

PERCEPTIONS OF THE EFFECTS OF PROFESSIONAL  
LEARNING ON TEACHER EFFICACY

by

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## ABSTRACT

The purpose of this study was to describe teacher perceptions of the effects of Professional Learning Communities (PLCs), as designed by common planning of core subjects among high school teachers, on teacher efficacy in the public schools of North Georgia. The study sought to answer the following research questions: (1) Is there a difference in teacher self-efficacy as measured by the Teacher's Sense of Efficacy Scale (TSES) between high school teachers who participate in Professional Learning Communities linked with the organizational structure of common core planning and those who do not? and (2) What differences exist among teachers' description of the effects of common core planning on their teaching practices and on their self-efficacy?

The first question was answered using the TSES. The second research question was answered through interviews with a purposefully selected sample of teachers.

This research used mixed methods. Survey and interview data exploring teacher's educational experience in Professional Learning Communities designed with and without common core planning were collected.

Survey results provide evidence of a positive relationship between classroom related components of teacher efficacy and Professional Learning Communities linked with the organizational strategy of common core planning among the unit of analysis--the teachers.

This study added to the existing body of knowledge about the use of Professional Learning Communities in high schools. Implications for researchers, policy analysis, and practitioners were identified.

## DEDICATION

I am dedicating this research project to my mentor, boss, and friend, Sharon Vaughn, and my brother and sister-in-law, Dallas and Judy Rhyne, who always praised and encouraged me. I am truly grateful for the trust, love and belief they have shown and the time they sacrificed for me. They were there to talk to me, to read and critique my work, to listen to me, to push me, to travel with me, and to encourage me to believe in myself. They were always there as examples of personal strengths and beliefs. These three people became my strength, rock, and guidance.

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## CHAPTER 1

### INTRODUCTION

#### Background

The impulse to improve education has been an ongoing one that has been riddled with marked improvements, misguided initiatives, and special interests. When the phrases “No Child Left Behind” or “Race to the Top” are utilized in any educational plan, the emotions of their leaders and organizers are easily stirred (Konold, Jablonski, Nottingham, Kessler, Byrd, Imig, Berry, & McNergney, 2008).

The public school has recently been the target of presidential initiatives and federal legislation, which leads to higher demands on educators. These factors have made the states’ power and authority vulnerable and have disfavored local control (Elmore & Burney, 1999; Oliver, 2001). According to Oliver, the successes and failures of these recent reforms ignore the one root to several problems that educators face--that of teacher efficacy. School districts, curriculum directors, administrators, and teachers are trying various strategies and classroom models that are designed to support all students’ and subgroups meeting the standards set by the federal requirements and the target date of 2014. The organization of schools and how the staffs’ work together to raise student results and succeed in reaching these educational initiatives should be the coherency and focus of their strategic plans (Hord, 2007; Elmore & Burney, 1999).

Although individual teachers and classrooms may be meeting the targets set by NCLB, every school system is accountable; therefore, individual successes at the school and classroom

level should be valued, studied, and replicated. Hord (2007) suggested that the essence of school reform and improvement is really a focus on school improvement and change.

School improvement involves major elements such as parent involvement, systems organization, curriculum design and implementation, and the professional development of teachers (Cuban, 1990). The characteristics of teachers associated with academic successes have been identified in research on teacher efficacy. Educators with high self-efficacy believe they are quite capable of motivating students and working with them to achieve designed learning goals (Tschannen-Moran & Woolfolk Hoy, 2001; Woolfolk Hoy, 2004). Bandura's(1997) studies on the variety of ways teachers apply their efficacious beliefs reveal “one’s capabilities to organize and execute a course of action” (p. 3). Guskey and Passaro (1994) referred to the work of Ashton and Webb (1986) that extended the Bandura theoretical framework of self-efficacy to teachers. They suggested that one of the two components of a teacher’s sense of efficacy is a belief that certain actions undertaken by teachers in general will lead to student learning. The second dimension of a teacher’s sense of efficacy, as described by Ashton, Webb, and Doda (1982), is a teacher’s belief that he or she will be able to bring about student learning. This dimension, which Ashton and Webb labeled personal teaching efficacy, relates to Bandura’s efficacy expectations (p. 629).

Motivation has become a theme in the topic of self-efficacy, importantly, motivation helps teacher efficacy and efficacy beliefs help dictate motivation (Pintrich & Schunk, 1995). Bandura (1993) wrote, “People regulate their level and distribution of effort in accordance with the effects they expect their actions to have.” As a result of this effort, their behavior is “better predicted from their beliefs than from the actual consequences of their actions” (p. 118).

Cuban (1990) described school reform and the changes that schools go through on two levels in language previously used by Christopher Argyris (1976). First-order change or surface-level changes are those that improve the effectiveness and efficiency of an organization while second-order changes modify the way organizations work and are implemented by ensuring that goals, structures, and roles are aligned. Cuban advocated that in order for reform to be sustained and successful, schools need to focus on the second-order changes rather than the first. Fullan (1991) argued that these changes must affect the entire inner structure of the educational system and shared this position by stating,

The work of transforming schools means all or most [of the] schools and this means it is a system change. For system changes to occur on a larger and more complete scale, we need schools learning from each other and districts learning from each other. (2006, p. 10)

According to these authors, the specific organizational structures in place in schools and systems to support teaching and learning are believed to be critical to increasing student achievement.

In her article about the reinvention of teaching, Deborah Meier (1992) discussed her theory of collaboration. She concluded that when educators have the opportunity to work together then achievement levels rise. Meier was convinced that higher achievement levels could be tied to a setting where teachers frequently converse with their colleagues about their work, where they are free to access each other's classrooms, give and take critiques, and have time to work together to develop common standards for the students they teach, then achievement levels would rise (p. 602).

Little (1999) wrote that teaching comes from a close involvement with students and their work, a shared responsibility among teachers for student progress, an ease of sharing each other's expertise, and the freedom to give and take feedback on teaching efforts, and an overall

ethos in which teacher learning is valued (p. 233). Participation in Professional Learning Communities (PLCs) activities is intended to make it possible for such to occur.

### Statement of the Problem

During the past decade, there has been a substantial amount of writing and research on the subject of the importance of teachers' working and collaborating (Darling-Hammond & McLaughlin, 1999; DuFour, 2004; Elmore & Burney 1999); however, often there are few formal plans in place in schools that support the time to achieve effective teacher collaboration. Frequently, teachers are responsible for finding the time to collaborate, converse with others, plan together standards-based lessons, review student needs and support strategies, and develop social connections as a support system.

Several factors contribute to the decline of motivation and morale for teachers and include the following: low salaries and increasing number of furlough days, student disrespect, loss of public confidence, higher expectations of proficiency, and longer and more isolated working hours. In 1986, Ashton and Webb wrote that the educational system's failure to meet the motivational needs of teachers puts the teaching profession in jeopardy. They pointed out that little attention is paid to the social context in which individuals must operate in schools and that low efficacy attitudes are perpetuated by systems and events that eventually alienate teachers from their work. Even if attempts are made to improve attitudes of teachers with low-efficacy, these attempts are likely to fail without first altering the structural causes of alienation (p. 161).

In a survey conducted by Leonard and Leonard (2003), 73.1% of teachers who were involved in collaboration programs claimed that the planning meetings were not being held regularly or often enough. Therefore, their brief meetings did not provide adequate time to focus

on the needs of aligned departments and frustrations were often displayed as a lowered level of teacher efficacy.

### Purpose of the Study

Advocates claim that Professional Learning Communities, when linked with the organization of common core planning, provide participants opportunities to collaborate more fully on a daily basis. Participants have extended time to converse, examine student work, align standards between respected subjects, and to encourage and mentor one another. Members of these communities often share a sense of responsibility for the learning of all students, set goals and make decisions, and problem solve for designated departments within the school. According to some advocates, most importantly, common planning on a daily basis often provides a strong sense of camaraderie and support for all members of the designated groups.

The purpose of this study was to explore teachers' perceptions of possible effects of participating in Professional Learning Communities, linked with the organizational strategy of common planning of core subjects on self-reported teacher efficacy. This study examined if and how common planning contributes to an improved self-perception of teacher efficacy of teachers.

### Significance of the Study

The significance of this study was its examination of the possible effects of common planning of core subjects as a valuable organizational strategy for consideration by educators in their efforts to move perceptions of teacher efficacy in a positive direction. Understanding that accountability for all students is increasing in percentages every year (as required by NCLB), it is important that, if this structural change is successful, the idea of common planning be used as

a tool for teachers to feel less isolated and more successful in their classrooms. The focus of the study at the secondary level is timely in light of the relative absence of research in high schools as compared to the lower grades.

Many school reform advocates have argued that teacher practice has to change to a model of collaboration, where all teachers work together to offer each student the same high quality of instruction. Common planning with teachers involved in a professional learning community may be an effective method to provide such quality education. This structure may provide an opportunity for teachers to expand their capacity to create the results they truly desire, to share aspirations, to nurture unique and expansive patterns of thinking, and to continually learn to see the whole together. According to Bandura (1977), self-efficacy is a natural development of collaborative groups where everyone is benefiting from their colleagues' knowledge and expertise. Common planning is believed to allow team members to make public what has traditionally been private--goals, questions, frustrations, strategies, materials, pacing, concerns, and results. These periods of conversations, when they occur, give teachers someone to talk to and get support from, and improve the classroom practice of teachers--collectively and individually.

### Theoretical Framework

When writing about social cognitive theory, Bandura (1977) described individuals as operating within a series of social systems. According to Bandura (1977, 1993), human agency is explained within an interdependent causal structure in which individuals' behavior, personal characteristics, and surrounding environments interact--a model he termed "triadic reciprocal causation." In this view, people are seen as both producers and products of their environments

(Bandura, 1997), and individuals' thoughts and feelings play a key role in how they view the world and act on their views. Human beings are capable of reflective thought and judgment, and through this reflection they can estimate the power of their working environment, capabilities, contributions, and future plans of action. Self-efficacy is viewed as a crucial component of cognition theory and has been defined by Bandura (1997) as "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (p. 3).

Self-efficacy is a multidimensional construct, varying in generality, level, and strength (Bandura, 1997). Efficacy beliefs of individuals can be based upon variables ranging from simple to moderately difficult to extreme complexity. Furthermore, teachers might feel efficacious in a wide range of teaching activities or only in certain pedagogical areas, and these efficacy beliefs might be strong, weak, or somewhere in the middle. More importantly, self-efficacy is not a fixed characteristic of an individual. Self-efficacy might fluctuate at a given point in time in relationship to the experiences of the past, present, and future of a person and may be guided by personal beliefs about what he or she can or cannot achieve under different circumstances, considering the skills that are currently part of his or her repertoire. Table 1 depicts dimensions of Bandura's (1977, 1993) descriptors of self-efficacy.

Table 1

*Self-efficacy Dimensions and Descriptions*

Dimension	Description
Triadic Reciprocal Causation	A person's behavior both influences and is influenced by personal factors and the social environment.
Component of Cognition Theory	Based on the idea that people learn vicariously, through the activities and behaviors of others.
Multidimensional Construct	Represents the degree to which an individual believes they are capable of managing a problem.

Relating self-efficacy theory to the overall social cognitive theory, individuals' personal efficacy beliefs, behavior, and the working environment are interdependent (Bandura, 2000). Thus, how teachers reflect on their skill levels or performance in a particular domain or the environment in which they work becomes part of their efficacy beliefs. The purpose of this study was to determine the perceived effects of common planning of core subjects in high schools, on teacher efficacy, and to determine whether and how common planning might contribute to an improved state of individual teacher efficacy. Specifically, the relationship between teachers' efficacy beliefs and their involvement in common planning periods for core subjects at the high school level was investigated.

### Research Questions

The underlying theory for this study evolves from social cognitive theory as described by Bandura and involves the idea that teachers within the same subject area who are given the opportunity to have common planning may have or develop a higher self-efficacy. The idea is that, by allowing teachers to plan together they will develop a true professional learning

community, which by the single variable of association will report higher levels of efficacy. This theoretically reduces the amount of extra hours teachers spend on planning, on searching for times to collaborate, on time students spend with frustrated and disgruntled teachers, and increase the potential of higher levels of education. The primary purpose of this study was to explore the perceived relationships between involvements in Professional Learning Communities linked with the organizational structure of common core subjects planning, and secondary teachers self-reports of teacher efficacy. This is a mixed methods study, using both qualitative and quantitative data obtained from high school teachers in North Georgia. The research questions included the following:

1. Is there a difference in teacher perceptions of self-efficacy as measured by the TSES between high school teachers who participate in Professional Learning Communities linked with the organizational structure of common core planning and those who do not?
2. How do teachers' perspectives differ between high school teachers who participate in Professional Learning Communities linked with the organizational structure of common core planning and those who do not?

#### Assumptions

1. The *Teachers' Sense of Efficacy Scale* was a precise instrument to measure teacher efficacy.
2. The teachers who completed the questionnaire taught high school (Grades 9-12) in North Georgia in 2010-2011.
3. The teachers who completed the *Teachers' Sense of Efficacy Scale* provided honest responses to the questions about efficacy.

4. The teachers who completed the study provided honest responses to the questions contained in the demographics questionnaire.
5. The teachers who were interviewed in this study provided honest answers to the questions asked by the researcher.
6. The researcher was unbiased and honest in reporting interview responses as given by the teachers.

### Limitations of the Study

This study was limited to high schools in North Georgia in participating public school districts. Only schools with a 9 through 12 grade structure were included, data collection was restricted to teachers of core subjects, and collected from two samples of teachers, one with and one without common planning periods. The number of participants was limited due to the small number of high schools who reported use of Professional Learning Communities, which are designed and divided by common core subject areas. The process used to select participants was that of convenience sampling, which is dependent on the convenience of the researcher. A limited attempt was made by the researcher in this approach to get an accurate representation of the population.

### Definition of Terms

*Collaboration*--An interactive process within a group of people who share a concern or passion for something they do and learn how to do it better as they interact (Wenger, McDermott, & Snyder, 2002).

*Collected efficacy*--The group's shared belief in its capabilities to organize and execute courses of action required to produce given levels of attainment (Bandura, 1997).

*Commitment*--The trait of a sincere and persistence on purpose; the act of changing and identifying oneself (intellectually or emotionally) to a course of action or goal to monitor teacher engagement and retention (Flores, Clark, Guerra, Casebeer, Sanchez, & Hayley, 2010).

*Common planning*--A regularly scheduled time during the school day when teachers who teach the same students (or subject) meet for joint planning, parent conferences, materials preparation, and student evaluation (Mertens, Flowers, Anfara, & Caskey, 2010).

*Expertise*--Teachers who work from integrated sets of principles instead of dealing with each new event as a new problem. They have broad professional knowledge in academic subjects, teaching strategies, curriculum, student characteristics, learning contexts, teaching goals, and pedagogical content knowledge (Hoy & Hoy, 2009).

*Motivation*--Intrinsic motivation is defined as engagement in actions for their own sake with the only tangible benefit being outcomes such as pleasure, learning, satisfaction, interest, or challenge. Extrinsic motivation occurs when learners engage in activities for the purpose of attaining rewards, such as praise or high grades (Alderman, 1999).

*Professional Learning Community*--A community in which interaction among teachers is frequent and teachers' actions are governed by shared norms focused on the practice and improvement of teaching and learning. (Byrk, Camburn, & Louis, 1999).

*School climate*--The set of internal characteristics that distinguish one school from another and influence the behavior of its members.(Hoy & Hoy, 2009).

*Self-esteem*--A state of being concerned with judgments of personal worth and is linked to one's judgments of capabilities, within those domains where one feels expected, by self or others, to be capable.(Bandura, 1977).

*Teacher efficacy*--A teacher's belief in his or her personal ability to execute the courses of action needed to positively affect student performance (Bandura, 1997).

### Organization of the Study

Chapter 1 includes the introduction, statement of the problem, research questions, significance of the study, limitations of the study, definition of key terms, and methodology.

Chapter 2 includes a review of relevant literature related to Professional Learning Communities, teacher efficacy, and collaboration.

Chapter 3 includes a description of the methodology for this study.

Chapter 4 includes a summary of the methodology utilized in this study, the data, results and study results, and analysis of data.

Chapter 5 includes a summary of the results, the conclusions, and implications relating to future research and to high school educational practices.

### Summary

This chapter provided an introduction to common planning among teachers who teach the same subject and some of the issues related to teacher self-efficacy. The current literature suggests that teaching is a complex and challenging profession; effective teaching requires a great deal of expertise, energy, and enthusiasm (Little, 1999). Little argued that teachers, who are able to attain challenging goals and guide students to be proficient in standards, are valuable resources for boosting morale and teacher efficacy among the entire staff.

In this study, teacher self-efficacy was described by the TSES, and a measure using responses to semi-structured interviews using open-ended questions between high school

teachers who participate in Professional Learning Communities having common core planning and those who do not. The data were used to identify whether or not the single variable of common planning participation has any perceived effects on self-efficacy. The results should be useful in future policy decisions concerning high school scheduling and professional learning communities as they are defined.

## CHAPTER 2

### REVIEW OF RELATED LITERATURE

#### Introduction

This literature review will examine the work of others who have written about professional learning communities, teacher efficacy, collaboration, team teaching, common planning for teachers, and teacher collegiality and congeniality. The literature on these subjects is extensive and lends support to the idea of common planning for high school teachers with core subjects as a positive aspect of developing high levels of teacher efficacy. It supports the idea of common planning by reflecting on the positive aspects of collaboration and team-building research, the positive value of mentoring and being mentored, and the growth and development of teachers when they belong to a professional learning community within the area of their individual expertise.

This chapter reviews the background of literature related to teacher efficacy; professional learning communities with definitions, rationales, thoughts of organization, roles of the colleagues, and its focus of purpose; collaboration as a setting of sharing and mentoring; team teaching and common planning; and collegiality and congeniality as a means of relationship development and participation.

Much research on teachers has been dedicated to teachers' instructional effectiveness. Researchers have been concerned with how various teacher behaviors and teacher practices can affect student performance (Brophy & Good, 1986; Doyle, 1986; Gage & Needles, 1989; Shuell, 1996). Furthermore, teacher effectiveness and accountability have become a conspicuous issue in

government initiatives to increase academic achievement, as written in the NCLB act of 2001. However, the factors that might influence teacher behavior and teacher practices have received less attention in educational literature. Gathering and analyzing information on preceding factors that improve and inspire teaching might provide useful information for increasing the effectiveness of teachers and an overall improvement in student achievement.

