

SHARED LEADERSHIP, PROFESSIONAL LEARNING COMMUNITIES, AND  
TEACHER SELF-EFFICACY: HOW ONE IMPACTS THE OTHER

by

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## ABSTRACT

As a school leader's task of ensuring learning for all students becomes increasingly complex it is vital to determine how to accomplish this task. Leadership has been the focus of many studies; however, this study analyzes school leadership through a distributive lens while also investigating how leadership roles are shared when tasks are dispersed among various leaders within the school. The study further looks into the relationship between sharing leadership tasks and the development of a collaborative culture. Finally, this study seeks to determine the impact of shared leadership roles on the perception of teacher self-efficacy. A mixed methods study was conducted to determine the connection of shared leadership, professional learning communities (PLCs), and teacher perception of self-efficacy. The results of the study indicate it is not officially designated leadership roles that impact teacher self-efficacy, but rather the sharing of leadership responsibilities through PLCs.

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## CHAPTER I: INTRODUCTION

School leaders' task of ensuring all students are progressively and continually learning is increasingly complex. To make this task more manageable and to achieve the goal of increased student learning, principals must create a "meaningful and effective collaborative culture" (Eaker & Keating, 2012, p. 15). Accountability demands, in addition to the focus on continuous improvement of student learning, frame the priority list of many principals and impact how they lead. It is unrealistic to think a single individual can accomplish the numerous and complex tasks associated with ensuring all students learn and show continuous improvement (DuFour & Marzano, 2011). The growing demands of a school leader requiring one to respond to multiple, complex issues at any given moment, constitutes a shift from a singular leader model to that of a shared or distributed model. Leadership is recognized as a social construct and the idea of a single, heroic leader is quickly diminishing (Avolio, Walumbwa, & Weber, 2009; Spillane, Halverson, & Diamond, 2004). Leaders must have a mindset shift from thinking they should know and do everything, to a mindset where they seek the expertise of others, constantly pursue best practices, and learn together with the faculty and staff (Eaker & Keating, 2012).

Shared leadership is key in professional learning communities (PLCs) as it creates opportunities for professional learning, provides a focus on continuous improvement, and allows for the development of shared values and vision (Carpenter, 2015). "Shared leadership is a central component of effective professional learning in collaborative groups such as professional learning communities (PLCs). Shared leadership provides the

venue for continuous improvement and therefore shared values and vision” (Carpenter, 2015, p. 689). Distributive leadership practices “can be expected with the changes in the division of labor and the emergence of new forms of interdependence, particularly when practitioners are confronting an increasing volume of complex problems and tasks” (Gronn, 2002, p. 687). Effective PLCs and collaboration positively impact school culture, and shared leadership structures positively impact continuous school improvement (Carpenter, 2015). This research provides essential information for school leaders considering implementing shared or distributed leadership structures.

## **Background**

### **Leadership**

Previous studies of leadership are numerous and cover a wide array of leadership types including transactional and transformational leadership. Transactional leadership is a more traditional model which attempts to accomplish goals by focusing on rules and procedures while trading one thing for another (Lezotte & Snyder, 2011; Marzano, McNulty, & Waters, 2005). Transformational leadership is defined as leadership that inspires followers to perform beyond expectations putting the good of the organization before one’s self. Transformational leadership is founded on shared purpose, beliefs, and values (Avolio et al., 2009; Lezotte & Snyder, 2011). While distributed leadership is not a way to lead, a type of leadership, or a leadership style, it is rather a lens through which to analyze leadership practices (Spillane, 2005).

Leadership involves an influential relationship between leaders and followers working with a mutual purpose toward real change. This relationship is not linear or vertical, but rather multi-directional spanning vertically, horizontally, and circularly

(Rost, 1993). If a relationship is to be defined as leadership then four basic characteristics must be present. These include “a relationship based on influence, leaders and followers are people in the relationship, leaders and followers intend real change, and leadership and followers develop mutual purposes” (Rost, 1993, p. 104). Shared leadership structures positively impact continuous school improvement (Carpenter, 2015). Sharing leadership allows for a venue for continuous improvement and, therefore, the sharing of values and vision. Shared leadership then becomes a central component of effective professional learning in collaborative groups like PLCs (Carpenter, 2015).

There are great number of leadership tasks that must be accomplished in a highly-effective school. These include development of shared vision; providing a recognition system; dispensing consistent discipline; establishing collaborative structures; understanding and improvement of assessment, instruction, and curriculum; providing staff and faculty with intellectual stimulation; developing relationships among faculty and staff as well as community partners; and modeling high performance expectations (Marzano et al., 2005; Sun & Leithwood, 2012). Each of these tasks are broad, overarching tasks that lead to the mission of learning for all students. These tasks are so broad, in fact, studying these would be difficult (Spillane, Halverson, & Diamond, 2001). These macro functions are necessary, large-scale tasks that are often deconstructed into micro tasks (Spillane et al., 2001). The micro tasks are necessary for day-to-day operations and build upon one another to achieve the overarching macro functions. Micro tasks are distributed among various individuals throughout the school. For example, the macro function of developing a shared mission and vision might include micro tasks of developing expectations for professional learning communities and identifying collective

commitments of faculty. Leadership research must move from a study of individuals to the school as a whole (Spillane et al., 2001; Spillane et al., 2004). Looking at leadership through a distributed perspective provides a framework to study how leadership is shared throughout the school.

### **Professional Learning Communities**

A collaborative culture requires more than teachers just working together. It is a systematic process that is characterized by an interdependency among those working together, sharing their knowledge and expertise to impact student learning (Carpenter, 2015; DuFour et al., 2006; Eaker & Keating, 2012). A collaborative culture that includes interdependency and sharing knowledge to impact student learning is referred to as a Professional Learning Community (PLC) (DuFour et al., 2006). PLCs have six characteristics including: (1) shared mission, vision, values and goals all focused on student learning; (2) a collaborative culture with a focus on learning; (3) collective inquiry into best practice and current reality; (4) action orientation; (5) commitment to continuous improvement; (6) results orientated (DuFour et al., 2006). When considering the lists of the responsibilities of school leaders identified by Marzano et. al (2008) and Sun and Liethwood (2012) discussed previously, only two, discipline and contingent reward, are not indicative of a PLC. Collaborative culture also is an essential component of dispersed or shared leadership. Effective school leaders must be skilled at developing this collaborative culture if the complex work of all students achieving at high levels is to be accomplished (Eaker & Keating, 2012). Professional learning communities (PLCs) establish an expectation of collaborative culture and by nature provide an opportunity for leadership to be shared among multiple members of a PLC (DuFour et al., 2006; DuFour,

DuFour, & Eaker, 2008). Effective PLCs and collaboration positively impact school culture (Carpenter, 2015). If school leaders hope to maximize the benefits of a collaborative culture it must become the way business is done on a day-to-day basis (Eaker & Keating, 2012).

### **Teacher Self-Efficacy**

Meeting the needs of all learners can be an overwhelming task for educators. Self-efficacy is an individual's belief about his/her ability to complete the tasks he/she has been asked to accomplish (Bandura, 1977). Teacher self-efficacy is important to measure in that the higher an individual's efficacy beliefs, the more rigorous goals and challenges they set for themselves and their commitment to those goals is higher (Bandura, 1993). Additionally, a strong sense of efficacy is necessary for individuals to remain task oriented when faced with difficult or demanding situations (Bandura, 1993). Teachers' efficacy beliefs influence the amount of time they invest in teaching and their level of perseverance when faced with setbacks (Tschannen-Moran & Hoy, 2001). Understanding teacher efficacy is an important construct for school leaders as it impacts key factors in student achievement, teacher's behavior in the classroom and their investment in growing as a professional, and teacher's willingness to be open to new ideas and new ways of thinking (Tschanne-Moran & Hoy, 2001).

### **Statement of the Problem**

Effective schools and school improvement literature is clear on the underpinning of high performing schools. A single leader is incapable of solely leading every aspect needed to ensure continuous improvement and highly effective status (Gronn, 2002). A school leader must utilize the expertise of others in the building to ensure quality learning

for all students. Creating a guaranteed and viable curriculum is a daunting task when viewed through the eyes of a single leader; however, when the larger task is deconstructed into small tasks each lead by various people, the idea of a guaranteed and viable curriculum is much closer to becoming a reality. This need to deconstruct tasks and share or distribute leadership roles in accomplishing these tasks is the only way school leaders can realistically meet the criteria for effective, continuously improving schools. Understanding how leadership is shared among members of a team working to achieve a mutual purpose of learning for all students and being a highly-effective school is key for school leaders. The problem addressed in this study is how shared leadership, PLCs, and teacher self-efficacy impact one another.

### **Purpose of the Study**

This study seeks to analyze leadership through a distributed lens by investigating how macro functions that principals are charged with accomplishing are broken into micro tasks and then how leadership roles are further shared in accomplishing those tasks. Sharing tasks makes a principal's role more manageable, while at the same time empowers teachers and allows them to have input and therefore buy-in to the school's mission, vision, and goals (DuFour et al., 2008; Eaker & Keating, 2012). The study seeks to understand how a collaborative culture established through PLCs contributes to the shared leadership roles and task completion. Finally, the study aspires to determine if teachers' perceptions of self-efficacy are impacted by shared leadership roles and the tasks accomplished through PLCs.

### **Significance of the Study**

This study is significant in that it analyzes school leadership through a distributive lens while also investigating how leadership roles are shared when tasks are dispersed among various leaders within the school. The study further looks into the relationship between sharing leadership tasks and the development of a collaborative culture. Finally, this study aspires to determine the impact of shared leadership roles on the perception of teacher self-efficacy.

This study strives to add to existing literature in that it is designed to focus on micro leadership tasks and teams versus macro tasks and individual leaders. A study designed to hone in on the how of leadership will focus on multiple leaders in various contexts. This will help establish a framework for looking at the why of leadership. As the demands of school leadership continue to become more complex coupled with the exploding accountability movement, school leadership studies must focus on a shift from a singular leader model to that of shared leadership. No one person can be tasked with managing all the demands associated with assessment, learning, and school improvement (Eaker & Keating, 2012). These demands coupled with managing a facility, overseeing faculty and staff, and counseling and guiding a student body is an overwhelming and formidable assignment. Leadership is recognized as a social construct and the idea of a single, heroic leader is quickly diminishing (Avolio, Walumbwa, & Weber, 2009; Spillane, Halverson, & Diamond, 2004). Previous leadership studies that have focused on individual leaders are inadequate to fully understand school leadership in that they fail to consider the context and social interaction of multiple leaders and followers (Spillane et al., 2004).

## **Theoretical Framework**

A distributed framework provides a way of thinking about and analyzing leadership (Spillane & Orlina, 2005). When analyzing leadership through a distributed perspective, one should focus on the interactions of leaders and followers. The focus should not be solely on the individual leader, but rather focus on the context and specific tasks engaged in by both leaders and followers (Spillane et al., 2001; Spillane & Orlina, 2005). A distributive perspective also allows the consideration of individuals not formally designated as leaders to take-on leadership responsibilities and provides an opportunity to consider how this collective group leads and manages (Spillane & Orlina, 2005; Spillane & Healey, 2010). When looking through a distributed leadership lens there are key aspects to consider including leadership practices and interactions between leaders, followers, and their situations (Spillane & Orlina, 2005). “People, not programs, are the heart and soul of a school that functions as a professional learning community” (Eaker & Keating, 2012, p. 17). Shared purpose, social support, and voice are three constructs that help facilitate shared leadership (Carson, Tesluk, & Marrone, 2007). These constructs are reciprocal and complementary. As team members develop a common understanding of their primary objectives, they will begin investing themselves in meaningful ways to the team through supporting team members and being more likely to let their voice be heard (Carson et al., 2007).

## **Research Questions**

- (1) When leadership tasks are dispersed among leaders throughout the school, how are leadership roles shared when accomplishing these tasks?



(2) How does the sharing of leadership tasks help develop a collaborative culture across grade levels and content areas?

(3) How does the sharing of leadership tasks influence the perception of teacher self-efficacy?

### **Research Plan**

This study considered leadership practices or macro functions commonly identified by both Marzano et al. (2005) and Sun and Leithwood (2012), particularly those regarding culture and instructional programming. The study investigated micro tasks that are directly linked to these macro functions including the development of a curriculum map, development of school-wide behavior expectations, and intervention practices. Participants were interviewed and interview questions varied depending upon the participant's role in the school. To gather evidence related to research question one the researcher also reviewed artifacts including products produced, documents including notes and agendas from professional learning PLCs as well as various meetings where the work was taking place. In addition, the researcher observed PLCs and other meetings where the specific work of curriculum mapping and other training was occurring. Attending and observing PLC and other meetings allowed the researcher to collect data used for answering research questions one and two.

Once data collection was complete, information was analyzed utilizing coding strategies and placing data into categories. The categories were used to identify broad themes and patterns found within the data. The analysis of data provided evidence used to answer the research questions driving this study.

### **Limitations**

There were several limitations to this study. The first limitation was that the researcher is a member of the administrative and leadership teams at the school. This may have influenced teachers' answers to the interview questions. Teachers may have tended to answer with what they believe is the correct or expected response rather than providing authentic, truthful answers. A second limitation to the study was the relatively small sample size. Due to the small sample size the findings may limit the ability to make generalizations to a larger population. Finally, qualitative research lends itself to being more subjective than quantitative research, and the researcher's experiences and personal beliefs were much more likely to impact conclusions and analysis of data in qualitative research.

### **Definition of Terms**

*Professional Learning Communities (PLCs)*-collaborative teams whose members work interdependently to achieve common goals linked to the purpose of learning for all (DuFour, DuFour, Eaker, & Many, 2006)

*Shared Leadership*- the process in which a team of individuals working toward a common purpose draw on individual strengths and influences to share leadership responsibilities in an effort to accomplish a common goal (Burke, Fiore, & Salas, 2003; Carson, Tesluk, & Marrone, 2007; Pearce and Conger, 2003; Rost, 1993)

*Self-Efficacy*-an individual teacher's belief about his/her ability to complete the tasks he/she have been asked to accomplish including improving student learning, increasing student engagement, and impacting students who experience difficulty in the

learning process (Dellinger, Bobbett, Olivier, & Ellett, 2008; Skaalvik & Skaalvik, 2010; Spitpek, 2012; Tschannen-Moran & Hoy, 2001)

### **Summary**

Leadership studies can no longer be limited to the actions of a single individual but rather must consider the school as a whole and its context (Spillane et al., 2001). Utilizing a distributive perspective for leadership analysis allows the research to move from simply studying leadership strategies to studying leadership practices and activities (Spillane, 2001). Shared leadership, collaborative culture, and self-efficacy are key components of an effective school (DuFour et al., 2006; Eaker & Keating, 2012; Lezotte & Snyder, 2011). Understanding how they impact and influence each other is fundamental to continuous school improvement and improved student learning. Analyzing leadership through a distributed lens is ideal for the educational setting in that it allows one to consider the social interaction involved in leadership responsibilities and allows for the consideration of individuals not formally in leadership roles.

## CHAPTER II: REVIEW OF LITERATURE

Much research has been conducted to better understand the influence or impact of a leader, a single entity; however, far less research has been conducted to understand and evaluate the influence or impact of shared leadership, specifically in an education setting. In the era of school reform and school improvement efforts, many schools are introducing new strategies in an effort to improve student learning, including job-embedded professional development, providing time for and encouraging teacher collaboration, and developing capacity of teacher leaders. Much of the school improvement literature indicates the importance of capacity building among individuals throughout the school for sustained improvement (Harris, 2004; Wilcox & Angelis, 2012). A principal is charged with developing the leadership capacity of faculty and staff in an effort to bring about change (DuFour, DuFour, & Eaker, 2008). Through development of leadership capacity, the principal becomes the leader of leaders (DuFour et al., 2008). One common characteristic of each of the recommendations made by researchers is leadership development. Heck and Hallinger (2010) concluded “collaborative leadership was indeed the initial driver of change in school improvement capacity” (p. 246). The literature reviewed supports that schools can most effectively improve student learning by developing collaboration among teachers, led by a principal trained in building leadership capacity.

### **School Leadership**

#### **Functions**

School leaders have an enormous number of tasks or functions they must ensure take place if student learning and continuous improvement are to take place. Several

common leadership tasks have been identified throughout the literature. These functions include: shared vision and mission, collaborative structures, involvement in curriculum and instructional programming, and establishing school culture (Marzano et al., 2005; Sun & Leithwood, 2004; Wilcox & Angelis, 2012).

### **Tasks**

Leadership functions identified by Marzano et al. (2005) as well as Sun and Leithwood (2012) are broad, overarching responsibilities of a school leader. These functions are macro functions and are often broken down into smaller, more manageable micro tasks (Spillane, Halverson, & Diamond, 2001). These micro tasks are the actual work that must take in order to accomplish the macro functions.

After identifying twenty-one responsibilities of a school leader, Marzano, Waters, and McNulty (2005) bring the idea of shared leadership to the forefront by arguing that a single individual cannot possibly effectively manage each of these responsibilities. Before determining shared leadership is the answer to the overwhelming demands of a single leader, one must better understand how shared leadership is defined in literature.

### **Shared Leadership Defined**

Throughout literature it is common to see the phrases “distributed leadership” and “shared leadership” used interchangeably. For this study, the term “shared leadership” will be utilized. Pearce, Hoch, Jeppesen, and Wegge (2010) explain,

Shared leadership occurs when a group of members actively and intentionally shift the role of the leader to one another as necessitated by the environment and circumstances in which the group operates. With shared leadership, the role of

leadership does not rest in one person's hands, but rather, in the group's arms as they move together toward common objectives. (p. 151)

Shared leadership is practiced when leadership functions are shared among a collaborative group in an effort to maximize individuals' strengths (Burke, Fiore, & Salas, 2003; Heck & Hallinger, 2009). Collaborative school leadership is "strategic school-wide actions directed toward improvement in student learning that are shared among teachers, administrators, and others" (Heck & Hallinger, 2010, p. 228).

Distributed leadership may be defined numerically where leadership is "shared amongst a number of colleagues or peers, rather than leadership that is focused in one organizational role" (Gronn, 2002, p. 655). This view of distributed leadership as minimalist, and an alternative definition suggested by Gronn (2002) considers distributive leadership in a "more holistic manner" (p. 654). "A holistic perspective on distributive leadership sees it as a phenomenon which is more than the mere sum of its parts" (Gronn, 2002, p. 656).

