bolino et al.). The analysis of employee survey results revealed the practice designed to create a more positive and productive work environment paradoxically added stress because employees were pressured to take responsibility for others when they felt they lacked sufficient support to complete their own job responsibilities (Bolino et al.). The more pressure applied to workers to engage in OCB, the higher the incidence of reported stress, feelings of task overload, and burnout (Bolino et al.). Factors that mitigated or contributed to the resulting phenomenon, known as citizenship fatigue, included support from leadership, trust among employees, and the pressure from leadership to engage in OCB (Bolino et al.). Participants in this study also communicated feelings of additional stress because of the added workload and responsibilities beyond their jobs. They expressed frustrations because PLCs were added to their responsibilities, but nothing was taken away. The added tasks combined with perceptions of unequal engagement by members led to stress and interpersonal frustrations for the teachers in this study.

Flessner and Stuckey (2014) captured the reactions of elementary teachers in Indiana as they transitioned to a top-down restructuring of their collaborative work with peers (Flessner & Stuckey, 2014). Motivated by the success of teacher-driven collaborative teams, leaders chose to expand the concept and mandate the practice for all (Flessner & Stuckey). The mandate was grounded in the use of negative reinforcement to ensure compliance. Administrators altered the composition of the teams and mandated the structure and agendas for the meetings (Flessner & Stuckey). Professional development that was once productive became a source of frustration because teachers resented being assigned to teams that included disengaged members, had gaps in teacher capacity, lacked focus on relevant content, and took time away from their existing self-chosen teams (Flessner & Stuckey).

Flessner and Stuckey's study was of particular interest because the implementation of Georgia Rule 505-2-.36 also layered formalized structures over existing PLC practices and linked compliance to teacher recertification. It was notable that teachers in this study did not refer to the connection of the mandate to any possible accountability measures. They did, however, display the frustration with counterproductive behaviors associated with disengaged members, gaps in teacher capacity, and lack of relevance.

Wilt's (2016) case study was unique because it gathered perceptions from teachers concerning legislated mandated collaboration. Wilt reported positive feedback concerning the effectiveness of mandated collaboration for the nine elementary teachers in the study. In their semi-structured interviews and reflective journals, teachers expressed appreciation for the administrators' logistical work in creating the structures for collaboration during the school day. Wilt also found mandated collaboration reduced teacher isolation and built a collegial culture resulting in higher incidence of informal, voluntary collaboration among teachers. Teachers

communicated collaboration was a needed and necessary component of their work (Wilt). Similarly, participants in this study expressed the same appreciation for the structures that ensured the valuable practice of PLCs took place and allowed them time to collaborate during the school day.

Despite commonalities, there were significant difference between Wilt's study and the current study. The policy–driven mandate in Wilt's (2016) study was framed as a requirement that teachers participate in peer collaboration. Georgia's rule required participation, but also mandated teachers be evaluated annually by administrators based on the influence of their PLC participation on their growth and on their students' achievement (GaPSC, 2015b). Because only the practice was mandated in Wilt's state, teachers maintained autonomy over all other aspects of the collaboration. The most common theme that emerged in Wilt's study when teachers described the content of their collaborative meetings was teacher challenges and frustrations (Wilt, 2016). Teacher challenges and frustrations in Wilt's study described the act of teachers building collegiality by sharing their burdens with each other. Teacher challenges and frustrations had a frequency nearly double that of the second most identified theme, which was student needs (Wilt). The most commonly referenced content of required collaborative meetings in this study was reflective practices and group problem solving indicating a greater focus on instructional practices as compared to the content of Wilt's study. Teacher frustrations did emerge as a theme in this study but it was used to articulate the interpersonal frustrations that took place among peers within the mandated PLCs.

Conclusions

The purpose of this study was to gather teacher perceptions of mandated collaboration as required by Georgia Rule 505-2-.36. Because districts maintained autonomy over the

implementation and method of evaluating student and teacher growth resulting from required PLCs, a bounded case study was employed at a single school. The use of the single high school allowed the researcher to provide a thorough description of the combination of mandated change and PLCs specific to the parameters within that school. Teachers included in the study shared the same implementation methods, structures of implementation, and culture surrounding the work. This study was guided by three research questions aimed at investigating teachers' perceptions of the structure, purpose, and dynamics of their required meetings. Conclusions were formed by the researcher after reflecting on the findings and content of the literature reviewed in chapter II.

This study was guided by three research questions. The first research question addressed was: What were high school academic teachers' perceptions of the structures of their required PLC meetings? In answering this question, the researcher concluded the structure implemented by leaders influenced participant perceptions, both enhancing and inhibiting their engagement in required PLC meetings. The perception of the presence or absence of autonomy and empowerment in the structural aspects of PLCs mitigated participants' engagement. Based on the participants' perceptions as well as literature reviewed, the researcher concluded a need for administrators to provide a balance between mandated structures which ensured valuable and authentic PLC work took place and the empowerment deemed necessary by teachers to collaborate organically to meet their personally identified needs. The researcher concluded origin of agenda and its contents as well as time built in the school day for collaboration were viewed as both beneficial and inhibitive for teacher engagement in mandated PLCs.

After considering the findings and the reviewed literature, the researcher drew about research question two: What were high school academic teachers' perceptions of the purpose of their required PLC meetings? The researcher concluded participants' understanding of the

purpose of PLCs aligned with the GaPSC's intent of the policy (Hill, 2015) and the ideals communicated in the research (DeFour et al., 2016; Harion et al., 2017; Kegan & Lahey, 2009; Owen, 2014; Penuel et al., 2012; Schlichter, 2015). Less alignment was found when the researcher compared the purpose with the content of and decisions resulting from PLC meetings. Participants shared that while discussions centered on a mixture of authentic PLC work and the relaying of information from administrators, decision made by members were not reflective of PLC work. Lack of consistency of decision follow-through and a preponderance of operational decision making led the researcher to conclude a need to build teachers' capacity for translating ideals into practical application of PLC work that impacts classroom instruction existed. The researcher concluded teachers' found value in the ideals of PLCs regardless of their perceptions of the effectiveness of their personal groups. That value included reduced isolation, collegiality among teachers with similar challenges, and benefits of collective strengths and talents of group members. While some teachers expressed how mandated aspects of PLCs negatively influenced their behaviors and engagement during meetings, those aspects did not negate the potential value the teachers collectively assigned to PLCs. Unlike the literature reviewed, no references were made by participants expressing fear of punitive actions or declining high stakes assessment scores resulting from implementation or evaluation of PLCs. Therefore, the researcher concluded these potential negative consequences did not influence teachers' perceptions, engagement, or value assigned to PLCs.

Conclusions were drawn for research questions three: What were high school academic teachers' perceptions of the dynamics of their required PLC meetings? Interpersonal frustrations dominated teachers' perceptions of the dynamics of their PLCs. Whether it was frustration due to overly dominate or passive behaviors, unequal distribution of responsibilities, unequal

engagement by members, differences in levels of experience, or the inability to hold peers accountable within groups, the researcher concluded those frustrations influenced teacher perceptions and engagement in PLCs in a negative way. A need for administrators to monitor group dynamics and provide direct support for teachers' experiencing dysfunctional behaviors was identified. The researcher concluded the teachers' lacked capacity for redirecting counterproductive behaviors and managing differences in expertise among their peers.

The researcher concluded several interpersonal factors impacted teacher perceptions and engagement in PLCs. Although teachers were asked to describe the roles of all members of their PLCs, the majority of responses pertained directly to the origin and roles of the leaders. This fixation on leadership resulted in the researcher concluding leadership was an area of importance to teachers in the implementation of PLCs. The culture surrounding PLCs also was determined by the researcher to be a major influence on teacher perceptions. Teachers' views of PLCs were polarized depending on their views of culture. Participants with positive perceptions of PLCs described a culture of equality, respect, and trust while those with negative perceptions specifically articulated the absence of those qualities. This division in teacher perceptions was further manifested in how participants responded to differences of opinion or conflicts. Those who communicated positive cultures describe problem solving through open dialogue and consensus building while avoidance behaviors prevailed when culture was perceived as negative.