Research has corroborated a relationship that is positive between the achievement of students and schools that demonstrate the characteristics of professional learning communities (Elmore & Burney, 1999; Haas, 2005). In addition, research on efficacy among teachers has shown that the beliefs of teachers about their abilities to improve teaching and learning are positively correlated to student achievement (Goddard, Hoy, & Woolfolk-Hoy, 2000; Mawhinney, Hass, & Wood, 2006; Pajares, 1996; Tschannen-Moran & Woolfolk Hoy, 1998). The essence of the argument that is presented in this literature is that teacher' beliefs about their abilities to ensure the learning of students, or efficacy, are affected when they are nurtured by an environment that enables them to interact and discuss their common practice with their colleagues. The research on organizational learning has indicated a connection between teacher efficacy and professional learning communities. When groups of people meet together, experience the culture of the learning environment, and become involved in one-another's beliefs then true professional learning takes place. The insights found from such meetings become the factors that are crucial in both school achievement and teacher efficacy.

### Teacher Efficacy

The impact of teacher efficacy is one factor that contributes to the performance of teachers in the classroom. Defined as the extent to which a teacher believes he or she has the

capacity to affect and influence student performance, teacher efficacy has been related to individual differences in teachers' expectations of and feedback for students (Gibson & Dembo, 1984), and to teachers' control orientations (Woolfolk & Hoy, 1990). Moreover, a positive association has been made between teacher efficacy and academic achievement in students (Ashton & Webb, 1986). Bandura (1993) suggested that the type of environments that are created for students by their teachers might explain the links between efficacy and achievement. For instance, teacher efficacy could play a role in the individual goals teachers set, the goals a teacher sets for the classroom, the amount of effort spent in teaching students, and the reaction to difficult students or situations. Each of these factors could lead to a positive or negative pedagogical practice, which could then affect student achievement.

While college classes help teachers learn content and pedagogy skills, it is in the school setting and more specifically the classroom where teachers begin to really understand pedagogical content knowledge. Brophy (1991) wrote that while content knowledge is critical for teachers to have, it is more important for teachers to understand how to teach the content to students and that this skill is fully developed with practice and experience in the actual classroom. The development and enrichment of a teacher's knowledge should be the goal for all school districts and for professional learning communities (DuFour & Eaker, 1998). Curriculum and schedules should be designed so that teachers have access to content, instructional strategies, and resources that are beneficial to their specific classroom needs (Loucks-Horsley, Love, Stiles, Mundry, & Hewson, 2003).

Bandura (1993, 1997) has published research articles about the concept of efficacy over the last 33 years. Bandura based his ideas of self-efficacy, teacher efficacy, and perceived collective efficacy on social cognitive theory. According to Bandura (1993), social cognitive

theory is derived from human agency as reflected in how people exercise a level of control over their own lives. Thus, at the center of a person's ability to have control over what he or she does is a belief in his or her own abilities and competencies, as Bandura (1997) stated, "To have beliefs in one's abilities to organize and execute a course of action required to produce a given attainment" (p. 3). Human agency is important in examination of how the group functions. When the members of a school's faculty act purposefully in the pursuit of goals, the group exercises organizational agency (Goddard, Hoy, & Woolfolk Hoy, 2004), and the concept of self-efficacy can be expanded to the entire group. Bandura (1997) described an integrated model of collective efficacy. Collective efficacy is reflected in the groups working and expending effort and being persistent during difficult tasks, in how they deal with failures and disappointments, and in the stress levels they experience as they deal with these difficulties.

Shidler (2008) contended that teachers with a higher efficacy also have a higher belief in a student's ability to be more successful and they devote more time and effort in their teaching. She referenced Vartuli (2005) who said, "Teachers with higher degrees of efficacy teach a subject more clearly and with a more interesting delivery, and produce better outcomes" (p. 454). Other researchers believe that teachers with high levels of efficacy show more persistence when instructing students of all abilities and are open to new and innovative ideas that help meet the needs of the classroom (Guskey, 1984; Stein & Wang, 1988). Vartuli (2005) stated that teachers who believe in themselves, expect more from themselves and are better able to analyze failures, and to look first at their own performance to find the reason. In contrast, teachers with low self-efficacy often attribute children's academic struggles to lack of motivation, lack of abilities, poor home conditions, and an inability to learn (Ashton & Webb, 1986).

### *Self-efficacy Beliefs*

Self-efficacy is different from that of self-esteem, self-concept, or self-worth. Self-efficacy is related to and determined by a particular skill or task (Bandura, 1977; Goddard et al., 2004). Although these concepts may be related, a better predictor of individual behavior is self-efficacy rather than any of these other descriptors (Parjares & Miller, 1994). The study of teacher efficacy began over 20 years ago with RAND researchers' assessment of whether teachers believed they could determine and control the reinforcement of their own actions (Armor, Conroy-Oseguera, Cox, King, McDonnel, Pascal, Pauly, & Zellman, 1976). This early work was based on Rotter's (1966) locus of control theory, and it was assumed that student motivation and student learning were the reinforcement constructs that were most relevant to teacher actions.

Historically, the Bandura (1977) and Rotter (1966) traditions have had a great influence on the study of teacher efficacy. Unfortunately, researchers' interpretations of these studies have significantly clouded the understanding of efficacy in regard to the theoretical interpretation of teacher efficacy and the attempts to measure the construct. Tschannen-Moran, Hoy, and Hoy (1998) provided a comprehensive review of these historical studies, which led to the emergence of efficacy as an important variable in educational research. Woolfolk and Hoy (1990) noted, "Researchers have found few consistent relationships between characteristics of teachers and the behavior or learning of students. Teachers' sense of efficacy . . . is an exception to this general rule" (p. 81).

### *Collective Efficacy Beliefs*

When considering the organizational importance of efficacy characteristics, it is imperative to distinguish between the "group" and the "individual" aspect of efficacy beliefs. In

utilizing Bandura's (1977) construct, collective efficacy is about the "group" and not the "person" and whether or not the entire school faculty can organize the tasks and actions needed to successfully perform the standards (Goddard et al., 2004). Therefore, inside a given organization, collective efficacy is viewed as the "beliefs of group members concerning the performance capacity of a social system as a whole" (Bandura, p. 469). When people come together with acknowledgement of efficacious feelings, the group can demonstrate skills as a collective body.

#### *Self-efficacy and Collective Efficacy and the Relationship*

From an organizational standpoint, collective efficacy helps to explain the differences in the influence of school cultures on teacher beliefs and it helps influence the behaviors of individuals by providing expectations for their own actions. Goddard and Goddard (2001) studied the connection between teacher efficacy and collective efficacy and confirmed that the constructs are different but that there is a definite and positive relationship between the two. Both of these constructs share a social cognitive element (Goddard et al., 2004). In an analysis of 47 schools with 438 teachers in a large urban educational district, Goddard and Goddard (2001) found that collective efficacy might predict differences in individual teacher efficacy. According to Bandura (1997), people do not function well when isolated and they are not immune from group influence. Therefore, teacher efficacy and group efficacy both promote a positive impact. When faculties believe that a group can help all children succeed and achieve, the group's norms and beliefs press teachers to put forth the energy and effort needed to attain positive student results (Goddard & Goddard, 2001).

The relationship between these two constructs is further demonstrated by the assessment of collective efficacy. Goddard et al. (2004) defined collective efficacy as, “the aggregate of individual group members’ perception of group capability” (p.7). Research indicates that collective efficacy can be a strong influence on the teachers’ self-efficacy about student learning and their own teaching abilities (Goddard et al.). During a study conducted by Skrla and Goddard (2002) at low socioeconomic schools, teachers in one of the groups interviewed said that if faculty members did not buy into the belief that “to work here you have to do whatever it takes to get [the students to succeed], then you [the teacher] would be out the door” (pp. 17-18). Thus, the expectations of the group do influence isolated individuals. Goddard et al. (2004) wrote, “the normative press lies in the social persuasion it exerts on teachers” (p.9). Therefore, the more united the beliefs of a faculty in their school, the greater the impact on the individual teacher and the need for united planning and implementations of these beliefs.

### Professional Learning Communities

Professional learning communities are based upon a notion that when educators work together to discuss the practices of teaching, productivity increases and students benefit. Today schools are expected not only to provide an education to students but also to ensure that students are learning (Darling-Hammond, 2000). This conceptual change in the purpose of schooling magnifies the importance of the organization of professional learning communities. The influence and power of bringing people together to improve their pedagogical skills may be the one factor that makes school improvement sustainable. In her discussion on learning and teaching, Rosenholtz (1989) identified the importance of supporting factors in the workplace. She found that teachers who collaborated and felt supported in their own learning were more

committed to student achievement and were oftentimes more effective with their students. She concluded that teachers with higher degrees of efficacious feelings were more likely to continue in the field of education and finish their careers in the realm of teaching (Rosenholtz). The work of many researchers has focused on the positive impact of schools with cultures that are nurtured and led by school staff members who embrace a collective commitment to the idea that all students can achieve at higher levels. The conclusion of much of this research by Peterson, McCarthy, Elmore, Pajares, Ross, and Bruce (1996) suggested that teams of structured collaboration encourage greater accountability by teachers.

### *Definition*

Hord (2007) defined a professional learning community as a group through which administrators and teachers seek to share learning and then use this learning to improve their teaching methods. The goal of a professional learning community is to increase student achievement by enhancing teacher effectiveness. This notion of teachers' collaborating and working together has been found to be a successful strategy of school restructuring (Peterson, McCarthy, & Elmore, 1996). In a study by Carol Rinke (1999) she referenced Cochran-Smith and Lytle to say, "novice and veteran teachers should work together in professional learning communities, inquiring into their practice to build teacher knowledge and improve student learning" (p. 4).

### *Rationale*

In the United States, not only are educational standards changing, the teacher workforce is changing as well. During the 1960s and 1970, a large group of people entered the profession of

education and remained there, becoming today's veterans (National Education Association, 2003). Over the last decade, these professionals have started retiring, prompting the need to hire a new group of teachers. Due to this circumstance, the teacher pool contains a smaller group of veteran teachers, a larger group of new teachers, and fewer teachers being retained to become the mid-line of experience and foundation. According to the National Education Association (2008), the next decade will see a period requiring many new teachers. The NEA's list of factors that contribute to this need include a growing student population; a shrinking teacher force; a lack of diversity among teachers to mirror the diversity of students; and a need for teachers in specific types of schools, geographic locations, and subject areas. In addition to the recruitment of new teachers, public schools will also need to find ways to retain teachers and to understand reasons why teachers leave. The National Commission on Teaching and America's Future (2007) estimates that 50% of the current teachers will either retire or leave the profession within 5 to 7 years. The statistics for new teacher turnover are startling. Twenty percent of all new teachers quit teaching within 3 years and in urban districts the numbers are even higher. Almost 50% of new teachers leave public education during their first 5 years in the classroom (NCTAF, 2006).

Educational leaders and researchers are all increasingly concerned with improving the quality and effectiveness of the professional development of the ever-changing cohort of teachers. At the federal level there is a continual mirage of studies aimed at measuring the impact of efforts to improve teacher quality on instruction and student achievement. Within districts and schools, administrators are continually looking for professional development activities that contribute to increasing test scores, especially among the lower performing students. Concerning their research, more educators are concerned with the linkage between professional learning

development and subsequent improvements to both student learning outcomes and teacher pedagogical skills (Penuel, Fishman, Yamaguchi, & Gallagher 2010).

Penuel et al. (2010) wrote that research is needed that examines what kinds of professional development provide support for not only the curriculum but also for the teacher, the novice, and for the veteran. Spillane and Thompson (1997) contributed the idea that professional development is widely believed to be required for supporting implementation, and professional development can influence not only teachers' knowledge but also their practice. In their study, Penuel et al. showed considerable regard for the organization of the professional learning communities. They supported the idea that the success of professional learning can be contributed to three things: (1) the sources of data used, (2) to the breath of the program, and (3) and a measure of implementation of the value of the time spent on the professional development (2010). Thus, the success of the professional learning community may be contributed to the organization and management of the time spent and the development of a model that achieves the goals set by the school.

### *Organization*

Some common criticisms of professional development provided for teachers are they are too short, too long, redundant, boring, not relative, and offer limited follow-up and support to teachers once they return to their classrooms. New standards and curriculum are extremely demanding on teachers and the natures of the new requirements are such that most teachers must make big changes in their teaching practices in order to implement these changes well (Crawford, 2000).

More often than not, the result is that teachers either merge new teaching practices into their current compilation of materials with slight or no change or they simply refuse changes altogether (Coburn, 2004). There is a growing agreement that in order to ensure changes are made, teachers need professional learning communities that are complimentary with their teaching fields, allowing for the presentation and assimilation of knowledge and for the reflection of that knowledge (Penuel et al., 2010). Professional development designed for a longer time span is more likely to contain the kinds of learning opportunities for teachers to integrate new techniques and knowledge into their lesson plans and classrooms, to practice and then return for feedback. For example, in their study of Local Systemic Initiatives, Supovitz and Turner (2000) found longer periods of time in professional development were essential to create “investigative cultures” in science classrooms, as opposed to short and unrelated professional learning units. Professional learning that is scheduled for longer periods of time, such that it is developed and sequenced to align closer with the curriculum, is also likely to require close coordination of classroom teachers at the school site and therefore it is likely that there is an interaction between the amount of time spent and other structural and core features of the school (Supovitz & Turner).

### *The Role of Colleagues*

The role of “collective participation” in Garet, Porter, Desimone, Birman, and Yoon (2001) research referred to professional learning communities in which teachers participated alongside colleagues from their school and district. Supporting the idea that this would be an effective strategy for professional learning is a large body of research that is focused on the importance of the professional learning community within the field of education (Desimone, 2002).

Evidence from a range of studies concerning schools in stages of reform suggests that those schools that make a vast use of collaboration are more successful in promoting implementation, in part because reforms are more successful when teachers embrace and contribute to the culture of reform (Bryk, Camburn, & Louis, 1999). Others have concluded that effort to improve teaching quality through collaboration adds to the collective efficacy and relational trust in a school building. Such trust allows leaders and teachers more flexibility when making difficult decisions, creates clearer understandings of the goals and culture of the building, and sustains commitment to the achievement of all students (Frank, Zhao, & Borman, 2004). Teachers who get help from colleagues who are more expert than they are may gain new ideas and techniques from those interactions that extend what they learn from formal professional learning communities. Furthermore, teachers have reported that, participating as a group in professional development can give focus to collegial interactions and motivate working through problems of practice together while sharing valuable experiences (Little, 1993).

### *Focus of Professional Learning Communities*

What should be the focus of the professional learning community: content or teaching strategies? A number of studies have suggested that teachers' content knowledge is related to the teaching strategies that they use and that are appropriate for the subject area being taught (Carlsen, 1993). In general, when teachers are more comfortable and familiar with teaching a particular subject, they are more likely to allow for questions from students and open classroom discussions, an essential feature of inquiry (National Research Council, 1999). But inquiry teaching demands that teachers have specific knowledge of how to support students in developing researchable questions, planning and investigating subject topics, collecting and

interpreting knowledge, and presenting results (Gess-Newsome & Lederman, 1999). Therefore, all teachers need knowledge of strategies of teaching particular content areas through pedagogical content knowledge. Although a mixture of focus on content and strategies is undoubtedly necessary to help support successful implementation, there is extensive support both for a focus on subject knowledge in general and on specific forms of content presentation that best support teaching practices (Hill, Rowan, & Ball, 2005). This is consistent with evidence in support of professional learning that is closely aligned with subject matter, helping teachers to focus on content knowledge and strategies of presentation.

There are other ways in which it may be crucial to support teachers' active participation within professional development. Administrators often have been concerned about the ways in which teachers enact their curriculum claiming that some presentations of materials contain "lethal mutations" of those materials intent (Brown & Campione, 1996). But according to Spillane (1999), when teachers plan, enact, and revise curriculum it engages them more completely with their teaching, so they can come to understand more fully the principles of a curriculum that is both interesting and effective. Therefore, professional learning communities which incorporate time for instructional planning, discussion, and consideration of underlying principles of curriculum may be more effective in supporting implementations of innovations and collective efficacy as student achievement rises.

As curriculum, standards, and alignments change, newer approaches to professional development are critical. It is essential that instruction and assessment practices match the timetable of implementing the new changes. The Goals 2000: Educate America Act included a goal that calls for "teachers to have access to the professional development necessary to prepare students for the 21st century." Similarly, the National Commission on Time and Learning (2005)

noted that “time for planning and professional development is urgently needed--not as a frill or add-on, but as a major aspect of the agreement between teachers and districts” (p. 36). This Act included the idea that even if we recognize the need for professional learning communities, it is still difficult to extend the workday of teachers or to alter the way time is structured. They recommended we explore current and future strategies for redesigning schools to support professional growth, discuss traditional approaches, and explore alternative strategies for the allocation of time for professional learning (National Commission on Time and Learning, 2005, p. 36). Watts and Castle (1993) suggested five areas that need to be addressed by educational leaders in order to achieve professional learning that is both supportive and instrumental in meeting the achievement of all teachers and students: (1) freed-up time, (2) purchased time, (3) common time, (4) structured or rescheduled time, and (5) better use of time. Ted Stilwill, Iowa Department of Education, lobbied for the idea that we need to take a broader view of the parameters for change. He said that schools with the same staffing patterns were created at the beginning of the century as well as our vision expanding with the growth of our standards and expectations of the future. When writing about professional development in the North Central Regional Educational Laboratory’s Policy Briefs (1994), Stilwill said,

If we view students, teachers, and educational organizations all as learners with the need to develop new responses to increasingly complex situations, then all need to have “just in time” access to the most current knowledge and expertise and they need a way to be part of a dynamic communication network with others involved in the same learning. (p. 1)

## Collaboration

A major source of teacher development and an excellent resource for teachers is the opportunity to collaborate with others. Teachers collaborate by sharing with each other and

emulating others' strengths to achieve a shared goal. Research suggests that, professional communities that collaborate by planning and assessing shared subjects must prepare themselves for a long-term enterprise rather than a set of technical fixes (Hammerman, 1999; Solomon & Morroco, 1999). Collaborating teachers need time to discover they have different methods of presenting materials and they need time to talk about these differences. Common planning allows teachers to share analogous experiences where participants have time to engage in some of the same learning activities and practices they are using, or plan to use, with their own students (Morocco, Hindin, Aguilar, & Clark-0Chiarelli, 2001).

Research on teacher efficacy has emphasized how individual teachers perceive the capabilities of their own school. As members of a collaborative group, teachers interact and have an awareness of the capabilities of their colleagues to teach (Zaccaro, Blair, Peterson, & Zazanis, 1995, p. 305). Group members have the opportunity to share common understandings and integrated cohesiveness based on the similarities of their tasks and goals. The group knows they are a part of the larger districts goals and accountability. Lindsley, Brass, and Thomas (1995) argued that when groups or organizational members are isolated or alone outside a group, they have beliefs that are quite different and distinguishable from beliefs found when the same individuals function as part of an organization. These cognitions are collective group-based beliefs that arise from the individual's ability to cognitively consider social entities that are greater and more important than personal agendas.