Shared leadership is more than leadership functions or responsibilities being shared. It is a complex process where leadership influence is distributed among team members toward the achievement of common goals and the realization of the organization's mission (Rost, 1993; Burke et al., 2003; Carson et al., 2007). Shared leadership is "a dynamic, interactive influence process among individuals in groups for which the objective is to lead one another to the achievement of group or organizational goals or both" (Pearce & Conger, 2003, p. 1).

Models of shared leadership re-envision the *who* and *where* of leadership by focusing on the need to distribute the tasks and responsibilities of leadership up, down, and across the hierarchy. They re-envision the *what* of leadership by

articulating leadership as a social process that occurs in and through social interactions. (Fletcher & Kaufer, 2003, p. 24)

While shared leadership and distributed leadership are defined and conceptualized in many different ways, most conceptualizations of shared leadership agree the distribution of leadership includes shifting the role of the leader from one person to a group of individuals (Pearce et al., 2010; Heck & Hallinger, 2010; Burke et al., 2003; Spillane, 2006). Other commonalities among conceptualizations include the integral role of social influence (Pearce & Conger, 2003; Fletcher & Kaufer, 2003). According to Fletcher and Kaufer (2003), “New models of leadership recognize that effectiveness in living systems of relationships does not depend on individual, heroic leaders but rather on leadership practices embedded in systems of interdependencies at different levels within the organization” (p. 21). New models of leadership recognize that with shared leadership there is a relational process dependent upon social interactions and networks of influence. A key characteristic of shared leadership is the relational aspect and social influence (Spillane & Orlina, 2005; Pearce & Conger, 2003; Fletcher & Kaufer, 2003). Spillane and Orlina (2005) warn against focusing solely on the actions of an individual leader, but rather the focus should be on their interactions among leaders and followers. An additional common thread found in definitions of shared leadership includes considering the context in which the distribution of leadership occurs. Spillane and Orlina (2005) explain from a “distributed perspective, leadership practice takes place in the interactions of people and their situations” (p. 162). Shared leadership and its social aspect must be considered within the context of which it occurs (Fletcher & Kaufer, 2003; Pearce & Conger, 2003).

Shared leadership, in this study, was based upon these definitions and conceptualizations and was defined as the process in which a team of individuals working toward a common purpose draw on individual strengths and influences to share leadership responsibilities in an effort to accomplish a common goal.

Pearce and Conger (2003), conducting research from an organizational management perspective, do not consider responsibilities of instructional leaders nor take into consideration key factors of the educational field. Heck and Hallinger (2010) contribute to the knowledge base of shared leadership from an educational perspective; however, they limit their definition of shared leadership to include only teachers, principals, and members of the school improvement team.

### **Shared Leadership in Schools**

A key characteristic of shared leadership is the dynamicity of the process (Cox, Percy, & Perry, 2003; Heck & Hallinger, 2010; Pearce & Conger, 2003; Timperley, 2003). Rather than effects of variables being linear, Heck and Hallinger (2010) explain “empirical studies of school improvement leadership require a dynamic model that takes into account changing relationships among relevant variables over time” (p. 230). Gronn (2002) concurs: “organizational relations are rarely static” (p. 669). Heck and Hallinger (2010) make an argument for reciprocal-effects relationships in students of leadership. “This model captures the dynamic and responsive nature of leadership for learning” (p. 246).

Planful alignment of distributing leadership tasks would be most beneficial for organizations. Planful alignment refers to organizational members planning which “leadership practices or functions are best carried out by which source” (Leithwood et al.,



2007, p.46). They found that planful alignment occurred in many instances with the school's highest priority initiative; however, planful alignment was not found in lower priority initiatives. Leithwood et al. (2007) suggest, effective planful alignment of distributing leadership to teams of teachers should be regularly monitored by the principal and that the principal must continue to be a formal leader. Effective forms of distributed leadership may ultimately be only as effective as a "leader of leaders" model. Formal leaders, particularly principals, facilitate distributed leadership, and its degree of success relies on the principal intentionally outlining the work (Leithwood et al., 2007; Printy & Marks, 2006). Harris (2008) concurs, stating, "Distributed leadership does not imply that the formal leadership structures are removed or redundant" (p. 174). In a shared or distributed leadership perspective, "there is a powerful relationship between vertical and lateral leadership process" (Harris, 2008, p. 174). As Carson et al. (2007) found, "Coaching by an external team leader is particularly important for the development of shared leadership when teams lack a strong internal team environment" (p. 1228). According to Goddard, Goddard, Kim, and Miller (2015), "Principal leadership is a necessary condition to develop teacher collaboration" (p. 524).

### **Criticisms of Shared Leadership**

Critics of shared leadership argue it is no more effective form of leadership than traditional models and has only come to the forefront of leadership discussions due to notion that everyone can be a leader (Harris, 2013). With the accountability movement, some voice concern teacher leaders may feel too much pressure and responsibility for the school's performance under a shared leadership model (Harris, 2013). Some would argue that shared leadership is a new name for delegation and question whether or not it is a

viable alternative to more traditional notions of leadership (Crawford, 2012; Harris, 2013). Still, others caution that shared leadership is more informal than other models of leadership and exerts little influence on the decision-making process (Crawford, 2012). Woods, Bennett, Harvey, and Wise (2004) questions who determines how far leadership boundaries are extended and who determines who is included in a leadership role in a shared leadership model. A final limitation some might say is shared leadership is too influenced by the formal leader. If the formal leader does not endorse the notion of shared leadership and develop a culture of trust among faculty members, shared leadership does indeed become a new label for an old model (Jones, 2014; Harris, 2013; Crawford, 2012).

### **Shared Leadership and Professional Learning Communities**

Marzano, Waters, and McNulty (2005) suggest that a plan for effective school leadership involves developing a strong school leadership team. Marzano et al. (2005) assert that a “strong leadership team is the natural outgrowth of a purposeful community” (p. 99). A purposeful community is “one with collective efficacy and capability to develop and use assets to accomplish goals that matter to all community members through an agreed-upon process” (Marzano et al., 2005, p. 99). Schools with a collaborative culture established through PLCs work toward impacting instructional practice to improve learning for all. This work includes developing shared mission and vision, guaranteed and viable curriculum, development of high-quality common assessments, and use of data to develop a process for responding when students have difficulty learning and extending learning when students master concepts (DuFour et al., 2006; DuFour et al., 2008). In fully functioning Professional Learning Communities (PLCs) there is an interdependency formed among its members. Interdependent team

members are individuals who “need each other, rely on each other, and depend on each other to achieve a shared goal” (DuFour, DuFour, & Eaker, 2008, p. 180).

Interdependence is a characteristic of distributive leadership (Gronn, 2002). Shared leadership is much like the interdependency needed among group members of a PLC. From an organizational view, shared leadership is used to describe teams that “collectively exert influence” (Cox et. al., 2007, p. 53). Shared leadership is collaborative by definition and requires team members to be leaders while simultaneously working together as peers (Cox et al., 2007, pg. 53). Interdependency within an organization is evident in two ways; either roles and responsibilities overlap or roles and responsibilities are complimentary. Role overlap is not necessarily a negative aspect considering role overlap could lessen the chance of decision errors and mutual reinforcement of leadership functions. “A key advantage of [complimentary roles] is that it permits the interdependent members to capitalize on the range of their individual strengths” (Gronn, 2002, p. 671). Interdependence within organizations is beneficial in that members are able to rely on strengths of their peers while also being provided learning opportunities to strengthen their skills (Gronn, 2002).

In addition to interdependency, PLCs have established norms by which members are expected to adhere and have processes in place to address violation of norms (DuFour, DuFour, Eaker, & Many, 2006). A purposeful community differs from an accidental community in that a purposeful community has “strong, well-articulated reason for existing” (Marzano et al., 2005, p. 100). A PLC’s purpose for existing is to answer four guiding questions: (1) What do we want our students to learn? (2) How will

we know if they learned it? (3) How will we respond if they do not learn it? (4) How will we respond if they do learn it? (DuFour et al, p. 21, 2006).

Schools fully functioning as PLCs have grasped the top down, bottom up approach to leadership and decision making. Eaker and Keating (2012) state, “Effective leaders of professional learning communities not only harness the power of collaborative teams, they disperse the leadership responsibility” (p. 15). Eaker and Keating (2012) state, “school improvement initiatives must be simultaneously top down and bottom up” (p. 15). Goddard et al. (2015) suggest, “The more that principals serve as instructional leaders with detailed knowledge of classroom practice, the more likely teachers are to engage in collaborative interactions designed to improve instruction and facilitate group goal attainment” (p. 503). Hord (1997) explains it is not enough for the principal to take the necessary steps to develop community within a school, he/she must then be willing to “share leadership, power, authority, and decision making with the staff in a democratically participatory way” (p. 53). In organizations employing a shared leadership model there is also an understanding that influence must be lateral in addition to vertical (Cox, Pearce, & Perry, 2003; DuFour et al., 2006). PLCs are beneficial for teachers because as these teachers become more knowledgeable, they are empowered and have the opportunity to work as leaders (Eaker & Keating, 2012).

Shared leadership is an essential element for PLCs to be effective and fully functional (Carpenter, 2015). If the school leader chooses not to participate in the PLC an interruption to the continuous improvement cycle occurs, and teachers withdraw from the collaborative process. Additionally, shared leadership provides an avenue for continuous improvement and development of a shared vision and mission (Goddard et al., 2015).

Literature clearly defines an effective PLC by “facilitative participation of the principal who shares leadership...and inviting staff input in decision making” (Hord, 1997, p. 24). Goddard et al. (2015) stress the importance of the principal being a catalyst and supporting teacher collaboration. Through establishing the expectation of productive teacher collaboration principals influence collective efficacy. According to Goddard et al. (2015), “Teacher collaboration is the key to the pathway from leadership to collective efficacy beliefs because it is the shared interactions among group members that serve as the building blocks for collective efficacy” (p. 504). Goddard et al. (2015) concluded that “the degree to which teachers collaborate to improve instruction was strongly predicted by principals’ instructional leadership” (p. 524).

Teacher’s engagement in collaboration was significantly impacted by “shared and supportive leadership trust” (Carpenter, 2015, p. 689). While shared leadership may not directly influence instruction, it does, however, indirectly influence instruction as PLCs serve as a locus for shared leadership (Louis, Leithwood, Wahlstrom, & Anderson, 2010). Professional communities provide an opportunity for teachers to reflect about instruction and develop a sense of collective responsibility. Furthermore, when instructional leadership and shared leadership are considered together there is potential to improve student learning and perhaps a dual approach may be optimal. Carpenter (2015) asserts effective collaboration requires leaders to distribute tasks, thus recognizing the expertise and knowledge of teachers. Gronn (2002) explains further that distributive leadership practices “can be expected with the changes in the division of labor and the emergence of new forms of interdependence, particularly when practitioners are confronting an increasing volume of complex problems and tasks” (p. 687). Leithwood et

al. (2007) report “distributed patterns of leadership are nurtured when collaborative structures are established, when the number of people collaborating on an initiative is kept manageable, and when influence is exercised through expert rather than positional power” (p. 61).

Professionals working within a school with a healthy culture will seek the tools needed to promote student learning (Muhammad, 2009). Communication and open culture are key components to ensuring successful distribution of leadership (Leithwood et al., 2007). The lack of shared leadership in school “promoted a toxic culture with the staff, decreased the effectiveness of the collaborative culture...and did not leverage a continuous improvement cycle” (Carpenter, 2015, p. 690). If schools hope to collect from the numerous benefits provided by PLCs and establishing a collaborative culture (DuFour et al., 2006; Eaker & Keating, 2012; Muhammad, 2009), “leaders must ensure they provide shared leadership structures” (Carpenter, 2015, p. 691). Empowering teachers through collaborative environments leads to continuous improvement (Carpenter, 2015). PLCs benefit both staff and students, and specifically teachers who “share responsibility for total development of students and collective responsibility for students’ success” (Hord, 1997, p. 33). Additionally, benefits for staff members include increased morale and job satisfaction (Hord, 1997). Finally, Carpenter (2015) concludes, “A functional shared leadership structure is greatly influenced by an effective collaborative system where administrators and teachers work together through the problem solving process toward shared value and vision for improvement” (p. 691).

PLCs clearly have the potential to improve student achievement if they are organized, and the principal acts as a facilitator who seeks faculty and staff input in the

decision making process (Hord, 1997). However, a key difference in characteristics of shared leadership and PLCs is that shared leadership is centered on exerting influence. PLC members are not tasked with exerting influence as a leader, nor are they viewed as having a leadership role. Rost (1993) defines leadership as an influence relationship and explains this influential relationship is “multidirectional, there must be more than one follower and typically more than one leader” (p.103). This explanation is representative of the PLC structure in that anyone can be a leader or follower. In PLCs, depending on the discussion, any number of people could be a leader or follower. “There are many different relationships that make up the overall relationship that is leadership” (Rost, 1993, p. 105). The trend in leadership is steered toward a shared leadership model, whereas prior leadership models have a more singular view of leadership (i.e. one manager, one employee) (Rost, 1993).

### **Teacher Self-Efficacy**

Self-efficacy is important in an educational context in that perceived self-efficacy directly and indirectly influences performance including goal setting and analytical thinking (Bandura, 1993). Efficacy impacts the effort teachers put forth in planning, in organization, and in how they react when there are setbacks (Tschannen-Moran & Hoy, 2001). Teachers with a higher sense of efficacy communicate higher expectations to students and do not readily give up on students who may have difficulty learning (Gibson & Dembo, 1984). Teachers with high self-efficacy are more flexible and less flustered by interruptions to their schedule than teachers with low efficacy (Gibson & Dembo, 1984).

An individual’s concept of his/her ability impacts perceived efficacy (Bandura, 1993). Individuals who hold the belief that ability is a skill that can be acquired have a

very resilient sense of efficacy and tend to persevere in accomplishing a task even when the standards are challenging. This is in stark contrast to individuals who believe ability is an “intellectual aptitude” (Bandura, 1993, p. 121). When faced with challenges, perceived efficacy of these individuals drops and thinking can become erratic. Goddard et al. (2004) state, “The higher teachers’ sense of efficacy, the more likely they are to tenaciously overcome obstacles and persist in the face of failure” (p. 4). Bandura (1993) states a strong sense of efficacy is required to “remain task orientated in the face of pressing situational demands and failures that have social repercussions” (p. 120). Teachers with low sense of instructional efficacy tend to have “weak commitment to teaching and spend less time on academic matters” (Bandura, 1993, p. 134). Additionally, Bandura (1993) explains teacher-self efficacy also impacts the classroom environment.

Teacher efficacy includes teachers’ beliefs about their ability to impact learning (Skaalvik & Skaalvik, 2010; Tschannen-Moran & Hoy, 2001; Stipek, 2012). The specific mention of teacher efficacy including the teacher’s ability to plan and organize is unique to Skaalvik and Skaalvik (2010). One operational definition of teacher self-efficacy is distinctive in that it includes the teacher’s belief in his/her capability to effectively engage students who experience difficulty in the learning process (Calik, Sezgin, Kavgaci, & Kilinc, 2012). Bandura’s (1993) definition of efficacy is not directly related to education and includes “people’s belief about their capabilities to exercise control over their own level of functioning and over events that affect their lives” (p. 118).

Dellinger, Bobbett, Olivier, and Ellett (2008) argue there is a distinct difference between teacher efficacy and teacher self-efficacy and in turn each should be measured and defined differently. Dellinger et al. (2008) define teacher self-efficacy in the context



of schools as “a teacher’s individual beliefs in their capabilities to perform specific teaching tasks at a specified level of quality in a specified situation” (p. 752).

This study will operationally define teacher self-efficacy as an individual teacher’s belief about his/her ability to complete the tasks he/she have been asked to accomplish including improving student learning, increasing student engagement, and impacting students who experience difficulty in the learning process.

In addition to defining teacher self-efficacy, this review of literature also seeks to establish what factors previous researchers have determined influence or impact teacher self-efficacy. One factor determined to influence teachers’ sense of self-efficacy is the method used to provide teacher feedback (Bandura, 1993). Teachers’ perception of administrative support was also determined to be a significant factor in teacher self-efficacy. The strongest prediction, however, of teacher self-efficacy was the obstacles teachers perceived as barriers to parents’ involvement in their children’s education (Stipek, 2012). While ethnicity was somewhat a predictor it was not as significant a predictor of self-efficacy as perceived administrative support and parental involvement (Stipek, 2012). School principals and their instructional leadership also positively and significantly impact teachers’ self-efficacy (Calik et al., 2012). Mastery experiences, experiences in which one has the perception of being successful, are the “most powerful source of efficacy information” (Goddard et al., 2004, p. 5). Additionally, efficacy beliefs are enhanced if perceived success can be attributed to an internal cause or a cause that is controllable (Goddard et al., 2004). When considering a teacher’s self-efficacy perceptions as it relates to successfully educating students, school contextual factors

influence teachers' perceptions (Goddard et al., 2004). Teacher self-efficacy beliefs are influenced by a number of variables, many of these outside the teacher's locus of control.

### **Collective Efficacy**

Another impact on teacher self efficacy is collective efficacy. There are numerous previous studies that found the relationship between collective efficacy and teachers' self-efficacy to be both significant and positive (Calik et al., 2012). Collective efficacy, in fact, has a greater impact on student achievement than race or socio-economic status (Goddard et al., 2004). Collective efficacy as defined by Marzano et al. (2005) is "group members' shared perception or belief that they can dramatically enhance the effectiveness of an organization" (p. 99). The distinction between collective efficacy and self-efficacy is made by defining collective efficacy as "teachers' perceptions of the extent to which the faculty as a whole can teach successfully" (Goddard & Goddard, 2001, p. 811). The description of collective efficacy provided by Marzano et al. (2005) begs the question of how teacher self-efficacy is related to collective efficacy and the potential impact shared leadership might have on this. Calik (2011) corroborated the "direct relationship between collective efficacy and self-efficacy" (p. 81). In their quantitative study, Goddard and Goddard (2001) determined that in schools where teacher efficacy is higher so is collective efficacy. In fact, "collective efficacy was the only significant predictor of teacher efficacy differences among schools" (p. 815).