Research Framework

To gain insights that would benefit administrators as they navigated the complex dynamics of facilitating and assigning value to teacher engagement in required PLCs, the researcher sought to narrow the existing gap in the literature related to how teachers perceived professional development that was simultaneously teacher driven and policy driven. The

conceptual framework developed to illustrate the researcher's purpose to capture the teachers' perceptions as they navigated the intersection between the two seemingly conflicting concepts of mandated change and PLCs is located in figure 1 below.

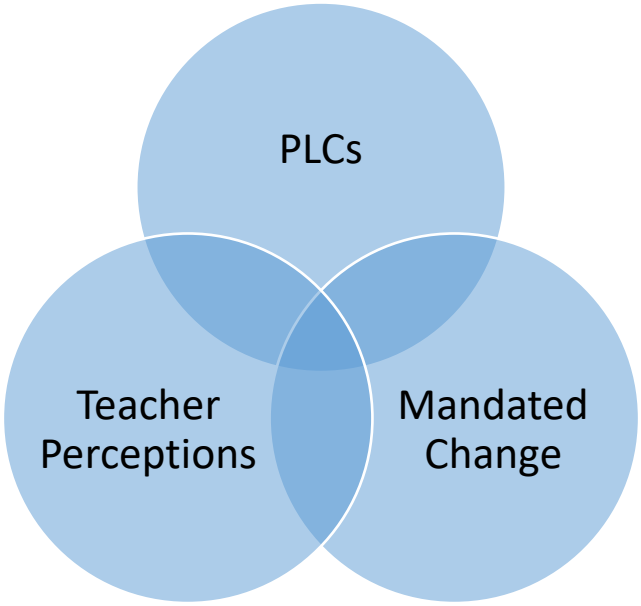


Figure 3. *Conceptual framework of analysis of study data*

The resulting research framework differed slightly from the conceptual framework in that the gap in understanding represented by the intersection of each concept was reduced in size (see figure 6 below). The researcher's conclusions provided information to better equip administrators to support and evaluate teachers in required PLCs. The gap is smaller because this bounded case study provided information specific to the parameters of PLC implementation at a single school characterized by degrees of autonomy within the mandate. Perceptions were isolated to core academic teachers with built-in opportunities within the school day for PLC meetings. The gap was not closed because a multitude of parameters, demographics, and implementations methods exist among Georgia schools due to the autonomy afforded districts. Those variations were not addressed by this study. The research framework also had a reduced intersection between mandated change and teacher perceptions as compared to the intersection

between PLCs and teacher perceptions. The researchers' conclusions demonstrated teachers' perceptions were more frequently focused on the specific actions and behaviors within PLCs and less focused on the mandated change that resulted in the PLCs.

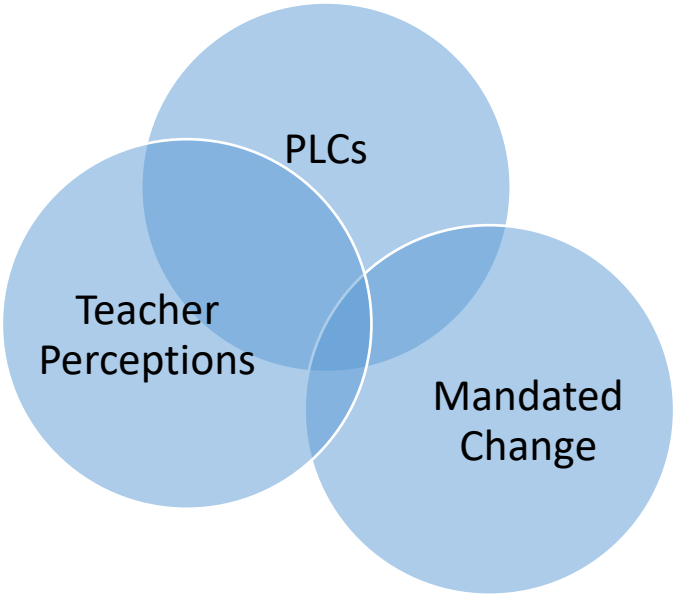


Figure 6. *Research framework of teacher perceptions of mandated change through PLCs.*

Implications

Teacher collaboration had the potential to transform and improve student learning (Dufour et al., 2016; Ronfeldt et al., 2015), but only if teachers engaged effectively in the work (Clements, 2014; Flessner & Stuckey, 2014). The researcher in this study provided authentic descriptions from Georgia teachers as they reflected on their participation in mandated collaboration connected to their annual evaluations and recertification. The teachers' testimonies and the interpretation of their feedback contributed to the limited knowledge base of how policy-driven collaboration through PLCs either inhibited or improved teacher engagement in the work.

Three major implications for administrators charged with facilitating and evaluating PLCs related to the application, culture and structure of implementation were identified by the researcher. A gap existed between teachers' understanding of PLCS and application of the work.

Participants demonstrated a full understanding of the intent and purpose of required PLCs, included aspects of PLCs in their meetings, and attributed value to the process but did not consistently make decisions consistent with PLC tenets or apply decisions to their practice. This diversion from PLC practice indicates a need to provide teachers with professional learning and direct support beyond the ideals and expectations of PLCs and build capacity on how to translate the work of PLCs into targeted application and interventions in classrooms. Administrators should be prepared to identify gaps in application and provide teachers with direct support for increasing content and decisions aligned with authentic PLC application.

The culture and group dynamics of PLCs were demonstrated to be crucial components of teacher engagement in required PLCs. These intangible qualities manifested throughout the study in participants' reflections of the autonomy afforded them within the mandate, their reactions to the origins and styles of leaders, the interpersonal frustrations shared, member engagement, and management of conflicts. An implication for administrators would be the need for reflection and intentionality when determining the levels of autonomy within the structure and the framing of PLCs for individual PLCs based on their specific needs. Administrators have limited influence over the interpersonal relationships and trust among teachers but could provide direct support to teachers in the area of team dynamics and the art of collaborating with peers. In order for teams to evolve into authentic collaboration, administrators need to be prepared to provide practical strategies and skills necessary to manage strong personalities, differences in expertise, and establish peer accountability.

Despite the acknowledged potential benefits to student achievement and professional growth identified by the participants in this study, teachers described their required PLC meetings as inhibitive because of the stress and burden of time taken away from their personal

needs to take on additional group duties and responsibilities. Implications included the need to find creative ways to allow teachers to engage in work they deemed valuable in ways that reduced stress and workload instead of adding to it. This implication applied to school-level administrators and district- and state-level leaders, as well as legislators because addressing these needs could require additional flexibility and autonomy at the district and school levels.

Implications for district, state, and legislative leaders included the need to support the development of rubrics for enforcing Georgia Rule 505-2-.36 which included professional growth in the implementation of PLCs prior to evaluating the results of mandated PLCs. Participants demonstrated a will to implement PLCs and assigned value to the practice but shared barriers to practical application in both capacity and overcoming interpersonal frustrations. Directly supporting improvement of adult collaborative skills would align with the intent of the policy which was to provide teachers with a more effective means of professional development through collective goal setting and problem solving. Finally, teachers' perceptions of mandated PLCs had implications for government agencies as they continued to develop and implement reform efforts. The autonomy associated with the implementation of this rule provided flexibility for district- and school-level administrators to tailor the implementation of mandated PLCs to the needs of their staff which was acknowledged by participants.

Recommendations

The following recommendations pertained to administrators at all levels as Georgia and other states continue the practice of mandated collaboration through PLCs.

1. Since a gap between understanding PLCs and implementing the actions of PLCs was identified, professional development related to PLCs should go beyond explaining the

value and expectations of PLC outcomes and include practical strategies of how to move from knowing to doing.

2. Given the interpersonal frustrations and unequal distribution of responsibilities in some of the PLCs, practical strategies and protocols are needed to build teachers' capacities for navigating the complex group dynamics that result from diversity of personalities and levels of expertise.
3. Just as administrators should not assume grouping teachers together results in collaboration, district and state level administrators should not assume school level administrators are equipped to differentiate and meet the needs of dysfunctional teams. Administrators may need professional development on how to directly guide and support teams dealing with peer accountability issues and negative behaviors that stifle the collaborative process.
4. To reduce the stress teachers associated with the PLC process due to the time, additional workload, and responsibilities for peers and students beyond their own, administrators at all levels should look for means to relieve that stress. Creative ways to remove responsibilities that have little or no direct impact on student achievement or ways to leverage additional duty-free time during the school day for PLCs should be explored.
5. The ability of teachers to collaborate effectively with peers should be directly supported and recognized as an essential component of professional growth. The premise of Georgia Rule 505-2-.36 is that PLCs provided the greatest potential to influence improvement in both students and teachers. The inclusion of collaboration capacity as an implicit goal and measure of professional growth would allow administrators to support

and address needs within collaborative teams prior to holding individual teachers accountable for outcomes of the practice.