When teachers collaborate they may have different understandings as to their role in the process. Sometimes teachers describe collaboration as working together to teach the same group of students in the same classroom. Sometimes it is how they discuss students they have in common, and still other times it is how they work closely with other teachers to accomplish the

same goal--the success of students. Whatever the situation in which collaboration takes place, Friend and Cook (1992) described several characteristics that collaborative efforts must have in order to be successful and valuable. The following characteristics were part of their discussion.

First, collaboration must be voluntary. Regardless of the requirements of administrators to work together, teachers cannot be required to collaborate. Teachers must make it a personal choice to work collaboratively in such situations and to form partnerships as information is exchanged and shared. Collaboration is based on the belief and confidence that all individuals' contributions are valued equally. The amount of teacher contributions may vary but it is important that teachers recognize that what they offer is integral to the overall effort. Collaboration requires shared goals and shared responsibilities for decisions made within the group. It includes accountability for outcomes, a sharing of responsibilities, and shared resources. Friend and Cook (1992) wrote that collaboration has emergent properties and as teachers become more experienced with collaboration, their relationships will contain trust, and respect and will produce successful collaborative groups (p. 71).

Administrators often find that the discussions of collaboration focus on team leadership and distributed responsibility for decisions made for the school. While these aspects of collaboration are important, it is teachers working together to improve their teaching skills that define a school that is a collaborative model rather than one showing a democratic management model. Little (1982) found that more successful schools could be distinguished from less successful schools by the amount of time teachers collaborated and the sense of collegiality felt among the staff. She observed that collegiality existed due to four specific behaviors. First, teachers talk often, concretely, and continually about specific teaching skills. Second, they observe each other and offer constructive feedback and criticism. Third, teachers spend time

working together to evaluate, plan, design, and prepare curriculum and instructional materials. Finally, they mentor each other and demonstrate successful teaching techniques. As Cook and Friend (1992) noted, collaboration appears to be the connecting tool that has characterized many aspects of successful schools.

As teachers' work together on new practices and teaching challenges together, it becomes a situation where different beliefs, perspectives, and teaching methods and styles are shared. The goal of achieving student learning and meeting standards evolves into the stimulation and the renewal of intellectual growth, particularly in content area knowledge (Wineburg & Woolworth, 2001). Teaching is too often a profession that is void of opportunities to mentor and be mentored and has been described as a uniquely isolated profession (Little, 1990, 1993). Morocco and Solomon (1999) contended that the opportunity to learn from colleagues' practice rarely exist after student teaching. Darling-Hammond and McLaughlin (1999) explained that structures that break down isolation, empower teachers with professional tasks, and provide areas for thinking through standards of practice are the key to professional growth.

While presenting a paper to the Annual Meeting of the American Educational Research Association, Michael Eraut (2002) referred to Vygotsy's zone of proximal development and suggested that when applied to teachers, it allows them to share their different kinds of expertise, collaboration enables each one of them to learn at his or her "own growing edge or zone of proximal development" (p. 7).

A contributing research to this idea has been the work of Little (2002a), which studied how occupational communities of practice negotiate meanings and learn the practices of the particular work group. Educational researchers have allowed for these ideas in examining how teachers develop and learn within professional learning communities. While the field of

professional learning is continually changing, considerable research has been developed about how teacher-learning groups evolve and affect teacher self-esteem, teachers' knowledge, and practice (Little, 2002b).

Hindin, Morocco, Mott, and Aguilar (2007) referenced research studies that focused on developing teacher-learning communities within specific subjects and how teachers describe and participate in their own learning. These researchers work with teachers who focus on content area instruction and study how the teachers share their understandings, roles, beliefs, strengths, and responsibilities as they collaborate with knowledgeable others to learn and explore new practices. Hindin et al., while referring to the work of Schifter, Palincsar, Franke, and Kazemi (2007), explored the idea that in the presence of other teachers, and while having conversations about their content area, recall specific interactions with students and curriculum and often rethink their actions as teachers. Although these studies do not usually involve observations of each other, they make the assumption that the act of self-searching can lead to substantial changes in practice (p. 351).

In their study, Hindin et al. (2007) referred to prior studies of teaching learning groups and processes within subject-specific team teaching groups to explore how a group of middle-school teachers used a professional learning group to understand, develop, and apply new teaching skills to their own classrooms. The purpose of their study was to examine the relationship between teachers' collaborative learning experiences and their teaching designs in the classroom. The study focused on *collaboration in the intellectual work of teaching, a common orientation to teaching and learning, and sharing of expertise*. Working as facilitators in the study, these researchers scheduled meetings, devised curriculum-building activities, and encouraged sharing of expertise. The findings of this research reported that all of the teachers

were engaged fully in the process and each person took on different participation roles in the group. During interviews, teachers reported that the development of same-subject curriculum was a valuable asset for their repertoire of ideas (p. 367). When reporting factors of this literary study, the researchers reported several teachers valued the subject [literary] expertise of the other teachers because it was different from their own training and professional expertise (p. 369). The positive result of this collaborative approach was that the teachers felt they owned the curriculum and that this type of planning gave them invaluable time to solve problems. In addition, teachers presented a time of collaboration with colleagues and included information concerning helpful new ways of teaching. This study supported the idea that professional learning communities that are built on subject matter are an important aspect in the development and growth of teachers.

### Team Teaching and Common Planning

In 1963, William M. Alexander was scheduled to talk at Cornell University about the structure needed for successful junior high schools. He recommended that a school needed a structure where teachers worked together and taught together to teach a group of students. In his speech, Alexander pointed out that when done correctly, a collaborative approach has been shown to not only form bonds of friendship and purpose, but it provided opportunities for teachers to engage in collaborative teaching and planning. Traditions and teaching methods prompted schools to new patterns of teaching designed to make the best possible use of individual teachers' particular assets, talents, and abilities. Buckley (1995) wrote that team teaching involves a group of instructors working together, with a purpose, regularly and cooperatively to help a group of students learn. Buckley contended that the advantages of team teaching are that teachers work together to set goals for a course; they plan together, design

syllabi, prepare individual lesson plans, teach students, and evaluate individual or collective classroom results. Fullan (2001) used the term “reculturing” to describe the transformation of a workplace culture. He said, “Changing the way we do things around here--is the main point” (p. 44). Fullan wrote about collaborative cultures and how information only becomes useful knowledge when it includes people in a social context. Knowledge sharing must be a core value in peer networks such as schools.

Team teaching in American schools can be traced back to the 1960s when it was popularized and viewed as a form of progressive education. In the 1970s, co-teaching or team teaching was promoted by legislated school reforms and teachers’ increasing need to diversify instruction for a more diverse and growing student population. Team teaching offers an avenue for educators to move from feelings of alienation and isolation to feelings of communal support and collaboration, as teaching in isolation is replaced with teaching in partnerships and pods. Furthermore, based on interviews of teachers conducted over the past 20 years, team teaching helps educators meet their basic psychological needs of belonging, choice, power, fun, and survival (Villa, Thousand, Nevin, & Malgeri, 1996).

The team teaching approach allows for a larger degree of interaction between teachers. Faculties can assess students on their achievement of the learning goals, faculties can evaluate each other and themselves, and administrators can evaluate faculty members on their teaching proficiency and standards of achievement. The emphasis of team teaching is on student and faculty growth; balancing responsibilities; common expectations; and cognitive, affective, and behavioral outcomes. Working as a team, teachers can take a common time to set the departmental goals; course goals and content; select common teaching materials and media; and develop assignments, assessments, tests, and final examinations for students. Buckley (1995)

included in his report the thought that, “the greater the agreement on common objectives and interests, the more likely that teaching will be interdependent and coordinated” (p. 47).

In a study by Hillson and Karlson (1965), team teachers were given a questionnaire with an opportunity to include comments concerning their experiences with team teaching in the elementary school and several of these were addressed toward common planning. These remarks included many ideas that included the improvement of curriculum, teachers worked harder on their own instructional abilities, teachers found it helpful to exchange information in viewpoints on various problems, and the beginning teacher is not isolated and has supervision and help from experienced teachers (pp. 165-167).

Erb and Stevenson (1999) believed that school schedules needed planning times built into the daily routine so teams could collaborate and plan. Research conducted through The Project on High Performance Learning Communities suggested that teachers on common teams should have the opportunity to meet together for 45 minutes four to five times per week. Furthermore, the results of this project showed a positive and successful correlation between common planning time and interaction with school support staff like specialists, guidance, and administrators. According to this research, common planning time among team teachers also improved teachers’ rates of coordination of student assignments, assessments, and constructive feedback, and teachers engaged in this type of planning had more communication with students and parents. Additionally, this research suggested that teachers who were actively participating in this frequent and scheduled collaboration exhibited positive attitudes towards their profession (pp. 47-50).

Schools in which common planning occurred four to five times each week showed vast improvements in the learning and teaching process. The students in these schools achieved at a

higher level and faster rate than the students from school with lower levels of common planning time for teaching teams. In fact, there has been no report of negative effects on student performance and teacher attitude if school administrators require their team teachers to engage in common planning time biweekly (Felner & Jackson, 1997). Teams that met together more frequently to plan were more positive in their own interactions among their group than teams who did not plan or collaborate together or did so on a limited basis. Furthermore, teams that met more frequently had a high level of quality team interactions (Flowers, Mertens, & Mulhall, 2000).

Keedy and Achilles (1997) expressed their belief that school staffs need to reflect more critically about their schools as workplaces that are professional and inviting. They wrote that schools in the United States have not historically reflected a workplace that is collaborative or reflective; the classrooms being the setting for teacher isolation; and, when students are not present, the teachers were lone workers in their classrooms. Most school leadership teams and administrators acknowledge that one way to become better a better instructor is to take time to reflect on classroom practice, share, and learn from one another (Flowers et al., 2000). In most schools in the United States, though, the normal yearly schedule set for teachers and students has essentially remained unchanged without an increase of meaningful time to benefit either student learning or teacher development (Lipsitz & Mizell, 1997).

According to Tonso, Jung, and Colombo (2006), the most performed activity for teams on common planning is communicating with parents and together discussing the needs of students--their development, behavior, and academic development. One of the less used but most effective uses of common planning time for teams was the integration and course alignment of core curriculum specific content areas. Curriculum integration can be developed and perfected

by teachers during common planning time by planning field trips, finding guest speakers, or planning cross-curricular activities or authentic research projects that allow for student choice and which are meaningful to students (Brown, 2006).

Goals may need to be discussed and set by team teachers at the beginning of the academic year during collaboration times. This process has been used to provide teachers with the opportunity to integrate subjects across the curriculum or time to develop plans that meet educational standards in each benchmark area. A sense of collective responsibility ensues when school staff commit to these collaborative efforts (Flowers et al., 1998). Common planning time “gives teachers the opportunity to meet regularly and discuss individual and group goals” (Weller & Weller, 1998, p. 6). The purpose of the team of teachers working collectively toward common goals has allowed everyone to have responsibility for improving and changing the context of their respected subject area. Lastly, it is important to note how pluralized leadership with teams of people communicating to create and set clear coherent goals and strategies means plenty of communication which should develop shared ownership of the goals and desired outcomes (Fullan, Bertani, & Quinn, 2004).

Effective teams use common planning time to group and regroup students, collaborate and coordinate activities with exploratory teachers, develop student behavior plans, rethink academic expectations, explore and plan to use community resources, and work to develop a team identity (Jackson & Davis, 2000). Mertens and Flowers (2004) stated that the effective uses of common planning time include coordinating and planning team activities (special projects, assemblies, homework, tests), looking at and evaluating student work, and meeting with students.

Historically, United States schools have not been described or established as workplaces that are collaborative or reflective. Teachers have not been encouraged to share new ideas, techniques or best practices with each other. Flowers et al. (2000) noted, “classroom teachers should understand that they cannot operate their classroom independently of the goals of the school” (p. 52). In many schools collaboration has not been the norm, many individual teachers have been slow to embrace the team approach or avoid participating in a collaborative setting.

### Collegiality and Congeniality

A report completed by MacIver (1990) indicated that school teams “eliminate the isolation that many teachers feel by providing a working group of colleagues to conduct activities and to discuss and solve mutual problems” (p. 460). On the other hand, after conducting research that investigated the interactions of a middle school team, Manouchehri (2001) found that, “Although the teaming process was intended to invade the isolation among teachers, this physical proximity did not naturally provoke intellectual collaboration” (p. 1). Nevertheless, there has been a pattern of shifting among teachers working less in isolation and more as a collaborative team. This shift of structure being seen in educating students makes education more complicated, more supported, and more desirable as a social workplace.

Most teachers are congenial with each other. They converse between classes, they meet in the hallway, they talk about sports and their personal lives, and sometimes share complaints or concerns they have with their school, the policy and their administration. As Barth (2006) commented, “The promise of congenial relationships helps us shut off that alarm each day and arise” (p. 3).

The school setting and the school's climate has not been the easiest place for collegial relationships to develop. Although most teachers work hard and are competent, collegiality is usually a harder accomplishment for teachers. Oftentimes, teachers are not courageous enough to share important learning or effective strategies that they use within their classroom with peers fearing ridicule or criticism. Barth (1990) notes, "Regrettably, as a profession, we do not place much value on our craft knowledge or on those who share it" (p. 3). Unfortunately, many educators do not disclose their techniques and knowledge to one another because they are not accustomed to proudly sharing acquired successful skills surrounding their important jobs (Barth, 1990). Schmoker (2006) advised, what passes for collaboration or collegiality in schools typically lacks a focus on achievement--on short-term or formative assessment--and thus has very little impact on the quality and character of teaching skills. "Educators must not confuse mere congeniality or 'collaboration lite' with the serious professional dialogue essential to school improvement" (p. 178).

Barth (2006) advised that creating a culture of collegiality within school institutions requires educators (1) talking with one another about practice, (2) sharing their craft knowledge, (3) observing one another while they are engaged in practice, and (4) rooting for one another's success. He argued that once the exchange of ideas, skills, and craft knowledge becomes sanctioned and legitimized in the workplace, teachers no longer feel prideful, pretentious, or in violation of an unspoken rule that sharing is not the norm or accepted practice. According to Hargreaves (1994), the culture of a school or school system can be greatly improved if true collegiality is expected, encouraged, and fostered.

Cromwell (2002) wrote that top-notch school teams share effective teaching strategies, give respectful and honest criticism, laugh a lot, support each other, and keep each on track and

focused. They remind each other that their clientele are students, and that they must guide their students in the right direction to make good decisions (p. 1). Educational institutions are filled with good teachers, but convincing these teachers to collaborate, work together, and grow as a professional learning community is not an easy task. Collegiality is difficult to establish and maintain. A culture of collegiality means that teachers have conversations about their work and those conversations take place in the faculty lounge, at lunch, and in the hallways; participation in education-related discourse should be fostered and encouraged in schools. Barth (2006) stated, once the exchange of knowledge becomes sanctioned and teachers become allies, then educators no longer feel threatened or in violation of a taboo by sharing their skills, insights, and knowledge. A new taboo--against withholding our knowledge--replaces the old. Repeated practice soon embeds a generous disclosure of pedagogical knowledge into the culture of the school or the school system (p. 4).

## Summary

Bandura (1986) argued, “perceived self-efficacy results from diverse sources of information conveyed vicariously and through social evaluation, as well as through direct experience” (p. 411). Consistent with the general establishment of self-efficacy, Tschannen-Moran and Woolfolk Hoy (2001) defined teacher efficacy as a teacher’s “judgment of his or her capabilities to bring about desired outcomes of student engagement and learning, even among those students who may be difficult or unmotivated” (p. 783). The study of teacher efficacy is a little over 20 years old and began with RAND researchers’ evaluation of whether teachers believed they themselves could control the reinforcement of their own actions (Armor et al., 1976).

This chapter reviewed the background of literature related to teacher self-efficacy and the connection of that efficacy to the socialization found in professional learning communities, collaboration, team teaching, and common planning. The literature discussed supports the idea that teachers who are involved in common and collaborative planning develop and sustain a higher level of self-efficacy. Also discovered in the literature is evidence that teachers who are members of professional learning communities develop a higher sense of collegiality and congeniality.

Rosenholtz (1989) summarized the importance the teacher workplace factors into the discussion of teaching quality, maintaining that teachers who felt *supported* in their own classroom practice and ongoing learning were more committed and effective than those who did not feel supported. Support by means of collaborative teacher networks, cooperation among colleagues, and expanded professional roles increased teacher efficacy for meeting students' needs.

The premise of this research is that teachers' participation in PLCs with common core planning influences their collective efficacy. Academic improvement occurs when teachers feel good about themselves and their pedagogical skills. Fullan (1996) referred to the importance of reculturing and its process and intentional conscious change is critical to school reform. He defined reculturing as a process that includes the development of new beliefs, values, and norms in an organization and its power to facilitate change. The process of change requires school systems to improve instruction and to encourage an increase in teacher efficacy through the concept of improvement in the system. For real reform to occur, Fullan challenged school systems to support teachers by committing to professional learning communities that support teaching and learning, collegiality, continuous learning, context, moral purpose, and change.

## CHAPTER 3

### METHODOLOGY

The purpose of this study was to describe the effects of Professional Learning Communities, as designed by common planning of core subjects among high school teachers, on teacher efficacy in the public schools of the North Georgia area. The study sought to answer the following research questions:

1. Is there a difference in teacher self-efficacy as measured by the TSES between high school teachers who participate in Professional Learning Communities linked with the organizational structure of common core planning and those who do not?
2. Is there a difference in teacher self-efficacy as reported from teachers' perspectives between high school teachers who participate in Professional Learning Communities linked with the organizational structure of common core planning and those who do not?

#### Rationale

This study used a mixed methods research model, which allowed the researcher to collect and analyze both qualitative and quantitative data to better explore and understand the research questions. Creswell and Clark (2007) defined mixed methods as a research design with philosophical assumptions as well as methods of inquiry. Using a mixed methods model, this research engaged in a design that explored and compared information by examining both qualitative and quantitative data that had been gathered (Creswell, 2002).

Gathering qualitative and quantitative data within the same study is not a new concept; however, collecting these data in order to “mix” the data to explain and complement one another is a new approach (Creswell & Clark, 2007). Mixed methods are built on the assumption that by collecting and analyzing both qualitative and quantitative data, the strengths of each approach can support the weaknesses of the other. Mixed methods involve philosophical assumptions that guide the direction of the collection of the data, the analysis of the data, and the mixture of information taken from a qualitative and quantitative source. This type of design can emphasize either the quantitative or qualitative results depending on the research questions (Creswell & Clark, 2007). The assumption of mixed methods is that when used together, it provides a better understanding of research questions than using either approach alone (p. 5).