Knowledge of teachers' perceptions of collective efficacy is key to understanding the effect of the school's culture on various stakeholders including students and faculty. In addition, perceptions of collective efficacy impact the teachers' willingness to persevere through challenges to achieve their goals (Goddard et al., 2004). This could

play a key role in developing a collaborative culture and establishing a common mission and vision among staff. The principal must be a catalyst in supporting teacher collaboration (Goddard et al., 2015). Through establishing the expectation of productive teacher collaboration, principals influence collective efficacy. Collaboration among teachers is a significant step in creating collective efficacy. The shared interactions that occur during collaboration serve as the foundation for building collective efficacy (Goddard et al., 2015). “Teachers’ beliefs about the collective capacity of their faculty vary greatly among schools and are strongly linked to student achievement” (Goddard et al., 2004, p. 7). Calik et al. (2012) cite Jhanke’s 2010 factors of impacting collective efficacy. Among these factors were a clear and understandable vision, high expectations, and shared leadership. Additionally, having sound leadership that empowers others aids in the development of collective efficacy (Goddard & Goddard, 2001). “Connections between collective efficacy beliefs and student outcomes depend in part on the reciprocal relationship among these collective efficacy beliefs, teachers’ personal sense of efficacy, teacher’s professional practice, and teacher’s influence over instructionally relevant school decisions” (Goddard et al., 2004, p. 3).

When considering factors that impact efficacy beliefs, transformational leadership must be considered. Transformational leadership together with collective efficacy has a remarkable effect on teachers’ self-efficacy (Calik, 2011). “Transformational leadership increased the perception of collective efficacy; consequently, the increased collective efficacy contributed to the increase in self-efficacy levels of teachers” (Calik, 2011, p. 81).

According to Burns (1978) transformational leadership can shape, alter, and elevate the motives, values, and goals of followers through the vital teaching role of leadership. Burns (1978) goes on to explain through transformation leadership “whatever separate interests persons might hold, they are presently or potentially united in the pursuit of ‘higher’ goals. (p. 425)

The relationship between transformational leadership and teachers’ efficacy beliefs, both self and collective, has been solidified (Calik, 2011). An additional finding to be considered in Calik’s (2011) study is “collective efficacy of teachers appeared to be the strongest factor both having a mediating role between transformational leadership and teacher self-efficacy as well as a strong direct effect on teacher self-efficacy” (p. 82). An effective transformational leader positively impacts the self-efficacy of teachers that in turn strengthens the collective efficacy within a school (Calik, 2011). A limitation of Goddard and Goddard’s study (2001) is the sample of their population, which was taken only from urban elementary schools. This limitation provides an opportunity for future research to include secondary schools in non-urban settings. The relationship between how changes in collective efficacy drive changes in teacher self-efficacy remains an unanswered question (Goddard & Goddard, 2001).

Teacher efficacy beliefs impact teachers in multiple ways including their level of perseverance when faced with difficulties, the effort exerted in preparing, and their determination to improve student learning (Tschannen-Moran & Hoy, 2001). Bandura (1993) explains,

people plagued by self-doubts anticipate the futility of efforts to modify their life situation. They produce little change even in environments that provide many

potential opportunities. But those who have a firm belief in their efficacy, through ingenuity and perseverance, figure out ways of exercising some control, even in environments containing limited opportunities and many constraints. (p. 125)

This is evidence of the importance of determining how a shared leadership model will impact teacher efficacy, particularly concerning issues that potentially impact student achievement including socio-economic status, absenteeism, and students' home lives.

### **Conclusions**

This literature review centers on shared leadership, professional learning communities, and teacher self-efficacy separately. Spillane and Orlina (2005) explain, "A distributed leadership perspective is a framework for thinking about and analyzing leadership. It is not, in itself, a prescription or recipe for how to lead" (p. 173). The current study will add to the literature in that it will study how each of these key practices in education impact one another. Additionally, this study will be distinctive in that it will be solely focused on an analysis of qualitative data in a middle school setting. It is imperative that shared leadership be studied as it relates to instructional leadership. To determine how shared leadership impacts or influences instructional leadership one should include data collected from various sources. The sources may include the following: interviews of individuals (teachers, administrators, and other stakeholders), focus groups, a collection of artifacts (including but not limited to meeting agendas, professional development plans, and collaborative notes), and participants' journals.

### **Hypotheses**

The following null hypotheses will be tested utilizing the results of the quantitative data analysis:

H<sub>01</sub>: There is not a statistically significant difference on the TSES “efficacy in instructional strategies” subscale when comparing teachers who serve in a leadership capacity and those who do not.

H<sub>02</sub>: There is not a statistically significant difference on the TSES “ efficacy in student engagement” subscale when comparing teachers who serve in a leadership capacity and those who do not.

H<sub>03</sub>: There is not a statistically significant difference on the TSES overall score when comparing teachers who serve in a leadership capacity and those who do not.

## CHAPTER III: METHODOLOGY

### **Introduction**

Shared leadership is a dynamic process (Heck & Hallinger, 2010; Pearce & Conger, 2003; Timperley, 2003), and the study must be designed with this consideration. The importance of ensuring appropriate measures are used cannot be overemphasized when looking at leadership through a distributive perspective (Spillane & Healey, 2010). “A key challenge in using a distributive perspective to study leadership and management involves developing study operations and measures that allow the framework to be applied in research on school leadership and management” (Spillane & Healey, 2010, p. 276).

### **Perspective**

Spillane and Orlina (2005) acknowledge the difficulty in choosing an epistemology and methodology for studies with a distributed leadership perspective. Previous research of leadership has relied on ethnography; however, this reliance is insufficient due to the expense involved with employing an ethnographic approach in a large number of schools (Spillane & Orlina, 2005). This study was developed from a social constructivist’s perspective. “Qualitative researchers nourish the belief that knowledge is constructed rather than discovered” (Stake, 1995, p. 99).

Stake (1995) describes the constructivist as a researcher who recognizes three realities. The first reality is “an external reality,” the second reality is formed through our interpretation of the external reality, and the third reality is “our rational reality” (p. 100). A constructivist’s goal in research is to “not discover reality one, ...but to construct a clearer reality two, and a more sophisticated reality three” (Stake, 1995, p. 101). The

social constructivist researcher is one who seeks “the complexity of views rather than narrowing the meanings into a few categories” (Creswell, 2013, p. 24). The social constructivist strives to construct open-ended questions in which participants can construct meaning (Creswell, 2013). Finally, a social constructivist’s “intent is to make sense of the meanings others have about the world” (Creswell, 2013, p. 25).

It is important to note that the researcher is a member of the administrative team of the school involved in this case study. “Standard qualitative designs call for the persons most responsible for interpretations to be in the field, making observations, exercising subjective judgment, analyzing and synthesizing, all the while realizing their own consciousness” (Stake, 1995, p. 41). One must also consider how the mood, experience, and intention of the researcher will inevitably play a role in the interpretation and description of data (Stake, 1995). This may prove to be a limitation of the study, and at the very least, must be considered when interpreting and analyzing the data.

### **Design of Study**

#### **Mixed Methods Design**

Mixed methods design is an approach to research in which the researcher utilizes both quantitative and qualitative data and integrates the two, drawing on strengths of both sets of data to better understand the problem being studied (Creswell, 2015; Hesse-Biber, 2010). A mixed methods approach to research recognizes the importance of qualitative and quantitative research while offering a more complete and balanced understanding of the research results (Frels & Onwuegbuzie, 2013). A mixed methods study design is much more than collection of both qualitative and quantitative data; it requires integration



of data and rationale for use. Integration of data types through the collection and analysis process is a core characteristic of mixed methods research (Creswell, 2015).

There are several reasons to consider mixed methods research including triangulation, complementarity, development, and initiation (Greene, Caracelli, & Graham, 1989). Triangulation is key in that it strengthens the study (Patton, 2015). Mixed methods research provides an avenue for triangulation in that it allows for multiple methods and sources of data to provide corroborating evidence (Creswell, 2015, 2010; Hesse-Biber, 2010). Complementarity allows for clarity of the research problem and provides the researcher a deeper understanding of the research results (Hesse-Biber, 2010). Development is a third reason for using a mixed methods approach. Development provides the researcher an opportunity to utilize results from one method to inform the other method (Hesse-Biber, 2010). The final reason one might consider mixed methods is initiation. This consideration may come into play when a study's findings may raise questions or will require clarification and initiate a new study (Hesse-Biber, 2010).

There are three types of mixed methods designs to consider: convergent design, explanatory design, and exploratory design. Convergent design requires the collection of both quantitative and qualitative data, the analysis of each data set, and then the merger of the analysis results. Explanatory sequential design is utilized when the research seeks to use quantitative methods first and then use qualitative methods to explain the quantitative results. Exploratory sequential design requires that the researcher first explore a research problem using qualitative methods and then add an additional quantitative phase to the study (Creswell, 2015). This study employed a convergent

design in which the researcher collected two data sets, analyzed each, and merged the findings.

### **Research Questions**

A case study design lends itself to answering ‘how’ and ‘why’ questions” (Yin, 2003). According to Stake (1995), “qualitative research questions typically orient to cases or phenomena, seeking patterns of unanticipated as well as expected relationships” (p. 41). Spillane and Healey (2010) explain, “The research question is not whether distributed leadership works...but rather, when taking a distributive perspective, do the research questions center on how different school leadership and management arrangements or configurations relate to valued school outcomes” (p. 277). Research questions guiding this case study include:

- (1) When leadership tasks are dispersed among leaders throughout the school, how are leadership roles shared when accomplishing those tasks?
- (2) How does the sharing of leadership tasks help develop a collaborative culture across grade levels and content areas?
- (3) How does the sharing of leadership tasks influence the perception of teacher self-efficacy?

### **Methods**

Tasks or functions that leaders in highly effective schools are charged with undertaking include creating a shared vision; providing a recognition system; dispensing consistent discipline; establishing of collaborative structures; understanding and improving assessment; overseeing instruction and curriculum design; providing staff and

faculty with intellectual stimulation; developing of relationships among faculty and staff as well as communities partners; and modeling high performance expectations (Sun & Leithwood, 2012; Marzano et al., 2005). These broad, complex tasks are macro functions that must be developed over time and through the accomplishment of smaller, micro tasks (Spillane et al., 2001). There are common functions among Sun and Leithwood (2012) and Marzano et al. (2005), and this study will focus on two commonly identified macro functions centered on instructional programming and school culture. Within these macro functions, three micro tasks have been identified as the focus of this case study. These micro tasks include developing a curriculum map aimed at ensuring a guaranteed and viable curriculum, developing school wide behavioral expectations, and meeting the needs of all students through our intervention programming. Each of these micro tasks involve a variety of teachers including members of the leadership team, teacher leaders, PLC leaders, school level intervention team members and various administrative team members.

### **Qualitative Design**

In a qualitative case study, the goal is to better understand the case including its complexity, uniqueness, and its context (Stake, 1995). “A case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, specifically when the boundaries between phenomenon and context are not clearly evident” (Yin, 2003, p. 13). This case study seeks to add to the existing literature by examining how leadership tasks or functions are shared throughout a middle school, how this dispersed leadership helps develop a collaborative culture through PLCs, and how teacher self-efficacy is influenced by shared leadership and collaborative culture. The aim

of this research is to construct a clearer reality formed by our interpretations and experiences (Stake, 1995). This study considered leadership practices or macro functions commonly identified by both Marzano et al. (2005) and Sun and Leithwood (2012), particularly those regarding culture and instructional programming. The study investigated micro tasks that are directly linked to these macro functions including the development of a curriculum map, social-emotional learning aimed at teachers, and intervention practices. Participants were interviewed and interview questions varied depending upon the participant's role in the school. The researcher also reviewed artifacts including products produced, documents including notes and agendas from professional learning communities (PLCs), mathematics vertical planning team, and school behavior committee meetings where the work was taking place. In addition, the researcher will observe PLCs and other meetings where the specific work of curriculum mapping and other training occurred. Participants were asked to review data collected before the analysis began. Qualitative data were analyzed through coding where categories were identified and then further narrowed to identify themes appearing in the data.

Primary methods of data collection included in case studies are interviews, observation, and document review (Stake, 1995; Patton, 2015). From a distributed leadership perspective, leadership practice is vital (Spillane & Orlina, 2005). The distributive leadership perspective does not exclusively focus on the leader, but also on the practice of leadership. "Leadership practice is framed in a particular way: as a product of the interactions of school leaders, followers, and aspects of their situation" (Spillane & Orlina, 2005, p. 164). To adequately capture leadership practices, the researcher observed these meetings, analyzed agendas and notes from meetings, reviewed finished products of

each micro task, and completed interviews with members of each team. Stake (1995) explains, “Interview is an alternative method, seeking through a surrogate observer what I might not have seen for myself” (p. 114). When studying leadership practice it is imperative to document and analyze interactions and warn against exclusively relying on leadership actions (Spillane & Orlina, 2005).

The interview questions and content varied slightly to reflect the participant’s role in the school. Interview questions for teacher leaders or leadership team members differed from those posed to teachers. The researcher interviewed each participant independently utilizing the questions listed in appendix A.

To measure teachers’ perception of self-efficacy, interview questions for participants were developed using items from the Teacher Sense of Efficacy Scale (TSES) developed by Tschannen-Moran and Hoy (2001). The TSES is a tool used to measure teacher efficacy. Within the TSES there are three subscales including student engagement, instructional strategies, and classroom management. The TSES assessment tool is “superior to previous measures of teacher efficacy in that it has a unified and stable factor structure and assesses a broad range of capabilities that teachers consider important to good teaching without being so specific as to render it useless for comparisons of teachers across contexts, levels, and subjects” (Tschannen-Moran & Hoy, 2001, p. 801-802). The TSES is a better measurement tool for teacher self-efficacy (versus teacher efficacy) than other previously developed measures, and “it fills a need in the study of teachers’ self-efficacy beliefs” (Dellinger et al., 2008, p. 762). TSES reliabilities found in Tschannen-Moran and Woolfolk Hoy (2001) are displayed in Table One. A correlation of the new measure (TSES) with existing measures (Rand 1 and Rand

1) of teacher efficacy allowed researchers to assess the construct validity of the TSES (Tschannen-Moran & Hoy, 2001).

Table 1  
*Reliabilities of TSES*

	Long Form			Short Form		
	Mean	SD	Alpha	Mean	SD	Alpha
<b>TSES</b>	7.1	.94	.94	7.1	.98	.90
<b>Engagement</b>	7.3	1.1	.87	7.2	1.2	.81
<b>Instruction</b>	7.3	1.1	.91	7.3	1.2	.86
<b>Management</b>	6.7	1.1	.90	6.7	1.2	.86

There is a distinct difference between teacher efficacy and teacher self-efficacy, and in turn each should be measured and defined differently (Dellinger, Bobbett, Olivier, & Ellett, 2008). The Teacher Efficacy Scale is a better measurement tool for teacher self-efficacy (versus teacher efficacy) than other previously developed measures (Dellinger et al., p. 762, 2008). The TSES measures personal competence as well as analysis of tasks. Furthermore, it assesses a broader range of teaching tasks including an assessment of applying alternate assessment strategies, teaching creatively, and working with very capable students (Tschannen-Moran, 2001).

**Background.** The school involved in this study is a relatively high-performing middle school in a high-performing public school district in the mid-south. The district is comprised of eight elementary schools, two middle schools, and one high school. The population for the middle school included in the study is about nine hundred twenty students, which is an increase of about ninety students from previous years. During the school year 2014-2015, about forty-seven percent of students received free and reduced lunch, an increase of about ten percent from school year 2012-2013.

The goal of the middle school is to establish a collaborative culture, and the expectation is that teachers will participate in PLCs. School administrators provide teachers time within the school day to meet in PLCs (DuFour, DuFour, Eaker, & Many, 2008). The PLC is comprised of members from the same grade level and content area. In addition to weekly designated times for teachers to meet at the school level, there is also one day designated each nine weeks for content-area middle school teachers to meet. Teachers utilize this time to discuss data from district-wide common assessments and various instructional strategies, intervention strategies, and techniques teachers can use to extend the curriculum for students who have mastered the standard.

The school provides various opportunities for teachers to serve in leadership roles. The school has a leadership team comprised of fourteen members representing all grade levels, including related arts teachers and special education teachers, and representing all content areas. The administration established the leadership team by asking teachers to recommend educators for the leadership team based on two specific criteria: 1) Name a teacher you would seek out if you had a question about the school's processes and/or procedures, and 2) Name a teacher you would seek out if you had a question about your content area involving content knowledge and/or instructional strategies. Moreover, teachers may be selected by the administrative staff to function as department chairs or grade level content area leaders. The district has recently created a position for Instructional Design Specialists who are charged with transforming teaching and learning by supporting teachers through their PLCs and differentiated professional learning for teachers.

District policies, procedures, and practices are a way to communicate and emphasize those things districts consider non-negotiable. The most important non-negotiable policies, practices, and procedures are those aligned with the learning mission. If districts hope to achieve their mission of learning for all, a re-culturing of the district is paramount (DuFour et al., 2008). In 2012 the district's central office transitioned from being an operations center to take on a more supportive role for the district's teachers and leaders. The transformation focuses on five dimensions. The first dimension develops learning-focused partnerships with school principals to expand principals' instructional practices. By establishing partnerships with principals, district leaders are better able to build capacity to lead toward instructional improvement and to create a network for principals. The second dimension in the transformation provides assistance to the central office and principal partnerships by creating an instructional leadership collaborative. Dimension three involves reorganizing and re-culturing each central office unit to support the central office/principal partnerships and teaching and learning processes. The fourth dimension, stewardship of central office transformation, is designed to provide professional learning for all and for the central office staff to support the changing culture. The fifth dimension involves using evidence to support continuous improvement throughout the transition.