6. Given the autonomy afforded to districts in the implementation of mandated PLCs, this study should be replicated at the elementary, middle, and secondary levels and at schools with implementation methods and degrees of autonomy associated with the mandate. This study was bounded by criteria that allowed the researcher to communicate a rich description of the phenomenon within a given set of parameters. The parameters for this study were perceptions of core, academic teachers in a chosen high school during the initial year of implementation of Georgia Rule 505-2-.36 who participated in both voluntary and mandated collaboration during the year. Combining this study with others could result in a more comparative and comprehensive understanding of how differences in implementation methods and cultures surrounding the work either enhances or inhibits teacher engagement and application of mandated PLC work.
7. This study was conducted during the initial implementation year of the Georgia Rule 505-2-.36. No references were made in this study to the link between mandated PLCs and potential ramifications to teacher recertification. This study should be repeated after 3-years to investigate if and how perceptions change once the rule is well established and accountability measures connected to the rule have been enforced.

Dissemination

The purpose of this study was to reduce the gap in understanding of how teachers perceived the structure, purpose, and dynamics of their state-mandated PLC meetings. By giving voice to the teachers' perceptions and experiences during the first year of implementation of the rule, the researcher hoped to provide administrators with information necessary to implement

and frame the work in ways that supported teacher and student growth. The researcher plans to share the findings of this study in a county-level administrative PLC meeting. The researcher also plans to request to present the findings to the executive cabinet, which includes the superintendent of schools as well as assistant superintendents of professional learning, teaching and learning, accountability, and human resources. This dissertation will also be available in the Columbus State University's library system and attempts will be made to publish the results in peer reviewed educational leadership journals and databases.

Concluding Thoughts

Participants in this study provided valuable insights into how they perceived and experienced the complex combination of mandated change and PLCs during the initial year of implementation of Georgia Rule 505-2-.36. Participants' testimonies demonstrated a range of functionality of groups, with some participants describing authentic and productive collaboration while others described varying levels of dysfunction that inhibited the collaborative process. Even those teachers who experienced less than ideal group dynamics recognized and articulated a belief that authentic PLC work had the potential to improve their practice and the performance of their students. While it would be easier for educators, including myself, to denounce the apparent conflicting ideals of the combination of mandated change and PLCs, to do so would mean accepting not all students deserve the benefit of the talents and strengths of a group. If our mission as educators is to meet the needs of all students, teachers must find ways to expand their comfortable collaborative groups consisting of their chosen peers and ensure all are valued and included in authentic collaboration toward that goal. As demonstrated by the teachers' feedback in this study as well as the literature reviewed, to do so requires overcoming substantial challenges.

Just as teachers had to learn practical skills and adjust their mindsets when their roles as educators evolved from the disseminators of knowledge with students seated neatly in rows, to facilitators of student learning through collaboration, practical strategies and mindset changes are needed to help teacher teams evolve into operational PLCs. The skills and mindsets associated with PLCs are not intuitive to all educators. Teachers maintain their authority and control when managing the collaboration of students. Professional Learning Communities require adults to set aside their positional authority and be vulnerable with peers whose only personal connection may be limited to the course they teach. Administrators are responsible for facilitating the process and guiding teachers as they navigate the complex adult interactions that may require them to redirect the behavior of their peers for whom they have no authority.

As an experienced educational leader and one who is well versed in having uncomfortable and difficult conversations with adults in my role as a leader, I am less confident confronting and addressing counterproductive adult behaviors among my assistant principal peers beyond those I respect and trust. It is important for administrators to recognize most teachers lack the benefit of the direct training leaders received in managing adult dynamics yet they are expected to apply these skills with their peers. I believe teachers have the will to collaborate but must build capacity in the skills required to establish and maintain safe, productive environments to do so. Administrators must improve capacities to recognize and address PLC dysfunction and develop the skill sets necessary to assist teachers in solving their own problems within PLCs.

The question of the best methods for administrators to frame the implementation of policy-driven mandated collaboration remains. After reflecting on this research in relation to the existing research on mandated change and PLCs, I believe the key will be found in the balance

between nonnegotiable mandates and teacher empowerment and autonomy. Flessner and Stuckey (2014) demonstrated adding a pure mandate to established, effective voluntary PLCs negated all of the potential benefits of the practices and resulted in resentment and withdrawal. Wilt's (2016) study demonstrated teachers had positive views of state-mandated collaboration when only the act of collaborating was mandated and teachers maintained autonomy over all other aspects of the process. Unfortunately, the content of those meetings was more aligned with building collegiality around teachers' shared instructional frustrations and challenges of than meeting student needs. Participants in this study communicated an implementation characteristic of a blend of administrative mandates that included elements of teacher autonomy. While the content of required meetings was described as more in line with the expectations of PLCs, feedback on decisions, culture, and conflict resolution demonstrated a range of effectiveness between groups. Some PLCs were working effectively, while others were dysfunctional due to counterproductive emotions and behaviors. I do not believe there is a single solution to the exact measures of authoritative mandates versus autonomy needed because every group and school is different. My hope is administrators take advantage of the autonomy afforded districts in the framing, implementing and evaluating mandated PLCs and continue to conduct research on how teachers perceive and experience the phenomenon, so we can learn from each other and differentiate this crucial balance to leverage PLCs for student and teacher improvement.

References

Abrahamson, E. (2004). *Change without pain: How managers can overcome initiative overload, organizational chaos, and employee burnout*. Boston, MA: Harvard Business Press.

Anderson, A. Evans R., Kozak R., & Peterson, B. (2000). At issue: Improving perception of public education. *The Horizon.* Retrieved from: http://horizon.unc.edu/projects/issues/papers/Anderson.html

Airasian, P. W., & Gay, L. R. (2003). *Educational research: Competencies for analysis and application*. Columbus, OH: Prentice Hall.

Antonakis, J., & House, R. J. (2014). Instrumental leadership: Measurement and extension of transformational–transactional leadership theory. *The Leadership Quarterly*, *25*(4), 746-771.

Baker, B., Oluwole, J., & Green, P. (2013). The legal consequences of mandating high stakes decisions based on low quality information: Teacher evaluation in the race-to-the top era. *Education Evaluation and Policy Analysis Archives*, *21*(5), 1-71.

Ball, S. J. (2017). *The education debate*. Chicago, IL: Policy Press.

Bailey, N. M., & Van Harken, E. M. (2014). Visual images as tools of teacher inquiry. *Journal of Teacher Education*, *65*(3), 241-260.

Barge, J. (2012). *Frequently asked questions about Georgia educator effectiveness system.* Atlanta, GA: Georgia Department of Education.

Bates, R. J. (1984, March 19-23). *Toward a critical practice of educational administration.* Paper prepared for the Annual Conference of the American Educational Research Associate, New York, NY. Retrieved from http://files.eric.ed.gov/fulltext/ED219839.pdf

Bates, R. (2004). A critical analysis of evaluation practice: The Kirkpatrick model and the principle of beneficence. *Evaluation and Program Planning*, *27*(3), 341-347.

Beatty, B. R. (2014). School micropolitics for improving teaching and learning. In J. Lindle, *Political contexts of educational leadership* (pp. 11-36). New York, NY: Routledge

Bendikson, L., Robinson, V., & and Hattie, J. (2012). Principal instructional leadership and secondary school performance: *Research Information for Teachers*, (1), 2-8.

Bhatnagar, R., Kim, J., & Many, J. E. (2017). An instrument to study state-wide implementation of edTPA: Validating the levels of edTPA integration survey. *Journal of Research in Education*, *27*(1), 24-33.

Blaschke, L. M. (2012). Heutagogy and lifelong learning: A review of heutagogical practice and self-determined learning. *The International Review of Research in Open and Distributed Learning*, *13*(1), 56-71.

Bolden, R. (2011). Distributed leadership in organizations: A review of theory and research. *International Journal of Management Reviews*, *13*(3), 251-269.