The mixed methods design is advantageous when the researchers “want to follow up a quantitative study with a qualitative one to obtain more detailed specific information than can be gained from the results of statistical tests” (Creswell, 2005, p. 510). Despite the 1980s debates regarding the compatibility of these methods, the mixed methods design has been widely manipulated as a powerful and legitimate inquiry approach (Creswell, 1994, 2005). While the data collected on a survey instrument having a scoring system may give a general conclusion about a research problem, the data gathered and analyzed from a qualitative open-ended interview can “offer many different perspectives on the study topic and provide a complex picture of the situation” (p. 510). Tschannen-Moran and Woolfolk Hoy (1998) pointed out, qualitative data is direly needed in teacher efficacy research, because it “can provide a thick, rich description of the growth of teacher self-efficacy” (p. 242). Creswell’s arguments about a mixed methods design are important and applicable to this study, given that the situation surrounding self-efficacy as having unique, complex, and ambiguous characteristics.

The compilations of data gathered from the quantitative and qualitative sources were analyzed separately. This chapter describes the methodology and rationale behind the choice and includes descriptions of the procedures.

### Research Design

In conducting this non-experimental study, populations that represent the study were considered. According to Creswell (2009), representative of the entire group refers to the selection of individuals from a sample of a population such that the individuals selected are typical of the population under study (p. 145).

In the first phase of the study, a quantitative survey was administered, scored, and analyzed to find any correlation or statistically significant differences between teachers participating in Professional Learning Communities, which are designed and divided by common core subject areas, and those who are not. During the second phase of data collection, the researcher collected qualitative data from teachers who participated in the first phase and were willing to be interviewed for this research.

### Population and Convenience Sampling

Samples are measured for the benefit of making generalizations about the population. Ideally, samples are selected using a random process so that they are representations of the population of interest (Tabachnick & Fidell, 2006). This study conducted a convenience sampling. Convenience sampling is used in exploratory research where the researcher is interested in getting an inexpensive approximation of the truth. As the name implies, the sample is selected because participants are willing, available, and convenient to be studied. Although the

researcher cannot say with total confidence that the individuals are representative of the whole population, the sample can provide useful information for answering questions and hypotheses about the subject(Creswell, 2009). This method is often used during a preliminary research effort to get an estimate of the results without incurring the time or cost required to select a random sample. The disadvantages in this type of sampling include the fact that the findings are less definitive, the results have to be extrapolated in order to fine-tune them, and it is a completely unstructured approach.

Two groups of participants were identified for this study: high school teachers participating in Professional Learning Communities designed by planning periods of common core subjects and high school teachers participating in Professional Learning Communities designed without planning of teachers of common core subjects. North Georgia Regional Educational Service Agency (NGRESA) was contacted as a source for high schools in the North Georgia area that were involved in Professional Learning Communities designed by common planning as well as those with Professional Learning Communities that were not linked to common core planning. The high schools were located within the North Georgia area and involved only public schools. The size of participating schools ranged from 900 to 1,400 students, and shared a similar departmental organization, each with core subject departments (i.e., Language Arts, Math, Science, Social Studies), along with other departments within the school (e.g., Humanities, Vocational, Special Education). Following the approval of the research at each district level (Appendix A), administrators of schools were contacted (Appendix B). These principals were given a written proposal in which the explanation of the general purpose of the study was contained and once principals reviewed the proposal, they were contacted via email to answer any questions they had. Prior to data collection the principal and the researcher

notified teachers that participation was voluntary, and only those teachers interested in being involved should complete a questionnaire. Written informed consent was obtained from all participants (Appendix C).

### PhaseOne: Survey

#### *Sample Size*

In the scale used for this research, with two groups involved,  $N$  was defined as the necessary sample size for each group and used the effect size indexes given by Cohen (1992) to detect an effect size of medium difference between two independent sample means at  $\alpha = .05$  requires  $N = 64$  (p. 158).

#### *Instrumentation*

The survey data were collected through an already developed and permissible (Appendix D) 24-item *Teachers' Sense of Efficacy Scale* (TSES) (Tschanen-Moran & Woolfolk Hoy, 2001, see Appendix E). This survey is a 24-question Likert-type scale design, which is an ordered, one-dimensional scale from which respondents choose one option that best aligns with their view. This scale was selected for three key reasons. First, the survey's design followed the theoretical framework and conceptualization of the teacher efficacy construct used in this study. Second, this survey assesses only teachers' efficacy beliefs, as Bandura (1986) believed that an individual's outcome expectancy added little to the explanation of motivation and behavior. And, finally, this scale addresses the multifaceted nature of teacher efficacy by assessing teachers' efficacy in three areas: *efficacy for classroom management, efficacy for instructional strategies, and efficacy for student engagement* (Tschanen-Moran & Woolfolk Hoy, 2001).

The *Teachers' Sense of Efficacy Scale* uses a 9-point scale with pivoting points at 1 (*nothing*), 3 (*very little*), 5 (*some influence*), 7 (*quite a bit*), and 9 (*a great deal*). Subscale scores for each area of efficacy are created by computing an unweighted average of the responses to each of the items associated with that subscale. From the data collected the researcher identified positive and negative aspects of common planning on teacher efficacy and how it varied with the extent of common planning.

### *Survey Design*

According to Gall, Borg, and Gall (2003), research that uses surveys usually employ questionnaires and interviews to collect the opinions, attitudes, preferences, and the perception of persons that the researcher is interested in studying. The method of research chosen for this study included a closed form, which allowed limited responses (a multiple choice question). All participants were asked the same questions, which allowed a greater number of participantsto be sampled. The *Teacher's Sense of Efficacy Scale* (TSES) is divided into sections that gather information concerning instructional strategies, classroom management, and student engagement, and a general demographic survey will gather general personal information from each teacher (Appendix E). The research method was expected to complete the following task: collect data from teachers who taught high school (with and without common planning periods) in the North Georgia area. The teacher efficacy scale contained questions from each of the noted sections but was given in a mixed and random order.

### *Validity and Reliability*

Data collected in a survey must be authentic and believable, but are worthless unless they are also reliable and valid. According to Charles and Mertler (2002), “data are valid to the extent they depict or deal directly with the topic under consideration” and “reliable to the extent they are consistent” (p. 41). Tschannen-Moran and Woolfolk Hoy (2001) developed the survey and it is sometimes referred to as the *Ohio State Teacher Efficacy Scale (OSTES)*, although the developers prefer the name, *Teachers’ Sense of Efficacy Scale (TSES)*(Tschannen-Moran & Woolfolk Hoy, 2001). After the development of the instrument, the factor structure, reliability, and validity were examined and shown to be valuable, reliable, and valid for use as an efficacy measurement. Reliabilities (Cronbach  $\alpha$ ) for the teacher efficacy subscales were 0.91 for *instruction*, 0.90 for *management*, and 0.87 for *engagement*. Intercorrelations between the subscales of *instruction*, *management*, and *engagement* were 0.60, 0.70, and 0.58, respectively ( $p<0.0001$ ). Means for the three subscales ranging from 6.71 to 7.27 were found within the testing studies (Tschannen-Moran & Woolfolk Hoy, 2001).

Tschannen-Moran and WoolfolkHoy (2001) correlated the TSES with other teacher efficacy instruments including the RAND (Armor et al., 1976); the *Teacher Efficacy Scale (TSE)* (Gibson & Dembo, 1984); Ashton Vignettes (Ashton, Buhr, & Crocker, 1984); the Webb Scale (Ashton et al., 1982); the Teacher Locus of Control Scale (Rose & Medway, 1981); and the Responsibility for Student Achievement Questionnaire (Guskey, 1981). Data analyses determined the TSES was fairly valid and reliable for measuring the construct of teacher efficacy (Tschannen-Moran & Woolfolk Hoy, 2001, p. 801). The results of the analysis of the TSES were considered reasonably valid and reliable and thought to be of usefulness for researchers interested in the exploration of teacher efficacy.

### *Data Collection*

Data for the study was collected from two sources: The Teachers' Sense of Efficacy Scale and a Demographic Information Survey. Following the approval of all components of this proposal by The University of Alabama Institutional Review Board, a formal letter was mailed to each school district and/or board of education acquiring permission from the required sources. After the approval from the school districts, another letter was mailed to the high school principals asking for permission to conduct the research at their respective schools. These principals received additional information and a written proposal in which the general purpose of the study was explained in greater detail and they were informed of confidentiality rules and their rights to withdraw from the study without any penalty or prejudice. The researcher asked the participants to return the surveys and consent forms within a particular timeframe to a given spot and also informed the participants that they were free to withdraw from the research without any penalty or prejudice.

### *Data Analysis*

Statistics (Tabachnick & Fidell, 2006) are used to make rational decisions and inferences (decisions) about populations based on data collected and analyzed. The *t* test was used to analyze the research question. This procedure (called an independent samples *t* test) analyzes the difference between the means of two groups, to determine whether or not the difference is significant--that is, whether the difference of two points can, or cannot, be attributed to chance errors made while using particular people who have been selected for the research (Charles & Mertler, 2002, p. 112). A *t* test was used because the two groups of subjects were independent and were not related and reflected a comparison of the two groups.

## Phase Two: Interviews

According to Fontana and Frey (2000), the most common form of interviewing individuals involves a face-to-face verbal interchange. It can be structured, semistructured, or unstructured; it can take place over lengthy, multiple sessions, at times spanning days or be short, concise, and to the point (p. 646). This study conducted in-depth interviews using open-ended questions specifically chosen to explain more fully data collected from the TSES survey. Hesse-Biber and Leavy (2006) explained that the assumption of in-depth interviews is that the interviewees have had experience and have unique knowledge about the topic of the study. These individuals are purposefully chosen since the assumption is that they have important knowledge about an experience and can contribute valuably to the research (Hesse-Biber & Leavy, 2006).

Interviews that are structured or semi-structured have a general set of questions that have been developed for the specific study, but the more important data collection comes from an informal and free-flowing conversation about the topic (Hesse-Biber & Leavy, 2006). The interviewer may collect data by recording or transcribing but many researchers and participants feel that the tape recorder is an intruder in the interview and some reluctance to discuss sensitive or particular topics may be noticed if participants know they are being recorded (Weiss, 1994). Regardless of the method of data collection, interviews are explored and analyzed to find developing thematic connections in the interview responses in order to convey important and relevant findings (Seidman, 1998). According to Hesse-Biber and Leavy (2006), “Typically researchers who conduct in-depth interviews are looking for patterns that emerge from the ‘thick descriptions’ of social life recounted by their participants” (p. 119).

## *Participants*

In order to establish a group of willing interview participants, the final question on the demographics information portion of the scale asked the participants if they were willing to be interviewed as part of the study. The 24 interviewees were selected from among the survey respondents who volunteered to be interviewed, were informed of their interview rights with consent forms distributed (Appendix F), and no more than 12 were interviewed from each of the two participating groups.

## *Data Collection Procedure*

Open-ended questions were used and did not give respondents answers to choose from, but rather were phrased so that the respondents were encouraged to explain their answers and reactions to the question with answers that were very short or quite elaborate. These questions were kept broad, in a semi-structured format, to allow the interview participants to cover a variety of educational experiences with Professional Learning Communities and common planning. According to Hesse-Biber and Leavy (2006), “Semi-structured interviews rely on a certain set of questions and try to guide the conversation to remain, more loosely, on those questions” (p. 125). Semi-structured interviews allow the researcher some control in using some specific questions, but also allows for the participant to begin a new line of conversation. Of the 24 participants, 13 were available for member checking and were held on a face-to-face basis. The remainders of the interviewees were not available for member-checking or did not return the researcher’s phone messages or email messages.

### *Coding and Memoing*

When analyzing the interview transcripts, two types of methods were used: open coding and memoing. Punch (2005) explained that codes are “tags, names, or labels, and coding is therefore a process of putting tags, names, or labels against pieces of the data” (p. 199). Memos are notes the researcher makes as ideas and thoughts occur during analysis (Punch, 2005). Open coding is based upon labeling concepts or phenomenon (Strauss & Corbin, 1998). According to Strauss and Corbin (1998),

The purpose behind naming phenomena is to enable researchers to group similar events, happening, and objects under a common heading or classification. Although events or happenings might be discrete elements, the fact that they share common characteristics or related meanings enables them to be grouped. (p. 103)

The transcribed data were read carefully, line by line, and then divided into meaningful analytical units. The meaningful segments were then coded with key words that emerged as important ideas that led to patterns or themes among the interviews. Again, the meaningful segment was assigned a code or theme keyword for that particular segment and this process was continued until all of the data were completed with the initial coding. During the coding, a master list was kept and reapplied to new segments of data both within the two groups--those with common core planning and those without common core planning.

Memoing was also a part of the qualitative analysis and began at the start of the analysis along with the coding. Memoing in this research was used for personal references with notes made that were later used for member-checking.

The researcher treated qualitative data that did not fit codes as important references for further research or as additional information that would be important for others researching this topic.

### *Mixed Methods*

Using mixed methods has become more popular in order to improve the validity and reliability of research results. The National Science Foundation (2007) concluded that using more than one method to study the same research problem could strengthen the validity of results. The approach of using more than one method is most often mentioned as the main beneficial factor of the mixed method approach. Combining the two methods gives improved instrumentation for all data collection approaches and may help sharpen the understanding of findings (Denzin & Lincoln, 2000; Hesse-Biber & Leavy 2006; Punch, 2005). Mixed methods designs are common ways to increase the validity and believability of data.

This research project used a mixed methods design in which the researcher implemented the quantitative (surveys) and qualitative (interviews) methods during the same timeframe and with equal weight. It explored teachers' educational experience in Professional Learning Communities designed with and without common core planning. The results from both phases were compared to one another in order to improve the reliability and validity of the study and were an important process of this research.

### *Phenomenological Analysis*

This study followed the research methods and philosophical assumptions of phenomenology to analyze the qualitative data. Creswell (1998) wrote that phenomenology is a method that reviews and analyzes

the meaning of the lived experiences for several individuals about a concept or the phenomenon. Specifically, researchers investigate the essential, invariant structure (or essence) or the central underlying meaning of the experience and emphasize outward appearance and inward consciousness based on memory, image, and meaning. (pp. 51-52)

While exploring the experiences of others, phenomenological studies allow the researcher to bracket their own experiences within the subject area (Creswell, 2009).

Participants in a phenomenological study should carefully be selected to ensure that they have experience in the phenomenon of the study (Creswell, 1998). Ultimately, the goal of phenomenology is to study a human phenomenon or shared experience or it seeks to understand how people derive meanings from their own experiences. Researchers must keep in mind that they are also interpreting other humans' experiences (Starks & Trinidad, 2007).

### *The Role of the Researcher*

When using qualitative research methods, it is appropriate for the researcher to bracket their own experiences with the research topic (Hesse-Biber & Leavy, 2006). Bracketing happens when the researcher applies practical considerations and identifies his or her own experiences and biases with the phenomena under study to fully understand the meanings and implications through which the interpretation of the data occurred. My interest in this topic stemmed from my experience as a high school resource teacher, an inclusion teacher, and an administrator. When I was assigned to a resource room, I felt a complete isolation from other teachers in the school who were teaching the same subject area, and when I was assigned to inclusion, the schedule did not provide planning time for me and the other teacher. These two experiences gave me feelings of anxiety, pressure, inadequacy, and a loneliness that lessened my satisfaction and self-esteem. My interest in this topic expanded when I became an administrator and began working with curriculum, scheduling, and the chairpersons of each department. The need for the effects of common planning on teacher efficacy became a stronger belief. While studying common planning, I believe the first step in measuring effectiveness is simply asking the teachers about

their perceived effectiveness and their own educational experiences. From my own experience as a teacher and administrator, I believed that understanding teachers' perceptions of their own efficacy was the beginning point for further research on teacher effectiveness in Professional Learning Communities designed by common core planning.

These teaching experiences aided in my data collection, transcription, and analysis, as I was already familiar with common core planning and other efficacy definitions that were covered during the interviews. Further, since I taught within the same educational region as the teachers in this study, I was familiar with school districts, the educational region service center, and the common core standards of the schools selected for this study.

### Ethics

Ethics research is a vital part of one's education. The participants clearly understood that they were able to withdraw from the study without a penalty and the information gathered in this study was kept confidential. In addition, the participants were made aware of the following procedures before beginning the study: no potential risk was involved in this study, a specific number was given to each survey form to identify the survey with those participants with common planning and those without common planning, scales and demographic data were to be returned to the researcher after completion, and research data would be completely destroyed by the researcher once the study has been compiled and completed.

### Summary

The purpose of this study was to identify the effects of Professional Learning Communities as designed by common core planning on high school teachers in the North

Georgia area. The design of the study was described in this chapter. The methodology, instrumentation, procedures, data collections, population, and data analysis were described in this chapter.

## CHAPTER 4

### RESULTS

The purpose of this study was to explore the possible effects of participating Professional Learning Communities, linked with the organizational strategy of common planning of core subjects on self-reported perceptions of teacher efficacy. The study was conducted in two phases using both quantitative and qualitative data.

In the first phase of the study, a survey was administered, scored, and analyzed to find differences between teachers participating in Professional Learning Communities, which were designed and divided by common core subject areas, and those who were not. During the second phase of data collection, the researcher collected interview data from teachers who participated in the first phase and were willing to be interviewed for this research. The timeframe used for this research was from December 2010 through August 2011.

The Teacher's Sense of Efficacy Scale (TSES) (Tschannen-Moran & Woolfolk Hoy, 2001) distinguishes four specific constructs of subscales and information: (1) student engagement (SE), (2) classroom management (CM), (3) instructional strategies (IS), and (4) demographic data section. The use of survey research in the form of a self-administered questionnaire was selected for phase one of this study because of the rapid turnaround in data collection, the economy of the design, and the ability to identify sample variables from a widely dispersed population.

Interview data were gathered from teachers who were selected from a volunteer base. These interviews provided deeper understanding of the impact Professional Learning Communities, defined by common core planning, have on teachers' self-efficacy.

This chapter presents the study's findings in four sections. The first selection describes the participants and data collection procedures. The second section presents the demographic data from the teacher sense of efficacy survey. The third section presents the interview responses of the focus group participants to address given questions. The last section includes a summary of the findings presented in the chapter as well as a transition to the concluding chapter.

### Participants

The target population was teachers employed by public high schools located in the North Georgia area whose organization of academic curriculum included language arts, science, Social Studies, and math. The survey (quantitative) data were collected through the previously developed 24-item Teacher Sense of Efficacy Scale (TSES) (Tschannen-Moran & Woolfolk Hoy, 2001) and a researcher designed Demographic Information Survey. This survey was a 24-item Likert-type scale design, which is an ordered, one-dimensional scale from which respondents choose one option that best aligns with their views. Six North Georgia high schools were chosen and agreed to participate in Phase One of this study. Of these six schools, all agreed to participate in the survey for a rate of 100% of schools. The total number of surveys distributed was 216 with a return of 185 for a return rate of 86%.

