The Existence of a Knowing-Doing Gap
In Liberty Public School District's
Implementation of Professional Learning Communities

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Abstract

There were two overarching purposes for this study: First, through a survey, this study examined the Liberty Public Schools (LPS) staff members' knowledge of Professional Learning Community (PLC) components and compared staff's implementation of the PLC process and its integral concepts and practices. The survey contained 32 questions organized by the three big ideas in a PLC; a focus on student learning, a focus on building a collaborative culture, and a focus on results. Survey responses from the 32 questions addressed the three key ideas of a PLC were organized into six subscales: LearningKnow & LearningDo, CollaborationKnow & CollaborationDo, ResultsKnow & ResultsDo. Secondly, this study examined specific barriers that blocked PLC implementation. The researcher explored such barriers as talk substituting for action, memory as a substitute for thinking, fear of job loss preventing action on knowledge, measurement obstructing good judgment, and internal competition turning friends into enemies. These barriers were identified and adapted from Pfeffer and Sutton's (2000) research.

A survey tool was made available to all 407 certified staff members in Liberty's pre-school and elementary buildings during the 2011-2012 school year. The researcher completed a one-factor ANOVA of the six subscales (LearningKnow & LearningDo, CollaborationKnow & CollaborationDo, ResultsKnow & ResultsDo) to determine if a significant difference existed between staff members' PLC knowledge and staff members' level of PLC implementation. Tukey's post-hocs were conducted to analyze if the differences were statistically significant. Finally, staff members were surveyed on possible existing barriers they felt hindered PLC implementation in their schools and in

LPS. Independent sample *t*-tests were conducted to measure the mean score of the

potential barrier to a mean score of 4.0 to find if a statistically significant barrier existed

in PLC implementation in LPS. Through analyzing the results, the researcher found

evidence of a knowing-doing gap with PLC implementation in Liberty Public Schools.

In addition, results from the research study also support the existence of barriers that

might potentially hinder the implementation of PLCs in Liberty Public Schools.

Dedication

This work is dedicated to my parents, Dick and Jo Palmer, and my grandfather Marvin Palmer. They have worked hard their entire lives so that I would have opportunities such as this one to continue my education to the highest level. Hard work and perseverance were beliefs that were instilled in me while growing up and helping to run the family farm. I was always taught that nothing comes easy in life, and if you want something, go out and get it. These are the same values that I try to teach my own children.

My grandfather Marvin is a very special person. He has lived such a wonderful life, laughing and loving each day. Grandpa showed not only me, but also my siblings— Kirk, Kendall, and Kristi— how to lead great lives, appreciate all that we have, and always give of ourselves first. To Grandpa: You have been the cornerstone of our family for close to 100 years, and we all love you very much.

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Chapter One

Introduction

Failing schools in the United States of America have left parents few options,
teachers desperate for answers, and students unprepared to compete globally in the 21st
Century. According to the 2012 report from the Council of Foreign Affairs, national
statistics on educational outcomes are disheartening:

a. More than 25 % of students fail to graduate from high school in four years; for
   African-American and Hispanic students, the number is approaching 40 %.

b. Only a quarter of U.S. students are proficient or better on the National
   Assessment of Educational Progress.

c. A recent report by ACT found that only 22 % of U.S. high school students
   met "college-ready" standards in all of their core subjects.

d. According to the results of the 2009 Program for International Student
   Assessment (PISA), U.S. students rank fourteenth in reading, twenty-fifth in
   math, and seventeenth in science when compared to students in other
   industrialized nations. (p. 2)

As school and elected officials across the country try to solve these problems, little to no
improvement has been made (Council of Foreign Affairs, 2012, p. 3).

The federal government's unfunded mandates in No Child Left Behind (NCLB)
legislation (Paulson, 2010) have added to the increased stress of teachers and
administrators across the country. Although well intended, NCLB has led to unintended
consequences such as labeling struggling schools as bad schools, increasing pressure on
testing, and escalating the threats of job loss. Schools must ensure learning for all

students, including special education students, students with diverse ethnic backgrounds, and students with behavioral challenges. Many people understand the importance of improving our educational system to ensure a more positive future for our students and our society. School administrators spend countless hours reading and researching effective ways to improve education and politicians know that improving our educational system will lead to instant popularity. Education reform has become the new status quo. Every president aspires to be the education president, every governor the education governor (Paulson, 2010). Strategies such as cooperative learning, differentiated instruction, and standards-based grading have been implemented with varied success. Despite these and other failed attempts such as NCLB of 2001, outcome-based education, charter schools, after-school tutoring, home-schooling, and school choice, a compelling case can be made for the use of Professional Learning Communities (PLCs). PLCs provide a collaborative culture designed to effectively use the collective expertise of educators in their individual schools to ensure high levels of student learning by focusing on results.

DuFour, DuFour & Eaker (2008), the original architects of the PLC process, made a compelling case on how PLCs could positively impact education by stating, "The most promising strategy for sustained, substantive school improvement is developing the ability of school personnel to function as Professional Learning Communities" (p. 1). DuFour, DuFour and Eaker introduced the educational world to professional learning communities, a new framework for increased student achievement. DuFour, DuFour & Eaker (2008) defined a Professional Learning Community as "educators committed to working collaboratively in ongoing processes of collective inquiry and action research to

achieve better results for the students they serve" (p.14).   The PLC model creates a

collaborative culture in which teachers work together to score student work, write

common assessments, use data to make instructional decisions, and intervene with

students who are struggling to learn.