A collaborative culture is the driving force for schools and districts seeking to function as a PLC (DuFour et al., 2008; Eaker & Keating, 2012). In schools exemplifying PLC beliefs and behaviors everyone has leadership responsibilities and plays a role in the fulfilling the mission of learning for all (Eaker & Keating, 2012). Schools and districts functioning as PLCs all have similar beliefs, missions, and visions. These beliefs,



missions, and visions include collective responsibility for student success, high expectations for student learning, rigorous curriculum including innovation and problem solving, and a focus on collaboration among educators through PLCs (Sidney.k12.mt.us; duvalschools.org, rcschools.net, district125.org). The district in this study is guided by its tenets that include the mission, vision, core values, goals, key practices, and guiding questions (references to the guiding tenets are withheld for the sake of confidentiality). The core values of the district included in this study are similar to those listed above and include a focus on collaborative professional learning communities, the creation of a guaranteed and viable curriculum, and continuous improvement (references to the mission/values statements are withheld for the sake of confidentiality). Key practices of the district include: 1) utilizing the four critical [PLC] questions to plan, teach, and assess; 2) the use of intentionally benchmarked standards as a guide to learning and teaching; 3) the desire to continually build leadership capacity within our district while recruiting and retaining highly competent educators; and 4) the goal of engaging families and community. The district's guiding questions are those identified by DuFour, DuFour, Eaker, and Many (2006), (1) What do we want students to know? (2) How will we know when the students have learned it? (3) How will we respond when students do not learn? (4) How do we respond to students that have mastered the content?

Distributed leadership is better supported at the school and district levels with structures in place that provide time for collaboration among colleagues (Leithwood et al., 2007, p. 50). This study supports key district goals of functioning as a PLC and developing a culture of shared leadership while also determining possible impacts to teacher self-efficacy. As administrators reevaluate district goals, information from the

study may provide insight as needed revisions and modifications are identified and further developed. By examining how PLCs, shared leadership, and teacher self-efficacy impact one another, the results and conclusions from this study may assist school-level and district-level leaders as they strive to achieve goals beneficial to students and teachers.

**Participants.** All teachers currently working at the school involved in the study were given an overview of the study including the methods to be utilized and the study's purpose. After the overview was presented, all teachers were given the opportunity to engage in the study and asked to respond to an email from the researcher regarding their willingness to participate in an interview and/or complete a teacher efficacy survey. Teachers were given the option to participant in an interview and complete a survey or the choice to complete only a survey. All interview participants also completed a survey. Voluntary participants in the study included teachers with varying levels of experience and education. Eleven teachers were interviewed. The interview participants taught various content areas in grades six through eight.

## **Data Collection and Analysis**

### **Qualitative Data Collection**

The researcher arranged for the eleven interviews to occur independently with each teacher volunteer. The interview questions differed for those teachers in leadership positions and those not in leadership positions (see Appendix A). The interview data were analyzed using a coding method to identify themes observed throughout the interviews. The researcher was a regular participant in leadership team meetings and PLC meetings. Notes and agendas were obtained from each of these meetings in the months of July,

August, September, and October. The researcher then analyzed the information seeking to identify themes seen throughout various data types.

### **Qualitative Data Analysis**

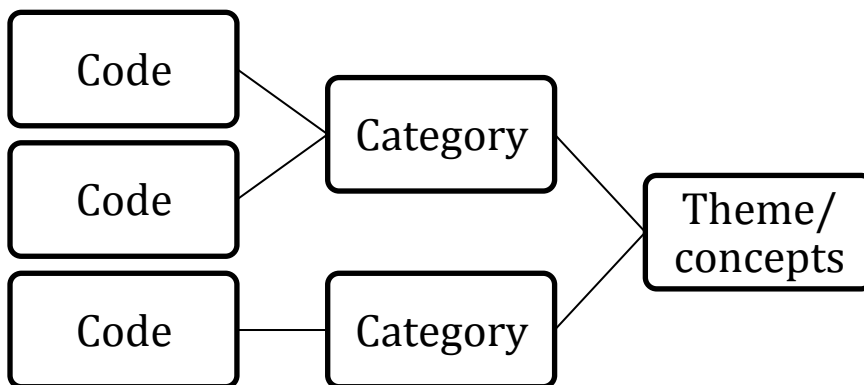
Creswell (2013) describes qualitative data analysis as a spiral. The first loop in the spiral is data organization. Once the data are organized, the next step is to read and make sense of the data. “Immerse yourself in the details” while trying to make sense of the entire set of data (Creswell, 2013, p. 183). The next loop in the spiral consists of coding and interpreting data. Once collected, interview data and document review data will be coded.

The coding process requires larger amounts of information to be organized into smaller categories (Creswell, 2013). In qualitative research a code is a word or short phrase that captures the nature of a specific portion of data (Saldana, 2008). Coding allows the researcher to organize data containing similar ideas and characteristics into categories. The process of coding is often applied at the point the researcher first begins to recognize a pattern within data (Saldana, 2008). Further, Saldana (2008) explains, “Coding is a cyclical act. Rarely is the first cycle of coding data perfectly attempted. The second cycle...of recoding further manages, filters, highlights, and focuses the salient features of the qualitative data record for generating categories, themes, and concepts” (p. 8). Second cycle, even third and fourth cycle, coding will allow the researcher to refine and revise codes. During second cycle coding, data may be categorized or reclassified.

Coding allows for the transition to occur from data collection to a more in-depth data analysis (Saldana, 2008). Once coding is complete, it is necessary to categorize

coded data into themes. As the researcher begins to compare major categories identified through the coding process and then consolidate those categories, the reality of the data becomes clear. It is at this point the researcher is able to “progress toward the thematic, conceptual, and theoretical” (Saldana, 2008, p. 11). It is also at this point where themes across the data are identified. “Themes are broad units of information that consist of several codes aggregated to form a common idea” (Creswell, 2013, p. 186). Saldana (2008) distinguishes between a code and a theme by explaining, “a theme is an outcome of coding, categorization, and analytic reflection” (p. 13).

Interpreting the data is the next step in the loop. “Interpreting data in qualitative data involves abstracting out beyond the codes and themes to the larger meaning of the data” (p. 187). Saldana (2008) explains the “ability to show how themes and concepts systematically interrelate lead toward the development of theory” (p. 11). “The researcher establishes patterns and looks for correspondence between two or more categories” (Creswell, 2013, p. 199). Taken from Saldana (2008, p. 12), Figure 1 provides a visual of the data analysis process used in qualitative research.



*Figure 1.* Data Analysis Process.

**Triangulation.** Yin (2003) explains a case study is more than a study design but rather a research strategy (p. 14). A case study should rely on multiple sources of data that come together in a triangulation. Triangulation allows the researcher to use multiple sources and methods to authenticate evidence (Creswell, 2013). Triangulation involves the collection of evidence from multiple sources in an effort to pinpoint a theme or perspective (Creswell, 2013).

Member checking is one way to assist with triangulation (Stake, 1995). Member checking consists of asking participants to provide observations and interpretations and then having them review collected data for accuracy (Creswell, 2013; Stake, 1995). Member checking involves “taking data analyses, interpretations, and conclusions back to the participants so they can judge the accuracy and creditability of the account” (Creswell, 2013, p. 252).

### **Quantitative Design**

In addition to using the TSES to inform the development of interview questions for participants, volunteer participants were asked to complete the TSES developed by Tschannen-Moran and Hoy (2001). The TSES has two forms (long and short) both of which have consistent reliability. Participants in the study completed the long form TSES. The results of the survey were utilized in answering research question three. The results helped to validate the results of the interview questions. The survey results were also utilized in triangulation of data. Specifically, participants taking part in the micro tasks being studied made a notation on their survey indicating they were directly involved in one or more of the following: development of school wide discipline procedures,

development of the Algebra curriculum map, or intervention practices. The notation was the same regardless of which task the participant was involved with in an effort to maintain anonymity.

### **Quantitative Data Collection**

Participants seeking only to engage in completing a survey were given the survey, asked to complete it within five days and return in an envelope to the researcher. Teachers serving in a leadership role were given a survey with a star to indicate they hold a leadership position. This distinction was necessary to accurately report qualitative findings. All twenty-nine surveys were completed anonymously. Other than the star indicating a leadership role, no other distinction was made on the surveys.

### **Quantitative Data Analysis**

The TSES was scored and analyzed based on Tschannen-Moran and Hoy (2001), scoring directions. See Appendix C for complete scoring directions. Tschannen-Moran and Hoy (2001) identified efficacy in student engagement, efficacy in instructional practices, and efficacy in classroom management as three interrelated factors. These three factors are both directly and indirectly connected to the work of PLCs and leadership tasks. The subscales for student engagement and instructional strategies are directly tied to PLCs and are key to answering the four PLC guiding questions. The subscale for classroom management is indirectly tied to the work of PLCs in that a teacher must have effective classroom management skills in order to facilitate and lead the instruction and intervention planned in PLCs. To calculate a teacher's sense of self-efficacy in each of the subscales (student engagement, classroom management, instructional practices), the

mean should be calculated using the items that correspond to each factor. The items numbers and subscales are listed below.

Long Form

Efficacy in Student Engagement:	Items 1, 2, 4, 6, 9, 12, 14, 22
Efficacy in Instructional Strategies:	Items 7, 10, 11, 17, 18, 20, 23, 24
Efficacy in Classroom Management:	Items 3, 5, 8, 13, 15, 16, 19, 21

Once the TSES was collected and scored the results were analyzed and the null hypotheses were tested using t-tests. The TSES results were analyzed comparing leadership team members and non-leadership team members for each of the three subscales and the TSES in its entirety. To statistically analyze the three null hypotheses *t*-tests were employed. *T*-tests were performed for each sub scale on the TSES as well as the overall scores on the TSES.

### **Null Hypotheses**

The following null hypotheses will be tested in the quantitative portion of the study:

- H<sub>01</sub>: There is not a statistically significant difference on the TSES “efficacy in instructional strategies” subscale when comparing teachers who serve in a leadership capacity and those who do not.
- H<sub>02</sub>: There is not a statistically significant difference on the TSES “efficacy in student engagement” subscale when comparing teachers who serve in a leadership capacity and those who do not.
- H<sub>03</sub>: There is not a statistically significant difference on the TSES overall score when comparing teachers who serve in a leadership capacity and those who do not.

### **Methodology Summary**

This mixed methods study included the integration of both qualitative and quantitative data sets. The qualitative portion lends itself to a case study design and incorporated multiple forms of data collected and analysis from teachers, teacher leaders, and leadership team members. Interviews, observations, and document analysis comprised the data. The results of the data analysis were utilized in determining how leadership practices viewed through a distributed lens are accomplished via micro tasks where leadership roles are shared. Additionally, data analysis helps school leaders understand how a collaborative culture established through PLCs contributes to the shared leadership roles and task completion. Finally, the TSES quantitative data were analyzed to determine if teacher perception of self-efficacy changed as a result of shared leadership roles and the tasks accomplished through the micro tasks.



## CHAPTER IV: PRESENTATION AND ANALYSIS OF DATA

### **Introduction**

This chapter includes analysis of data collected from interviews of eleven teachers, and twenty-nine surveys completed by teachers in a middle school in the geographical South. Pseudonyms are used throughout the study to protect the confidentiality of the participants, school, and district involved in this study. The analysis of interview questions and document review were utilized to answer each of the research questions. The TSES survey served to support the data found in the interview process as well as to assist with triangulation of data.

The chapter is arranged in two sections, an analysis of quantitative data and an analysis of qualitative data.

### **Quantitative Data Analysis**

Teachers within the middle school in this study were asked to volunteer to complete the TSES. A fifty-two percent return rate resulted in twenty-nine teachers completing the survey. Eight respondents had leadership roles within the school or district and twenty-one respondents did not have a leadership role within the school or district. Due to the low response rate teachers were not asked to identify their years of experience or their leadership role as this information may have allowed for the confidentiality of the survey to be compromised.

When responding to the TSES, participants used a Likert format that ranges from 1-9 with regard to how much teachers think they can deal with various types of students and classroom situations (1=not at all, 3=very little, 5= some degree, 7=quite a bit, 9=great deal). The overall mean for the TSES was 7.07. Table two includes results from

twenty-nine teachers including eight members of the school's leadership team. The mean for leadership team members was 7.09 as compared to non-leadership team members whose mean was 7.06.

The TSES is broken into subscales including efficacy in student engagement, efficacy in instructional strategies, and efficacy in classroom management (Tschannen-Moran & Woolfolk, 2001). TSES questions one, two, four, six, nine, twelve, fourteen, and twenty-two are categorized in the "student engagement" subscale; questions seven, ten, eleven, seventeen, eighteen, twenty, twenty-three, and twenty-four are categorized as "instructional strategies;" questions three, five, eight, thirteen, fifteen, sixteen, nineteen, and twenty-one make up the "management" subscale. The mean and standard deviation for each subscale were calculated.

The mean score of responses to the TSES are displayed in Table two. The mean for all participants on all questions of the TSES was 7.066. The mean for participants in a leadership position was 7.089, whereas the mean for participants not serving in leadership roles was 7.058. The mean for each subscale was calculated for participants in leadership roles and those participants not in leadership roles. The mean for TSES subscale "student engagement" was 6.61 for all participants, 6.47 for participants in leadership roles, and 6.66 for participants in non-leadership roles. The mean for TSES subscale "instructional strategies" was 7.41 for all participants, 7.41 for participants in leadership roles, and 7.40 for participants in non-leadership roles. The mean for TSES subscale "classroom management" was 7.18 for all participants, 7.39 for participants in leadership roles, and 7.10 for participants in non-leadership roles.

Table 2  
*Mean Score of Responses to TSES*

<b>TSES Subscale</b>	<b>Mean All Participants</b>	<b>SD</b>	<b>Mean Leadership Team Member Participants</b>	<b>SD</b>	<b>Mean Non-Leadership Team Member Participants</b>	<b>SD</b>
<b>Student Engagement</b>	6.61	1.45	6.47	1.43	6.66	1.46
<b>Instructional Strategies</b>	7.41	1.04	7.41	1.12	7.40	1.01
<b>Classroom Management</b>	7.18	1.40	7.39	1.35	7.10	1.41

### Results of Hypotheses Testing

*T*-tests were employed to determine if there is a significant difference in perception of teacher self-efficacy for teachers on the leadership team and those not on the leadership team. *T*-tests were performed for each sub scale on the TSES as well as the overall scores on the TSES. Table three displays the *T*-test results.

Table 3  
*T-Test Results*

<b>TSES Subscale</b>	<b>Levene's Test for Equality of Variances</b>	<b><i>t</i></b>	<b><i>p</i></b>
<b>Student Engagement</b>	.474	-.474	.639
<b>Instructional Strategies</b>	.922	.005	.996
<b>Classroom Management</b>	.954	.707	.485

### Null Hypothesis 1

H<sub>01</sub>: There is not a statistically significant difference on the TSES 'efficacy in instructional strategies' subscale when comparing teachers who serve in a leadership capacity and those who do not.

The leadership team members group ( $n=8$ ) was associated with a self-efficacy score  $M=7.40$  ( $SD=.743$ ) for instructional strategies, whereas the non-leadership team members group ( $n=21$ ) was associated with a self-efficacy  $M=7.40$  ( $SD=.699$ ). To determine whether there was a statistically significant difference in these two means, a two-tailed  $t$ -test was utilized. The assumption of equal variances was tested with Levene's  $F$  test,  $F(27)=.010$ ,  $p=.922$ , with a  $p$  value greater than .05, equal variances are assumed. A two-tailed  $t$ -test with equal variances assumed, resulted in a  $p$  value of .996. Thus, there is not a statistically significant difference in the means of the two samples. The null hypothesis is accepted.

### **Null Hypothesis 2**

$H_{02}$ : There is not a statistically significant difference on the TSES "efficacy in student engagement" subscale when comparing teachers who serve in a leadership capacity and those who do not.

The leadership team members group ( $n=8$ ) was associated with a self-efficacy score  $M=6.46$  ( $SD=1.11$ ) for student engagement, whereas the non-leadership team members group ( $n=21$ ) was associated with a self-efficacy  $M=6.66$  ( $SD=.963$ ). To determine whether there was a statistically significant difference in these two means, a two-tailed  $t$ -test was utilized. The assumption of equal variances was tested with Levene's  $F$  test,  $F(27)=.528$ ,  $p=.474$ , with a  $p$  value greater than .05, equal variances are assumed. A two-tailed  $t$ -test with equal variances assumed, resulted in a  $p$  value of .639. Thus, there is not a statistically significant difference in the means of the two samples. The null hypothesis is accepted.

### **Null Hypothesis 3**

$H_{03}$ : There is not a statistically significant difference on the TSES overall score when comparing teachers who serve in a leadership capacity and those who do not.

The leadership team members group ( $n=8$ ) was associated with a self-efficacy score  $M=7.39$  ( $SD .966$ ) for classroom management, whereas the non-leadership team members group ( $n=21$ ) was associated with a self-efficacy  $M=7.10$  ( $SD=.991$ ). To determine whether there was a statistically significant difference in these two means, a two-tailed  $t$ -test was utilized. The assumption of equal variances was tested with Levene's  $F$  test,  $F(27)=.003$ ,  $p=.954$ , with a  $p$  value greater than .05, equal variances are assumed. A two-tailed  $t$ -test with equal variances assumed, resulted in a  $p$  value of .485. Thus, there is not a statistically significant difference in the means of the two samples. The null hypothesis is accepted.

### **Summary of Quantitative Findings**

The  $t$ -test results lead to the acceptance of all three null hypotheses, indicating that there is not a correlation between directly serving in a leadership role and a teacher's perception of self-efficacy. The mean and standard deviations indicate there is not a statistically significant difference in the TSES subscale for those in a leadership role and those who are not.

### **Qualitative Data Analysis**

Eleven teachers were interviewed. Five of these teachers are not members of the school's leadership team, and the remaining six are members of the schools leadership team. Interviews were conducted using the questions in Appendix A. These interviews were transcribed and then sent to interviewees for member checking. The first four

questions asked in the interview for both teachers and leadership team members were more demographic in nature including years of experience, education level, and years teaching at this particular school. Table four provides participant demographics.