Bolino, M. C., Hsiung, H. H., Harvey, J., & LePine, J. A. (2015). "Well, I'm tired of tryin'!" Organizational citizenship behavior and citizenship fatigue. *Journal of Applied Psychology*, *100*(1), 56.

Boser, U. (2012). *Race to the top: What have we learned from the states so far? A state-by-state evaluation of Race to the Top performance.* Washington, DC: Center for American Progress.

Button, H. W. (1966). Doctrines of administration: A brief history. *Educational Administration Quarterly*, *2*(3), 216-224.

Bruch, H., & Menges, J. I. (2010). The acceleration trap. *Harvard Business Review*, *88*(4), 80 - 86.

Calderhead, J., Denicolo, P., & Day, C. (2012). *Research on teacher thinking (RLE Edu N): Understanding professional development*. New York, NY: Routledge. [Google Books Edition]. Retrieved from https://books.google.com/books?hl=en&lr=&id=TT8xfXXLu5MC&oi=fnd&pg=PR1&dq=teacher+thinking&ots=LQSNQbLe5Q&sig=2D_jH8uxNiJJeMGe3lqxggeVRNE#v=onepage&q=teacher%20thinking&f=false

Casey, A. (2013). Practitioner research: A means of coping with the systemic demands for continual professional development? *European Physical Education Review, 19*(1), 76-90.

Clement, J. (2014). Managing mandated educational change. *School Leadership & Management*, *34*(1), 39-51.

Coldwell, M., & Simkins, T. (2011). Level models of continuing professional development evaluation: A grounded review and critique. *Professional Development in Education*, *37*(1), 143-157.

Coburn, C. E., Russell, J. L., Kaufman, J. H., & Stein, M. K. (2012). Supporting sustainability: Teachers' advice networks and ambitious instructional reform. *American Journal of Education*, *119*(1), 137-182.

Corbin, J., Strauss, A., & Strauss, A. L. (2014). *Basics of qualitative research*. Thousand Oaks, CA: Sage Publications.

Churchward, P. G. (2016). *Leading toward a growth mindset in an educational climate of accountability* (Doctoral dissertation, Queensland University of Technology, Queensland, Australia). Retrieved from http://eprints.qut.edu.au/95487/1/Peter_Churchward_Thesis.pdf

Creswell, J. W. (2007). *Qualitative inquiry & research design: Choosing among five approaches.* Thousand Oaks, CA: Sage Publications.

Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage Publications.

Creswell, J. W., & Poth, C. N. (2017). *Qualitative inquiry and research design: Choosing among five approaches*. Thousand Oaks, CA: Sage Publications.

Daley, G., & Kim, L. (2010). *A teacher evaluation system that works* (Working Paper). Santa Monica, CA: National Institute for Excellence in Teaching.

Darling-Hammond, L., Amrein-Beardsley, A., Haertel, E. H., & Rothstein, J. (2011). *Getting teacher evaluation right: A background paper for policy makers.* Washington, DC: National Academy of Education.

Darling-Hammond, L., Amrein-Beardsley, A., Haertel, E., & Rothstein, J. (2012). Evaluating teacher evaluation. *The Phi Delta Kappan*, *93*(6), 8-15.

Datnow, A. (2011). Collaboration and contrived collegiality: Revisiting Hargreaves in the age of accountability. *Journal of educational change*, *12*(2), 147-158.

Datnow, A. (2012). Teacher agency in educational reform: Lessons from social networks research. *American Journal of Education*, *119*(1), 193-201.

Denzin, N. K., & Lincoln, Y. S. (2008). *Strategies of qualitative inquiry* (Vol. 2). Thousand Oaks, CA: Sage Publications.

Desimone, L. M. (2009). Improving impact studies of teachers' professional development: Toward better conceptualizations and measures. *Educational Researcher, 38*(3), 181–199.

Desimone, L. M., & Garet, M. S. (2015). Best practices in teachers' professional development in the United States. *Psychology, Society and Education*, *7*(3), 252-263.

Denzin, N. K., & Lincoln, Y. S. (Eds.). (2011). *The sage handbook of qualitative research*. Thousand Oaks, CA: Sage.

Diamond, J. B., & Spillane, J. P. (2016). School leadership and management from a distributed perspective: A 2016 retrospective and prospective. *Management in Education*, *30*(4), 147-154.

Drago-Severson, E. (2012). New opportunities for principal leadership: Shaping school climates for enhanced teacher development. *Teachers college record*, *114*(3), n3.

DuFour, R., DuFour, R., Eaker, R., Many, T., & Mattos, M. (2016). *Learning by doing*. Bloomington, Indiana: Solution Tree Press.

DuFour, R., & Mattos, M. (2013). Improve schools? *Educational Leadership*, *70*(7), 34-39.

Dworkin, A. G., & Tobe, P. F. (2014). The effects of standards based school accountability on teacher burnout and trust relationships: A longitudinal analysis. In D. Van Maele, P. Forsyth & Van Houtte, *Trust and school life* (pp. 121-143). Dordrecht, Netherlands: Springer

Erne, R. (2016). Change management revised. In A.Goksoy, *Organizational change management strategies in modern business* (pp. 1-23). Bulgaria, Bulgaria: IGI Global.

Ertmer, P. A., & Newby, T. J. (2013). Behaviorism, cognitivism, constructivism: Comparing critical features from an instructional design perspective. *Performance improvement quarterly*, *6*(4), 50-72.

Evans, L. A. (2015). *Professional learning from the inside-teachers as agents of school improvement: A principal's case study* (Doctoral dissertation, Queensland University of Technology, Queensland, Australia). Retrieved from http://eprints.qut.edu.au/82028/4/Linda_Evans_Thesis.pdf

Finnigan, K. S., & Daly, A. J. (2012). Mind the gap: Organizational learning and improvement in an underperforming urban system. *American Journal of Education*, *119*(1), 41-71.

Flessner, R., & Stuckey, S. (2014). Politics and action research: An examination of one school's mandated action research program. *Action Research*, *12*(1), 36-51.

Francis, J. J., Johnston, M., Robertson, C., Glidewell, L., Entwistle, V., Eccles, M. P., & Grimshaw, J. M. (2010). What is an adequate sample size? Operationalising data saturation for theory-based interview studies. *Psychology and Health*, *25*(10), 1229-1245.

Fullan, M. (2014). *The principal: Three keys to maximizing impact*. San Francisco, CA: John Wiley & Sons.

Gardner, D., Larsen, Y., Baker, W., Campbell, A., & Crosby, E. (1983). *A Nation at Risk: The imperative for educational reform*. Washington, DC: United States Department of Education.

Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods*, *18*(1), 59-82.

Graham, E. (2013, April). 'A Nation at Risk' turns 30: Where did it take us? *NEA Today.* Retrieved from http://neatoday.org/2013/04/25/a-nation-at-risk-turns-30-where-did-it-take-us-2/

Georgia Department of Education (2013). *Teacher keys effectiveness system evaluator training & credentialing materials 2013-2014.* Atlanta, GA: Author.

Georgia Department of Education (2015). *Teacher keys effectiveness system implementation handbook.* Atlanta, GA: Author.

Georgia Professional Standards Commission. (2010). *Certification requirements: 7/1/10 - 6/30/15.* Atlanta GA: Author.

Georgia Professional Standards Commission. (2012, November 17). *Tiered certification system for Georgia educators: Certification & program officials conference.* Retrieved from http://www.gapsc.com/commission/media/downloads/2012_annual_conference/lunchsession.pdf

Georgia Professional Standards Commission. (2014). *Understanding the 2014 educator certification rule changes.* Atlanta, GA: Author.

Georgia Professional Standards Commission. (2015a). *Rule 502-02-.36* Atlanta, GA: Author.

Georgia Professional Standards Commission. (2015b). *Professional learning guidelines: Supporting the implementation of GaPSC rule 505-2-.36 renewal requirements effective July 1, 2017.* Atlanta, GA: Author.

Georgia Professional Standards Commission. (2015c). *Rule 505-2-.05 professional certification.* Atlanta, GA: Author.

Georgia Professional Standards Commission. (2017). Renewal requirements, *rule 505-2-.05, frequently asked questions.* Atlanta, GA: Author.