In theory, this model sounds simple when, in fact, it is not. Part of the complexity

of implementing a PLC model could be attributed to what Pfeffer & Sutton (2000) have

referred to as a knowing-doing gap. They stated, "Research demonstrates that the success

of most interventions designed to improve organizational performance depends largely on

implementing what is already known, rather than from adopting new or previously

unknown ways of doing things" (p. 14). In other words, organizations have often failed to

do what best practice suggests; instead, organizations have tried to be innovative and on

the cutting edge of new philosophies, while, at the same time, those organizations have

abandoned effective strategies they already knew were effective. Pfeffer & Sutton (2000)

searched for answers to explain why so many organizations knew what to do, but largely

failed in the process. Pfeffer & Sutton (2000) concluded that knowledge must be turned

into action (p. 5).

Conceptual Framework and Background

Collins (2001) claimed that great organizations "simplify a complex world into a

single organizing idea, a basic principle, or concept that unifies and guides everything"

(p. 91). With this in mind, the first and greatest of the big ideas that has driven the work

of schools and districts that have operated as PLCs has been straightforward: "the

fundamental purpose of the school has been to ensure that all students learn rather than to

ensure that all students are taught—an enormous distinction" (DuFour, DuFour & Eaker , 2008, p. 19).

PLCs focus on three key ideas: student learning, building a collaborative culture, and achieving results (DuFour, DuFour, Eaker & Many, 2010b). In a PLC, educators commit to each other to hold each other accountable while ensuring all students learn at high levels. PLC schools create a clear vision to ensure learning for all students. The second big idea, building a collaborative culture, is comprised of collaborative teams that work to achieve common goals for which members are mutually accountable (DuFour, DuFour, & Eaker, 2008). The third big idea in a PLC is a focus on results. PLC schools focus on results by assessing and monitoring student achievement. It is important in a PLC to monitor results of student learning.

During the transition to becoming a Professional Learning Community, a school community makes several cultural shifts in its thoughts and beliefs (DuFour, DuFour, Eaker, &Many, 2010b, p. 251). First, the focus on teaching transforms into a focus on learning. Secondly, teachers no longer work in isolation, but rather in collaborative teams. Teachers collaborate to work at their collective best, not just their individual bests. Instead of making decisions based on what is easiest, teachers research decisions with collaborative teams seeking out best practices. Thirdly, leadership does not mean that the administrator makes all the decisions. Instead, PLC leaders are leaders of others, and leadership is shared amongst the staff with the administrator being ultimately accountable for the shared decisions. Finally, a conscious effort is made to use the power of celebration to promote small victories.

It is important in a PLC to focus on the right work that closely aligns with the components and beliefs inherent to a PLC. The right work includes analyzing results of common formative assessments, designing a system of interventions and supports for struggling students, defining essential learning outcomes, consistently analyzing student work, and developing a culture of celebration. Unfortunately, collaborative teams' understanding of how to do this work does not mean that the necessary work is being done. Pfeffer & Sutton (2000) asked, "Why does knowledge of what needs to be done so frequently fail to result in action or behavior that is consistent with that knowledge?" (p. 4). All too often in Professional Learning Communities, deep levels of PLC implementation fail to become every day practice. A school staff may think they understand PLC components, when in fact they do not. As Collins (2001) argued "good is the enemy of great," which explains why knowledge of what to do has failed to ensure effective implementation. Schools that have performed well have become complacent and have failed to work harder to improve. In contrast, implementation of PLCs has helped to develop continuous improvement efforts to become more effective in increasing student learning.

Liberty Public Schools (LPS) began a focused implementation of PLCs in 2006 by providing professional development to approximately 150 elementary certified staff members throughout a three-year cycle. In 2007, approximately 250 more elementary certified staff members began professional development training on PLCs. Due to budget cuts, a majority of professional development opportunities provided to the school staffs were eliminated in 2009. Since 2009, PLC professional development was left up to

individual building leaders to provide to their staffs. This resulted in varying levels of professional development provided throughout the district.

The student enrollment in Liberty Public Schools is approximately11,300 pre-K through twelfth grade students. Of that number, approximately 225 students are enrolled in the district's pre-school center with the remaining students enrolled in kindergarten through twelfth grade. Liberty Public Schools is currently comprised of eleven elementary and pre-school buildings, two middle schools for sixth and seventh graders, two junior highs for eighth and ninth graders, and two high schools for tenth through twelfth graders. Since 1999, LPS has experienced rapid growth and has constructed five elementary schools, a new middle school, and a new high school. Liberty's enrollment has grown by approximately 1,800 students (DESE, 2012) since 2008. LPS spans eighty-five square miles in Clay County and is made up of the communities of Liberty and Kansas City. Of the 11,300 students enrolled in LPS, 2.4% are Asian; 6.3% are African American; 4.8% are Hispanic; and 85.3% are Caucasian (DESE, 2012). Presently, Liberty's free and reduced lunch population is 19.8%, a sharp increase from 4.5% since 2008.

The experience of Liberty's elementary school principals as of March 2012 ranges from zero years of previous experience to seven years of experience. Two administrators are currently in their first year as head principal, and three others have three years of experience or fewer. Principals' ages range from the mid-thirties to mid-forties. Due to enrollment numbers and program needs, six of the elementary schools have a full-time assistant principal; three have a part-time assistant principal; and two buildings do not have an assistant principal. Of all the buildings, only the pre-school still

currently works with the Regional Professional Development Council (RPDC) for PLC professional development. The participants in this study were all 407 certified elementary and pre-school staff members in LPS with 99.2% of these teachers having obtained their regular certification. The average years of experience for the elementary certified teachers is 11.3 years (DESE, 2012).

Liberty is a high academic performing district evidenced by receiving the Distinction in Performance Award from state of Missouri for ten consecutive years. Missouri Assessment Program (MAP) scores continue to be well above the state average with numerous buildings scoring in the Missouri Top Ten for high-achieving schools on the MAP test. Three elementary schools had building total scores in Math and Communication Arts in the top five for all Kansas City area schools. High school students who took the ACT in 2011 scored an average of 22.4 (DESE, 2012). The state average was 21.6 (DESE, 2012).