Table 4  
*Participants*

<b>Name</b>	<b>Education level</b>	<b>Years of experience</b>	<b>Years of experience at school in study</b>	<b>Content and grade level</b>	<b>Leadership or non-leadership role</b>
<b>Jane</b>	Education Specialist	14 years	5 years	7 <sup>th</sup> grade, math	Non-leadership
<b>Stormy</b>	Master's Degree	20 years	10 years	6 <sup>th</sup> grade, language arts, National Board Certified	Non-leadership
<b>Rose</b>	Education Specialist	19 years	19 years	Special Education teacher serving students in grades 6-8	Leadership
<b>Jack</b>	Bachelor of Science	11 years	11 years	Social Studies teacher, 7 <sup>th</sup> grade	Non-leadership
<b>Mary</b>	Master's Degree	16 years	6 years	8 <sup>th</sup> grade Science teacher	Leadership
<b>Charlotte</b>	Bachelor's Degree	30 years	16 years	8 <sup>th</sup> grade Math teacher	Non-leadership
<b>Chardonnay</b>	Doctor of Education	9 years	6 years	6 <sup>th</sup> grade Language Arts teacher	Leadership
<b>Megan</b>	Master's Degree	29 years	29 years	6 <sup>th</sup> grade Science teacher	Leadership
<b>Shelley</b>	Master's Degree	2 years	2 years	7 <sup>th</sup> grade Science teacher	Non-leadership
<b>Samantha</b>	Master's degree	6 years	4 years	7 <sup>th</sup> grade ELA teacher	Leadership
<b>Scott</b>	Bachelor's Degree	25 years	10 years	8 <sup>th</sup> grade Social Studies teacher	Non-leadership

The teachers interviewed had a variety of education levels (Bachelor's degree through Doctor of Education) and years of experience ranging from two years to twenty-nine years. Participants are teachers of math, social studies, science, or language arts and teach either sixth, seventh, or eighth grade. One participant is a special education teacher who teaches math and reading intervention classes as well as provides inclusion support to special education students in eighth grade.

Leadership team members and non-leadership team members' interviews were analyzed by participants' responses to each question. Initial interview responses were coded by identifying key ideas from teacher and leadership team members' responses. These codes were then grouped by similar idea or topic into a smaller number of categories. The themes were similarly established by further narrowing the number of categories by grouping similar ideas or concepts to form a theme. For example, several teachers described the role of the leadership team as communicating with the faculty at large. While not every interviewee used the word "communicator," all words used were synonymous with communication (e.g. bring back information, share important information). Another example would include participants' answers to the question about how PLCs help teachers meet student needs. Initial answers to this question included "design lessons and assessments," "share best practices and ideas," and "discuss diverse learners." Each of these responses was grouped into a category of planning and designing lessons and assessments. This determination was made as these are each key characteristics to designing and planning lessons and assessments.

When asked how vertical PLC meetings with other district teachers affect interaction with students, participants responded with a variety of answers. From these initial answers, codes were assigned. These codes were then condensed into categories. These categories include "share experiences, ideas, and strategies;" "every student can learn at high levels;" "enhance knowledge of students;" "common expectations;" "discuss difficult concepts;" and "discuss challenging students." From these categories, the following themes emerged: "collaboration," "perspective," and "common expectations." The categories identified as "share experiences, ideas, and strategies;" "discuss difficult

concepts;” “discuss challenging students” were combined to create the theme labeled “collaboration.” The categories identified as “every student can learn at high levels” and “enhance knowledge of students” made up the theme labeled perspective. The category called “common expectations” kept the same name as a theme. A final example of how categories were identified and how themes emerged can be seen when participants were asked to describe some tasks they worked through during vertical PLCs. “Planning and pacing;” “connection of resources and standards;” “activities and common assessments” were all categories. They were combined into the theme of “planning and pacing” because each of these is an aspect of planning and pacing. Table five shows the number of codes, categories, and themes for each interview question.

Table 5  
*Number of Codes, Categories, Themes*

<b>Teacher Interview Questions</b>	<b>Codes</b>	<b>Categories</b>	<b>Themes</b>
Question 5	12	4	4
Question 6	7	4	3
Question 7	9	3	3
Question 8	10	4	4
Question 9	10	5	3
Question 10	14	6	3
Question 11	9	4	2
Question 12	11	4	3
Question 13	5	2	2
Question 14	7	4	3
Question 15	17	5	4
Question 16	2	2	2
<b>Leadership Team Member Interview Questions</b>	<b>Codes</b>	<b>Categories</b>	<b>Themes</b>
Question 5	12	4	3
Question 6	14	4	5
Question 7	16	3	3
Question 8	7	3	3
Question 9	18	6	5
Question 10	7	4	2



Tables six through seventeen display questions asked of teachers and how their corresponding answers were coded and moved into categories. Tables eighteen through twenty-three illustrate the same information for members of the leadership team.

### Raw Qualitative Data and Coding

Table 6  
*Teacher Question Five and Codes*

5. There are PLCs established in the school. How does this culture affect your ability to meet the needs of all students?		
Codes	Categories	Themes
<ul style="list-style-type: none"> <li>• Think ahead</li> <li>• Design lessons and assessments</li> <li>• Share best practices and activities</li> <li>• Anticipate student issues</li> <li>• Come up w/a game plan that creates an opportunity for all students</li> <li>• Creates a culture that gives everyone a chance to be successful</li> <li>• Troubleshoot problems</li> <li>• Build off each other's strengths</li> <li>• Discuss things that are working</li> <li>• Reflective</li> <li>• Discuss issues with colleagues</li> <li>• If I have situation I can't handle or something isn't working, it gives me a new opportunity to try</li> </ul>	<ul style="list-style-type: none"> <li>• Planning and designing lesson and assessments</li> <li>• Think ahead and anticipate student issues</li> <li>• Culture to meet students' needs</li> <li>• Reflective-what's working, discuss issues with colleagues</li> </ul>	<ul style="list-style-type: none"> <li>• Anticipate</li> <li>• Share</li> <li>• Meet student needs</li> <li>• Reflect and discuss</li> </ul>

Table six represents codes, categories, and themes for question five in the teacher interviews. The codes “think ahead,” “anticipate student issues,” and “troubleshoot problems” were combined to make the category, “think ahead and anticipate students issues.” The codes “design lesson assessments,” “share best practices and activities,” and “build off each other's strengths” were combined to make the category “planning and designing lessons and assessments.” The codes “discuss things that are working,” “reflective,” “discuss issues with colleagues,” and “if I have a situation I can't handle or something isn't working it gives me a new opportunity to try” were combined to create

category “reflective-what’s working,” “discuss issues with colleagues.” The categories were then combined to make themes. Category “think ahead and anticipate student needs” was used to create the theme “anticipate.” Category “planning and designing lessons and assessments” makes up the theme “share.” “Reflective-what’s working and what is not” and “discuss issues with colleagues” make up the theme “reflective.”

Table 7  
*Teacher Question Six and Codes*

6. In your PLC meetings what are some tasks you discuss?		
Codes	Categories	Themes
<ul style="list-style-type: none"> <li>• Meeting the needs of all different learners</li> <li>• Discuss diverse learners</li> <li>• Planning for learning units, specific lessons, and assessment creation</li> <li>• Remediation/extension ideas</li> <li>• How to implement a strategy to make it effective</li> <li>• Learn by listening to people discuss strategies they use</li> </ul>	<ul style="list-style-type: none"> <li>• Meeting needs of diverse learners</li> <li>• Planning for learning</li> <li>• Extension and remediation strategies</li> <li>• Strategy implementation</li> </ul>	<ul style="list-style-type: none"> <li>• Diverse learners</li> <li>• Planning</li> <li>• Strategies</li> </ul>

Table seven represents codes, categories, and themes for question six in the teacher interviews. The codes “meeting the needs of all different learners,” and “discuss diverse learners” were combined to form the category “meeting needs of diverse learners.” The code “planning for learning units, specific lessons, and assessment creation” was condensed to create the category “planning for learning.” The code “remediation/extension ideas” formed the category extension and remediation strategies.” The codes “how to implement a strategy to make it effective” and “learn by listening to people discuss the strategies they use” were combined to create the category “strategy implementation.” The category “meeting needs of diverse learners” was used to create the theme “diverse learners.” The category “planning for learning” was condensed to the

Table 8  
*Teacher Question Seven and Codes*

7. In your PLC meetings how are leadership roles shared?		
Codes	Categories	Themes
<ul style="list-style-type: none"> <li>• Based on individual strengths</li> <li>• Based on strengths</li> <li>• Based on needs (x2), can rotate depending on needs</li> <li>• Informal</li> <li>• Not formally defined</li> <li>• Volunteer</li> <li>• Divide tasks (x 2)</li> <li>• Take turns with routine tasks</li> <li>• Leader is formal but other tasks are divided</li> </ul>	<ul style="list-style-type: none"> <li>• Based on strengths</li> <li>• Based on needs</li> <li>• Informally assigned, tasks divided</li> </ul>	<ul style="list-style-type: none"> <li>• Strengths</li> <li>• Needs</li> <li>• Informal</li> </ul>

theme “planning.” The categories “extension and remediation strategies” and “strategy implementation” created the code “strategies.”

Table eight represents codes, categories, and themes for question seven in the teacher interviews. The codes “based on individual strengths” and “based on strengths” were combined to create the category “based on strengths.” The code “based on needs,” documented as occurring twice within the interviews, along with the code “can rotate depending on needs” were combined to form the category “based on needs.” The codes “informal,” “not formally defined,” “volunteer,” “divide tasks,” “take turns with routine tasks,” and “leader is formal, but other tasks are divided” were combined to form the category “informally assigned, tasks divided.” The three categories were combined into three themes, “strengths,” “needs,” and “informal.”

Table nine represents codes, categories, and themes for question eight in the teacher interviews. The codes “sharing,” “sharing ideas,” “sharing strategies,” and “sharing how situations were handled” were combined to create category “sharing ideas, strategies, how to handle situations.” The code “collaboration” was also utilized as a

Table 9  
*Teacher Question Eight and Codes*

8. How do PLC meetings impact your ability to get through to the most difficult students?		
Codes	Categories	Themes
<ul style="list-style-type: none"> <li>• Sharing</li> <li>• Sharing ideas</li> <li>• Share strategies</li> <li>• Sharing how situations were handled</li> <li>• Collaboration</li> <li>• Plan for students (remediation/extension)</li> <li>• Preventative ideas</li> <li>• What have other teachers done for similar students</li> <li>• Finding another way to think</li> </ul>	<ul style="list-style-type: none"> <li>• Sharing ideas, strategies, how to handle situations</li> <li>• Plan for students and preventative ideas</li> <li>• Collaboration</li> <li>• Finding another way to think</li> </ul>	<ul style="list-style-type: none"> <li>• Share</li> <li>• Plan</li> <li>• Another way to think</li> <li>• Collaboration</li> </ul>

category. The codes “plan for students (remediation/extension) and “preventative ideas” were combined to create category “plan for students and preventative ideas.” The codes “what have other teachers done for similar students” and “finding another way to think” were combined to create category “finding another way to think.” The category “sharing ideas, strategies, how to handle situations” was used to create the theme “share.” The theme “plan” was formed from the category “plan for students and preventative ideas.” The category “finding another way to think” was used to create the theme “another way to think.” The category “collaboration” also became the theme “collaboration.”

Table ten represents codes, categories, and themes for question nine in the teacher interviews. The codes “share experiences, ideas, strategies;” “allow me to have ideas to make learning fun;” “collaboration;” and “pick up some things through conversation” were combined to create the category “share experiences, ideas, and strategies.” The codes “helps to see every student can learn at high levels,” “hearing other teachers’ experiences make me respect my students more,” and “enhance my knowledge of

Table 10  
*Teacher Question Nine and Codes*

9. How do your vertical PLC meetings with other district teachers affect how you interact with students?		
Codes	Categories	Themes
<ul style="list-style-type: none"> <li>• Share experiences, ideas, strategies</li> <li>• Helps to see every student can learn at high levels</li> <li>• Hearing other teachers' experiences make me respect my students more</li> <li>• Enhances my knowledge of students</li> <li>• Allows me to have ideas to make learning fun</li> <li>• Discuss difficult concepts or students</li> <li>• Collaboration</li> <li>• Rigor level is similar</li> <li>• Use of common vocabulary</li> <li>• Pick up some things through conversation</li> </ul>	<ul style="list-style-type: none"> <li>• Share experiences, ideas, and strategies</li> <li>• Every student can learn at high levels, enhance knowledge of students</li> <li>• Common expectations</li> <li>• Discuss difficult concepts</li> <li>• Discuss challenging students</li> </ul>	<ul style="list-style-type: none"> <li>• Collaboration</li> <li>• Perspective</li> <li>• Common expectations</li> </ul>

students” were utilized to create the category “every student can learn at high levels, enhance knowledge of students.” Combining codes “rigor level is similar” and “use of common vocabulary” created the category “common expectations.” The code “discuss difficult concepts or students” was broken into two categories “discuss difficult concepts” and “discuss challenging students.” Combining categories “discuss difficult students,” “discuss difficulty concepts,” and “share experiences, ideas, and strategies” created theme “collaboration.” The category “every students can learn at high levels, enhance knowledge of students” was used to create the theme “perspective.”

Table eleven represents codes, categories, and themes for question ten in the teacher interviews. The category “pacing, planning” was created by combining the codes “pacing,” “planning, pacing, and standards,” “understanding the standards,” “pacing,” “scheduling,” “pacing and standards,” “compare data,” and “creating common tasks and assignments.” The code “anticipate student difficulties” was also a named as a category.

Table 11  
*Teacher Question Ten and Codes*

10. What are some tasks you work through during the vertical PLCs?		
Codes	Categories	Themes
<ul style="list-style-type: none"> <li>• Pacing</li> <li>• Planning, pacing and standards</li> <li>• Anticipate student difficulties</li> <li>• Diverse learners</li> <li>• Get ideas about how to get through difficult students</li> <li>• Connection of resources and standards</li> <li>• Understanding the standards</li> <li>• Activities and materials</li> <li>• Pacing</li> <li>• Scheduling</li> <li>• Pacing and standards</li> <li>• Develop common assessments</li> <li>• Compare data</li> <li>• Creating common tasks and assignments</li> </ul>	<ul style="list-style-type: none"> <li>• Pacing, planning</li> <li>• Connection of resources and standards</li> <li>• How to reach difficult students and diverse learning</li> <li>• Anticipate student difficulties</li> <li>• Activities and common assessments</li> </ul>	<ul style="list-style-type: none"> <li>• Diverse learners</li> <li>• Planning/Pacing</li> </ul>

The codes “diverse learners,” and “get ideas about how to get through to difficult students” were used to create the category “how to reach difficult students and diverse learning.” The category “connection of resources and standards” was also identified as a code. The category “activities and common assessments” was created by combining the codes “activities and materials,” and “develop common assessments.” The categories “pacing, planning,” “connection of resources and standards,” and “activities and common assessments” were combined to create the theme “planning and pacing.” The categories “how to reach difficult students and diverse learning, “ and “anticipate student difficulties” were combined to create the theme “diverse learners.”

Table twelve represents codes, categories, and themes for question eleven in the teacher interviews. Codes “all take a role,” “share workload,” “share responsibilities,” and “roles shared” were used to form the category “share roles, responsibilities, and

Table 12  
*Teacher Question Eleven and Codes*

11. How are leadership roles shared in vertical PLC meetings?		
Codes	Categories	Themes
<ul style="list-style-type: none"> <li>• All take a role</li> <li>• Share workload</li> <li>• Share responsibilities</li> <li>• Roles are shared</li> <li>• Est. roles, but not formally discussed</li> <li>• Assigned roles X 2</li> <li>• District meetings have a specific goal and expectation for meeting's end</li> <li>• Share our strengths</li> </ul>	<ul style="list-style-type: none"> <li>• Share roles, responsibilities, and workload</li> <li>• Roles are established</li> <li>• Roles are assigned</li> <li>• Share our strengths</li> </ul>	<ul style="list-style-type: none"> <li>• Shared roles</li> <li>• Assigned/ established roles</li> </ul>

workload.” The code “established roles, but not formally discussed” was assigned the category “roles are established.” The code “assigned roles” also became a category.” The codes “assigned roles” and “share our strengths” also became a category. Combining “share roles, responsibilities, and workload and share our strengths” created the theme “shared roles.” The categories “roles are assigned” and “roles are established” were used to create the theme “assigned roles/established roles.”

Table 13  
*Teacher Question Twelve and Codes*

12. How well do PLC meetings and district vertical meetings PLCs equip you to meet the needs of very capable students and students with learning difficulties, but not necessarily SPED students?		
Codes	Categories	Themes
<ul style="list-style-type: none"> <li>• Not a focus on students with specific learning disability</li> <li>• Work on students that are moderately capable to determine what level they will master the skill and push them forward</li> <li>• Share ideas, strategies</li> <li>• Being willing to help</li> <li>• Ensure level of rigor is maintained across district and w/in groups of students</li> <li>• Ensure same expectations across district</li> <li>• Reflecting and discussing</li> <li>• Fallback if students are struggling</li> <li>• Anticipate student issues</li> <li>• Plan and provide scaffolding</li> </ul>	<ul style="list-style-type: none"> <li>• Not a focus on students who struggle or with specific learning disabilities</li> <li>• Share ideas, strategies, and willingness to help</li> <li>• Ensure same expectations across the district as well as same level of rigor</li> <li>• Anticipate issues and plan for scaffolding</li> </ul>	<ul style="list-style-type: none"> <li>• Same expectations across district within groups of students</li> <li>• Share</li> <li>• Support students</li> </ul>

Table thirteen represents codes, categories, and themes for question twelve in the teacher interviews. The codes “not a focus on students with specific learning disability” and “work on students that are moderately capable to determine what level they will master the skill and push them forward” created the category “not a focus on students who struggle or with specific learning disabilities.” The codes “share ideas, strategies;” “being willing to help;” reflecting and discussing;” and “fallback if students are struggling” were combined to create the category “share ideas, strategies, and willingness to help.” Codes “ensure level of rigor is maintained across district and within group of students” and “ensure same expectations across district” created the category “ensure same expectations across the district as well as same level of rigor.” The category “anticipates issues and plan for scaffolding” was created by combining the codes “anticipate student issues” and “plan and provide scaffolding.” The theme “same expectations across district within groups of students” was created from categories “ensure same expectations across the district as well as same level of rigor.” The theme “share” was formed from category “share ideas, strategies, and willingness to help.” The theme “support students” was formed from the category “anticipate issues and plan for scaffolding.”