All participating teachers were fully licensed and were currently employed in the public high schools of the selected North Georgia area. Teachers who participated in Professional Learning Communities defined by common core planning completed 70 surveys and teachers

who did not participate in Professional Learning Communities defined by common core planning completed 115 surveys. All teachers answered the questions concerning their willingness to participate in teacher interviews and noted contact information on their survey sheets.

As presented in Table 2, of the 185 surveys completed, female teachers (53.52%) outnumbered male teachers (46.48%). The participants self-identified as Caucasian (87.6%), African American (7%), Other (3.78%), Hispanic (1.6%), or Asian (0%). The average age of the participants were in the 39 to 44 year old range (45.4%) followed by 33 to 38 years old (17.3%), 27 to 32 years old (14.6%), 51 to 56 years old (7.6%), 57 to 62 years old (5.2%), 21 to 26 years old (4.9%), 45 to 50 years old (4.3%), and 63 and older (1%). The most frequently reported teaching experience of teachers (30.8%) was teaching 5 to 10 years, teachers with greater than 20 years (22.2%), less than 5 years (21.1%), 11 to 15 years (15.7%), and 16 to 20 years (10.3%). Most of the participants held a bachelor's or master's degree (32.4% and 41.6%, respectively) with fewer holding a specialist degree (17.8%) and doctorate degrees (8.1%).

The Professional Learning Communities settings were considered and were defined by teachers having common core planning and those who did not have common core planning determining the location. Of the 70 surveys completed by teachers having common core planning, female teachers (60.0%) outnumbered male teachers (40.0%). This group of teachers self-identified as Caucasian (88.6%), followed by African American (10%), Other (3.8%), Hispanic (0%), and Asian (0%). The age of the participants were reported in several ranges with 39 to 44 years old (45.7%), 33 to 38 years old (15.7%), 27 to 32 years old (12.9%), 45 to 50 years old (11.4%), 57 to 62 years old (5.7%), 21 to 26 years old (4.3%), 51 to 56 years old (2.9%), and 63 and older (1.4%). The most frequent number of teachers (37.1%) was teaching an average of 5 to 10 years, followed by teachers with greater than 20 years (24.3%), 11 to 15 years

(20%), 16 to 20 years (10%), and less than 5 years (8.6%). Most of the participants held a master's or bachelor's degree (44.3% and 25.7%, respectively) with fewer holding a specialist degree (21.4%) and those with doctorate degrees (8.6%).

The participants who did not participate in Professional Learning Communities defined with common core planning numbered 115 and were divided by female (56.6%) and male (43.5%). This group also self-identified themselves and reported their race as Caucasian (87.0%), African-American (5.2%), Other (5.2%), Hispanic (5.2%), or Asian (0%). The greatest number of these participants were 39 to 44 years old (45.2%) followed by 33 to 38 years old (18.3%), 27 to 32 years old (15.7%), 51 to 56 years old (10.4%), 57 to 62 years old (5.2%), and 21 to 26 years old (5.2%). No one was in either of the age groups of 45 to 50 years old or 62 and older. The most frequent range of teaching experience for this group was 5 to 10 years (28.7%), teachers having less than 5 years (27%), teachers with greater than 20 years (20.9%), 11 to 15 years (13%), and 16 to 20 years having the lowest percentage (10.4%). The average number of participants holding a master's degree within this group of teachers numbered 46 (40.0%), bachelor's degrees (36.5%), with fewer holding specialist degrees (15.7%), and doctorate degrees (7.8%).

Demographic data concerning survey participants, both collectively and separated into the two focus groups are represented in the following table (Table 2).

Table 2

*Summary of Participant Demographic Data*

Participants		Total		CCP		NCCP	
		n=185	%	n=70	%	n=115	%
Gender	Male	86	46.5	28	40.0	50	43.5
	Female	99	53.5	42	60.0	65	56.5
Race	African American	13	7.0	7	10.0	6	5.2
	Asian	0	0.0	0	0.0	0	0.0
Caucasian	Caucasian	162	87.6	62	88.6	100	87.0
	Hispanic	3	1.6	0	0.0	3	2.65
Other	Other	7	3.8	1	1.4	6	5.2
Age	21 – 26 years old	9	4.9	3	4.3	6	5.2
	27 – 32 years old	27	14.6	9	12.9	18	15.7
33 – 38 years old	33 – 38 years old	32	17.3	11	15.7	21	18.3
	39 – 44 years old	84	45.4	32	45.7	52	45.2
45 – 50 years old	45 – 50 years old	8	4.3	8	11.4	0	0.0
	51 – 56 years old	14	7.6	2	2.9	12	10.4
57 – 62 years old	57 – 62 years old	10	5.4	4	5.7	6	5.2
	63 and older	1	.5	1	1.4	0	0.0
Experience	< 5 years	39	21.1	6	8.6	31	27.0
	5 – 10 years	27	30.8	26	37.1	33	28.7
11 – 15 years	11 – 15 years	29	15.7	14	20.0	15	13.0
	16 – 20 years	19	10.3	7	10.0	12	10.4
20 years	> 20 years	41	22.2	17	24.3	24	20.9
Degree	Bachelors	60	32.4	18	25.7	42	36.5
	Masters	77	41.6	31	44.3	46	40.0
Specialist	Specialist	33	17.8	15	21.4	18	15.7
	Doctorate	15	8.1	6	8.6	9	7.8

Note. CCP = Common Core Planning, NCCP = No Common Core Planning

The surveys were administered at each of the schools. The participants were presented with a teacher consent form (Appendix C), given the survey, and asked to return the survey to a given location where the researcher was the only person who collected and had access to them. The survey took approximately 15-20 minutes.

According to the National Center for Education Statistics (NCES, 2007-2008), the ratio of women to men teachers in this study is similar to the national data for teachers with females being slightly higher. National demographic data reported 44% were under the age of 40, and 52% had a master's or higher degree, which were similar to the participant demographics in this research.

After reviewing the data, the researcher identified those participants who were willing to participate in the interview portion of this research, chose them purposefully to give a variety of experience and age, then contacted the volunteers to gain their consent (Appendix D) and to arrange a date, time, and location for the interview. The interviews used an open-ended question format, with structured or semi-structured prompts. The researcher selected 24 teachers--12 males (6 with common planning and 6 without common planning) and 12 females (6 with common planning and 6 without common planning)--for the interviews. A general set of questions had been developed for this specific study; however, the more important data collection came from the follow-up questions and conversations about the topic (Hesse-Biber & Leavy, 2006). At the conclusion of the interview, participants were asked if they wanted to add anything else to the interview that would be pertinent for this research.

These teachers represented a variety of age and experience and had volunteered for the interview process of this research. All of the first 24 teachers selected and contacted agreed to participate in the research. The researcher contacted each of the teachers by phone to arrange the interview meeting and the teacher and researcher agreed upon a convenient time and place to meet. The interviews took place at the home school of the participant, were audio taped, and took approximately 15-25 minutes to complete. Demographic data concerning interviewees, both collectively and separately by the two focus groups are presented in Table 3.

Table 3

*Summary of Interviewees Demographic Data*

Participants		Total		CCP		NCCP	
		n=24	%	n=12	%	n=12	%
Gender	Male	12	50.0	6	50.0	6	50.0
	Female	12	50.0	6	50.0	6	50.0
Race	African American	6	7.0	3	10.0	3	5.2
	Caucasian	18	87.6	9	88.6	9	87.0
Age	21 – 26 years old	2	.083	1	.083	1	.083
	27 – 32 years old	2	.083	1	.083	1	.083
	33 – 38 years old	4	.166	2	.166	2	.166
	39 – 44 years old	6	.25	3	.25	3	.25
	45 – 50 years old	2	.083	1	.083	1	.083
	51 – 56 years old	4	.166	2	.166	2	.166
	57 – 62 years old	3	.125	1	.083	2	.166
	63 and older	1	.041	1	.083	0	0.0
Experience	< 5 years	4	.166	2	.166	2	.166
	5 – 10 years	5	.208	2	.166	2	.166
	11 – 15 years	5	.208	3	.166	3	.25
	16 – 20 years	5	.208	3	.25	3	.25
	> 20 years	5	.208	2	.166	2	.166
Degree	Bachelors	8	.33	4	25.7	4	36.5
	Masters	8	.33	4	44.3	4	40.0
	Specialist	4	.166	2	21.4	2	15.7
	Doctorate	4	.166	2	8.6	2	7.8

*Note.* CCP = Common Core Planning, NCCP = No Common Core Planning

## Descriptive Statistics--Survey Instrumentation

The main part of the survey was the Teacher Sense of Efficacy Scale (TSES).

Participants were asked to respond to the 24 items on the TSES using a 9-point scale.

Tschannen-Moran and Woolfolk Hoy (2001) piloted the TSES using three studies with different samples in an effort to improve the items and validate the instrument. The final instrument consisted of 24 items loading on three identified factors--*efficacy for instructional strategies*

(items 3, 4, 9, 11, 14, 17, 23, & 24), *efficacy for classroom management* (items 1, 2, 7, 8, 13, 15, 16, & 19), and *efficacy for student engagement* (items 5, 6, 10, 12, 18, 20, 21, & 22).

The 24 items on the TSES are categorized into three subscales, which represent a wide range of teaching methods (Tschannen-Moran & Woolfolk Hoy, 2001). Individual items were rated using a 9-point scale ranging from 9 (*A Great Deal*) to 1(*Nothing*), with anchors at 3 (*Very Little*), 5 (*Some Influence*), and 7 (*Quite A Bit*). The subscales identified included (a) efficacy for student engagement (example: *How much can you do to motivate students who show low interest in school work?*), (b) efficacy in instructional strategies (example: *How much can you use a variety of assessment strategies?*), and (c) efficacy in classroom management (example: *How well can you keep a few problem students from ruining an entire lesson?*).

### Data Analysis

The degree of teacher efficacy was determined using responses of the Teacher Sense of Efficacy Scale (TSES). The long form, containing 24 items, was used in the study. The response rate for the 24 items was 100% from the teachers who served as the unit of analysis for this study. The individual teachers were studied as the unit of analysis for this study in order to understand their individual perceptions of the effects of professional learning on teacher efficacy when linked to common core planning. Teachers' scores on the TSES were analyzed and the total efficacy (TE) score was calculated as the mean of the responses to all 24 questions in the questionnaire. Subscale scores for efficacy of instructional strategies (ESI), efficacy for classroom management (ECM), and efficacy for student engagement (ESE) were also calculated as means of their respective questions. Statistical analysis was performed using IBM SPSS® Statistics 18.0. Statistical significance was set at  $p < .05$ . Normally distributed data are presented

as means and standard deviation and non-normally distributed data as median and interquartile range. Reliability was checked using Cronbach's Alpha with the number of items checked at 33 with a reliability level of .789. Differences between the means were analyzed by the use of a *t* test; consequently, it can be asserted that the results of the *t* test on both groups yielded valid, reliable results.

The Teacher Sense of Efficacy Scale indicated the group of teachers with common planning felt they had *quite a bit* (7.27) of influence on their students in the areas addressed by the scale: student engagement, instructional strategies, and classroom management. The group of teachers without common planning felt they had some influence on their students addressed by the scale (6.75). The teachers within the group of those who participated in PLCs with common core planning ( $N = 70$ ) have a higher degree of self-efficacy. Table 4 portrays the overall sample and subscale areas of teachers' sense of self-efficacy including *t*-test results and Mann-Whitney U test.

All scales were highly reliable, as assessed by Cronbach's Alpha ( $\alpha$ ) (TE,  $\alpha = .919$ ; ESI,  $\alpha = .817$ ; ECM,  $\alpha = .827$ ; ESE,  $\alpha = .835$ ). Examination of normality revealed that, with the exception of ECM score for the common planning group ( $p = .083$ ), all efficacy scores for all groups were not normally distributed ( $p < .05$ ), as assessed by the Shapiro-Wilk Test for Normality (see Table 4). Teacher's TE score in the common planning group ( $Mdn = 7.27$ ) was significantly greater than in the group without common planning ( $Mdn = 6.75$ ),  $U = 2347$ ,  $p < .0005$  (see Table 4 and Figure 1).

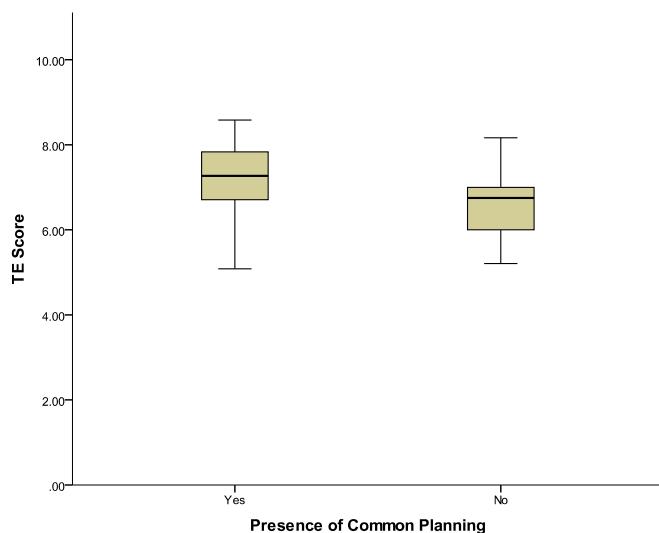
Table 4

*Teacher Sense of Efficacy: Total Sample/PLC Setting (N=185)*

		Common Planning					
		Yes		No			
Efficacy Score	n	Mdn (IQR)	n	Mdn (IQR)	U	P	
TE	70	7.27 (6.71 to 7.84)*	115	6.75 (6.00 to 7.00)	2347	<.0005	
ESI	70	7.00 (6.38 to 7.75)*	115	6.38 (5.75 to 7.00)	2573	< .0005	
ECM	70	7.75 (7.13 to 8.28)*	115	7.13 (6.63 to 7.75)	2480	< .0005	
ESE	70	7.13 (6.25 to 7.75)*	115	6.50 (5.63 to 6.88)	2241	< .0005	

Note. ESI = efficacy of instructional strategies, ECM = efficacy for classroom management, ESE = efficacy for student engagement, TE = total efficacy score. \* = statistically significant difference at assessed by Mann-Whitney U Test.

Yes = Common Planning; No = No Common Planning



*Figure 1.* Total efficacy (TE) scores for teachers in either the common planning group or group without common planning.

Teachers' ESI score in the common planning group ( $Mdn = 7.00$ ) was significantly greater than in the group without common planning ( $Mdn = 6.38$ ),  $U = 2573, p < .0005$  (see Table 4 and Figure 2).

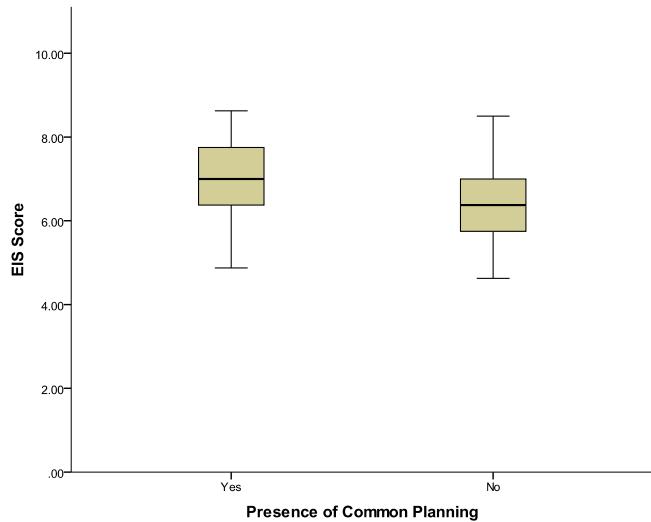
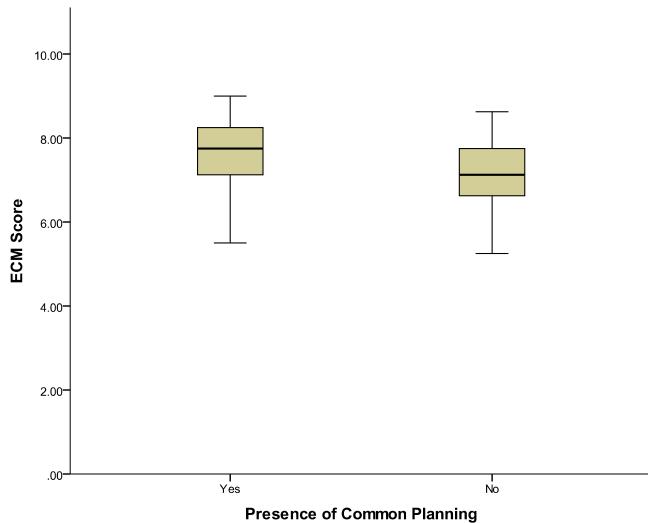


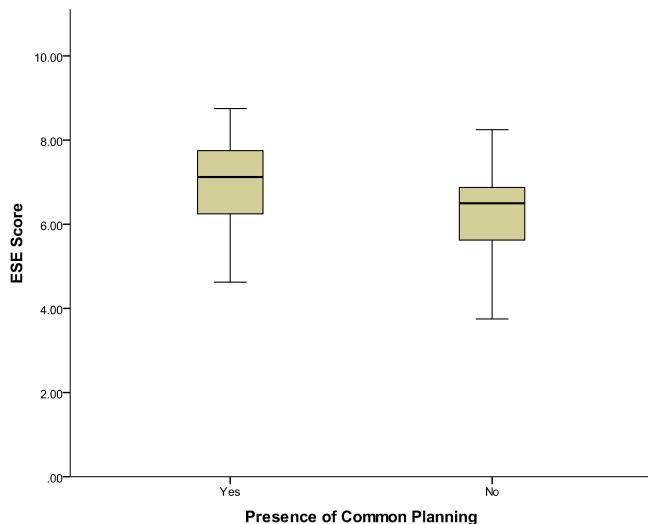
Figure 2. Efficacy of instructional strategies (ESI) scores for teachers in either the common planning group or group without common planning.

Teacher's ECM score in the common planning group ( $Mdn = 7.75$ ) was significantly greater than in the group without common planning ( $Mdn = 7.13$ ),  $U = 2480, p < .0005$  (see Table 4 and Figure 3).



*Figure 3.* Efficacy for classroom management (ECM) scores for teachers in either the common planning group or group without common planning.

Teachers' ESE score in the common planning group ( $Mdn = 7.13$ ) was significantly greater than in the group without common planning ( $Mdn = 6.50$ ),  $U = 2241, p < .0005$  (see Table 4 and Figure 4).



*Figure 4.* Efficacy for student engagement (ESE) scores for teachers in either the common planning group or group without common planning.