Statement of the Problem

Many districts have implemented PLCs to increase student achievement. While the term *Professional Learning Community* has been widely used across the country, actual practices aligned to PLCs are more rarely implemented effectively. Many schools and school districts call themselves a PLC and believe they understand what it means to implement PLCs. At the same time, these same schools, districts, and organizations often fail to implement core foundational components of a PLC they claim to understand. Although the organizations may believe they are implementing PLCs, implementation is often not aligned to the essential practices and components of PLC as outlined by Richard DuFour.

Although well-intentioned, NCLB's unfunded mandate placed a significant amount of pressure on school districts' accountability for student learning. In 2011, President Barack Obama sought to modify implementation of the law to allow school districts more flexibility with their accountability measures. The Obama Administration has provided a process for states to seek relief from key provisions of the law, as long as the states were willing to embrace education reform (Paulson, 2010). The Obama administration would like to replace the *adequate yearly progress* (AYP) benchmarks with new standards based on college and career readiness (Paulson, 2010, p. 1). Waivers have been awarded to free the states of the unrealistic student achievement levels in which all students, regardless of handicapping conditions, must be 100% proficient by 2014.

By thoroughly researching Liberty Public Schools' PLC implementation, the researcher will determine if a knowing-doing gap exists between the knowledge of PLC components and implementation of the PLC process and its integral concepts and practices. The researcher will also study what barriers are in place that potentially lead to the knowing-doing gap in PLC implementation. Other school and district leaders will be able to look to this research as a means for helping them to recognize the presence of barriers in their own schools and districts. By identifying potential barriers that hinder PLC implementation, these schools and districts could confront the barriers and search for ways to eliminate them and close their knowing-doing gap in PLC implementation. Eliminating the knowing-doing gap will lead to increased student achievement.

Significance of the Study

Even with so many schools across the country having declared that they implement Professional Learning Communities, many have fallen short of national and state achievement requirements for students (DuFour, DuFour, Eaker & Many, 2010b, p. 10). Large amounts of money have been spent and countless hours of professional development have been utilized in the attempt to become a PLC, but sometimes this has not equated with consistent realization of goals. When students do not learn, teachers become frustrated. The results of this study can help educators identify barriers hindering PLC implementation. If a school wants to increase student learning and eliminate barriers that create the knowing-doing gap, implementation of PLCs needs to be more purposefully aligned to the knowledge of PLC components.

This researcher believes that, by studying the potential of a knowing-doing gap in PLC implementation, schools can learn how to overcome barriers and improve the effectiveness of their PLCs in raising student achievement. In turn, the results-oriented culture of a strong PLC commits itself to building the capacity of the staff to fulfill their purpose. "To build the collective capacity of the staff, a school must shift their focus from helping individuals become more effective in their isolated classrooms and schools to creating a new collaborative culture based on interdependence, shared responsibility, and mutual accountability" (Dufour & Marzano, 2011, p. 67). In a cursory exploration of other dissertations and research projects, the researcher has found little research examining the knowing-doing gap of PLC implementation. Thus, the researcher believes that this work will provide an important research base for others to use in their own Professional Learning Community journey.

Purpose Statement

There were two overarching purposes for this study: First, through a survey, this study examined the Liberty Public Schools (LPS) staff members' self-perceived knowledge of PLC components compared to the LPS staff members' self-assessed implementation of their self-perceived knowledge of PLC components. Secondly, this study examined specific barriers that blocked PLC implementation and investigated how those barriers helped to create the knowing-doing gap. The researcher explored such barriers such as talk rising above action, memory substituting for thinking, fear of job loss preventing action on knowledge, measurement obstructing good judgment, and internal competition turning friends into enemies (Pfeffer & Sutton, 2000).

Delimitations

The researcher identified delimitations in this study to gain a clearer understanding of the extent of a knowing-doing gap in PLC implementation. The first delimitation was the research studied only pre-school through fifth grade elementary staff members in Liberty Public Schools. Research was conducted during the spring of the 2011-2012 school year using a survey adapted from Solution Tree (Appendix B). A second delimitation used by the researcher was the identification of possible barriers causing the knowing-doing gap within the PLC implementation process. An additional delimitation is that the researcher's school participated in the study. The researcher is the principal in one of the eleven buildings that participated in the study. Thus, being a building administrator could have influenced responses from the researcher's staff members due to his supervisory position. To control for this possibility, complete anonymity was maintained throughout the research study.

Assumptions

The first assumption was that the certified staff members in Liberty Public Schools' pre-school and elementary buildings were provided professional development and practice with PLCs. Part of that assumption was based on the fact that quality professional development has been sponsored and endorsed by Solution Tree or the Missouri Professional Learning Community Project for the past four to six years. Even though funding was cut after three years, professional development was left to administrators throughout the district who provided time and resources to allow their staffs to work as PLCs. Another assumption was that staff members have taken PLC professional development and implemented PLC strategies in their schools and collaborative teams. A final assumption was that staff members responding to the survey answered honestly and accurately about their experiences with PLCs and their individual knowledge of PLCs.

Research Questions

If a school district intends to persevere with PLCs and to find ways to improve implementation of key concepts, a school must first understand the extent to which a knowing-doing gap exists. All follow-up studies must determine what barriers existed that created the knowing-doing gap. This study examined the existence of a knowing-doing gap of PLC implementation in LPS and analyzed why a knowing-doing gap existed. Therefore, the two research questions that guide this study were the following:

1. To what extent does a knowing-doing gap exist in the implementation of Professional Learning Communities in the Liberty Public School District?