Table fourteen represents codes, categories, and themes for question thirteen in the teacher interviews. The category “school level-meet needs of students, use a variety of strategies, reflective, discuss standards” was formed by combining codes “school level PLCs allow us to focus on meeting the needs of subgroups of students,” “building level PLCs prepare me to use a variety of strategies,” “discuss what worked and what did



Table 14  
*Teacher Question Thirteen and Codes*

13. Do the PLC meetings and district vertical meetings prepare you to use a variety of instructional and assessment strategies? Why or why not?		
Code	Categories	Themes
<ul style="list-style-type: none"> <li>• School level PLCs allow us to focus on meeting the needs of subgroups of students</li> <li>• Building level PLCs prepare me to use a variety of strategies</li> <li>• Discuss what worked and what didn't work within lesson and/or unit</li> <li>• Building level PLC-hash out a lot of questions and what standards are being used and how we are addressing those</li> <li>• District—somewhat helpful in getting instructional ideas, instructional strategies are discussed, trying new strategies</li> </ul>	<ul style="list-style-type: none"> <li>• School level—meet needs of students, use variety of strategies, reflective, discuss standards</li> <li>• District—somewhat helpful in getting instructional ideas</li> </ul>	<ul style="list-style-type: none"> <li>• Variety of strategies to meet needs of students (school)</li> <li>• Somewhat helpful (district)</li> </ul>

not work within lesson and/or unit,” and “building level PLCs-hash out a lot of questions and what standards are being used and how are we addressing those.” The code “district-somewhat helpful in getting instructional ideas, instructional strategies are discussed, trying new strategies” formed the category “district-somewhat helpful in getting instructional ideas.” The theme “variety of strategies to meet student needs (school level)” was created from category “school level- meet needs of students, use variety of strategies, reflective, discuss standards.” The theme “somewhat helpful (district)” was derived from category “district- somewhat helpful in getting instructional ideas.”

Table fifteen represents codes, categories, and themes for question fourteen in the teacher interviews. The code “school level has norms established” became category “school level has established norms.” The codes “team is trying to anticipate and plan for student needs” and “need to walk away with something I can use” were used to form

Table 15  
*Teacher Question Fourteen and Codes*

14. How would PLC meetings be designed to best meet your needs?		
Codes	Categories	Themes
<ul style="list-style-type: none"> <li>• School level PLCs are good</li> <li>• School level has norms established</li> <li>• Team is trying to anticipate and plan for student needs</li> <li>• District—too much for one day</li> <li>• Need to walk away with something I can use</li> <li>• Need to feel like I contributed or learned something</li> <li>• Want us to get better at PLCs</li> </ul>	<ul style="list-style-type: none"> <li>• School level has established norms</li> <li>• Need to feel like PLCs are useful</li> <li>• Plan for student needs</li> <li>• District is too much for one day</li> </ul>	<ul style="list-style-type: none"> <li>• Established norms, and feel as though PLCs are useful</li> <li>• Do not include too many tasks to complete in one setting</li> <li>• Plan for students' needs</li> </ul>

category “plan for student needs.” The code “district-too much for one day” became category “district is too much for one day.” Categories “school level has established norms” and “need to feel like they are useful” and code “school level PLCs are good” were combined to form theme “established norms, and feel as though PLCs are useful.” The theme “do not include too many tasks to complete in one setting” was created from category “district is too much for one day.” The category, “plan for student needs” also became a theme.

Table sixteen represents codes, categories, and themes for question fifteen in the teacher interviews. The codes “group you can go to with concerns,” “willingness to listen,” “I can contribute by talking to a team member,” and “can take various issues to the group” formed category “willing to listen.” The codes “bring things back to us” and “bring back information from leadership and help us make decisions” were combined to form category “bring back information to us.” The codes “provide us an opportunity to discuss and provide input” and “we can have ownership without having a say in everything” were combined to create category “allow us to contribute and have input.”

Table 16  
*Teacher Question Fifteen and Codes*

15. What role does the leadership team play in your school?		
Codes	Categories	Themes
<ul style="list-style-type: none"> <li>• Group you can go to with concerns</li> <li>• Bring things back to “us”</li> <li>• Willing to listen</li> <li>• Intermediaries</li> <li>• Bring back information from leadership and help us make decisions</li> <li>• Mediator</li> <li>• Communicator</li> <li>• Provide us an opportunity to discuss and provide input</li> <li>• Liaison</li> <li>• Well respected group</li> <li>• Natural leaders</li> <li>• Carefully chosen</li> <li>• Vested in school</li> <li>• Provide “us” a voice</li> <li>• We can have ownership w/out having a say in everything</li> <li>• I can contribute by talking to a team member</li> <li>• Can take various issues to the group</li> </ul>	<ul style="list-style-type: none"> <li>• Willing to listen</li> <li>• Provide “us” a voice/input</li> <li>• Liaison</li> <li>• Bring back information to us</li> <li>• Allow us to contribute and have input</li> <li>• Intermediaries</li> <li>• Communicator</li> <li>• Carefully chosen, natural leaders of the school</li> </ul>	<ul style="list-style-type: none"> <li>• Intermediaries</li> <li>• Provide “us” with a voice</li> <li>• Communicator</li> <li>• Natural leaders of school</li> </ul>

The code “communicator” also became a category. The codes “intermediaries” and “mediator” were combined to create category “intermediaries.” The code “liaison” also became a category. The codes “natural leaders,” “carefully chosen,” and “vested in school” were combined to create category “carefully chosen, natural leaders of the school.” The category “communicator” also became a theme. Combining categories “liaisons” and “intermediaries” developed the theme “intermediaries.” The categories “willing to listen,” “bring back information to us,” and “communicator” were used to create the theme “communicator.” The categories “provide us with a voice” and “allow us to contribute and have input” were combined to create “provide us with a voice.” The

category “carefully chosen, natural leaders of the school” was used to create the theme “natural leaders of the school.”

Table 17  
*Teacher Question Sixteen and Codes*

16. How does the work of the leadership team impact your ability to meet the needs of students both academically and behaviorally?		
Codes	Categories	Themes
<ul style="list-style-type: none"> <li>• Formulate plan based on our students’ needs</li> <li>• Teachers on leadership team have the same students I have and similar concerns</li> </ul>	<ul style="list-style-type: none"> <li>• Students’ needs</li> <li>• Similar concerns</li> </ul>	<ul style="list-style-type: none"> <li>• Student needs</li> <li>• Similar concerns</li> </ul>

Table seventeen represents codes, categories, and themes for question sixteen in the teacher interviews. The code “formulate plan based on our students’ needs” was used to create a category and theme “student needs.” The code “teachers on the leadership team have the same students I have and similar concerns” was used to develop category and theme “similar concerns.”

### **Leadership Team Members’ Questions and Coding**

The following tables display the codes, categories, and themes derived from interviews of leadership team members.

Table eighteen represents codes, categories, and themes for question five in the leadership team member interviews. The codes “take back information from team,” “bring back information to the faculty,” “keep others in school informed,” “listen,” and “communicate” were combined to create the category “communicate information.” The code “collaborate to solve problems” also became a category. The category “provide a voice for everyone in the school ” was developed by combining codes “provide input in decisions,” “advocate for others in the school,” and “a voice.” The codes “liaison” and

“make sure everyone has a clear understanding of decisions” were combined to create the category “liaison.” The category “communicate information” became the theme “communicate.” The category “problem solving through collaboration” became theme “problem solve.” Combining the categories “liaison” and “provide a voice for everyone in the school” created the theme “advocate.”

Table 18  
*Leadership Team Members’ Question Five and Coding*

5. As a member of the leadership team, what are your responsibilities?		
Codes	Categories	Themes
<ul style="list-style-type: none"> <li>• Take back info to team</li> <li>• Bring back info to faculty</li> <li>• Disseminate info</li> <li>• Liaisons</li> <li>• Collaborate to solve problems</li> <li>• Provide input in decisions</li> <li>• Advocate for others in school</li> <li>• Keep others in school informed</li> <li>• Make sure everyone has clear understanding of decisions</li> <li>• Communicate</li> <li>• Listen</li> <li>• A voice</li> </ul>	<ul style="list-style-type: none"> <li>• Communicate information</li> <li>• Problem solving through collaboration</li> <li>• Provide a voice for everyone in school</li> <li>• Liaison</li> </ul>	<ul style="list-style-type: none"> <li>• Problem solve</li> <li>• Communicate</li> <li>• Advocate</li> </ul>

Table nineteen represents codes, categories, and themes for question six in the leadership team member interviews. The codes “open door policy,” “open to having a voice shared at the leadership meetings,” “don’t have to wait until day of meeting to express concern,” and “administration listens to what we need” were combined to create

Table 19  
*Leadership Team Members' Question Six and Coding*

6. What support are you given from school administration?		
Codes	Categories	Themes
<ul style="list-style-type: none"> <li>• Open door policy</li> <li>• Open to having a voice shared at the leadership meetings</li> <li>• Don't have to wait until day of meeting to express concern</li> <li>• Seek input</li> <li>• A place to float ideas before presented to full faculty</li> <li>• Input is valued</li> <li>• Communication tool</li> <li>• Get more info on the front end</li> <li>• Freedom to make decisions</li> <li>• Do what's right</li> <li>• Level of support and trust</li> <li>• I am listened to</li> <li>• Mostly supported and listened to</li> <li>• Administration listens to what we need</li> </ul>	<ul style="list-style-type: none"> <li>• Open to sharing voice at meetings and welcome concerns</li> <li>• Input sought and valued</li> <li>• Sounding board</li> <li>• Trust and support</li> </ul>	<ul style="list-style-type: none"> <li>• Listened to</li> <li>• Trusted and supported</li> <li>• Input sought and valued</li> <li>• Communicator /listener</li> </ul>

category “open to sharing voice at meetings and welcome concerns.” The codes “a place to float ideas before presented to full faculty,” “input is valued,” and “get more info on the front end” were combined to create category “sounding board.” The codes “freedom to make decisions,” “do what is right,” and “level of support and trust” were combined to form the category “trust and support.” The codes “I am listened to,” “seek input,” and “mostly supported and listened to” were combined to create category “input sought and valued.” The category “open to sharing voice at meetings and welcome concerns” was used to create the theme “listened to.” The category “sounding board” was used to create the theme “communicator/listener.” The categories “input sought and valued” and “trusted and supported” also each became themes.

Table twenty represents codes, categories, and themes for question seven in the leadership team member interviews. The category “procedural items discussed including

Table 20  
*Leadership Team Members' Question Seven and Coding*

7. What decisions is the leadership team charged with making?		
Codes	Categories	Themes
<ul style="list-style-type: none"> <li>• Procedural</li> <li>• Scheduling</li> <li>• Discipline</li> <li>• Logistics</li> <li>• Consistent guidelines</li> <li>• How to use tribe time</li> <li>• Processes</li> <li>• Ideas on how to make something flow through the school</li> <li>• School plan (vision)</li> <li>• Deciding what works best for our students</li> <li>• Data</li> <li>• School-wide decisions</li> <li>• Placement of students</li> <li>• Big picture decisions</li> <li>• Branding of our school</li> </ul>	<ul style="list-style-type: none"> <li>• Procedural items discussed including scheduling, logistics, how to make things flow through the school</li> <li>• Process items discussed including consistent guidelines, discipline</li> <li>• School-wide decision making</li> </ul>	<ul style="list-style-type: none"> <li>• Procedural</li> <li>• Processes</li> <li>• School-wide decisions</li> </ul>

scheduling, logistics, how to make things flow through the school” was formed by combining the codes “procedural,” “scheduling,” “logistics,” and “ideas on how to make something flow through the school.” The codes “how to use tribe time,” “data,” “school-wide decisions,” “placement of students,” “big picture decisions,” and “branding of our school” were combined to create “school-wide decision making.” The codes “discipline,” “consistent guidelines,” “processes,” and “deciding what works best for our students” were combined to create the category “process items discussed including consistent guidelines and discipline.” The category “procedural items discussed including scheduling, logistics, how to make things flow through the school” was used to create the theme “procedural.” The theme “processes” was created from category “process items discussed including consistent guidelines, discipline.” The theme “school-wide decisions was created from category “school-wide decision making.”

Table 21  
*Leadership Team Members' Question Eight and Coding*

8. How are leadership roles within the leadership team shared?		
Codes	Categories	Themes
<ul style="list-style-type: none"> <li>• Aren't shared, we are separate entities</li> <li>• No specific positions on the team</li> <li>• Our group works together equally</li> <li>• Do not see differing roles</li> <li>• Administration facilitates</li> <li>• Diversity of strengths</li> <li>• Good representation across the building in terms of experience and departments</li> </ul>	<ul style="list-style-type: none"> <li>• Roles are not shared</li> <li>• Team works equally, not differing roles</li> <li>• Good representation across the school with diversity of strengths</li> </ul>	<ul style="list-style-type: none"> <li>• Are not shared</li> <li>• Diversity of strengths</li> <li>• Equality</li> </ul>

Table twenty-one represents the codes, categories, and themes for question eight in the leadership team member interviews. The codes “are not shared, we are separate entities,” “no specific positions on the team,” and “administration facilitates” were combined to create category “roles are not shared.” The codes “our group works together equally,” and “do not see differing roles,” were utilized to create the category “team works equally, not differing roles.” The code “good representation across the building in terms of experience and departments” and “diversity in strengths” were used to create the category “good representation across the school with diversity of strengths.” The category “roles are not shared” was used to create the theme “are not shared.” The theme “diversity of strengths” was created from category “good representation across the school with diversity of strengths.” The theme “equality” was created from the category “team works equally, not differing roles.”

Table twenty-two represents codes, categories, and themes for question nine in the leadership team member interviews. The category “managerial focus” was created by combining the codes “managerial,” “get clarification regarding scheduling and take back to teachers to calm down anxiety,” “determine what parent communication will look



Table 22  
*Leadership Team Members' Question Nine and Coding*

9. Describe a typical meeting including recent topics of discussion, who leads and plans, managerial or instructional focus.		
Codes	Categories	Themes
<ul style="list-style-type: none"> <li>• Managerial</li> <li>• Get clarification re: scheduling and take back to teachers to calm down anxiety</li> <li>• Determine what parent communication will look like</li> <li>• Used as a school newspaper</li> <li>• Talked about procedures, vision</li> <li>• Feel a change w/in the school this year</li> <li>• Not instructional focused b/c people are pocketed in their department</li> <li>• Administration plans and leads</li> <li>• Lead by administration</li> <li>• Not sure how much of our input is used in planning</li> <li>• Set agenda w/pre-determined topics</li> <li>• Make decisions as they relate to the school community</li> <li>• Focus varies depending on need</li> <li>• Talk about vision and pride in school</li>   <li>• Try to blend managerial and instructional</li> <li>• Managerial decisions are made and those affect our instruction</li> <li>• I see us moving toward instruction so we can lead faculty more</li> <li>• Mostly instructional but depends on needs, instructional kinds of things were looked at</li> </ul>	<ul style="list-style-type: none"> <li>• Managerial focus</li> <li>• Blend of managerial and instruction focus</li> <li>• Decisions impact our instruction</li> <li>• School wide decisions</li> <li>• Plan and facilitated by administration</li> <li>• Focus changes based on need</li> </ul>	<ul style="list-style-type: none"> <li>• Managerial focus</li> <li>• Administration plans and leads</li> <li>• Focus changes based on need</li> <li>• School wide decisions</li> <li>• Blend of instructional and managerial with decisions impacting instruction</li> </ul>

like,” “used as a school newspaper,” and “not instructional focused because people are pocketed in their department.” The codes “try to blend managerial and instructional” and “I see us moving toward instruction so we can lead faculty more” were used to create the category “blend of managerial and instruction focus.” The category “school wide decisions” was created by combining the codes “talked about procedures,” “vision,” “make decisions as they relate to the school community” and “talk about vision and pride

in school.” The code “managerial decisions are made and those affect our instruction” was used to create the category “decisions impact our instruction.” The codes “administration plans and leads,” “lead by administration,” “not sure how much of our input is used in planning,” and “set agenda w/pre-determined topics” were used to create the category “planned and facilitated by administration.” The category “focus changes based on need” was created by combining the codes “focus varies depending on need” and “mostly instructional, but depends on needs, instructional kinds of things were looked at.” The category “managerial focus” also became a theme. The theme “administration plans and leads” was created from the category “plan and facilitated by administration.” The categories “focus changes based on need” and “school wide decisions” each also became a theme. The categories “blend of managerial and instruction focus” and “decisions impact instruction” were combined to create the theme “blend of instructional and managerial with decisions impacting instruction.”

Table 23  
*Leadership Team Members’ Question Ten and Coding*

10. What changes and/or additional support is needed from the administrative team to make you more effective as a leader?		
Codes	Categories	Themes
<ul style="list-style-type: none"> <li>• More two-way communication</li> <li>• Time to voice concerns</li> <li>• Listen more to questions and concerns</li> <li>• Have a way to bring up teacher concerns</li> <li>• Sometimes input is given but not used</li> <li>• Better way to disseminate procedural info to the masses</li> <li>• More intense training on initiatives so more capacity to help others</li> </ul>	<ul style="list-style-type: none"> <li>• More two-way communication</li> <li>• Time to voice concerns or teachers’ questions</li> <li>• More intense training</li> <li>• Better way to disseminate info to the masses</li> </ul>	<ul style="list-style-type: none"> <li>• Communication (two-way)</li> <li>• More intense training</li> </ul>

Table twenty-three represents codes, categories, and themes for question ten in the leadership team member interviews. The codes “more two-way communication,” and “sometimes input is given but not used” were utilized to create the category “more two-way communication.” The codes “time to voice concerns,” “listen more to questions and concerns,” and “have a way to bring up teacher concerns” were used to create the category “time to voice concerns or teachers’ questions.” The codes “better way to disseminate procedural information to the masses” and “more intense training” both became categories. The categories “more two-way communication,” “time to voice concerns or teachers’ questions,” and “better way to disseminate procedural information to the masses” were utilized to create the code “communication (two-way).”

Table twenty-four displays common themes identified in multiple questions in teacher interview responses and leadership team member responses.