Using Cronbach's alpha tests for whether a scale is reliable is also a good method to see if any questions need reverse scoring. In this case, none needed to be reverse scored. The independent *t* test is the preferred test for detecting significant differences between two groups for a continuous dependent variable. However, the data in both groups needs to be normally distributed for the test to be valid. This can be tested for with a Shapiro-Wilk Test for Normality. The results showed that most groups were not normally distributed. Following this result, the researcher tried to transform the data and was not successful so a Mann-Whitney U Test was used. Because the data were not normally distributed, the data were also reported as median with a measure of spread, showing the interquartile range (see Table 5).

Table 5

*Teacher Sense of Efficacy: Interquartile Range*

		Measure of Spread								
		Common planning	Percentiles							
			5	10	25	50	75	90	95	
Weighted Average	Instruction	Yes	5.0000	5.6250	6.3750	7.0000	7.7500	8.1250	8.3063	
		No	5.0000	5.2500	5.7500	6.3750	7.0000	7.5000	7.8750	
	Classroom	Yes	6.0688	6.3750	7.1250	7.7500	8.2813	8.7375	8.7500	
		No	5.5000	6.0000	6.6250	7.1250	7.7500	8.0000	8.5000	
	Engagement	Yes	4.8875	5.7500	6.2500	7.1250	7.7500	8.1250	8.5563	
		No	4.6250	5.2500	5.6250	6.5000	6.8750	7.3750	7.6250	
	Overall	Yes	5.3792	5.9167	6.7083	7.2708	7.8438	8.2792	8.4500	
		No	5.3333	5.5833	6.0000	6.7500	7.0000	7.5833	7.7500	
	Tukey's Hinges	Instruction	Yes			6.3750	7.0000	7.7500		
			No			5.7500	6.3750	7.0000		
		Classroom	Yes			7.1250	7.7500	8.2500		
			No			6.6250	7.1250	7.7500		
		Engagement	Yes			6.2500	7.1250	7.7500		
			No			5.6250	6.5000	6.8750		
		Overall	Yes			6.7083	7.2708	7.8333		
			No			6.0000	6.7500	7.0000		

An analysis of the means of each individual response was performed with the largest difference being found in questions 1, 7, 15, and 16 and the smallest difference found with questions 13, 14, 17, and 20. Teachers with common planning indicated they feel that they can communicate

expectations about student behavior, craft good questions, promote critical thinking, and respond to difficult questions with *quite a bit* of efficiency and skill. Both groups of teachers reported a level of *some influence* when answering questions concerning routines, helping families, working with students who are unmotivated, and helping the understanding of failing students (see Table 6).

Table 6

*Teacher Sense of Efficacy: Significance of Individual Questions (N=24)*

	CP		NCP		Mean Difference
	M	SD	M	SD	
Question 1	8.10	1.17	6.65	1.12	1.45
Question 7	7.63	1.04	6.51	1.07	1.12
Question 15	7.29	1.02	5.98	1.07	1.31
Question 16	7.87	0.90	6.77	.92	1.10
Question 13	7.54	1.42	6.82	1.07	0.72
Question 14	5.46	1.62	4.82	1.44	0.64
Question 17	6.76	1.30	6.13	1.21	0.63
Question 20	6.16	1.54	5.35	1.14	0.81

*Note.* CP = Common Planning; NCP = No Common Planning

### Qualitative Data

Interviews were held with 12 teachers from each defined group. The interviews provided qualitative data based on teachers' responses for the two research questions:

- (1) Is there a difference in teacher self-efficacy between high school teachers who participate in common core subject Professional Learning Communities and those who do not?
- (2) What are teachers' perceptions of the impact of common planning on their self-efficacy when they participate in common planning and when they do not?

### **Teacher Interviews**

The interviews began with introductions and a review of the basic interview guidelines. Participants were given a copy of the two questions and were told that they may be asked follow-up questions relating to self-efficacy and their answers. If the participant was hesitant or asked for clarification to a question, the interviewer gave an explanation of the question or prompted the teacher by asking him or her to elaborate. Teachers' self-efficacy was defined as the teacher's belief in his or her ability to affect student achievement and learning; self-feelings concerning teaching; and relationship to students, administrators, and peers. No other guidelines were given.

All 24 teachers interviewed were professional, pleasant, and cooperative with the researcher. These teachers welcomed the invitation to participate and each made certain that he or she had a clear understanding of the questions before he or she gave an answer. Of the 24 teachers, 11 offered contact numbers and e-mail addresses in the event that the researcher needed additional information or clarification. All participants were certified teachers of academic courses, had a variety of experience, participated in extracurricular responsibilities, and were currently employed at a high school located in the North Georgia area.

### **Teachers with Common Planning**

While the majority of the teachers did not directly use the term "self-efficacy," they talked about components of self-efficacy that they not only felt contributed to success in the classroom but also were valuable assets of common planning. As they each talked about self-efficacy, several themes emerged from their answers and included statements concerning (1) feelings of confidence and belonging, (2) feeling less lonely, (3) having support from peers and feeling less stress, and (4) administrative support and interaction (see Table 7).

Table 7

*Common Themes #1, #2, #3, #4--Common Planning Teachers*

Question #1: Is there a difference in teacher self-efficacy between high school teachers who participate in common core subject Professional Learning Communities and those who do not?	
	<b>Theme #1 Feelings of confidence and belonging</b>
Teacher #1:	I have never been part of a school that participated in common planning before this year. I feel better about myself. It has broadened my perspective as I work together with my entire department. If you're paying attention to what others say and what goes on around you the only thing that can happen is that you become more positive and enjoy contributing to your department.
Teacher #2:	I think common planning helps us become friends where before we've never had the time to do so. I have enjoyed this year because I have felt that I had eight built-in friends, people who were willing to listen to me. It has been very purposeful, meaningful, and productive. I feel that I have more purpose, meaning, and I am much more productive.
Teacher #8:	This has definitely been the strongest year for professional dialogue. I do think that increases the efficacy, because I have more confidence that I'm teaching what needs to be taught in a standards-based manner. You have professionals who were in your strand, whom you are able to bounce ideas off, discuss and demonstrate teaching strategies, and collaborate. When you are working together and striving to become more successful in your job that increases self-efficacy.
	<b>Theme #2 Feeling less lonely</b>
Teacher #4:	Common planning makes me happy! I love my job!
	When asked to elaborate he stated: I come to work happy every day. I no longer feel lonely or like I am a hermit on the job. I have worked as a teacher and coach for 15 years and now I remember why I started teaching. I believed I was a good teacher and now I know I am a good teacher. Others in my group have validated my contributions to our group and our school. I love seeing students advance. I love to see continual learning both with my students and with myself. That is what I think common planning does for me. It allows me to grow everyday and to watch others grow. Together we are all working to provide a better atmosphere not only for our students but also for ourselves. That is why I love my job.
Teacher #7	With common planning we have a better support system. I think that would sum it up right. The support system's there underneath you and you do not feel there is no one to help you. You know you are not alone. With all of the demands of the new standards, it is a lot less stressful to know that there is an entire department working on these goals.
	<b>Theme #3 Having Support from Peers and Feeling Less Stress</b>
Teacher #3:	I taught for nine years and then left for 25 years. When I came back, I came back with a renewal certificate on two Internet courses. I was definitely not at the head of the pack as far as common practices, standards or anything like that. I was afraid that I was too far behind to be successful. After spending a progress period in common planning, I found that this group of teachers was anxious to assist me and also listen to me. I felt valued for my past experience. I never remember feeling like this when I taught before.

(table continues)

Question #1: Is there a difference in teacher self-efficacy between high school teachers who participate in common core subject Professional Learning Communities and those who do not?

<b>Theme #1</b> <b>Feelings of confidence and belonging</b>	
Teacher #5:	When we know a new teacher is coming into our department, we are already planning on how to help our new person coming in. Whereas before, when the new teacher came in, it was just, "Well, here's this. Good luck. We will see you sometime next week."
Teacher #6:	We don't own anything. We own everything together. In our department, our chair makes no decisions. No decisions are made without discussing it first. It is really open dialogue. That makes happier and less stressful teachers.
Teacher #7	Overall, common planning makes for a less stressful experience for me. I'm the least stressed person in the classroom because I know I have a support system. When you are not stressed, you are a happier person.
	When asked if she thought other teachers were feeling less stressful she continued: I am not sure if everyone feels less stressful or not. Maybe some people are actually feeling stress, since now they must assume responsibility for their contributions to the group. But I really think our department is much happier and less stressful on a daily basis.
<b>Theme #4</b> <b>Having Administrative Support and Interaction</b>	
Teacher #7	I think it increases to some degree trust that the teachers have for the administrators. I think it makes us feel that the administrators want us to be in our rooms teaching and working together for the good of children. I feel respected. I feel that they (the administrators) respect my time and value me more.
	When asked to elaborate teacher seven continued: They seem to understand that my time is valuable. They are allowing me to plan during my workday. The four of them take time to stop by at least two times per week to share ideas, give important information, or simply listen. We have access to them and they truly are concerned with our efforts as a department. I know they value me.
Teacher #5	It (common planning) gives us more time to take care of business. It gave me a sense that our administrators truly respected us and respected our time, and finally listened to us. When I used to have common planning with other departments I felt lost and exasperated as my time was wasted. Now we talk about a lot of things . . . not always collaborating on our subject area but even that helps. Our department chair can go to the administrators and they respond with positive actions.

The second question concerning the impact of common planning on their self-efficacy when they participate in common planning received longer and more detailed comments. Teachers from Professional Learning Communities (PLCs) with common planning drew connections between self-efficacy and the ability to communicate and collaborate on a daily basis, to have time to develop lesson plans that are taught across the department consisting of rigor, relevance, and were more challenging to students, and working within groups of

professionals that present standards to their students. Teachers included in their interviews the idea that students were seeing departments whose purpose was well-defined and classrooms where the standards were consistently being taught with defined purpose and consistency was seen in the department. The themes emerging from question 2 include (1) collaboration, (2) working together to develop the best classrooms for the students, and (3) feeling more confident and empowered in their own skills (see Table 8).

Table 8

*Common Themes #1, #2, #3--Common Planning Teachers*

Question #2: What are teachers' perceptions of the impact of common planning on their self-efficacy when they participate in common planning and when they do not?	
<b>Theme #1</b> <b>Collaboration</b>	
Teacher #9:	I had the college classes and the student teaching, but I didn't have the background or the understanding of what would happen in a class of 34 high school students. Now I have the experts; the experienced people mentoring me on a daily basis while we collaborate on our subject area and the Georgia Standards. I have a place where I know I can succeed.
Teacher #10:	I think that collaboration provides a much sounder basis for a new teacher, much more than all of the college courses put together. Last year was my first year as a teacher and our collaboration before common planning wasn't a priority because of all the other responsibilities we each had but now it is a given that we can meet daily. It is great for me because I am able to adopt the successful working ideas of others. Therefore, I feel more successful.
Teacher #7:	I think common planning truly gives us the time and opportunity to really collaborate. We can discover each other's strengths and everybody works together to put the best of the best together. That is what I see. Our department works hard every day and by sharing the best our department is the strongest it's ever been, and we grew even stronger at the end of the year. We share our strengths and by doing so we do not dwell on anyone's weaknesses. We all feel better about ourselves.
Teacher #6	We have wonderful collaboration within my department. I would have to say that I think it has certainly increased my self-efficacy. I listen to the veterans talk, and I say, "Oh, I'm doing that." That's a good thing, or I listen to the them talk about an idea and think, "I can add that into my program and that would be great for my students." I think it has been wonderful for that specific reason. If that is self-efficacy, then I know that common planning has increased it for me.

(table continues)

Question #2: What are teachers' perceptions of the impact of common planning on their self-efficacy when they participate in common planning and when they do not?

<b>Theme #1 Collaboration</b>	
Teacher #11:	I've just finished my 40th year of teaching. This has definitely been the strongest year for professional dialogue. I do think that increases the efficacy, because I have more confidence that I'm teaching what needs to be taught. I am teaching what other teachers are teaching in a standards-based manner. I have other professionals that I collaborate with and we are able to share ideas with each other, discuss teaching strategies, and collaborate every single day. Not only does it increase our efficacy, it broadens our perspective in our departments. Before, we've always been very compartmentalized in high school and you didn't know what that person was doing next door to you. Now we collaborate, we visit on a daily basis, and we continue conversations in the hallway, the lunchroom, and even the ladies' room.
<b>Theme #2 Working Together to Develop the Best Classrooms for the Students</b>	
Teacher #7:	The kids do not see one teacher as being better or superior. The kids are seeing us talking, sharing, and communicating. It's (common planning) is building departments with personal relationships. It's created more of an atmosphere, friendships have formed and it's just a much better working environment. I think that stems into our classroom.
Teacher #11:	Just because you have taught for 40 years doesn't mean you know everything; you continue to learn from people. Plus another good thing is that we have people in our department who are on different runs on the amount of experience. We can learn a lot from people who are younger than we are and can learn from the things they have experienced. The kids see us working together to do this and they know we are all on the same page. The students feel like we care more.
<b>Theme #3 Feeling More Confident and Empowered in Their Own Skills</b>	
Teacher #8:	I think the kids are happier when teachers go back and forth and contribute to each other's classrooms. They know that all of us are teaching the same thing and it allows us to share both the burden and the success. I feel empowered.
	When asked to elaborate on empowerment and self-efficacy, teacher 8 continued with remarks: In the past I did not feel empowered. I share with my colleagues; I do not teach a lesson I am not prepared to teach. Now we are in a department and are able to be more focused. Before I was in a Professional Learning Community with a foreign language teacher, an English teacher, and a math teacher. I teach social studies. It was hard to relate our conversations to a specific standard. I felt like it was just generic information. Now I have a focus for everything I teach and if I am unsure about a lesson, I simply bring it to my PLC group and then I am ready for my class. Overall, I share with my colleagues, I'm much happier. That is empowerment.
	When teacher eight was asked how this new feeling of "empowerment" was contributing success in the classroom she elaborated: I think the proof of this is in our test scores for our Science Department. We are two percentage points above every other school in our district, meeting the state average. We were not that way last year; we were below the other schools and the state average. This is too big of a jump not to credit common planning and how we feel about ourselves. We are proud of making this change, of making a difference, and we are feeling rather prideful in our results.

(table continues)

Question #2: What are teachers' perceptions of the impact of common planning on their self-efficacy when they participate in common planning and when they do not?

**Theme #3**

**Feeling More Confident and Empowered in Their Own Skills**

Teacher #5:	I think common planning truly gave us the time and opportunity to really find each other's strengths and everybody collaborate to put the best of the best together. Our department chairs are able to express our frustrations, successes, needs and ideas to the administrators and they are listening. They tell us and show us (by their responses) that our efforts on a daily basis make us the experts and we are sharing in the success of our school. What could make you feel better than that? Before common planning I do not remember a time when our entire department met. Self-efficacy . . . yes, I know I feel more successful and entitled in my job.
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### Teachers without Common Planning

Just like the teachers with common planning, the majority of the teachers interviewed in schools not using common planning did not directly use the term "self-efficacy." They talked about their idea of what common planning would be like and the common topics were loneliness, stress, failing to motivate students, and feeling like they were not valued.

Most of the participants responded to the first interview question with short answers due to the fact that they were not in common planning or that they had never experienced common planning and there were no recurring themes. The second question overlapped topics found during the first questions and teachers were more willing to elaborate on their desire to have more time with others teaching within the same area as themselves. The several themes that emerged from question 2 included (1) feelings of loneliness, (2) stress, (3) job satisfaction, and (4) visions of how common planning would work (see Table 9).

Table 9

*Common Themes #1, #2, #3--Teachers without Common Planning*

Question #2: What are teachers' perceptions of the impact of common planning on their self-efficacy when they participate in common planning and when they do not?	
<b>Theme #1</b> <b>Feelings of Loneliness</b>	
Teacher #1:	If I had to say one thing has affected how I feel about myself, it would be "loneliness." I am a new teacher and I feel overwhelmed and all alone. There is one other teacher that teaches English and we have the same planning period. That is about all I can say. I do not know everything I should about the standards I am supposed to be teaching . . . much less all the rules, paperwork, procedures, and protocols of our school. It is the end of my first year and I am continually asking myself, "Did I make a difference?" and "Am I teaching what I am supposed to teach?" If this is self-efficacy . . . then I do not feel good about the job I did this year. Will next year be better? Yes, I am going to find a mentor, in fact, I have asked my principal for a mentor. That should make the year better and then I could have a higher self-efficacy. If I could plan with the other nine people in my department, then I think I would have a great year and I would have nine mentors as I develop my skills.
Teacher #2:	As far as classroom management is concerned, something my principal told me during orientation is: If it doesn't work, change it. If something's not working, try something else. I have to find time to talk with other teachers in my department to see what's working for them . . . concerning classroom management. I feel like I have to find time for everything. I wonder if other teachers are struggling with feelings of being "all alone" or if it is just me?
Teacher #3:	I come to work, teach class, do my lesson plans, and then go home. My room location is away from any other teacher in my department. I have several men around me, most of them coaches, and they do not seem interested in talking about teaching skills or standards. I can't imagine what it would be like to have common planning with a whole department. I think I am a good teacher. I feel good about the lessons I teach. But, I just can't imagine what it would feel like to be in common planning.
Teacher #6:	Last year I worked at a school that had Common Planning Professional Learning Communities and it was much more effective for building and maintaining my self-confidence. It helped me to understand that maybe some ideas I had either needed tweaking or that they were good ideas and were working. It helped me with standard-based teaching, creativity in the classroom, objectively measuring, and assessments. I am not unhappy here with my new school but I felt a camaraderie and support that I am not feeling here. It has taken me longer to make close friends and often times I feel like a stranger.

(table continues)

Question #2: What are teachers' perceptions of the impact of common planning on their self-efficacy when they participate in common planning and when they do not?