2. What are the common barriers to implementing PLCs in the Liberty Public School District?

Definitions of Terms

Action orientation. Action orientation is to move swiftly and efficiently to turn PLC components into action. Members of PLCs understand that the most powerful learning always occurs in a context of taking action, and doing work related to PLC concepts (Dufour, Dufour, Eaker, & Many, 2010a).

Barriers. Barriers are existing practices or beliefs and other factors that impede implementing knowledge of a PLC into a school or district (Pfeffer & Sutton, 2000).

Collaboration. Collaboration is a systematic process in which people work together to improve their professional practice in order to increase individual and collective results. (Dufour, Dufour, Eaker, & Many, 2010a).

Knowing-doing gap. The knowing-doing gap is the amount of difference between the knowledge an organization has to enhance organizational performance and the extent of their actions consistent with that knowledge (Pfeffer & Sutton, 2000).

Learning organization. A learning organization is an organization that continually expands its capacity to create increased performance through lifelong learning (Senge, 1990).

Professional development. Professional development is an aligned comprehensive system to improve teachers' and principals' effectiveness to raise student achievement (Killion & Roy, 2009).

Professional learning communities. In Professional Learning Communities, educators commit to working collaboratively to achieve better results for the students they serve (DuFour, DuFour, Eaker & Many, 2010b).

Overview of Methodology

The researcher examined the extent of a knowing-doing gap in the Liberty Public School District by using a quantitative research study. The quantitative analysis involved the use of a survey tool the researcher adapted from a PLC Solution Tree survey. The survey tool was made available to all 407 certified staff members in Liberty's pre-school and elementary buildings during the 2011-2012 school year. Certified staff members included kindergarten through fifth grade teachers, special education teachers, counselors, physical education teachers, art and music teachers, library media specialists, instructional coaches, and gifted and talented teachers. The researcher completed a one-factor ANOVA of the six subscales (LearningKnow & LearningDo, CollaborationKnow & CollaborationDo, ResultsKnow & ResultsDo) to determine if a significant difference existed between staff members' PLC knowledge and staff members' level of PLC implementation. Tukey's post-hocs were conducted to analyze if the differences were statistically significant. Finally, staff members were surveyed on possible existing barriers they felt hindered PLC implementation in their schools and in the district. Independent sample *t*-tests were conducted to measure the mean score of the potential barrier to a mean score of 4.0 to find if a barrier existed in PLC implementation in LPS.

Organization of the Study

Chapter one introduced the conceptual framework and background, statement of the problem, significance of the study, purpose statement, delimitations, assumptions,

research questions, definitions of terms, and overview of the methodology. Chapter two

contains the review of literature and builds a background of relevant literature of

professional learning community components and concepts of the knowing-doing gap.

The review of literature begins with a historical perspective of PLC and knowing-doing

gap theories and builds to a review of more current scholarship. Chapter three presents

the research design, population and sample, sampling procedures, instrumentation,

measurement, validity and reliability, data collection procedures, data analysis and

hypothesis testing and limitations. Chapter four explains the results hypothesis testing

and reliability analysis. Chapter five provides the interpretation and recommendations

from the study, findings related to the literature, implications for action,

recommendations for future research, and concluding remarks.

Chapter Two

Review of Literature

The review of literature is based on a substantial amount of research conducted in the field of human dynamics, social relationships, professional learning community components, and organizational improvement. The researcher divided this narrative into four sections. First, the researcher established a theoretical framework of how people have formed social formed bonds with one another for the improvement of their organization. The researcher explored theorists such as Weber (1947) and Deming (1986) for their advancement in the area of social organizations. Also, the researcher considered the models of Senge (1990) and Collins (2001). The second section of the review of literature describes how and why educators know their craft and how they continually learn to provide better and more effective teaching practices to stimulate student learning. The third section describes how educators seek action by implementing effective teaching practices in the classroom. The fourth and final section in the review of literature outlines the research conducted on the knowing-doing gap. This final section further explains and builds a foundation of understanding why an organization fails to implement what is known to help make the organization successful.

Theoretical Framework for Professional Learning Communities

To understand why professional learning communities have become an increasingly popular method for school improvement for school districts across the country, it is necessary to establish the historical framework on which PLCs were built. Dating back to the 1920's, Follett's (1924) work in human relations in the business and political world began to transform how individuals inhabited the workplace. In the time

leading up to the 1920's, members of an organization were isolated and competitive. In tense situations of unrest and indecision, compromise was viewed as honorable and popular, but Follett believed otherwise. She viewed compromise as an abandonment of ideas and as an opportunity for solutions and deeper understanding of factors involved in a decision. Follett's ideas against compromise led to a belief that conflict is healthy in an organization. In fact, she was the first to coin the phrase "win-win," claiming that conflict between a group of individuals provided plus values to the organization, while compromise was more an individual adjusting his/her actions to agree with others.

Through her studies of human beings, Follett's (1924) research introduced the world to a belief that man should be studied, and there should be a vested interest to study the human dynamics of those around us. Follett described powerful observations of humans interacting with each other in political settings, as well as business settings, such as the manufacturing and farming industries. She declared, "We need to study not the conception of a general will but concrete joint activity" (p. 1). In the following years, observations and studies of humans took place, and behaviors and characteristics were charted as individuals worked together. Through these observations, Follett articulated a focus on individual integrity and individual nourishment as key components of an increased level of collaborative human dynamics. She claimed that higher employee participation was dependent upon power sharing, which she defined as integration. To implement power sharing effectively, Follett promoted educating others in the workplace and allowing them to share in leadership and decision-making. This process later became known as "collective inquiry" in a Professional Learning Community in which staff members choose to work together as opposed to working in isolation.