Gibbon, M., Costigan, J., & Guimond, M. (2016). *Methods matter - 4 questions to consider when choosing data collection methods* [Video File]. Available from https://www.youtube.com/watch?v=l2hz3lEcHJw

Goldstein, A. (2015). *Teachers' perceptions of the influence of teacher collaboration on teacher morale* (Doctoral dissertation, Walden University). Retrieved from https://scholarworks.waldenu.edu/cgi/viewcontent.cgi?referer=http://scholar.google.com/&httpsredir=1&article=1222&context=dissertations

Governor's Office of Student Achievement. (2017). *Student and school demographics.* Atlanta, GA: Author

Guillemin, M. (2004). Understanding illness: Using drawings as a research method. *Qualitative Health Research*, *14*(2), 272-289.

Grammatikopoulos, V., Tsigilis, N., Gregoriadis, A., & Bikos, K. (2013). Evaluating an induction training program for Greek teachers using an adjusted level model approach. *Studies in Educational Evaluation*, *39*(4), 225-231.

Gray, J., Kruse, S., & Tarter, C. J. (2016). Enabling school structures, collegial trust and academic emphasis: Antecedents of professional learning communities. *Educational Management Administration & Leadership*, *44*(6), 875-891.

Grigg, J., Kelly, K. A., Gamoran, A., & Borman, G. D. (2013). Effects of two scientific inquiry professional development interventions on teaching practice. *Educational Evaluation and Policy Analysis, 35*(1), 38–56.

Guskey, T. (2002). Does it make a difference? *Educational Leadership*, *59*(6), 45-51.

Guskey, T. (2014a). Evaluating professional learning. In S. Billett, C. Harteis & H. Gruber, *International handbook of research in professional and practice-based learning* (pp. 1215-1235). Dordrecht: Springer.

Guskey, T. (2014b). Planning professional learning. *Planning*, *71*(8), 11-16.

Hairon, S., Goh, J. W. P., Chua, C. S. K., & Wang, L. Y. (2017). A research agenda for professional learning communities: moving forward. *Professional Development in Education*, *43*(1), 72-86.

Hammersley, M. & Atkinson, P. (2007). *Ethnography: Principles in practice*. London and New York: Routledge.

Hargreaves, A. (1994). *Changing teachers, changing times: Teachers' work and culture in the postmodern age*. New York, NY: Teachers College Press.

Hargreaves, A. (2013). Push, pull and nudge: The future of teaching and educational change. *Preparing Teachers for the 21st Century (*pp. 217-236). Berlin, Germany: Springer.

Hase, S., & Kenyon, C. (2000). From andragogy to heutagogy. *Ultibase Articles*, *5*(3), 1-10. Retrieved from http://www.psy.gla.ac.uk/~steve/pr/Heutagogy.html.

Hattie, J. (2012). *Visible learning for teachers: Maximizing impact on learning*. London and New York, NY: Routledge.

Heitin, L. (2013). Global test shows U.S. stagnating. *Education Week, 33*(15), 1, 14-15.

Hill, D. (2015*). Professional learning changes for Georgia educators: Moving to implementation 2015 – 2017.* Atlanta, GA: Georgia Professional Standards Commission.

Hill, H., Beisiegel, M., & Jacob, R. (2013). Professional development research: Consensus, crossroads, and challenges. *Educational Researcher, 42*(9), 476–487.

Holton, E. F. (1996). The flawed four-level evaluation model. *Human Resource Development Quarterly*, *7*(1), 5-21.

Hord, S. M. (1986). A synthesis of research on organizational collaboration. *Educational Leadership*, *43*(5), 22-26.

Hord, S. M. (1997). *Professional learning communities: Communities of continuous inquiry and improvement*. Austin, TX: Southwest Educational Development Laboratory.

Hord, S. M., Abrego, J., Moller, G., Olivier, D. F., Pankake, A. M., & Roundtree, L. (2010). *Demystifying professional learning communities: School leadership at its best*. Lanham, MA; Rowman & Littlefield Education.

Hochschild, J. L. (2003). Rethinking accountability politics. *No Child Left Behind? The politics and practice of school accountability*. Washington, DC: Brookings Institution Press, pp. 107-125.

Hughes, D., & DuMont, K. (1993). Using focus groups to facilitate culturally anchored research. *American Journal of Community Psychology*, *21*(6), 775 – 806.

Huber, S. G. (2011). The impact of professional development: A theoretical model for empirical research, evaluation, planning and conducting training and development programmes. *Professional Development in Education*, *37*(5), 837-853.

Ingersoll, R. M. (2009). *Who controls teachers' work?: Power and accountability in America's schools*. Cambridge, MA: Harvard University Press.

Institute of Medicine. (2010). *Redesigning continuing education in the health professions, Appendix D: Continuing education in professions outside of healthcare* (pp. 253- 262). [Google Books Edition]. Retrieved from https://www.nap.edu/read/12704/chapter/13

Jones, N. D., Youngs, P., & Frank, K. A. (2013). The role of school-based colleagues in shaping the commitment of novice special and general education teachers. *Exceptional Children*, *79*(3), 365-383.

Kane, T. J., & Staiger, D. O. (2012). *Gathering feedback for teaching: Combining high-quality observations with student surveys and achievement gains* (Research Paper. MET Project) Seattle, WA: Bill & Melinda Gates Foundation.

Karadag, E., Kilicoglu, G., & Yilmaz, D. (2014). Organizational cynicism, school culture, and academic achievement: The study of structural equation modeling. *Educational Sciences: Theory and Practice*, *14*(1), 102-113.

Kearney, K. S., & Hyle, A. E. (2004). Drawing out emotions: The use of participant-produced drawings in qualitative inquiry. *Qualitative Research*, *4*(3), 361-382.

Kegan, R., & Lahey, L. (2009). *Immunity to change: How to overcome it and unlock the Potential in yourself and your organization.* Boston, Massachusetts: Harvard Business School Publishing Corporation.

Ketelaar, E., Koopman, M., Den Brok, P., Beijaard, D., & Boshuizen, H. (2014). Teachers' learning experiences in relation to their ownership, sense-making and agency. *Teachers and Teaching: Theory and Practice*, *20*(3), 314-337.

King, A., (2016, July 12). *The impact of SB 364: TKES & LKES 2016-2017.* Paper presentation at the Georgia Association of Educational Leaders summer conference. Jekyll Island, Georgia.

Kirkpatrick, D. L. (1994). *Evaluating training programs: The four levels.* San Francisco, CA: Berrett-Koehler.

Knowles, M. S. (1970). *The modern practice of adult education* (Vol. 41). New York, NY: Association Press. Retrieved from http://www.hospitalist.cumc.columbia.edu/downloads/cc4_articles/Education%20Theory/Andragogy.pdf

Knowles, M. S., Holton III, E. F., & Swanson, R. A. (2014). *The adult learner: The definitive classic in adult education and human resource development*. [Google Books Edition]. Retrieved from https://books.google.com/books?hl=en&lr=&id=1We2BQAAQBAJ&oi=fnd&pg=PP1&dq=knowles+1984+andragogy+model&ots=C7J-0nKyqN&sig=dHmYolUR8g5kg4cz2ABxBNjKlQc#v=snippet&q=assumptions&f=false

Lawrence, P., & Lorsch, J. (1969). *Organization and environment.* Homewood, IL: Richard D. Irwin, Inc.

Le Fevre, D. M. (2014). Barriers to implementing pedagogical change: The role of teachers' perceptions of risk. *Teaching and teacher education*, (*38)*, 56-64.

Levine, T. (2011). Experienced teachers and school reform: Exploring how two different professional communities facilitated and complicated change. *Improving Schools, 14*(1), 30-47.

Lieberman, A. (1990). *Schools as collaborative cultures creating future now*. New York, NY: Falmer.

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry* (Vol. 75). Thousand Oaks, CA: Sage.

Lohman, J. (2010). *Comparing No Child Left Behind and Race to the Top.* (OLR Reacher Report No. 2010-R-0235) Retrieved from https://www.cga.ct.gov/2010/rpt/2010-r-0235.htm

Luft, J. A., & Hewson, P. W. (2014). Research on teacher professional development programs in science. In S. K. Abell & N. G. Lederman (Eds.), *Handbook of research on science education (Vol. II).* NewYork, NY: Routledge.

Lunenburg, F., & Ornstein, A. (2008). *Educational administration: Concepts and practices*. Belmont, CA: Thomson Learning, Inc.