<b>Theme #2 Feelings of Stress</b>	
Teacher #4:	I get to work early and I leave late. I have lesson plans ready every day, I study the standards, and I take all of my responsibilities very seriously. I get very frustrated when I see other teachers coming in later than I do and leaving earlier than I leave. I feel stressed when I hear students telling me that "that teacher doesn't make us do that," or "why are we doing so much more in your class than my friend's class?" I think some of these teachers are veterans that are teaching the same thing they taught 20 years ago. I am not sure they are even writing lesson plans. Continuing her conversation about stress, Teacher #4 said: I think I have good self-efficacy. I think I would be a better and less stressful teacher if I didn't feel that I am alone in my efforts. Our test scores are not that great and I want to feel successful with my students. I am happy with my job, I am not in a school that is unfriendly but I do feel stress. I am not sure if Common Planning is the answer, but it certainly couldn't hurt. I think anytime people are given time to get together, and then they can share frustrations and perhaps find answers to many of those frustrations.
<b>Theme #3 Job Satisfaction</b>	
Teacher #5:	If I understand self-efficacy correctly, then I am not completely happy or unhappy with my job. I feel that I am a good teacher, I communicate well with both my students and my peers, my administrators are friendly and supportive with me . . . but I could be more satisfied and happier with my job.
Teacher #7:	I really wish that our entire department were on the same page concerning rigor and relevance in our subject area. It is hard when parents complain that I am a harder teacher than someone else, or students continually compare me to the other Social Studies teachers in our departments. I am a coach and we usually get a reputation that all we care about is sports . . . not true in my case. I would like to hear our students talking about the same test we are all giving, or talking about standards that are prerequisite to my subject area. When we attend PLC, we are a mixed group. We try to discuss common practices but it hard when our subject areas are different. We have all four subjects, CTAE teachers, P.E. teachers, and Foreign Language teachers. It is hard to bounce ideas off teachers who are not in your academic area. I am not even sure that my entire department attends PLCs.
	When Teacher #7 was asked if he thought Common Planning would solve this problem, he replied: I am not sure. I have never had Common Planning. I do think if we were in the same room talking about our students, our classroom expectations, and common assessment, we would all feel better about our department. We have the worst department at this school. We have the worst grades. I do not like to be last on the football field and I certainly do not want to be last in the classroom. I do not know if our personalities would blend or if we could even work together, but I do think that it couldn't hurt. My dream would be that whatever area of Social Studies I teach, the other teachers in my department would all contribute to raising our schools. I think it would be a long process of success but I think it would be a great place to start. When he was asked to explain the "personalities" comment he said: Well, when you demand that people step up to the plate and contribute to the department, you are going to have some hard feelings. If we had common planning and could discuss testing results, then failing teachers would be embarrassed, angry, or they would try to gain some self-efficacy. It would be nice to have everyone contributing to the problem of our failing department and if we had Common Planning, it would give us time to work together.

(table continues)

Question #2: What are teachers' perceptions of the impact of common planning on their self-efficacy when they participate in common planning and when they do not?

<b>Theme #4</b> <b>Visions of How Common Planning Would Work</b>	
Teacher #3:	I think it would be a utopia of teaching. I see us sitting around, being friends and colleagues, collaborating on our subject area. I see us mapping our standards and writing lesson plans together. I see myself feeling like I belong to a sorority of teachers with common beliefs and desires. What would it do to me? I would be a great teacher! I would utilize the practices that other teachers were using that were successful. I would be able to share with others. I love teaching and I feel that I could grow into a better and more advanced teacher.
	Teacher three was asked to elaborate on common beliefs and desires: Common beliefs and desires would be the entire group wanting 100% of our students to pass the End of Course Test (EOCT) and raising our AYP scores. We would all be on the same page; everyone would pull their weight. Everyone would want to be a better teacher.
Teacher #4:	Well, if they (other teachers) were required to attend. If the administrators held them responsible then at least there would be built-in time for us to plan. It may not promote more responsible teachers but at least it would give me time during the day to have contact with others teaching the same subject I teach. I think eventually it would promote a department that was on the same page.
Teacher #8:	I think Common Planning would allow us to map the new standards for our subject area. If we never talk about the curriculum of our department, then we will never have true mapping. If we do not understand and discuss the standards for each of our levels of the Language Arts department, how will I know the students are ready for my level (11 <sup>th</sup> ) of English? I think if we were to discuss the standards as a department, then everyone could share responsibility for the students taking standardized tests. I feel slighted when we get back the 11 <sup>th</sup> graders test scores and they fail and my name is on the roster . . . what about the teachers that taught these students in the 9th and 10th grade. If we could discuss standards then our students could be prepared long before I get them. I would feel better about our whole department and myself if we shared the responsibility. Students and teachers would experience higher self-efficacy.

#### Additional Comments--With and Without Common Planning

Not all teachers thought common planning was the answer to self-efficacy. Teachers from both groups--Common Planning and Non Common Planning--voiced their opinions concerning its setting. The two themes that emerged from these comments were (1) self-validation and (2) common planning success (see Table 10).

Table 10

*Common Themes #1 & #2--Teachers with and without Common Planning*

<b>Theme #1 Self-Validation</b>	
Common Planning Teacher #12:	I think it would be a utopia of teaching. I see us sitting around, being friends and colleagues, collaborating on our subject area. I see us mapping our standards and writing lesson plans together. I see myself feeling like I belong to a sorority of teachers with common beliefs and desires. What would it do to me? I would be a great teacher! I would utilize the practices that other teachers were using that were successful. I would be able to share with others. I love teaching and I feel that I could grow into a better and more advanced teacher.
<b>Common Planning Success</b>	
Non Common Planning Teacher #9	I do not think it will work. If you do not feel good about yourself, then meeting with 10 other people is not going to help. I think it would just be another responsibility that I need to do every day. I have never had Common Planning but I think it is like every other new idea – a phase we are going through in education to sell books and consultants. It will go away. When asked if he thought teachers could benefit from the expertise, success, and experience of others he said: I think Common Planning would only be a continuation of the same people being leaders and others followers. I think it would become a place where those that do their job would write lessons and those that do not do their jobs would use what the others were doing.

**Summary of the Surveys**

After teachers of both groups had completed their surveys and the data were analyzed, it was apparent that there was a significant difference in teacher self-efficacy (as well as the subscales that were analyzed) between the two groups of teachers with regard to the setting of their Professional Learning Communities and planning in the schools within this research.

The survey analysis revealed that teachers who participated in Professional Learning Communities designed by common planning displayed a self-reported higher level of teacher efficacy as well as higher scores on classroom management, instructional strategies, and student engagement.

## Summary of Interviews

After teachers of both groups were interviewed regarding their opinions concerning self-efficacy and PLCs with common planning, it was apparent that several categories emerged within the entire body of people being interviewed. Teachers with common planning viewed a more positive and productive classroom that included collaboration, working together to develop the best classrooms for the students, and feeling more confident and empowered in their own skills. The themes were filled with ideas of confidence, adequacy, and success for both teachers and students. The teachers talked about built-in support systems, supportive departments, and access and support to and from administrators. Feelings were expressed concerning rigor and relevance in classrooms where students were more challenged and departments having a more defined purpose and design.

The interviewees from PLCs without common planning also expressed ideas that fell into defined categories and were almost the negative or the mirror image of what the group with common planning had said. These teachers expressed feelings of the loneliness of having a solo role as a teacher, stress, and job satisfaction. A very important theme that emerged from interviewing the teachers without common planning was their visions of how common planning would or should work.

## Summary

This chapter presented the findings of the research, a summary of the data collection procedure, a descriptive analysis of the survey, and a report of the findings. This study examined two research questions:

1. Is there a perceived difference in teacher self-efficacy between high school teachers who participate in common core subject Professional Learning Communities and those who do not?

2. What are teachers' perceptions of the impact of common planning on their self-efficacy when they participate in common planning and when they do not?

Specifically, this research was conducted to determine the effects of common planning on teacher efficacy. This research indicated connections between PLCs defined by common planning and teacher efficacy as reported on the TSES and qualitative data.

The next chapter will summarize and discuss the findings. The discussion will present the significance of the relationship of common planning and teacher efficacy and the implications for educational practice. In conclusion, the last chapter will present recommendations for further research to enhance the study's outcomes.

## CHAPTER 5

### DISCUSSIONS AND CONCLUSIONS

Educational leaders today are as concerned with standardized tests as they are with budgets, buildings, safety, and staffing largely due to the 2002 legislation of NCLB and worry about the consequences if they do not make adequate yearly progress (AYP). While the placements of federal legislation and presidential initiatives were developed to promote the achievement of 100% of students, teachers continue to work without measures being addressed that will help reach this goal and promote their (the teachers) success. Oliver (2001) defined the roadblock to the success of these programs with one topic of definition--teacher efficacy.

According to Bandura (1997), self-efficacy beliefs develop in response to four sources of information. The most powerful influence on self-efficacy is “enactive experience” in which self-efficacy for a particular topic is increased by successfully demonstrating the behavior. The second most powerful influence is “vicarious experience,” in which others in the same area are appearing to perform the same task successfully. A third influence is verbal persuasion, which, if given, can give encouragements that give rise to efficacy through success of the behavior. Last, self-efficacy beliefs can be affected by physiological states such as stress (p. 79).

Bandura (1977) defined self-efficacy as a multidimensional construct with varying generality, levels, and strength. Bandura wrote that the basis of efficacy beliefs of individuals might be found in a variety of variables ranging from simple to complex in nature. Furthermore, teachers’ feelings of efficacy may be present in all areas of teaching or only found at a given point in time when related to experiences of their professional lives. Bandura concluded that,

self-efficacy might fluctuate during one's professional life as personal beliefs about achievement change with experience, influence, and different circumstances as they are met. Goddard, Hoy, and Hoy (2000) define collective efficacy as "the perceptions of teachers in a school that the efforts of the faculty as a whole will have a positive effect on students," with the faculty in general agreement that "teachers in this school can get through to the most difficult students" (p. 480).

Gibson and Dembo (1984) defined teacher efficacy as one factor that contributes to the performance of teachers in the classroom. Defining teacher efficacy as the extent to which a teacher believes he or she has the capacity to affect and influence student performance, Gibson and Dembo related teacher efficacy to the individual differences in teachers' expectations of and feedback for students (Gibson & Dembo, 1984), and to teachers' control orientations (Woolfolk & Hoy, 1990). Ashton and Webb (1986) made a positive association between teacher efficacy and academic achievement by students. Bandura (1993) linked efficacy and achievement in a positive manner by associating them to the environment that has been created by teachers and administrators. Thus, the effect of an environment can lead to either a positive or a negative pedagogical practice, which directly contributes to student failure or student achievement.

Expanding the theoretical framework of Bandura concerning self-efficacy, Ashton and Webb (1982) labeled personal teaching efficacy. They suggested that a component of a teacher's sense of efficacy is a belief that certain actions undertaken by teachers in general will lead to student learning and that he or she will be able to bring about student learning.

The purpose of this study was to explore the possible effects of participating Professional Learning Communities, linked with the organizational strategy of common planning of core subjects on self-reported perceptions of teacher efficacy. Specifically, the research focused on

these two questions: Is there a perceived difference in teacher self-efficacy between high school teachers who participate in common core subject Professional Learning Communities and those who do not? What are teachers' perceptions of the impact of common planning on their self-efficacy when they participate in common planning and when they do not? The purpose of this chapter is to briefly describe how the problem fits into the literature, review the methodology used to conduct the study, present a summary of the results, the conclusions, and a discussion of those results and their possible applications and implications for educators, policy developers, and researchers.

### Summary of the Methods

This study utilized both quantitative and qualitative research methods to study the perceived effects of Professional Learning Communities (PLCs) with common planning on teacher efficacy. The study involved teachers of public high schools (Grades 9-12) in North Georgia. Consent to access personnel and information was assured and acquired through the executive administrators of each participating school. One hundred and eighty-five teachers participated in the teacher efficacy survey with 115 representing PLCs without common planning and 70 representing PLCs with common planning. Twenty-four teachers were invited to participate in the interview portion of the survey with 12 teachers from each category of PLCs represented and 13 teachers having member-check follow-up conversations.

The instrument used to measure teacher efficacy was the long form of the Teacher's Sense of Efficacy Scale (TSES) developed by Tschanen-Moran and Woolfolk Hoy (2001). The teachers were the unit of analysis and the TSES measured total efficacy as well as efficacy of constructs of instructional strategies, classroom management, and student engagement. The

interview questions were developed by the researcher and focused on teachers' perceptions of their own efficacy as influenced or not by their participation in PLCs with and without common core planning. The following is a brief summary of the study's results.

### Summary of the Findings

Both the quantitative survey data and the qualitative data indicated positive perceptions about the effects of Professional Learning Communities, as designed by common core planning of core subjects, among the teachers within this study. The comments from the interviews reinforced the idea that common core planning had a positive impact on the efficacy of the teachers and can be linked to the subscales found within the TSES.

The convenience sample of 24 teachers interviewed responded to two questions: Is there a difference in teacher self-efficacy as measured by the TSES between high school teachers who participate in Professional Learning Communities linked with the organizational structure of common core planning and those who do not? What are teachers' perceptions of the impact of common planning on their self-efficacy when they participate in common planning and when they do not? An open-ended format was used, which allowed the researcher to ask follow-up questions about the Professional Learning Communities as they were linked to common core planning and the evidence of teacher's perceptions of the effects of the setting on teacher efficacy.

In responses similar to the survey outcomes, interviewees shared views of experiences derived from common core planning. Themes derived from interviews with common core planning focused on feelings of confidence and belonging, feeling less lonely, having support and feeling less stressful, and having administrator support and interaction. Additional themes

emerged when teachers from common planning answered the second question and included collaboration, working together to develop best classrooms, and feeling more confident and empowered in their own skills. The themes found from the interviews of teachers without common planning included loneliness, stress, job satisfaction, and visions of how common planning would work. Thus teachers with common planning evidenced answers that displayed more positive attitudes, confidence, camaraderie, and classroom success. On the other hand, teachers without common planning seemed to have feelings of loneliness, being overworked, and having classrooms with different standards from those of their peers.

The data from this study indicated that the teachers from the schools involved perceived a positive relationship between teacher efficacy and Professional Learning Communities linked with the organizational strategy of common core planning. The teacher's Teacher Efficacy score for those with common planning was significantly greater than those without common planning,  $p < .0005$ . The three constructs also showed a significant difference with the following scores: efficacy of classroom management (ECM) in the common planning group ( $Mdn = 7.75$ ) was significantly greater than in the group without common planning ( $Mdn = 7.13$ ),  $U = 2480, p < .0005$ ; efficacy of instructional strategies (ESI) score in the common planning group ( $Mdn = 7.00$ ) was significantly greater than in the group without common planning ( $Mdn = 6.38$ ),  $U = 2573, p < .0005$ ; and efficacy of student engagement (ESE) score in the common planning group ( $Mdn = 7.13$ ) was significantly greater than in the group without common planning ( $Mdn = 6.50$ ),  $U = 2241, p < .0005$ .

The efficacy construct with the strongest relationship to common planning was efficacy for classroom management. A component of this construct that ultimately affects student learning is the teacher's capacity to establish an effective classroom management system

(Tschannen-Moran & Hoy, 2001). The absence of a well-structured and managed classroom may diminish the level of learning for many students and may also provide frustration for the teacher as well. Therefore, the study's results provided evidence to support the idea that a higher degree of classroom management strategies was fostered with common planning.

Efficacy for student engagement was determined to have a weaker relationship to common planning than classroom management; but it was still measured to be statistically significant. According to Tschannen-Moran and Hoy (2001), the questions from the TSES reflect a teacher's level of confidence in his or her ability to challenge or teach all students regardless of outside influences. The positive correlation between efficacy in student engagement and common planning in this study signified the level of common planning on teachers' ability to influence difficult students in areas such as learning, thinking critically, and problem solving (Tschannen-Moran & Hoy, 2001).

Although all survey constructs were statistically significant, efficacy of instructional strategies presented the weakest relationship to PLCs with common planning. This area of efficacy involves a teacher's willingness and ability to provide a variety of assessments, to incorporate explanations and alternative strategies as well as develop challenges and appropriate lesson plans for each individual student regardless of the variety of levels of the classroom. With the results here being statistically significant, administrative attention in this area may be needed; it may indicate that additional administrative attention is needed in guiding teachers to develop plans and meet the needs of the variety of learners found in these schools (Tschannen-Moran & Hoy, 2001).

The overall results of this study provided evidence of a positive relationship within the schools studied between classroom teacher perceptions related to components of teacher efficacy

and the implementation of Professional Learning Communities linked with the organizational strategy of common core planning. Both the survey and interview data provided evidence that support the use of PLCs with common core planning, and suggest that teachers involved in this study and common core planning used enhanced student engagement, development of efficacious instructional strategies, and better classroom management.

The results of the TSES data analysis and the themes and information from the interviews from the teachers interviewed, provided some evidence for potential gains from the use of common core planning linked to professional learning communities. Positive perceptions of the effects of this type of Professional Learning Communities seemed to exist among the teachers in this study, and they reported feelings of confidence and belonging with support among each other and their respected school leaders. In one of the schools, teachers even reported that state test scores were improved; they perceived this to be due to the collaboration found with common core planning as part of their respected workdays. Their views support the research reported by Meier (1992) and Little (1999) concerning collaboration, and their (perhaps hopeful) conclusions that achievement can be credited to sharing the responsibility for student progress and achievement levels that rise when colleagues are free to work together and plan for the success of students.

#### Recommendations for Educators

Tschannen-Moran and Woolfolk Hoy (2001) described measuring efficacy as “capturing an elusive construct” (p. 783). Their writings concluded that teacher efficacy had a powerful relationship to numerous educational standards including student engagement, instructional strategies, and classroom management. The quantitative analysis of the responses from the

teachers participating in this study indicated a positive relationship between all measured self-perceptions of efficacy constructs and Professional Learning Communities linked with the organizational structure of common core planning. With student achievement as the ultimate goal, it may prove beneficial if principals and educational leaders examine collaboration, team teaching, standardized classrooms, and common planning's influence on the three aspects of teacher efficacy examined in this study. Being mindful of how scheduled planning decisions not only fit within the global expectations of leadership constructs, but more importantly affect good classroom teaching practices, may help administrators plan and implement programs and strategies that create an atmosphere more conducive to model classrooms, comprehensive learning, higher test scores, and measures of AYP. Addressing Professional Learning Communities with purpose and design with regard to teachers' collaborative nature may encourage them to support the overall success of the school.

Even though this study used convenience sampling, it may be applicable to policymakers in Georgia Public Education since Professional Learning has recently become the responsibility of individual districts and schools. Supportive measures for teachers, such as common core planning, is an important aspect of this research that concluded collaboration allowed a more supportive environment for both teachers and students.

### Implications for Practitioners

The researcher saw several implications after analyzing the results of this study and developed a variety of convictions. Among these convictions and conclusions was the idea that Professional Learning Communities, when designed by common core planning, contributed to a more efficacious group of teachers within the schools studied. By believing themselves

important among a group of their peers, by feeling less lonely and sensing more support from leaders and administrators, teachers' perceptions of their own self-efficacy was significantly greater than those teachers without this opportunity. As a result of self-efficacy, teachers had a greater sense of satisfaction, confidence, and belonging with a truer and more complete understanding of collaboration. Within a heightened environment of participation in common subjects, teachers felt more confident and empowered in their own skills, which led to a more rigorous and successful classroom with higher achieving students.