Follett advanced the idea of collaboration in the workplace setting.

Contemporaries such as Mayo (2008) and Maslow (1943) agreed with many of Follett's

ideas and advanced her work in different ways. Mayo (2008) described the importance

of individuals needing to be part of a group. Being part of a group, as stated by Mayo,

increased the social behaviors of the individual (Lucas, 2008, p. 1). Mayo was the first to

develop norms for cooperation in the workplace and to define how managers needed to

have individuals in the workplace collaborate and not work in isolation (p. 1). Maslow

(1943) determined individuals are motivated by needs, and once those needs are met,

individuals seek out higher needs. Maslow created what he called a "Hierarchy of

Needs" and defined four areas of need on the way to an individual attaining self-

actualization, the point when an individual reaches his or her potential. Maslow's (1943)

third area of need is social, the desire for an individual to be a part of a group (p. 85).

Social needs followed the first two needs, physiological and security needs. Maslow's

work differed from Follett's in that it focused on the value of the individual and what

each individual would need to reach self-actualization. Follett's (1924) work focused

more on joint activity of members in an organization and how being collaborative would

increase the value of work and help to satisfy the needs of its members.

These key components of increasing work value and satisfying needs of its

members helped to define how collaboration could be more successful when colleagues

working together value the work of the group and believe in each other as a valuable

element of success. Follett remarked (1924), "When we become enlightened enough to

realize that we individually gain more from joining with people than by competing with

them, we do it." (p. 39-40). Many of Follett's ideas on joint concrete activity, building

relationships, purpose of work, and balance of power became essential building blocks for the Professional Learning Community movement.

Like Maslow, Mayo, and Follett, Weber (1947) contributed to the study of social organizations by researching and describing why relationships are formed between individuals, most notably in the workplace. Unlike Follett (1924) who focused on collaborative relationships and the value of a great experience for all, Weber described how individuals want to be part of something greater than themselves. Weber claimed that individuals want to understand the world and their places in it and that social relationships exist because people come together for a common purpose or vision. As individuals seek to understand purpose in their lives, they seek out others who have a similar view of the world. Likewise, vision and shared values are important components to a PLC, but based on his research findings, Weber advocated more for the individual and, therefore, disputed Follett's emphasis on collaboration. Weber also saw a shared vision among members of an organization as a way for them to bond through common beliefs consistent with all members of the organization.

Much like Weber, Getzel & Guba's research of social systems led them to define collaboration through a focus on individuals (Chance & Chance. 2002, p. 47). Getzel & Guba (2002) described how broad overall goals of a system must align with the needs, wants, and personalities of those who populate the system. First, Getzel and Guba described the interaction of the goals of an organization with the more specific needs and behaviors of individuals in the organization that took place and helped to create the social culture (Chance & Chance, 2002, p. 47). In other words, it is important for everyone who

works in a setting such as a school building to understand that he or she must align themselves to the beliefs and values that exist in the organizational community.

In addition, Burns (1978), in his research on collective will, claimed that individuals want to give of themselves to the organization to have purpose and moral integrity in their lives. This claim differs from Getzel & Guba's (1957) focus on the individual needs in collaboration, and builds on the core ideas of Follett (1924). Through Burns' (1978) research and analysis of popular and effective leaders such as Mao and Gandhi, he defined what he called "transformational leadership." Follett first defined the interrelationship between that of the leader and those who are followers while Burns described transformational leadership as the power of relationships and the importance of how motives and values build strong bonds between individuals in a workplace. Transformational leadership allows for workers to negate their personal goals in order to take ownership of the organizational goals. When these motives and strong bonds are present, there is a mutual benefit for everyone involved. Burns tapped into the moral side and individual purpose for individuals to want to work with others. Burns (1978) described leadership as a process in which leaders and followers work so well together that they actually raise one another's level of morality and motivation (p.20). Building on Abraham Maslow's Hierarchy of Needs (1943), Burns explained that a leader needs to understand and appreciate the essential needs of the followers in an organization because the followers will then become more motivated to grow closer to achieving their goals, as well. Burns (1978) declared the following:

> Our main hope for disenthralling ourselves from our overemphasis on power lies
>
> more in a theoretical, or at least conceptual, effort, than in an empirical one….

We must see power—and leadership—as not things but as relationships. We

must analyze power in a context of human motives and physical constraints. If

we can come to grips with these aspects of power, we can hope to comprehend

the true nature of leadership—a venture far more intellectually daunting than the

study of naked power. (p. 11)

Another foundational collaborative piece advanced by Follett (1924) was her

definition of human beings wanting a productive life and needing nourishment from

others in order to sustain improvement. Follett further explained that people should give

themselves to the greater good and determine that leadership is a moral endeavor because

a person yields power to the people and the leader does not try to manipulate them.

Adding to Follett's definition of humans wanting a productive life, Burns (1978) stated

that leadership will bring individuals to a higher level of moral development by tapping

into their values and engaging them so they can achieve a collective purpose. Burns

substituted the term "collective purpose" for Follett's (1924) "concrete joint activity"

(p.1). Burns maintained that "Leadership elevated people from lower to higher levels of

needs and moral development, and that true leaders come from self-actualizing

individuals who are motivated to grow, to be efficacious, and to achieve" (Fairholm,

2001, p. 1). People desire to be part of a group and feel as if they are giving something to

better everyone else. Because people desire to be part of a group, Burns (1978)

advocated for a leader to have skills applicable to that of a PLC leader such as working

with others to help mold together a strong collaborative culture. It is the essence of

people working together, encouraging each other, and becoming better because of

someone around them.