Maloney, C., & Konza, D. (2011). A case study of teachers' professional learning: Becoming a community of professional learning or not? *Issues in Educational Research*, *21*(1), 75-87.

Margolis, J., & Doring, A. (2012). The fundamental dilemma of teacher leader-facilitated professional development: Do as I (kind of) say, not as I (sort of) do. *Educational Administration Quarterly*, *48*(5), 859-882.

Marsh, J. A., & Farrell, C. C. (2015). How leaders can support teachers with data-driven decision making: A framework for understanding capacity building. *Educational Management Administration & Leadership*, *43*(2), 269-289.

Marshall, B., Cardon, P., Poddar, A., & Fontenot, R. (2013). Does sample size matter in qualitative research?: A review of qualitative interviews in IS research. *Journal of Computer Information Systems*, *54*(1), 11-22.

McGuinn, P. (2012). Stimulating reform: Race to the Top, competitive grants and the Obama education agenda. *Educational Policy*, *26*(1), 136-159.

Mehta, J. (2015). Escaping the Shadow: "A Nation at Risk" and its far-reaching influence. *American Educator*, *39*(2), 20.

Merriam, S. B., & Bierema, L. L. (2013). *Adult learning: Linking theory and practice*. [Google Books Edition]. Retrieved from https://books.google.com/books?hl=en&lr=&id=1YGuAAAAQBAJ&oi=fnd&pg=PT9&dq=lindeman+1926+adult+education&ots=OkdOBnDgrz&sig=3lEaxqPIBiitn-I14uolObfVa4Y#v=onepage&q=lindeman&f=false

Mertler, C. A. (2016). Leading and facilitating educational change through action research learning communities. *Journal of Ethical Educational Leadership*, *3*(3), 1-11.

Mizell, H. (2003). Facilitator: 10, refreshments: 8, evaluation: 0. *Journal of Staff Development*, *24*(4), 10-13.

Mizell, H. (2010). *Why professional development matters*. Oxford, OH: Learning Forward.

Moller, S., Mickelson, R. A., Stearns, E., Banerjee, N., & Bottia, M. C. (2013). Collective pedagogical teacher culture and mathematics achievement: Differences by race, ethnicity, and socioeconomic status. *Sociology of Education*, *86*(2), 174-194.

Montgomery, R. (2012). "It serves a bigger purpose": The tension between professional identity and bureaucratic mandate in public education. *English Teaching*, *11*(3), 45.

Moustakas, C. (1994). *Phenomenological research methods*. Thousand Oaks, CA: Sage.

Muhammad, A. (2009). *Transforming school culture: How to overcome staff division*. Bloomington, IN: Solution Tree Press.

Muijs, D., Kyriakides, L., Van der Werf, G., Creemers, H., Timperley, H. & Earl, L. (2014). State of the art – teacher effectiveness and professional learning. *School Effectiveness and School Improvement: An International Journal of Research, Policy and Practice*, *25*(2), 231-256.

Murphy, J. (2002). Reculturing the profession of educational leadership: New blueprints. *Yearbook of the National Society for the Study of Education*, *101*(1), 65-82.

Murphy, J. (2013). The architecture of school improvement. *Journal of Educational Administration*, *51*(3), 252.

Murphy, J., & Louis, K. (1999). "Handbook" editors' introduction: Notes from the "handbook.". *Educational Administration Quarterly*, *35*(4), 472-476.

National Commission for the Protection of Human Subjects of Biomedical and Behavior Research. (1978). *Ethical principals and guidelines for the protection of human subjects of research (Belmont Report).* Washington D.C.: U.S. Department of Health and Human Services. Retrieved from https://archive.org/details/belmontreporteth00unit

Ning, H. K., Lee, D., & Lee, W. O. (2015). Relationships between teacher value orientations, collegiality, and collaboration in school professional learning communities. *Social Psychology of Education*, *18*(2), 337-354.

Nir, A., & Hameiri, L. (2014). School principals' leadership style and school outcomes: The mediating effect of powerbase utilization, *Journal of Educational Administration*, *52*(2), 210-227.

Nossiter, V., & Biberman, G. (1990). Projective drawings and metaphor: Analysis of organisational culture. *Journal of Managerial Psychology*, *5*(3), 13-16.

Olivier, D. F., & Huffman, J. B. (2016). Professional learning community process in the United States: conceptualization of the process and district support for schools. *Asia Pacific Journal of Education*, *36*(2), 301-317.

Ostovar-Nameghi, S. A., & Sheikhahmadi, M. (2016). From teacher isolation to teacher collaboration: Theoretical perspectives and empirical findings. *Modern Journal of Language Teaching Methods*, *6*(1), 765.

Owen, S. (2014). Teacher professional learning communities: Going beyond contrived collegiality toward challenging debate and collegial learning and professional growth. *Australian Journal of Adult Learning*, *54*(2), 54.

Ozuah, P. O. (2016). First, there was pedagogy and then came andragogy. *Einstein journal of Biology and Medicine*, *21*(2), 83-87.

Patton, M. Q. (2002). *Qualitative research & evaluation methods*. Thousand Oaks, CA: Sage.

PBS (2013, December). How does American education measure up to schools around the globe? [Video File]. Available at https://youtu.be/BbvTHNonGfE

Penuel, W. R., Sun, M., Frank, K. A., & Gallagher, H. A. (2012). Using social network analysis to study how collegial interactions can augment teacher learning from external professional development. *American Journal of Education*, *119*(1), 103-136.

Perry, E. (1993). *Factors influencing teachers' attitudes toward state-mandated forced collaboration* (Doctoral dissertation). Available from ProQuest Dissertation and Thesis A & I database. (UMI No. 304066434)

Probst, B., & Berenson, L. (2014). The double arrow: How qualitative social work researchers use reflexivity. *Qualitative Social Work*, *13*(6), 813-827.

Renner, M., & Taylor-Powell, E. (2003). Analyzing qualitative data. *Programme Development & Evaluation, University of Wisconsin-Extension Cooperative Extension*.

Rees, G. (2014). Jumping into the abyss: An exploration of the concept of organizational burnout. In *BAM2014 The Role of the Business School in Supporting Economic and Social Development*.

RESA Statewide Network. (2003). *GTEP Manual.* Smyrna, GA: Metropolitan Regional Educational Service Agency. Available at http://www.ciclt.net/sn/adm/editpage.aspx?ClientCode=mresa&FileName=GTEP_Manual

Ritchie, J., Lewis, J., Nicholls, C. M., & Ormston, R. (Eds.). (2013). *Qualitative research practice: A guide for social science students and researchers*. Thousand Oaks, CA: Sage.

Ronfeldt, M., Farmer, S. O., McQueen, K., & Grissom, J. A. (2015). Teacher collaboration in instructional teams and student achievement. *American Educational Research Journal*, *52*(3), 475-514.

Rubin, H. J., & Rubin, I. S. (2011). *Qualitative interviewing: The art of hearing data*. Thousand Oaks, CA: Sage.

Ryan, J. (2013). American schools vs. the world: Expensive, unequal, bad at math. *The Atlantic*, Retrieved from http://www.theatlantic.com/education/archive/2013/12/american-schools-vs-the-world expensive-unequal-bad-at-math/281983/

Sayers, K. (2013). *Perceptions of district leaders, school administrators, and teachers regarding the professional learning community model to support adult learning* (Doctoral dissertation). University of Alabama at Birmingham, Birmingham, AL.

Schlichter, E. (2015). *Professional learning communities: Teacher Perception of components of professional learning communities in high schools* (Doctoral dissertation). Available from ProQuest Dissertation and Thesis A & I database. (UMI No.1724668894)

Simpson, R., Lacava, P., & Graner, P. (2004). The No Child Left Behind Act. *Intervention in School and Clinic, 40*(2), 67 -75.

Smith, E. (2005). Raising standards in American schools: the case of No Child Left Behind. *Journal of Education Policy*, *20*(4), 507-524.

Smith, J. A. (2015). *Qualitative psychology: A practical guide to research methods*. Thousand Oaks, CA: Sage Publications.

Spelman, M., & Rohlwing, R. (2013). The relationship between professional development and teacher learning: Three illustrative case studies of urban teachers. *Journal of Research in Innovative Teaching*, *6*(1), 155-171.

Spillane, J. P., & Kim, C. M. (2012). An exploratory analysis of formal school leaders' positioning in instructional advice and information networks in elementary schools. *American Journal of Education*, *119*(1), 73-102.