Table 24

*Commonly Identified Themes*

<b>Themes from Teacher Responses</b>	<b>Themes from Leadership Team Member Responses</b>
Share	Communicate
Plan	School-wide decisions
Diverse learners	
Student needs	
Collaboration	
Established roles	

### **Professional Learning Communities**

To determine how leadership roles are shared in PLC meetings, participants were questioned about leadership in the interview, PLCs were observed, and PLC meeting agendas and notes were reviewed. PLC meeting observations occurred weekly from August through October 2016. In the interview, teachers reported the leadership roles within their PLC were informally assigned and were based on both needs of the group as well as individual strengths. Jane states, “Leadership roles are based on our individual strengths as well as the needs of our team.” Tasks were divided equally among members and most reported alternating routine tasks among members. Stormy reported that in her PLC meetings leadership roles were based on strengths and rotate depending on need. Jack explained that in his PLC, the department chair was in charge of organizing the meeting, planning the agenda, and other tasks were divided equally among members.

In the district, there are district-wide PLCs established. These PLCs meet formally, face-to-face, at least once monthly. Participants were asked how leadership roles within these PLCs were shared. Participants’ answers again varied depending on their PLC. Jane and Stormy explained that in their PLC meetings at the district level, roles are either assigned or established in a more formal way than in building level PLCs. Jack states that in his district-wide PLC meetings, “there is a lack of structure, with no preplanned agenda. We casually know our expectations, but no one person is in charge.”

### **Leadership Team**

The participants were asked to describe the role the leadership team plays in their school. Jack explained that the leadership team is comprised of “respected people throughout the school...natural leaders who people are going to go to with concerns.”

Other participants used words such as “intermediaries,” “mediators,” and “communicators” to describe the role of the leadership team. Jane explained, “Our leadership team plays the role of mediator between administration and everyday occurrences. If we have something that we would like to know about or see changed...we first talk with our leadership representative who would then bring it to the school-wide team.” Charlotte described the leadership team’s role as that of a “liaison between administration and teachers which directly impacts students because a lot of decisions are made about the best ways we can meet the needs of our students.” Shelly explained that the leadership team communicated information to the staff as a whole. Interviewees explained that the leadership team provides a voice to faculty and staff not on the leadership team, stating, “They provide us an opportunity to provide input and discussion about school-wide issues.” She continued, “I can contribute by talking to a team member.” Participants also described the members of the leadership team as “vested in the school” and as natural leaders. The work of the leadership team was described as formulating a plan based on the school’s needs both academically and behaviorally.

### **Collaborative Culture Within the School**

Participants were asked specifically in the interview to describe how the collaborative culture established through PLCs affects their ability to meet the needs of all students. Participants explained collaboration with colleagues during PLCs allows them to think ahead, design lessons and assessments collaboratively, and anticipate where students may have difficulty with a concept. Additionally, participants explained that working in a PLC allowed them to build off one another’s strengths, share best practices, and discuss strategies that are working successfully as well as those that are not. Finally,

PLCs allow participants to be reflective and discuss how to handle particular situations with students (both academically and behaviorally). Charlotte explained, “If I have a situation I cannot handle or something is not working, PLCs give me a new opportunity to try.” Jane stated,

The PLC environment allows us to troubleshoot problems together and think ahead. It allows us to be standards focused and to really talk about different problems students might have. Not only are we able to anticipate these problems, but also we come back after the lesson has been taught and think about ways we can improve next time.

When asked how PLCs impact their ability to get through to the most difficult students, responses included “sharing ideas,” “sharing strategies,” and “planning for differentiation either through extension or remediation.” Additional responses included “sharing how situations were handled with similar students” as well as “providing a different perspective.” Stormy replied, “It helps me find another way to think. By sharing ideas and experiences together we might be able to come up with a solution I had not thought of.”

### **District Collaboration**

According to participants, district level PLCs impact their interactions with students by providing a different perspective somewhat because the other middle school within the district has a much different population than the demographics of the school presented in the study. District PLCs help participants enhance their knowledge of students and allow an opportunity to discuss difficult concepts or students. Shelly explained that attending the district-wide PLC helped her “understanding that all students

can learn at high levels and hearing other teachers share their experiences helped me respect my students more.” Stormy stated, “We spend a lot of time talking about how we can best implement a strategy or some type of lesson to make it effective for students. We have people who have strengths in so many different areas, and it helps to have a variety of people because our ideas get built up from everyone’s input.”

During school-level and district-level PLCs, participants agreed they were able to share ideas, strategies, and be supportive of their colleagues as well as receive support from their colleagues. Shelly stated of district PLCs, “They are a fallback for me if a student is struggling and everyone is always willing to help.” Participants explained that the collaborative culture of the district and school allow teachers to plan, provide scaffolding as necessary, and most importantly ensure that a level of rigor and high expectations are maintained throughout the district.

### **The Leadership Team**

**Responsibilities.** Leadership team members were asked to describe their responsibilities. Overwhelmingly, participants identified their main role as “communicator.” The role of communicator includes disseminating information, listening, and keeping others (non-leadership team members) informed. Samantha explained, “I take back information to my team and help be sure everyone in the school has a clear understanding of decisions made.” Chardonay responded by saying, “One of my biggest responsibilities is to keep my department, team, and staff apprised of what is going on in the school.” Rose explained, “My responsibility is to disseminate information to my colleagues.” Mary stated her primary responsibility as a leadership team member was “communication.” Participants identified a second responsibility as “collaborating to

solve problems.” Samantha explained, “We come together with our minds to form the best effective and efficient solution to an issue.” Chardonnay stated, “Listening is a huge part of what I do [as a leadership team member]. I then bring those ideas to the leadership team for discussion.” When asked how leadership roles are shared, participants responded in one of two ways, stating either that the roles are not shared or everyone works together equally with no specific positions assigned. One team member reports feeling an obligation to communicate with the administrative team about things she is hearing amongst the faculty that she feels administrators need to be aware of and observations made that might impact the school culture and ultimately our vision.

**Meetings.** Participants were asked to describe a typical leadership team meeting including topics discussed. Responses included such phrases as “administration plans and leads these meetings,” “not sure how much of our input is used in planning” and “focus can change depending on our need.” Mary states, “The administration plans and leads these meetings...they are more managerial in nature.” Rose explained, “recently meetings have been managerial like how we are going to run things, discussion of schedule and parent communication.” Overall, participants categorized these meetings as more managerial in nature, focusing on procedural items.

Participants were also asked to discuss some of the decisions the team is charged with making. According to responses, the leadership team makes decisions concerning scheduling, discipline structure, logistics and determining how things will flow through the school. Participants also reported making big picture decisions including developing the school’s vision and how to brand the school to stakeholders.



One participant describes the team as being focused on managerial type tasks that influence instructional decisions and strategies. Additionally, another participant's response explains that the meetings are moving "from a managerial focus to an instructional focus."

**Supports.** When asked how the administration currently supports the participants as members serving in a leadership role as well as what additional support they would like to receive, participants report that the school administration has an open door policy, and they feel as though they can come to any member of the administrative team at any time (Leadership team meetings are not the only time to present concerns.) Several participants explain that they feel heard by the administration and that administrators are open to having participant voices shared at the leadership team meeting. One participant explains she "feels the freedom to make decisions and do what's right." She states, "There is a sense of trust." Scott offered this when asked what support he would like to have from administration: "I would like more intense training on initiative to build my capacity to help others. I want to be a better teacher." Mary explained that she would like more two-way communication. For example, she wants more time for administrators to listen to teacher concerns and/or leadership team member concerns. Rose would like to feel as though teachers' input is sought and utilized in planning leadership team meetings.

### **Review of Documents and Direct Observations**

Documents such as meeting agendas and notes were reviewed. In addition, the researcher directly observed leadership team meetings, PLC meetings, school level behavior team meetings, and curriculum team meetings. Review of documents and direct observations yielded two additional themes including movement toward shared

leadership (as defined by this study) and teacher voice/input. Through observation and document review, it became clear that during the leadership team and PLC meetings there was a distinct progression of individuals working toward a common purpose, drawing on individual strengths and influences to share leadership responsibilities in an effort to accomplish a common goal. As the semester continued, it became clear that administrators were beginning to value what they were seeing in the areas of collaboration and working toward a common vision and sought teacher input in planning leadership team meetings. Administrators also worked to schedule time and provide opportunities for teachers' voices to be heard during leadership team meetings.

### **Leadership Team Meeting**

Leadership team meetings occur once each month. The researcher directly observed meetings in July, August, September, and October. The following includes notes from the researcher's observation and from meeting agendas. For example, the minutes, agenda, and observations from the first leadership team meeting indicate the meeting was planned and led by the administrative team with many agenda items falling under a managerial focus (i.e. schedules, logistics of first day, forms and expectations for meetings and PLCs). However, during the second leadership team meeting the idea of capacity building for the purpose of shared leadership was discussed with faculty members. While this meeting, too, was planned and facilitated by the administrative team, it provided teachers with a vision of how the administrative team hoped to utilize the members of the leadership team in a more shared leadership capacity. Finally, the minutes and observation of the third leadership team meeting indicate that the administrative team planned this meeting; however, the members were the driving force

behind the direction of the conversations and the meeting. While an “end goal” was established prior to the meeting by the principal, the members of the team had freedom regarding how they chose to accomplish this goal while also providing meaningful input toward the development of the year-long professional learning plan.

### **School Level Behavior Meeting**

Review of notes and agendas, as well as direct observations of the school level behavior team indicate that the administrative team is seeking teacher input in developing school-wide behavior expectations. During the first meeting of the behavior team, the principal discussed the purpose of the team and the ultimate goal of the team. He described the goal as outlining school-wide behavior expectations in an effort to ensure fairness and consistency of discipline procedures. Less explicitly, the principal indicated the administrative team’s desire to move from punitive discipline measures to more restorative measures. The team decided a next step would be to gather data including how discipline infractions are handled, which infractions occur most often, and then discuss with the administrators how each might handle a similar issue. Finally, the team determined that it would prove beneficial to prioritize which behaviors to target first when outlining a consistent plan. During the second meeting the behavior team reviewed an internal document that serves as a guideline for administrators on appropriate and consistent disciplinary actions for particular infractions. The behavior team provided feedback on the current documents and made recommendations for revisions. The administrative team will make these revisions and the members of the behavior team will share the revisions with the faculty to seek additional input. As planning begins for the

upcoming meeting, administrators have asked members of the behavior team to plan and facilitate the next meeting.

### **PLC Meeting (Intervention)**

During the PLC meetings the researcher observed teachers utilizing the PLC guiding questions to frame and guide their discussions (DuFour et al., 2008). Teachers in all twelve PLCs established in the school, overwhelmingly spent the majority of their collaborative time answering questions one and two of the PLC guiding questions: 1. What do we want students to know? 2. How will we know if they learned it?. During the initial PLC meetings of the year, teachers spent much less time discussing PLC guiding questions three and four: 3. What will we do if students do not learn? 4. What will we do when students master the concept? However, the district added a new position, Instructional Design Specialist, with two specialists assigned to the middle school level. Once these specialists began attending PLC meetings, it was observed and noted that teachers began to reach out to them to assist with answering PLC questions three and four. With the help of the instructional design specialists, PLC discussions are beginning to move toward authentically answering questions three and four. Instructional design specialists are guiding the PLC discussions with questions such as, “What do you think proficiency will look like for this assignment?” and “How will you support students who have difficulty with this concept?” and “How will this look different when you present this as remediation?” and “How can you extend this concept for a deeper, higher level of learning?” Teachers are open to discussing these ideas with the specialists because the instructional design specialists serve in a non-evaluative position and are offering support, resources, and solutions to teachers.

### **Curriculum Team Meeting**

The vertical algebra team is comprised of two teachers from each of the district's middle schools and two teachers from the district's high school. The team has been asked to ensure that there is a guaranteed and viable curriculum throughout the various algebra courses offered within the district. The first meeting was an all-day meeting where members of the team organized the standards into learning units. The team was asked between the first and second meetings to create learning targets for each unit. Teachers reconvened at the second meeting about eight weeks later with the intent of discussing the learning targets they created with the team. One teacher started the meeting by stating, "I am first and foremost a teacher. I am not a curriculum specialist. I do not know what these standards mean, and I do not know the sequence they should be taught. This is not the work we should be doing." The facilitator explained that a major purpose behind this work was for learning to take place. With the new standards beginning in a couple of years, it is important that teachers understand the changes and where potential gaps in student learning might occur with the implementation of new standards. Other teachers were also able to voice the need to complete the work explaining this task is very important as we (the district) have students taking algebra at different times (different grade levels), but most will be moving to geometry and Algebra II at some point, and thus it is imperative that we establish a guaranteed and viable curriculum. Other conversations during the meeting included breaking down a standard to be sure each part of the standard was addressed in our newly created learning targets. Additionally, teachers were able to discuss common vocabulary and appropriate prerequisites.

### **Summary of Qualitative Findings**

Interview questions focused more on PLCs and the school leadership team, whereas the document review considered meeting agendas and notes from the school behavior team, district vertical algebra team, and intervention meetings. Participant interviews and document reviews revealed that traditional teacher leadership roles, such as being on the leadership team, being a grade level chair or department chair, do not have a significant impact on teacher self-efficacy; however, PLCs and leadership roles shared within those PLCs have a greater impact on items identified in the TSES as impacting teachers' perceptions of self-efficacy. Participants, both those serving in leadership roles and those who do not, overwhelmingly viewed the leadership team and its members as a communication tool for the school. While leadership roles shared in terms of traditional roles do not seem to impact collaborative culture or teachers' perceptions of efficacy, shared leadership roles through PLCs and other collaborative teams do seem to positively impact teacher self-efficacy.

### **Combined Qualitative and Quantitative Data Analysis**

While the quantitative data reveal that the survey participants have a high sense of self-efficacy, those data alone do not provide great insight as to what leads to the participants' heightened sense of self-efficacy. Only through the analysis of both quantitative and qualitative data does it become clear that the work of the PLC and the leadership roles shared within the PLCs helped to cultivate the participant's sense of self-efficacy. This increased feeling of efficacy enabled teachers to feel they could adequately provide an effective learning environment using a variety of classroom management procedures, plan and facilitate learning to ensure a high level of student engagement, and

effectively use various instructional strategies. While school level PLCs and district PLCs focus on different tasks, both allow teachers to plan for instruction and assessment. For example, Jack stated, “as a school [PLC] we do focus more on meeting the needs of subgroups of students.” Charlotte and Jane explained the focus of district level PLC meetings is more holistic. Charlotte and Jane report tasks completed in district level PLCs include the creation of common assessments and assignments as well as the deconstruction of standards. When considering how the work of PLCs impacted the use of instructional strategies, Stormy stated, “our school-level PLC spends a lot of time hashing out a lot of questions about what standards are being used for a particular lesson and how we have addressed that skill.” In response to an interview question about how PLCs impact participant’s ability to get through to the most difficult students, Shelly and Jane both explained that their PLCs at the school and district levels discussed strategies other teachers had successfully used. They also said that much of the PLC discussion centered on the anticipation of student difficulties and identifying approaches to handling those difficulties. Jane goes on to explain her PLC discussions include sharing ideas about a variety of supports and scaffolding measures that could be utilized to meet students’ needs. Charlotte explained in her PLC, “we discuss how we know what students are learning and how we can provide enrichment or remediation as needed.” Finally, Stormy explained, “we have a lot of people who have strengths in so many different areas and it helps to get ideas and input from everyone.” Analysis of combined data types creates a clearer picture of what promotes and fosters self efficacy among educators and how they can use that to enrich all students’ educational experiences.

### Overall Summary

The analysis of interview data indicates that the work completed through the PLC process is key to planning and designing lessons and ultimately meeting students' needs. The analysis of interview data also revealed that the leadership team plays the role of "communicator" and likely does not directly impact teacher's perception of self-efficacy. Furthermore, interview data supports the high scores on the TSES of all teachers in that teachers report receiving support from colleagues through the work of PLCs within the school and district. The qualitative data analysis included documents, agendas, and meeting notes from the leadership team, from the school behavior team, from district vertical algebra team, and from intervention meetings. Document reviews and participant responses to interview questions reveal that PLCs and leadership roles and other responsibilities shared within those PLCs have a greater impact on items identified in the TSES as impacting teacher perception of self-efficacy than considering shared roles alone. The results of the TSES indicate a high teacher self-efficacy among participants completing the survey. This would indicate that the participants completing the survey strongly believe in their abilities among the subscales of the survey including classroom management, instructional strategies, and student engagement. Both the point-biserial correlation coefficient and *t*-tests revealed no correlation in teacher leadership roles and a higher sense of teacher efficacy. This seems to support the qualitative findings that teachers were able to work interdependently through PLCs to meet students' needs by designing instruction and assessment. Each of the three null hypotheses was accepted indicating that the results of the TSES do not support a correlation between serving in a leadership role and a teacher's perception of self-efficacy.



## CHAPTER V: DISCUSSION AND CONCLUSIONS

### **Introduction**

This study sought to determine how PLCs, shared leadership, and teacher self-efficacy impact one another. Through a mixed-methods research design that included interviews, document reviews, observations, as well as analysis of the TSES, the researcher determined that there is not a correlation between being directly involved in a leadership role and a teacher's perception of self-efficacy; however, the distribution of roles and tasks that occurs in a PLC appears to positively impact teacher self-efficacy while in turn building and sustaining a collaborative culture within the school.

### **Findings**

#### **Question 1**

When leadership tasks are dispersed among leaders throughout the school, how are leadership roles shared when accomplishing those tasks?

Participants overwhelmingly reported that leadership roles within school-level PLCs are not formally assigned; however, in some of the district PLCs, leadership roles are more formally established. Participants explained that leadership roles as well as other roles within a PLC and on the leadership team are not formally assigned, but rather shared equally among members, with all members sharing responsibilities. Tasks are divided equally among members and most report alternating routine tasks among members. Jane and Stormy report that in their PLC meetings leadership roles are based on strengths and rotate depending on need.

After the district added a new position, that of the Instructional Design Specialist, two specialists were assigned to the middle school level. When these specialists began

attending PLC meetings, it was observed and noted that teachers began to reach out to them to assist with answering PLC guiding questions three and four. With the help of the instructional design specialists, PLC discussions were beginning to move toward authentically answering questions three and four. Instructional design specialists guide the PLC discussions with questions such as, “What do you think proficiency will look like for this assignment?” and “How will you support students who have difficulty with this concept?”