Deming (1986) added to the study of workplace cultures through his work with Total Quality Management (TQM). Deming's beliefs on increased efficacy among members of a learning organization tied directly to the research of Follett (1924) and Burns (1978). All three researchers described the heart of organizational success and improvement on relationships that are formed and improved in the workplace. In fact, Deming helped lead Japan's recovery from World War II by teaching Japanese manufacturers to develop quality goods and quality systems. Throughout the 1970's, the Japanese economy gained strength by implementing the business techniques taught by Deming. As a result, American businessmen, noticing the growth of Japan's foreign trade, wondered how they could adapt Deming's principles to improve American manufacturing (Deming, 1986).

Deming (1986) identified 14 points to be used in Japanese manufacturing to increase productivity and efficiency. Although Deming's (1986) theories were established for use in the business world, many of his points have been applied to education. In particular, over the past two decades Deming's theories helped create the foundation for the development of Professional Learning Communities through his postulation of the idea of people working together and adhering to a focus on results to measure success and efficiency. Of Deming's (1986) 14 points, five directly connect to PLCs:

1. Replace long-term planning in place of short-term reaction.

2. Institute leadership by being an example to others.

3. Drive fear out of the organization.

4. Break down barriers existing between departments.

5.   Make transformation and working together a responsibility for everyone.

Reviewing Deming's work, Bonstingl (1992) listed four pillars of Total Quality

Management (TQM) and their connections to the education world, "People feel better

about themselves and their efforts on the job, and they take greater pride in their work.

Relationships among people in the organization are more honest and open.

Administrators often feel less isolated, misunderstood, and burdened. Productivity goes

up, as work processes are improved continually. Organizational change brings people

opportunities for personal and professional growth, along with the pride that comes with

getting better and better every day and helping others to do the same" (p. 2).

Deming described four pillars to organizational improvement. First, the

educational organization must focus on its suppliers and customers (Bonstingl, 1992, p.

2). This particular pillar describes the capacity to think of education as a system of

interrelated parts working together. Teachers who traditionally close their doors to

isolate themselves from others look at their students as theirs alone. An organization that

views these students as "ours" sees such students as "our" customers and offers them the

collective best of the professionals surrounding them. In other words, the school

personnel is the supplier and the customers are the students.

The second pillar of TQM stated that all members of the organization must

dedicate themselves to continuous improvement, personally and collectively (Bonstingl,

1992, p. 3). The Japanese refer to this concept as *kaizen*, a society-wide covenant of

mutual help in the process of getting better and better, day by day (Bonstingl, 1992, p.3).

Kaizen describes the mutual help required by everyone in the process of an organization

improving.

In American education, *kaizen* begins with scheduling time for teachers and principals to discuss creating a collaborative culture and developing a learning organization. Bonstingl (1992) recognized that if continuous improvement was the goal, then structures needed to be established and resources provided to allow individuals in a school culture open communication in order to reflect upon their practices and how they are meeting their goal of improvement. Senge (1990) called this process of establishing collaborative cultures "team learning," a process that aligns and develops the capacity of a team to create the results its members truly desire (p. 236).

Bonstingl (1992) described the organization as a system, and the responsibility for the success of TQM is that of top management. He explained that the work done in education must be ongoing. Reflection and conversation consistently need to surround the organization in its quest for continuous improvement. Systems are made-up of processes, and improvements made to the quality of those processes determine the quality of the resulting products.

In contrast to a focus on the organization, Kouzes & Posner (2010) pointed to the leader's responsibility for change by stating that a leader leads by example or he or she does not lead at all (p.106). Kouzes & Posner continued by stating, "Leadership actions had better be consistent with your words. People believe what you do over what you say" (p. 107). Often leaders make threats to encourage others to complete tasks that create a culture of only fear and distrust by the members of an organization. Fear of consequences, or negative repercussions, are detrimental to an organization. DuFour & Marzano (2011) claimed that fear creates walls among individuals, forces isolation, and forces people to keep their ideas to themselves, rather than take risks. Furthermore, the

presence of fear will destroy collaboration in the workplace and not allow for the free sharing of ideas between teachers. DuFour & Marzano (2011) added that, in organizational cultures permeated by fear, collective capacity cannot be built and continuous improvement processes stop. An organization must break down its barriers and work together. It is the job of everyone to improve the organization.

Research on the organization was advanced by the work of Senge (1990) who translated his thoughts and beliefs about effectiveness in the workplace to the education world by incorporating ideas of those before him such as Burns, Follett, and Deming. Senge (1990) organized his thoughts into five disciplines: personal mastery, mental models, shared vision, team learning, and systems thinking. Senge (1990) stated that "the learning organization" would become a management "fad" and that organizations that will excel in the future will be those that thrive on people's commitment and capacity to learn within the organization. Senge was passionate about the importance of the system working together in order for the organization to learn and grow.

Another core tenet of Professional Learning Communities connected to Senge's research is the understanding that members in a PLC must align their actions with the vision of the learning organization and devote themselves to ensuring that all students are learning at high levels. Senge (1990) described this idea as *personal mastery*, his first discipline. Personal mastery refers to a high level of proficiency in the attainment of positive results. Members of a learning organization understand that results are important to them and, in fact, are necessary components of lifelong learning and an essential cornerstone of the organization. In 1924, Follett introduced the concept of personal mastery when she described how members of a social organization want to give of

themselves and be part of something greater than they are. Burns (1978) described this characteristic as moral integrity. When an organization can build a collective will, it can produce amazing results. Personal mastery is also built on the belief that having purpose in what a person does will drive that person to work harder and be more invested in the results of the organization. Conversely, organizations grow because people within the organization develop. Without learning, the organization fails to grow. Individuals with high levels of mastery tend to move toward more leadership and initiative. For an individual to have a high level of mastery, the individual also must establish and understand his or her personal vision. As Senge (1990) explained, "People often have great difficulty talking about their visions, even when the visions are clear because we are acutely aware of the gaps between our vision and reality" (p. 150). This gap is referred to as creative tension, the gap between what a person wants to do and his or her actions associated with the desired vision.