Stake, R. E. (1995). *The art of case study research*. Thousand Oaks, CA: Sage.

Stanley, A. (2011). Professional development within collaborative teacher study groups: Pitfalls and promises. *Arts Education Policy Review, 112*(2), 71-78.

Stewart, V. (2011). Raising teacher quality around the world. *The Effective Educator: Ed Leadership, 68*(4), 16 -20.

Stewart, V. (2013). School leadership around the world. *Educational Leadership*, *70*(7), 48-55.

Twyford, K., Twyford, K., Le Fevre, D., Le Fevre, D., Timperley, H., & Timperley, H. (2017). The influence of risk and uncertainty on teachers' responses to professional learning and development. *Journal of Professional Capital and Community*, *2*(2), 86-100.

United States Department of Education. (2010). *Race to the top program guidance and frequently asked questions.* Washington, DC: Author.

United States Department of Education, National Center for Education Statistics. (2015). *The condition of education 2015 (NSED 2015-144) International assessments.* Washington, DC: Author.

Vescio, V., Ross, D., & Adams, A. (2008). A review of research on the impact of professional learning communities on teaching practice and student learning. *Teaching and teacher education*, *24*(1), 80-91.

Vince, R. (1995). Working with emotions in the change process: Using drawings for team diagnosis and development. *Organisations & People*, *2*(1), 11-17.

Wang, T. (2015). Contrived collegiality versus genuine collegiality: Demystifying professional learning communities in Chinese schools. *Compare: A Journal of Comparative and International Education*, *45*(6), 908-930.

Weber, S., & Mitchell, C. (1996). Using drawings to interrogate professional identity and the popular culture of teaching. *Teachers' professional lives*, 109-126.

Whitworth, B. A., & Chiu, J. L. (2015). Professional development and teacher change: The missing leadership link. *Journal of Science Teacher Education*, *26*(2), 121-137.

Wilt, B. C. (2016). *A qualitative case study of teachers' perceptions of professional learning through mandated collaboration* (Doctoral dissertation, Northcentral University). Retrieved from http://www.proquest.com/en-US/products/dissertations/individuals.shtml

Wiseman, D. L. (2012). The intersection of policy, reform, and teacher education. *Journal of Teacher Education*, *36*(2), 87-91.

Wlodkowski, R. J. (2011). *Enhancing adult motivation to learn: A comprehensive guide for teaching all adults*. San Francisco, CA: John Wiley & Sons. [Google Books Edition]. Retrieved from https://books.google.com/books?hl=en&lr=&id=q7ItaweBNPQC&oi=fnd&pg=PT9&dq=related:Ghv_VP_uFwcJ:scholar.google.com/&ots=ulLlrvBp4y&sig=R2UWUZ2erRSClPTOPMb7FhxQ1jw#v=onepage&q&f=false

Woods, R. (2015). *Teacher and leader effectiveness measure (TEM and LEM) usage notification.* Atlanta, GA: Georgia Department of Education.

Woods, R. (2016a). *Certification renewal and professional development.* Atlanta, GA: Georgia Department of Education.

Woods, R. (2016b). *Georgia teacher keys effectiveness system: Implementation handbook.* Atlanta, GA: Georgia Department of Education.

Woods, R. (2017a). *Georgia Department of Education TLE electronic platform contributing professionals reference for completion of PSC requirements (Evaluator).* Atlanta, GA: Georgia Department of Education.

Woods, R. (2017b). *Georgia Department of Education TLE electronic platform TKES teacher reference for PSC professional learning goal(s)/plan(s) reflection.* Atlanta, GA: Georgia Department of Education.

Woods, R. (2017c). *Georgia Department of Education TLE electronic platform TKES overall quick reference teacher.* Atlanta, GA: Georgia Department of Education.

Woods, R. (2017d). *Teacher keys effectiveness system: Teacher orientation.* Atlanta, GA: Georgia Department of Education.

Yin, R. K. (2009). *Applications of case study research*. Thousand Oaks, CA: Sage.

Yin, R. K. (2013). *Case study Research: Design and methods. Essential guide to qualitative methods in organizational research.* London: Sage.

APPENDICES

APPENDIX A: Drawing Prompt and Narrative Protocol

Drawing Prompt

"Reflect on a typical PLC meeting you are required to attend. To the best of your ability, draw that meeting including important physical structures and group member interactions."

Drawing narrative protocol

"Please explain the picture you drew representing a typical PLC meeting providing as much detail as possible concerning the structure and dynamics of the interactions between members of your professional learning community."

APPENDIX B: Interview Protocol

The format for the interview was semi-structured

Interview questions:

Interview Blue Print Table

Research Question Content Based Category	Number of items	Questions
(1) Structure of PLC meetings	5	2, 3
(2) Purpose of PLC meetings	4	4 - 7
(3) Dynamics of PLC meetings	4	8 - 11

Opening Question:

1. Tell me about yourself professionally.

Research question one: What were high school academic teachers' perceptions of the structures of their required PLC meetings?

2. Describe each of the following aspects of the structure of your required PLC meetings and explain how each is determined.
    a. How often do you meet?*
    b. Where do the meetings take place?
    c. What is the duration of your meetings?
    d. What methods (if any) does your team use to document your work in PLC meetings?
3. To what extent do factors such as the frequency, location, duration, and paperwork associated with PLC meetings either enhance or inhibit your engagement in the collaborative process?

Research question two: What were high school academic teachers' perceptions of the purpose of their required PLC meetings?

4. What is your personal definition of a PLC?
5. What types of topics are discussed your PLC meetings?*
6. What types of decisions are made during these meetings?*
7. To what extent do your experiences in your meetings align with your definition of PLCs?

Research question three: What were high school academic teachers' perceptions of the dynamics of their required PLC meetings?

8. Describe the roles of each member in the group.
9. What steps were taken to determine or establish the roles of the members within the group?
10. When (if) conflicts arise during meetings, how are they typically handled?
11. To what extent does the composition of the group enhance or inhibit your engagement in the collaborative process?

*Used with permission from Dr. Barbara Wilt (2016)

APPENDIX C: Permission to Use Interview Questions

From: Cathy Wilt [mailto:wilt@morningside.edu]
Sent: Saturday, February 17, 2018 7:55 AM
To: HORTON, CARMEN <CARMEN.HORTON
Subject: Re: Dissertation permission

Ms. Horton,
I'm excited to hear of your research into PLCs. Feel free to use my research questions. I'd be interested in the results of your study! If you have any questions throughout the process, I'd be happy to answer them!
Good luck!
Barbara (Cathy) Wilt
Wilt@morningside.edu

Sent from my iPhone

> On Feb 16, 2018, at 5:13 PM, HORTON, CARMEN wrote:
>
> Dr. Wilt,
> I am a doctoral student at Columbus State University and an administrator in Georgia. Georgia has also implemented mandated PLCs as a part of teachers' annual evaluations and recertification. I am working on a dissertation examining teachers' perceptions of their PLC work under this policy at the high school level.
> I would like to request permission to include part or all of your interview questions in my research.
> You may contact me to discuss the purpose and intent of my work if needed at 478-919-7646 or at this email address.
> Thank you,
> Carmen Horton
>
> Sent from my iPhone

APPENDIX D: Focus Group Protocol

The format for the focus group was partially structured.

Focus group guiding questions:

Focus Group Blue Print Table

Research Question Content Based Category	Number of items	Questions
(1) Structure of PLC meetings	5	1, 2
(2) Purpose of PLC meetings	4	3 - 6
(3) Dynamics of PLC meetings	4	7 - 10

Research question one: What were high school academic teachers' perceptions of the structures of their required PLC meetings?

1. Describe each of the following aspects of the structure of your required PLC meetings and explain how each is determined.
    a. How often do you meet?
    b. Where do the meetings take place?
    c. What is the duration of your meetings?
    d. What methods (if any) does your team use to document your work in PLC meetings?
2. To what extent do factors such as the frequency, location, duration, and paperwork associated with PLC meetings either enhance or inhibit your engagement in the collaborative process?

Research question two: What were high school academic teachers' perceptions of the purpose of their required PLC meetings?