This research may help expand the base of knowledge concerning Professional Learning Communities and the value of collaboration as linked to common core planning. Some Southern states have developed Core Curriculum Standards and are in the process of emphasizing PLCs. The setting found within this study may be valued as a suitable model for curriculum change. The statistically significant differences found between the teachers of the participating schools enhance the value of this study and it may be a good resource to be shared with other educators as they plan for the use of Professional Learning Communities.

#### Suggestions for Additional Research

As with most studies, this study revealed some unanswered questions. Therefore, it is suggested that further study in areas that include standardized test scores, the organization of Professional Learning Communities, and new teacher retention would be beneficial.

The suggestions from the interviews that there is a potential relationship between Professional Learning Communities with common planning and higher test scores should be investigated. An analysis of standardized test scores over a period of time may prove beneficial when studying high school schedules built with common core planning. This analysis may be

even more insightful if scores were used prior to common core planning. Additional interesting and helpful comparative analyses may be between schools with common core planning and those without common core planning. Each of these studies may provide insights and support for use of Professional Learning Communities and how to organize them.

Additionally, a recommendation for future research would be to examine how common core planning periods are organized, maintained, and utilized on a daily or weekly basis. The value of understanding how teachers participate in and use common planning may prove beneficial as leaders plan with leadership teams and discuss expectations of core classrooms. Even though establishing common planning is promoted and supported by the researcher in this study as one of the factors of higher teacher efficacy, it may prove beneficial to understand the participation rate, commitment, and collaboration skills within this descriptive setting. Further study in this area is needed to clarify the understanding and importance of the relational value of common planning and how it is used.

Because the unit of analysis in this research was the “individual” teacher, another consideration could be the comparison of the two described groups and their relationship to teacher efficacy as collaborative groups. Comparison of the means of the self-efficacy as well as the constructs found within this research may serve as another planning factor for PLCs as administrators plan to meet new state and federal initiatives.

The final recommendation for further study is to examine relationships between common core planning and the retention rates of new teachers within the field of education and in particular at the same school. Because of the number of teacher comments about the importance of administrative support, access to the administrators, and administrator support and participation in learning communities, successful implementation of Professional Learning

Communities may prove effective in supporting leadership skills for fostering teacher efficacy.

These results should encourage principals who strive to improve school environmental conditions affecting teachers' work, to support and enhance their staff's ability to meet educational goals, and to strengthen the desire for teachers to remain in the field of education.

#### Concluding Comment

Given the educational pressures that challenge teachers today, including the increasing demand of schools and teachers to meet the federal requirements and to reach the targeted goals for all subgroups of students by 2014, administrators, teachers, and school districts are implementing various strategies designed to support all students meeting these standards. In order to meet the requirements, educators need to produce students who are capable of solving problems with a superior ability and demonstrating higher order thinking skills. When these skills are absent, it is not parents who are cited as failing the positive development of our workforce. It is teachers, administrators, and the public school system that carry the burden. For the public educational system to continue, it must respond to its stakeholders and survive the challenges of a seemingly ever-growing and demanding set of federal requirements.

The ever-changing demands in outcome expectations increase the demands on teachers, administrators, and central offices to offer classrooms and campuses that are flexible models of diverse and challenging opportunities. Some argue that the responsibility of school leaders is to fashion an atmosphere that supports teacher collaboration, and environments where teachers work together to transform their classrooms into a learning milieu that meets the ever-expanding needs of students thus supporting the need for transformational leadership components that

enhance the development of teacher efficacy in all aspects of teaching and the Professional Learning Community. Hipp (1995) concluded,

If a strong sense of self-efficacy motivates teachers to higher levels of competence and success, then an increased focus on this teacher attribute is critical. Nonetheless, if school leaders continue to ignore teachers' sense of efficacy and environmental conditions affecting their work, then committed young teachers, as well as experienced teachers, may begin to question their potential to effect change in student behavior; and worse yet, may decide to leave the profession. (p. 265)

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APPENDIX A  
SUPERINTENDENT INFORMED CONSENT LETTER

## Superintendent Informed Consent Letter

Dear \_\_\_\_\_

I am working on my dissertation in Educational Administration at the University of Alabama. The title of my research is, *The Effects of Professional Learning on Teacher Efficacy*. The purpose of this research is to investigate aspects of the school environment and their relationship to teachers' beliefs in teachers' self-efficacy.

As part of my study, I am conducting a teacher-efficacy questionnaire, which should take approximately 20-25 minutes to complete. The survey will ask high school teachers questions about their teaching, their professional relationship with other teachers in their schools, and their beliefs about student learning, and their belief about community support.

Teachers will also be asked if they would be willing to participate in an interview. The interview would be semi-structured and would take approximately 45 minutes to complete. The questions of the interview would follow the philosophical assumptions and research methods of phenomenology.

All information collected in this study is confidential, and will be kept confidential and will be seen only by the researcher named below. There are no foreseeable risks to the individuals who participate in this study; therefore, there are no costs to any school or participant in any way. This project has been reviewed according to The University of Alabama procedures governing participation in research.

I understand that participation in this study is entirely voluntary. I understand that I am free to ask questions or withdraw any school in my district from participation at any time without penalty.

By signing below, I state that I am over 18 years of age and allow schools and personnel to participate in the above named research project being conducted by Kyra Rhyne at the Graduate School, University of Alabama, Tuscaloosa, Department of Education.

NAME OF PARTICIPANT \_\_\_\_\_ DATE \_\_\_\_\_

SIGNATURE OF PARTICIPANT \_\_\_\_\_

Kyra Rhyne  
Dr. Daisy Arredondo Rucinski, Committee Chair  
Department of Educational Leadership  
307D Graves Hall  
University of Alabama  
Tuscaloosa, AL 35487  
(205) 348-7826

APPENDIX B  
PRINCIPAL INFORMED CONSENT LETTER

## Principal Informed Consent Letter

Dear \_\_\_\_\_

I am working on my dissertation in Educational Administration at the University of Alabama. The title of my research is, *The of Effects of Professional Learning on Teacher Efficacy*. The purpose of this research is to investigate aspects of the school environment and their relationship to teachers' beliefs in teachers' self-efficacy.

As part of my study, I am conducting a teacher-efficacy questionnaire, which should take approximately 20-25 minutes to complete. The survey will ask high school teachers questions about their teaching, their professional relationship with other teachers in their schools, and their beliefs about student learning, and their belief about community support.

Teachers will also be asked if they would be willing to participate in an interview. The interview would be semi-structured and would take approximately 45 minutes to complete. The questions of the interview would follow the philosophical assumptions and research methods of phenomenology.

All information collected in this study is confidential, and will be kept confidential and will be seen only by the researcher named below. There are no foreseeable risks to the individuals who participate in this study; therefore, there are no costs to any school or participant in any way. This project has been reviewed according to The University of Alabama procedures governing participation in research.

I understand that participation in this study is entirely voluntary. I understand that I am free to ask questions or withdraw any school in my district from participation at any time without penalty.

By signing below, I state that I am over 19 years of age and allow schools and personnel to participate in the above named research project being conducted by Kyra Rhyne at the Graduate School, University of Alabama, Tuscaloosa, Department of Education.

NAME OF PARTICIPANT \_\_\_\_\_ DATE \_\_\_\_\_

SIGNATURE OF PARTICIPANT \_\_\_\_\_

Kyra Rhyne  
Dr. Daisy Arredondo Rucinski, Committee Chair  
Department of Educational Leadership  
307D Graves Hall  
University of Alabama  
Tuscaloosa, AL 35487  
(205) 348-7826

APPENDIX C  
TEACHER INFORMED CONSENT LETTER (SURVEY)

### Teacher Informed Consent Letter (Survey)

Study Title: THE EFFECTS OF PROFESSIONAL LEARNING ON TEACHER EFFICACY

Investigator: Kyra Rhyne, Doctoral Student

This study is called "The Effects of Professional Learning on Teacher Efficacy." The study is being done by KYRA RHYNE, who is a graduate student at the University of Alabama. Ms. Rhyne is being supervised by Dr. Daisy Arredondo-Rucinski who is a professor of Education at the University of Alabama.

You are being asked to take part in this research study based on the location of your school in the North Georgia area. As participant, you will be asked to complete an efficacy questionnaire on individual beliefs relative to personal teaching, professional relationships with other teachers, student learning, and community support. The survey should take approximately 20-25 minutes to complete. At the end of the survey is a section that asks some demographic information relative to participant experience in education and grade level taught.

The purpose of this study is to explore the possible effects of participating Professional Learning Communities, linked with the organizational strategy of common planning of core subjects on self-reported perceptions of teacher efficacy. The benefit of participating is that the researcher will share the implications of the study with the participating schools. This information can be used to determine the professional growth areas of concern for the schools.

You have been asked to be in this study based on the location of your high school in the Georgia area and your teaching assignment of a core subject, i.e. Math, Language Arts, Science, and/or Social Studies.

There are no known risks associated with completing and returning the survey or participating in the interview. Participation is voluntary. All information will be kept confidential, and the participants may withdraw from the study at any time with no further inquiries from the researcher.

By signing below, I state that I am over 19 years of age and wish to participate in the above named research project being conducted by Kyra Rhyne at the Graduate School, University of Alabama, Tuscaloosa, Department of Education. I understand that the only cost to me is my time and that there is no compensation for being in this study.

If you have any questions, concerns, or complaints about the study later on, please call Kyra Rhyne at 423-504-9410. If you have questions about your rights as a person in a research study, call Ms. Tanta Myles, the Research Compliance Officer of the University, at 205-348-8461 or toll-free at 1-877-820-3066. You may also ask questions, make suggestions, or file complaints and concerns through the IRB Outreach website at [http://osp.ua.edu/site/PRCO\\_Welcome.html](http://osp.ua.edu/site/PRCO_Welcome.html) or email them at: [participantoutreach@bama.us.edu](mailto:participantoutreach@bama.us.edu).

I have read this consent form. I have had a chance to ask questions. I agree to take part in it.  
I will receive a copy of this consent form to keep.

Signature of Research Participant

Date

Signature of Investigator

Date

**APPENDIX D**  
**TEACHER INFORMED CONSENT LETTER (INTERVIEW)**

Teacher Informed Consent Letter (Interview)

Study Title: THE EFFECTS OF PROFESSIONAL LEARNING ON TEACHER EFFICACY

Investigator: Kyra Rhyne, Doctoral Student

This study is called "The Effects of Professional Learning on Teacher Efficacy." The study is being done by KYRA RHYNE, who is a graduate student at the University of Alabama. Ms. Rhyne is being supervised by Dr. Daisy Arredondo-Rucinski who is a professor of Education at the University of Alabama.

You are being asked to take part in this research study. You are being asked to take part in this research study based on the location of your school in the North Georgia area. You will be interviewed using audio recording and it will be focused on the level of trust gained as a result of participating in the PLC common core planning. A short series of open-ended questions will be asked at this time and will take approximately 45 minutes.

The purpose of this study is to explore the possible effects of participating Professional Learning Communities, linked with the organizational strategy of common planning of core subjects on self-reported perceptions of teacher efficacy. The benefit of participating is that the researcher will share the implications of the study with the participating schools. This information can be used to determine the professional growth areas of concern for the schools.

You have been asked to be in this study based on the location of your high school in the Georgia area and your teaching assignment of a core subject, i.e. Math, Language Arts, Science, and/or Social Studies.

There are no known risks associated with completing and returning the survey or participating in the interview. Participation is voluntary. All information will be kept confidential, and the participants may withdraw from the study at any time with no further inquiries from the researcher.

By signing below, I state that I am over 19 years of age and wish to participate in the above named research project being conducted by Kyra Rhyne at the Graduate School, University of Alabama, Tuscaloosa, Department of Education. I understand that the only cost to me is my time and that there is no compensation for being in this study.

If you have any questions, concerns, or complaints about the study later on, please call Kyra Rhyne at 423-504-9410. If you have questions about your rights as a person in a research study, call Ms. Tanta Myles, the Research Compliance Officer of the University, at 205-348-8461 or toll-free at 1-877-820-3066. You may also ask questions, make suggestions, or file complaints and concerns through the IRB Outreach website at [http://osp.ua.edu/site/PRCO\\_Welcome.html](http://osp.ua.edu/site/PRCO_Welcome.html) or email them at: [participantoutreach@bama.us.edu](mailto:participantoutreach@bama.us.edu).

As mentioned above, the individual qualitative interview will be audio recorded for research purposes to explore the Effect of Professional Learning on Teacher Efficacy. These tapes will be stored in a locked file cabinet in a locked room and only available to the researcher. The tapes will be kept for no more than 9 months and will be destroyed after they have been transcribed.

I will participate in the interview portion of this study. \_\_\_\_\_

\_\_\_\_\_  
Signature of Research Participant

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Investigator

\_\_\_\_\_  
Date

**I understand that part of my participation in this research study will be audiotaped and I give my permission to the research team to record the interview.**

Yes, my participation in \_\_\_\_\_ can be audiotaped.

No, I do not want my participation in \_\_\_\_\_ to be audiotaped.

## APPENDIX E

### PERMISSION TO USE THE TEACHERS' SENSE OF EFFICACY SCALE

Permission to use The Teachers' Sense of Efficacy Scale



ANITA WOOLFOLK HOY, PH.D.

PROFESSOR  
PSYCHOLOGICAL STUDIES IN EDUCATION

Dear

You have my permission to use the *Teachers' Sense of Efficacy Scale* in your research. A copy of both the long and short forms of the instrument as well as scoring instructions can be found at:

<http://www.coe.ohio-state.edu/ahoy/researchinstruments.htm>

Best wishes in your work,

Anita Woolfolk Hoy, Ph.D.  
Professor

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APPENDIX F  
TEACHER SENSE OF EFFICACY SCALE/DEMOGRAPHIC INFORMATION

**Part I: Teacher Sense of Efficacy Scale.** Directions: This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below. Your answers are confidential. After completing this survey please return it to the person who administered it. Thank you for your assistance in assessing teacher efficacy.

	Nothing	Very Little	Some Influence			Quite a Bit		A Great Deal	
	1	2	3	4	5	6	7	8	9
1. To what extent can you make your expectations clear about student behavior?	1	2	3	4	5	6	7	8	9
2. How much can you gauge comprehension of what you have taught?	1	2	3	4	5	6	7	8	9
3. How much can you do to calm a student who is disruptive or noisy?	1	2	3	4	5	6	7	8	9
4. To what extent can you provide an alternative explanation or example when students are confused?	1	2	3	4	5	6	7	8	9
5. How much can you do to get through to the most difficult students?	1	2	3	4	5	6	7	8	9
6. How much can you do to get students to believe they can do well on schoolwork?	1	2	3	4	5	6	7	8	9
7. To what extent can you craft good questions for your students?	1	2	3	4	5	6	7	8	9
8. How well can you establish a classroom management system with each group of students?	1	2	3	4	5	6	7	8	9
9. How well can you respond to defiant students?	1	2	3	4	5	6	7	8	9
10. How well can you provide appropriate challenges for very capable students?	1	2	3	4	5	6	7	8	9
11. How much can you do to adjust your lessons to the proper level for individual students?	1	2	3	4	5	6	7	8	9
12. How much can you do to foster student creativity?	1	2	3	4	5	6	7	8	9
13. How well can you establish routines and keep activities running smoothly?	1	2	3	4	5	6	7	8	9

		Nothing	Very Little	Some Influence	Quite a Bit			A Great Deal		
14.	How much can you assist families in helping their children do well in school?	1	2	3	4	5	6	7	8	9
15.	How much can you do to help your students think critically?	1	2	3	4	5	6	7	8	9
16.	How well can you respond to difficult questions from your students?	1	2	3	4	5	6	7	8	9
17.	How much can you do to improve the understanding of a student who is failing?	1	2	3	4	5	6	7	8	9
18.	How well can you implement alternative strategies in your classroom?	1	2	3	4	5	6	7	8	9
19.	How much can you get children to follow classroom rules?	1	2	3	4	5	6	7	8	9
20.	How much can you do to motivate students who show low interest in schoolwork?	1	2	3	4	5	6	7	8	9
21.	How well can you keep a few problem students from ruining an entire lesson?	1	2	3	4	5	6	7	8	9
22.	How much can you use a variety of assessment strategies?	1	2	3	4	5	6	7	8	9
23.	How much can you do to control disruptive behavior in the classroom?	1	2	3	4	5	6	7	8	9
24.	How much can you do to help your students' value learning?	1	2	3	4	5	6	7	8	9

**PART II. DEMOGRAPHIC INFORMATION:** Would you please provide the following information about yourself?

25. Gender: Male  Female  Age?
26. Race: African-American  Asian  Caucasian  Hispanic  Other
27. How long have you been teaching? Years \_\_\_\_\_ Months \_\_\_\_\_
28. How long have you been teaching at this high school? Years \_\_\_\_\_ Months \_\_\_\_\_
29. What is your educational level? BA  MA  EdS  EdD  PhD
30. What department do you belong? LA  Math  SS  Sci  Voc/Bus  Other
31. What specific area of your subject do you teach?
32. Do you regularly attend PLCs? Yes  No
33. Do you have common core planning? Yes  No
34. How many teachers attend your common core planning?
35. Would you be willing to participate in an interview?
36. If you answered "YES" to question #35, please give the following information:  
Name: \_\_\_\_\_ School Name: \_\_\_\_\_

APPENDIX G  
OPEN-ENDED QUESTIONS WITH PROMPTS

## Open Ended Questions with Prompts

### Common Core Planning Teachers

1. Has being a part of a Professional Learning Community (linked with common core planning) made a difference in your self-efficacy as a teacher?
  - a. Why or why not?
  - b. If so, how?
2. Do you think common core planning (with your department) has contributed to this difference?
  - a. If so, in what way?
3. Do you think that you would have experienced the same positive views without the organization of common core planning PLCs?
  - a. Why or why not?
4. Have you been in a setting without common core planning?
  - a. If so, what are some of the differences?
  - b. Do these differences contribute to raising self-efficacy or the lack of self-efficacy?
5. What are your perceptions of self-efficacy among the members of your department?
6. What are your perceptions of how others support common core planning?
  - a. Your department chair?
  - b. Your administrators?
7. Would you like to add anything else about PLCs. Common core planning, or self-efficacy?

### Without Common Core Planning Teachers

1. Has being a part of a Professional Learning Community made a difference in your self-efficacy as a teacher?
  - a. Why or why not?
  - b. If so, how?
2. Do you think common core planning (with your department) would have made a difference in self-efficacy?
  - a. If so, how?
3. Are you satisfied with your job?
  - a. Do you think common core planning would add to your level of satisfaction or lack thereof?
4. What are your thoughts about “how” common core planning would work?
  - a. Do you think this would be a more positive work setting?
  - b. Do you think you would be more efficacious in your job if you had common core planning?
5. Do you feel like a contributing member of your department?
  - a. Do you feel isolated or lonely?
6. Would you like to add anything else about PLCs. Common core planning, or self-efficacy?