Senge's (1990) second discipline is *mental models* which he described as "deeply ingrained assumptions, generalizations, or even pictures or images that influence how we understand the world and how we take action" (p. 8). The essence of mental models—thoughts individuals have that help them make sense of the world and guide their actions—is the idea that two people can look at the exact same situation and come away with different conclusions. Oftentimes, new ideas fail in the implementation stage because an individual's personal images of the world conflicts with the new ideology. Senge stated, "The problems with mental models lie not in whether they are right or wrong—by definition, all models are simplifications. The problems with mental models arise when the models are tacit—when they exist below the level of awareness" (p. 176).

Therefore, Senge noted that learning organizations must bring deeply engrained thoughts and beliefs to the surface in order to identify potential barriers that hinder learning and system improvement. DuFour, DuFour, Eaker & Many (2010b) described this process as "confronting the brutal facts" (p. 252). In a PLC, members must be aware of the engrained thoughts and beliefs and do what is collaboratively best for their students, despite their personal beliefs. It is the collective will of the group that matters, not teachers working in isolation with their founded beliefs.

Senge's third discipline is *building a shared vision*, which is the importance of the learning organization creating a future vision and then to come together to form common beliefs, values, and a mission to guide the work of the organization. Senge (1990) defined shared vision as a force in people's hearts with impressive power. The vision may be inspired by an idea, but once it goes further—if it is compelling enough to acquire the support of more than one person—then it is no longer an abstraction because people begin to see that it exists (Senge, 1990, p. 206). Deming (1986) also described how increased efficacy will allow more focused work to be done to break down isolation. A shared vision is essential to the organization because it creates a roadmap for the future, a way to establish focus and energy for learning in the organization. However, a shared vision does not exist until individuals in the organization have a common belief in the vision and how it connects with their own personal vision. Burns (1978) expressed this thought in his definition of transformational leadership and explained how having a purpose shared with others created mutual vision among stakeholders. The ability of members in a PLC to understand PLC components and then to take action on those PLC components is critical to successful implementation.

Senge's (1990) fourth discipline is *team learning*. Senge (1990) stated, "the discipline of team learning starts with 'dialogue,' the capacity of members of a team to suspend assumptions and enter into a genuine thinking together" (p. 10). Senge was one of the first to describe the power of a collaborative team when he described team learning being vital because teams, not individuals, were the fundamental learning unit in modern organizations (p. 10). Similarly, DuFour, DuFour, & Eaker (2008) described a team as a "group of people working interdependently to achieve a common goal for which members are held mutually accountable" (p. 15). DuFour also considered collaborative teams to be the fundamental building blocks of PLCs (DuFour & Marzano, 2011, p. 471). Teamwork is an essential element of team learning. As teams work together, dialogue and discussion become two important vehicles for learning. In the workplace, confronting others' ideas can sometimes be difficult because of the fear of offending others. In a learning organization, challenging others' ideas often becomes a norm because dialogue such as this will lead to dramatically higher levels of learning through deeper collaborative team conversations about curriculum and assessment (DuFour, DuFour, Eaker & Many, 2010b, p. 230). PLCs do not want to settle for group think. PLCs build consensus around everyone sharing their ideas and deciding the best course of action to lead to increased student achievement.

Senge's fifth and final discipline is *systems thinking*. Senge (1990) described all five disciplines coming together to develop an "ensemble" (p. 12). He continued to note that *systems thinking* is the final discipline because "it is the discipline that integrates the disciplines, fusing them into a coherent body of theory and practice. Systems thinking keeps improvement efforts from being separate gimmicks or the latest organization

change fads" (Senge, 1990, p. 12). Organizations must be competent in all five of these disciplines to be a learning organization; therefore, a focus on all of the disciplines must be the goal for energy and dedication in any learning organization. "At the heart of a learning organization is a shift in mind—from seeing ourselves as separate from the world to connected to the world" (Senge, 1990, p. 12).

Much like Senge and Deming, Garmston (1997) noted how collaboration is problem solving together, creating solutions, and producing results. All three of these researchers described in their own way how individuals seek to work with others who share their same values and integrity. Adults learn more when they collaborate, support each other, and also hold each other accountable (Garmston, 1997, p. 1). Similar to Senge, Garmston painted a clear picture for what work should look like between and among team members to allow for learning. Garmston pointed out several positive outcomes from the work that collaborative teams do, with increased student learning being the most important. It was Garmston's (1997) belief that collaboration included communication and inquiry skills, problem solving, and resolving differences amongst the group. Similarly, Kouzes & Posner (2003) stated the following:

> In the thousands of cases we've studied, we've yet to encounter a single example of extraordinary achievement that didn't involve the active participation and support of many people. We've yet to find a single instance in which one talented person—leader or individual contributor—accounted for most, let alone 100 percent, of the success. Throughout the years, leaders from all professions, from all economic sectors, and from around the globe continue to tell us, "You can't do it alone." Leadership is not a solo act; it's a team performance….The winning

strategies will be based upon the "we" not "I" philosophy. Collaboration is a social imperative. Without it people can't get extraordinary things done in organizations. (p. 22)

Further research by Lambert (2003) applied the concepts explored by Garmston, Senge, Deming, and Burns to teacher leadership. Lambert added another crucial element to the establishment of professional learning in a school setting by describing how leadership can be shared with teachers. Lambert described the power of teacher involvement in leadership of the school building by allowing teachers to take ownership in the decisions and actions of the staff. In fact, Lambert was one of the first to see leadership as something shared between teachers and the principal. She concluded, "teachers become fully alive when their schools and districts provide opportunities for skillful participation, inquiry, dialogue, and reflection. They become more fully alive in the company of others. Such environments evoke and promote teacher leadership" (p. 422).