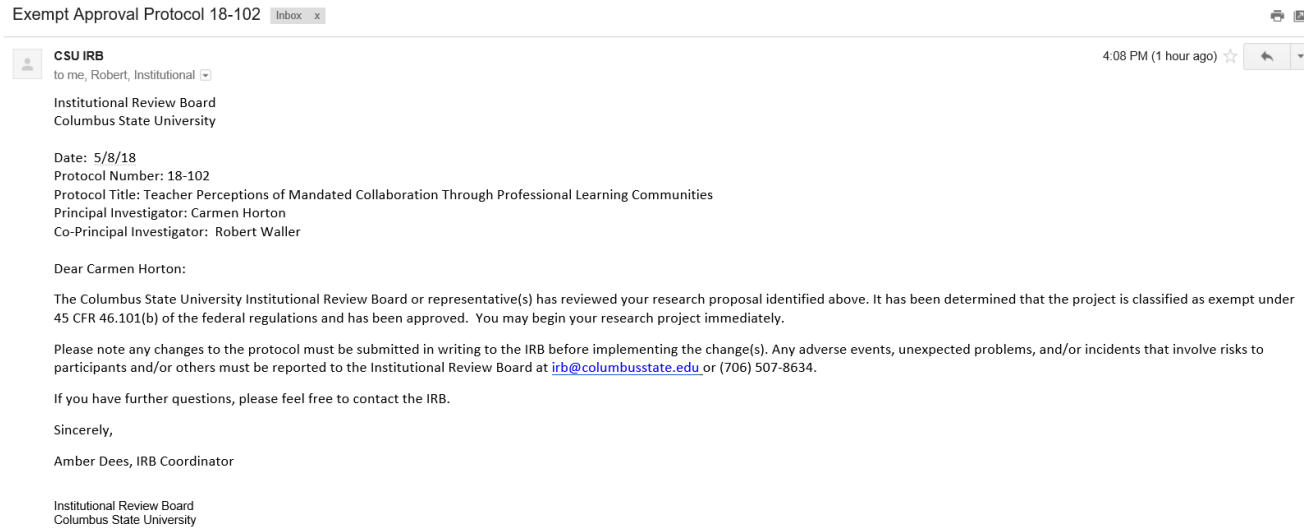
3. What is your personal definition of a PLC?

4. What types of topics are discussed your PLC meetings?
5. What types of decisions are made during these meetings?
6. To what extent do your experiences in your meetings align with your definition of PLCs?

Research question three: What were high school academic teachers' perceptions of the dynamics of their required PLC meetings?

7. Describe the roles of each member in the group.
8. What steps were taken to determine or establish the roles of the members within the group?
9. When (if) conflicts arise during meetings, how are they typically handled?
10. To what extent does the composition of the group enhance or inhibit your engagement in the collaborative process?

APPENDIX E: IRB approval



Exempt Approval Protocol 18-102 Inbox x

CSU IRB 4:08 PM (1 hour ago)
to me, Robert, Institutional

Institutional Review Board
Columbus State University

Date: 5/8/18
Protocol Number: 18-102
Protocol Title: Teacher Perceptions of Mandated Collaboration Through Professional Learning Communities
Principal Investigator: Carmen Horton
Co-Principal Investigator: Robert Waller

Dear Carmen Horton:

The Columbus State University Institutional Review Board or representative(s) has reviewed your research proposal identified above. It has been determined that the project is classified as exempt under 45 CFR 46.101(b) of the federal regulations and has been approved. You may begin your research project immediately.

Please note any changes to the protocol must be submitted in writing to the IRB before implementing the change(s). Any adverse events, unexpected problems, and/or incidents that involve risks to participants and/or others must be reported to the Institutional Review Board at irb@columbusstate.edu or (706) 507-8634.

If you have further questions, please feel free to contact the IRB.

Sincerely,

Amber Dees, IRB Coordinator

Institutional Review Board
Columbus State University

APPENDIX F: Initial Contact Email Letter

May, 2018

Dear (Academic 9-12 Teacher),

I am writing to ask you to participate in a research study being conducted by Carmen Horton, Doctoral student at Columbus State University.

The purpose of this study is to collect information about high school teachers' perceptions of the structure, purpose and dynamics of Professional Learning Community meetings required by Georgia Rule 505-2-.36.

You are receiving this request because you teach an academic subject at the chosen middle Georgia high school being studied. If you choose to be a participant in the study, you will either participate in a one on one drawing narrative/interview session or a focus group discussion. Any information you choose to share will be held confidential and coded so nothing is attributed to you. Participation in the study is voluntary.

The results can be used to provide insights to Georgia administrators as they support, implement and evaluate teacher participation in Professional Learning Communities. Your responses would help guide Georgia administrators in their role as facilitators of Professional Learning Communities as a means of increasing teacher professional growth and student academic achievement.

To join the study, please complete the attached informed consent form and participant questionnaire and return by scanning/attaching them to the sending email address (horton_carmen@columbusstate.edu). The informed consent form must be printed, signed, and dated. The participant questionnaire can either be printed and completed by hand or edited directly on your computer.

If you have any questions or concerns about this research study, please feel free to contact me at 478-919-7646. Once completed attachments are received, you will be contacted concerning data collection method and scheduling.

Thank you in advance for assisting with this important research Study.

Sincerely,

Carmen Horton
Doctoral Student, Columbus State University

APPENDIX G: Informed Consent Form

Informed Consent Form

You are being asked to participate in a research project conducted by Carmen Horton, a doctorate student in the Education Department at Columbus State University, conducted under the supervision of Dr. Robert Waller.

I. Purpose:

The purpose of this project is to study teachers' perceptions of the structure, purpose and dynamics of Professional Learning Communities as required by Georgia recertification policy.

II. Procedures:

A sample of core academic teachers from one middle Georgia secondary school will be chosen for individual drawing/interview sessions or a focus group to gather feedback on collaboration through Professional Learning Communities. Participants will be assigned to either the drawing/interview sample or the focus group based on time and date of return of forms. Participants in the focus group will discuss Professional Learning Communities with other academic teachers in the same school for approximately 45 – 60 minutes after school hours in the professional learning lab. Dr. Michael Richardson, a professor at Columbus State University, will facilitate the focus group. Participants in the 45 – 60 drawing/interview sessions will meet individually with the researcher to share feedback outside of school hours at a time and location convenient to the participant. All data collection sessions will be recorded using an electronic devise to accurately capture what is being said. Transcripts of the sessions without identifying information will be made available to participants to check for accuracy. The data collected will not be used in any further projects.

III. Possible Risk or Discomforts:

There are no possible risks or discomforts for participants in this study

IV. Potential Benefits:

This study will provide feedback for school administrators for possible improvement of established and/or future implementation protocols and evaluation methods of required Professional Learning Communities that better support teacher and student growth.

V. Cost and Compensation

This is no cost or compensation associated with participation

VI. Confidentiality:

The data will be indirectly coded and summarized by the researcher; no participant identifiers will be included in summary findings. All data will be secured by the researcher for a period of three years then destroyed.

VII. Withdrawal:

Participation in this research study is voluntary. Participants may withdraw from the study at any time and withdrawal will not involve penalty or loss of benefits.

For additional information about this research project, you may contact the Principal Investigator, Carmen Horton, at 478-919-7646 or horton_carmen@columbusstate.edu. If you have questions about your rights as a research participant, you may contact Columbus State University Institutional Review Board at irb@columbusstate.edu.

I have read this informed consent form. If I had any questions, they have been answered. By signing this form, I agree to participant in this research project.

Signature of Participant	Date

APPENDIX H: Participant Questionnaire

Participant Questionnaire

Name:_____ Department: _____

Gender:_____ Highest education level attained: _____

Years of teaching experience:_____ Number of school settings as a teacher: _____

Please answer the questions below to determine if you meet the criteria for participation in the study.

1. At any time during the 2017-2018 school year, have you participated in required Professional Learning Communities (PLC) at your school?

2. At any time during the 2017-2018 school year, have you engaged in non-required collaboration with your peers?

If the answer to any of the questions above is no, you are not eligible for participation in this study.

If both answers are yes, please complete the questions below and return this form along with your consent form to horton_carmen@columbusstate.edu.

1. What is your personal definition of a PLC?

2. To what extent do your experiences in your required PLC meetings align with your definition of PLC?

3. When (if) conflicts arise during meetings, how are they typically handled?

Thank you for your time and willingness to complete the questionnaire and participate in the study.