While interview questions specifically asked about shared leadership roles within PLCs and among members of the school’s leadership team, participants were not directly asked about the work of the vertical algebra team or intervention team. This was purposefully designed so as not to reveal a participant’s identity. However, participants may have failed to consider their work on these teams when answering interview questions. Document review of minutes and agendas of each of these teams support the notion that roles within teams are shared equally and are rotated regularly among members.

## **Question 2**

How does the sharing of leadership tasks help develop a collaborative culture across grade levels and content areas?

Participants explained that the collaboration with colleagues during PLCs allows them to think ahead, design lessons and assessments collaboratively, and anticipate where students may have difficulty with a concept. Additionally, participants explained that working in a PLC allowed them to build off one another’s strengths, share best practices, and discuss strategies that are working successfully as well as those that are not.

During school level and district level PLCs, participants agree that they are able to share ideas, strategies, and be supportive of their colleagues, with the additional benefit of receiving support from their colleagues. Shelly states of district PLCs, “They are a fallback for me if a student is struggling and everyone is always willing to help.” Participants explain that the collaborative culture of the district and school allow teachers to plan, provide scaffolding as necessary, and most importantly ensure that a level of rigor and high expectations are maintained throughout the district. Participants explained that collaboration that occurs through PLCs enhances their ability to get through to the most difficult students by sharing ideas, strategies, and planning for differentiation either through extension or remediation. Participants also reported that the collaborative culture created through PLCs allowed them to share how situations were handled with similar students in addition to providing a different perspective. Shelly explained that PLCs help her to find a different way of thinking and through the sharing of ideas and experiences, “together we might be able to come up with a solution that I would not have considered on my own.”

### **Question 3**

How does the sharing of leadership tasks influence the perception of teacher self-efficacy?

While the results of the TSES indicate a relatively high perception of teacher efficacy among all participants, based on information gleaned from interviews of teachers, including those serving in a leadership capacity, it can be concluded that serving in a leadership role does not directly influence teachers’ perceptions of self-efficacy. However, sharing leadership tasks to be completed does impact teacher self-efficacy.

District PLCs help participants enhance their knowledge of students and allow an opportunity to discuss difficult concepts or students. Shelly explained that attending the district wide PLC helped her “understand that all students can learn at high levels and hearing other teachers share their experiences helped me respect my students more.” Participants reported that the allocation of leadership responsibilities within their PLCs helped them to better meet the needs of students through sharing ideas and strategies, in addition to being supportive of their colleagues and receiving support from their colleagues. Participants explain that the collaborative culture of the district and school allow teachers to plan, provide scaffolding as necessary, and most importantly ensure a level of rigor and high expectations are maintained throughout the district. These statements and conclusions would help explain a higher score on the TSES subscales of instructional strategies, student engagement, and classroom management.

### **Implications for Schools**

Macro functions are broad, overarching tasks that lead to the mission of learning for all students and are necessary functions for an effective school; however, these tasks are so broad that studying these would be difficult (Spillane, Halverson, & Diamond, 2001). These as macro functions are large-scale tasks that are often deconstructed into micro tasks (Spillane et al., 2001). The micro tasks are tasks necessary for day-to-day operations and build to achieve the overarching macro functions. Micro tasks are distributed among various individuals throughout the school. For example, the macro function of developing a shared mission and vision might include micro tasks of developing expectations for professional learning communities and identifying collective commitments of faculty. Looking at leadership through a distributed perspective provides

a framework to study how leadership is shared throughout the school. This study sought to analyze leadership through a distributed lens by investigating how macro functions that principals are charged with accomplishing are broken into micro tasks and then how leadership roles are further shared in accomplishing those tasks.

The results of this study indicate that serving in a leadership role does not directly impact a teacher's perception of self-efficacy. Additionally, results show that the work done and the leadership roles and responsibilities shared within PLCs are areas participants identified as being key to meeting students' needs and indirectly contribute to their ability to accomplish the tasks required of them. As schools work to develop a collaborative culture through the work of PLCs, it is vital that administrators realize the important role PLCs play in teacher efficacy. At the school level, teaching schedules need to include time for PLC meetings, and teachers need to feel their efforts are supported and that their voices are heard. Additionally, it is important to recognize how shared leadership roles impact the efficacy of teachers that are directly in a leadership role as well as those that are not. All participants involved in this study are part of at least one PLC group, which may contribute to the overall average of scores on the TSES. Based on document review, observations, and interviews it is clear that the PLC culture established within the school and district allowed leadership roles to be shared and impact teachers' perceptions of self-efficacy.

### **Conclusions**

The conclusions for this study include: (1) PLCs and shared leadership established through PLCs positively impact teacher self-efficacy. (2) Teacher's perception of self-efficacy is not impacted by directly serving in a leadership role. (3) It is

not the actual sharing of leadership roles that impact teachers' perceptions of self-efficacy, but rather the work accomplished through PLCs. The conclusions are discussed in further detail below.

### **PLC and Shared Leadership**

Shared leadership, in this study, was defined based upon several definitions and conceptualizations as the process in which a team of individuals working toward a common purpose draw on individual strengths and influences to share leadership responsibilities in an effort to accomplish a common goal. This study confirms that shared leadership is more than leadership functions or responsibilities being shared, but rather is a complex process where leadership influence is distributed among team members toward the achievement of common goals and the realization of the organization's mission (Rost, 1993; Burke et al., 2003; Carson et al., 2007). It was not the traditional sense of shared leadership (i.e. leadership team or department heads) that seemed to most impact teachers, but the distribution of leadership roles and responsibilities within PLCs that participants noted as being most important in accomplishing tasks. Quantitative data support this finding in that participants' responses to the TSES were not significantly different, meaning that serving directly in a leadership capacity did not increase one's perception of self-efficacy. For example, there was not a statistically significant difference between the mean of the participants serving on the leadership team and those participants not on the leadership team. The conclusions of this study validate that shared leadership is "a dynamic, interactive influence process among individuals in groups for which the objective is to lead one another to the achievement of group or organizational goals or both" (Pearce & Conger, 2003, p. 1). Qualitative data

also support the notion that teachers value the shared leadership within PLCs. Teachers' responses to interview questions, along with minutes from PLC meetings indicate that leadership roles shared within PLCs positively impact teacher self-efficacy. These shared roles include planning instruction, creating assessments, and determining appropriate interventions. Teachers also report rotating and/or equally sharing roles and responsibilities within their PLCs.

### **Leadership Roles and Teacher Efficacy**

The overall mean of 7.089 on the TSES for teachers in leadership roles as compared to a mean of 7.058 for teachers in non-leadership roles support the findings from the qualitative data analysis in that teachers, regardless of position, report a high sense of self-efficacy. School contextual factors influence teachers' perceptions of self-efficacy as it relates to student achievement and successfully educating students (Goddard et al., 2004). This may contribute to the relatively high overall mean on the TSES. The school factor relevant in the school included in this study is the collaborative culture established through PLCs and the sharing of leadership positions among teachers. Participants, both members of the leadership team as well as non-leadership team members, explained through interviews that leadership roles and responsibilities are shared more through various PLCs than through the leadership team itself. This study further solidifies that by establishing the expectation of productive teacher collaboration, principals influence collective efficacy and in turn teacher self-efficacy (Goddard et al., 2004; Goddard et al., 2015). Collaboration among teachers is a significant step in creating collective efficacy. The shared interactions that occur during collaboration serve as the foundation for building collective efficacy (Goddard et al., 2015). This study concludes

that Rost's (1993) definition of leadership as an influential, multidirectional relationship with more than one leader and more than one follower which mirrors the PLC structure, influences teacher efficacy and what teachers reported via interview responses as being most helpful to them when meeting student needs. Participants described the PLC structure within their school and within their district as having this type of leadership.

### **Limitations**

The lack of variance in the mean for participants in leadership roles versus those in non-leadership roles could be attributed to one or more of the following circumstances. First, participants' responses may have been skewed by the fact that the TSES was distributed and collected by an administrator within their school. Participants may have felt hesitant to be completely transparent in their responses on the TSES because the administrator collecting the surveys could also conduct their teacher evaluations. Knowing that may have swayed teachers' answers on the TSES. Second, while the survey and the researcher both explicitly communicated that the TSES results would be confidential, participants may have suspected their true identity could be revealed because of the small number of respondents and/or the researcher being a building administrator. Apprehensive that their identity could be determined, again by an administrator involved in their evaluation and as a member of their PLC group, participants might have selected a higher score on the TSES. Either of these scenarios could lead participants to choose a higher score to demonstrate a stronger sense of efficacy. Participants experiencing angst about their anonymity may have felt selecting a lower score on the TSES would cause an administrator to think that the respondent had difficulty managing a classroom, implementing various instructional strategies, or has



lower student engagement. Another possible reason for lack of variance in means could be the low number of responses which could be attributed to the way the survey was communicated and distributed to participants. This process could potentially lead to selection bias. Teachers were given no front-loading as to what the survey entailed, nor were they given a definition for self-efficacy. Additionally, teachers were asked to respond to an email if they wished to participate. Future studies might alter this part of the design by distributing a survey to all potential participants and then asking them to return the survey to a central location.

Additionally, this study failed to consider participants' years of experience in the education field as a factor contributing to teachers' perceptions of self-efficacy. One might expect teachers completing the survey who have very limited experience or those with more experience to respond differently on the survey. Thus, one might conclude if the participants in this study had experience levels that were on either end of this spectrum, the results of the survey could be skewed.

### **Recommendations for Future Studies**

This study was conducted within a district that supports and encourages a collaborative culture within individual schools and across the district. This collaborative culture within the school is well established and very possibly influenced the results of the interview questions. The school's culture should be considered in future studies. Participants embrace the collaborative culture within the school and district and have come to depend upon it when planning instruction and assessments. This surely directly impacted the results of the TSES. Furthermore, later studies should also consider the level at which PLCs are functioning within schools. PLCs included in this study were

functioning at various levels. Some PLCs were full functioning PLCs requiring no support in answering the four PLC guiding questions, some PLCs included in the study needed minimal support from administrators or other instructional specialists, and few PLCs required a moderate to substantial level of support to authentically answer the four critical questions of PLCs. This varying level of PLCs could have impacted the interview responses and/or TSES results.

Future studies should also consider leadership teams that more closely embody the definition of shared leadership. The participants in this study, including those serving on the leadership team as well as those who do not, describe the main roles of the leadership team as being that of a communicator, making school-wide procedural decisions, and serving as a voice for those not on the team. Participants who were members of the leadership team expressed a desire to be more than communicators of information and to be more directly involved in making decisions and building capacity.

This study is relatively small and only included participants within one school. The small sample size made it difficult when collecting and analyzing data to maintain confidentiality of participants. Asking participants to identify their leadership role within the school would have certainly revealed their identity. However, it would have proven beneficial when analyzing the TSES to know if the participant completing the survey served in a leadership capacity in the school. Future studies should increase the sample size to allow the identification of exact roles of participants, including leadership roles, for those completing the TSES survey without compromising identity.

When considering future studies, researchers should seek to include multiple schools within the same district. This would increase the sample size of participants and

could lead to more conclusive results where the TSES is concerned. Selecting participants within the same district would allow the researcher to compare schools' results within that specific district. Additionally, seeking participants from multiple districts would provide the researcher the opportunity to consider the impact of the school's and the district's culture as possible influencers of teacher self-efficacy. Moreover, future research should consider years of experience as a contributing factor to teachers' perceptions of self-efficacy. Subsequent studies should be completed to determine other factors that might contribute to teachers' perceptions of self-efficacy.

This study was conducted within the first semester of school, and future studies should consider conducting observations and document review throughout a school year with interviews conducted at the end of school year. An end-of-year interview would provide participants time to consider the work of various teams within the school and more accurately identify how the teamwork and shared leadership within the team may have impacted teachers' perceptions of self-efficacy.

Later studies may consider revising interview questions if the number of participants increases. In an effort to preserve anonymity, the interview questions purposefully did not ask participants about their role on particular teams within the school, specifically the intervention team and the vertical algebra team. A larger sample size would reduce the possibility of this limiting factor and likely produce more precise and conclusive results.

### **Summary and Conclusions**

This study chose to focus on micro leadership tasks utilizing a distributive lens, specifically focusing on the sharing of leadership responsibilities through the work of

PLCs. Furthermore, this study sought to determine how teachers' perceptions of self-efficacy are impacted by the collaborative culture established through PLCs and sharing of leadership roles and responsibilities. The results of this study show a link between the shared leadership responsibilities of PLCs and a higher sense of teacher self-efficacy. Participants attributed the work done in PLCs and the sharing of responsibilities within those PLCs to feeling better equipped to meet student needs and ensuring learning for all students. The themes that emerged from the data clearly show participants are planning for instruction and assessments while anticipating students' needs and considering diverse learners. These themes have an obvious connection to the TSES subscale of instructional strategies and student engagement. Additional themes that emerged through data analysis were the sharing of leadership roles within the PLC group which allowed PLC members to maximize one another's strengths. Patterns and themes that emerged from the qualitative data analysis of both leadership team members and non-leadership team members indicates that formally assigned leadership roles such as the leadership team do not impact teachers' perceptions of self-efficacy. The main function served by the leadership team, as described by both members and non-members, was that of a communicator and intermediary. The results of this study help to solidify the important work done in collaborative professional learning communities and suggest that through the sharing of leadership teacher efficacy is positively impacted.

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APPENDICES

## APPENDIX A

**Interview Questions for Teachers**

1. Describe your role within the school.
2. How long have you worked at this particular school?
3. What is your educational level?
4. How long have you been an educator?
5. There are PLCs established in the school. How does this culture affect your ability to meet the needs of all students?
6. In your PLC meetings what are some tasks you discuss?
7. In your PLC meetings how are leadership roles shared?
8. How do PLC meetings impact your ability to get through to the most difficult students?
9. How do your vertical PLC meetings with other district teachers affect how you interact with students?
10. What are some tasks you work through during the vertical PLCs?
11. How are leadership roles shared in vertical PLC meetings?
12. How well do PLC meetings and district vertical meetings PLCs equip you to meet the needs of very capable students and students with learning difficulties, but not necessarily SPED students?
13. Do the PLC meetings and district vertical meetings prepare you to use a variety of instructional and assessment strategies? Why or why not?
14. How would PLC meetings be designed to best meet your needs?

15. What role does the leadership team play in your school?
16. How does the work of the leadership team impact your ability to meet the needs of students both academically and behaviorally?
17. Is there anything else you would like to add?

### **Interview Questions for Leadership Team Members**

1. Describe your role within the school.
2. How long have you worked at this particular school?
3. What is your educational level?
4. How long have you been an educator?
5. As a member of the leadership team, what are your responsibilities?
6. What support are you given from school administration?
7. What decisions is the leadership team charged with making?
8. How are leadership roles within the leadership team shared?
9. Describe a typical meeting including recent topics of discussion, who leads and plans, managerial or instructional focus.
10. What changes and/or additional support is needed from the administrative team to make you more effective as a leader?
11. Is there anything else you would like to add?

## APPENDIX B

**Teacher Sense of Efficacy Scale Items**

1. How much can you do to get through to the most difficult students?
2. How much can you do to help your students think critically?
3. How much can you do to control disruptive behavior in the classroom?
4. How much can you do to motivate the students who show low interest in school work?
5. To what extent can you make your expectations clear about student behavior?
6. How much can you do to get students to believe they can do well in school work?
7. How can you respond to difficult questions from your students?
8. How well can you establish routines to keep activities running smoothly?
9. How much can you do to help your students value learning?
10. How much can you gauge student comprehension of what you have taught?
11. To what extent can you craft good questions for your students?
12. How much can you do to foster student creativity?
13. How much can you do to get children to follow classroom rules?
14. How much can you do to improve the understanding of a student who is failing?
15. How much can you do to calm a student who is disruptive or noisy?
16. How well can you establish classroom management system with each group of students?
17. How much can you do to adjust your lessons to the proper level for individual students?



18. How much can you use a variety of assessment strategies?
19. How well can you keep a few problem students from ruining an entire lesson?
20. To what extent can you provide an alternative explanation or example when students are confused?
21. How well can you respond to defiant students?
22. How much can you assist families in helping their children do well in school?
23. How well can you implement alternative strategies in your classroom?
24. How well can you provide appropriate challenges for very capable students?

## APPENDIX C

**Directions for Scoring the Teachers' Sense of Efficacy Scale**

Developers: Megan Tschannen-Moran, College of William and Mary  
Anita Woolfolk Hoy, the Ohio State University

**Construct Validity**

For information the construct validity of the Teachers' Sense of Teacher efficacy Scale, see: Tschannen-Moran, M., & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, 17, 783-805.

**Factor Analysis**

As we have used factor analysis to test this instrument, we have consistently found three moderately correlated factors: Efficacy in Student Engagement, Efficacy in Instructional Practices, and Efficacy in Classroom Management. At times, however, the make up of the scales may vary slightly. With preservice teachers we recommend that the full scale (either 24-item or 12-item short form) be used, because the factor structure often is less distinct for these respondents.

**Subscale Scores**

To determine the Efficacy in Student Engagement, Efficacy in Instructional Practices, and Efficacy in Classroom Management subscale scores, we compute unweighted means of the items that load on each factor. Generally these groupings are:

Short Form

Efficacy in Student Engagement:	Items 2, 4, 7, 11
Efficacy in Instructional Strategies:	Items 5, 9, 10, 12
Efficacy in Classroom Management:	Items 1, 3, 6, 8

Long Form

Efficacy in Student Engagement:	Items 1, 2, 4, 6, 9, 12, 14, 22
Efficacy in Instructional Strategies:	Items 7, 10, 11, 17, 18, 20, 23, 24
Efficacy in Classroom Management:	Items 3, 5, 8, 13, 15, 16, 19, 21

**Reliabilities**

In the study reported in Tschannen-Moran & Woolfolk Hoy (2001) above the following reliabilities were found:

	Long Form			Short Form		
	Mean	SD	alpha	Mean	SD	alpha
TSES	7.1	.94	.94	7.1	.98	.90
Engagement	7.3	1.1	.87	7.2	1.2	.81
Instruction	7.3	1.1	.91	7.3	1.2	.86
Management	6.7	1.1	.90	6.7	1.2	.86

Because this instrument was developed at the Ohio State University, it is sometimes referred to as the Ohio State Teacher Efficacy Scale. We prefer the name, Teachers' Sense of Efficacy Scale.