For decades, a teacher's responsibility included assigning and grading homework, managing students, and planning lessons. This more recent belief that teachers could be leaders was transformational and much welcomed (DuFour, DuFour, & Eaker, 2008). Teachers began to be more open to learning and understood how and why major decisions were made in schools. DuFour, DuFour, & Eaker (2008) also noted a teacher's responsibility expanded to include instructional decision-making, looking at data, assessing student work, and offering advice for other decisions that needed to be made. Along the same lines, Gardner (1995) argued, "Leadership is a process that occurs within the minds of individuals who live in a culture—a process that entails the capacities to

create stories, to understand and evaluate these stories, and to appreciate the struggle among stories" (p. 22). Gardner added that, when teachers see they have no responsibility for leadership, they will become withdrawn and disengaged. When teachers see that they do have responsibility for leadership, they will become more engaged and alive in the culture of learning for all. In addition, Little (1990) stated teachers' participation in the work of responsibility for leadership establishes ownership and is more likely to result in a learning community.

Components such as collaboration and teacher leadership become the foundation for the work beginning in the 1990's by Dr. Richard DuFour, who served as teacher, principal, and superintendent of Adlai Stevenson High School in Lincolnshire, Illinois, from 1983 to 2002. In *Revisiting Professional Learning Communities at Work*, DuFour, DuFour & Eaker (2008) noted, "the most promising strategy for sustained, substantive school improvement is developing the ability of school personnel to function as professional learning communities" (p. xi). DuFour, DuFour & Eaker (2008) defined a Professional Learning Community as "educators committed to working collaboratively in ongoing processes of collective inquiry and action research to achieve better results for the students they serve" (p. xi). Hattie (2009) synthesized over 800 meta-analyses on factors positively impacting student achievement and concluded the following: teachers work in collaborative teams, teacher teams clarify essential learning for each student, teacher teams frequently gather evidence of student learning based on analysis of evidence of student learning, teacher teams identify and implement the most powerful instructional strategies, and the school provides a collaborative culture where participants feel safe to learn, re-learn, and explore teaching and learning. Collaborative teams are

the driving force of successful PLCs. According to a national survey, two-thirds of teachers and 78 percent of principals feel greater collaboration among educators "would have a major impact on improving student achievement" (Markow & Pieters, 2010, p. 9).

According to DuFour & Marzano (2011), three big ideas drive the PLC process. The first is that the fundamental purpose of a school is to ensure high levels of learning for all students. Four essential questions must be answered to ensure that students will learn at high levels:

1. What is it that we want students to know? Teams must work together to establish skills, dispositions, and knowledge that all students must work to acquire.

2. How will we know if all students are learning the agreed upon curriculum? Teachers must check for understanding of students' learning by using assessments and analyzing data.

3. How will we respond if students are not learning? What will the teacher do to provide systematic interventions and differentiation to students who are not learning based on the assessments that are given to the students?

4. How will we enrich and extend learning for those students who already understand the agreed upon curricular standards that are going to be taught?

If a school truly wants to ensure learning for all, then the school must offer a differentiated curriculum to those who need to be challenged (p. 22-23).

The second big idea that drives the PLC process is that of collaboration. Educators must organize into collaborative teams in which members work together to achieve common goals. For collaboration to happen, "time must be built into the

schedule for teachers to meet, and the purpose for their work must be focused on the right work" (DuFour, & Marzano, 2011, p. 23). In 1989, Susan Rosenholtz's study of 78 schools found "learning-enriched schools" were characterized by "collective commitments to student learning in collaborative settings, where it is assumed improvement of teaching is a collective rather than individual enterprise, and that analysis, evaluation, and experimentation in concert with colleagues are conditions under which teachers improve" (p. 355). Teacher collaboration linked to shared goals focused on student achievement, led to improved teacher learning, greater certainty about what was effective, higher levels of teacher commitment and ultimately, great gains in student achievement" (*All Things PLC*, 2012, p.1).

The third and final big idea for an effective PLC process is that educators must focus on results in order to know if students are learning. Educators must be hungry for evidence of student learning and use evidence of learning to drive continuous improvement of the PLC process (DuFour, & Marzano, 2011, p. 24). Evidence of student learning should come from "strategic, measurable, attainable, results-oriented, and time-bound (SMART) goals" that are used to improve and inform professional practice (p. 25). Setting these goals allows for teachers to monitor student learning and adjust their instruction to ensure students are learning at high levels.

Principal leadership is an essential piece to the development and maturation of a PLC in a school environment. Burns (1978) stated, "Transformational leaders raise the bar by appealing to higher ideals and values of followers. In doing so, they may model the values themselves and use charismatic methods to attract people to the values of the leader" (p. 20). Burns continued to describe the leader's role as follows:

Essentially the leader's task is consciousness-raising on a wide plane…. The

leader's fundamental act is to induce people to be aware or conscious of what they

feel—to feel their true needs so strongly, to define their values so meaningfully,

that they can be moved to purposeful action. (p. 43-44)

Burns's work further advanced democratic ways of how individuals should work together

in the workplace, including giving definition to collaboration and the power of how

positive interactions among people will help to unify their strength and moral purpose in

education.

The Knowing in a Professional Learning Community

To implement a PLC effectively, all members of a PLC need to have a working

knowledge of important PLC components and philosophies. Schmoker (2006) reiterated

the components that DuFour, DuFour, Eaker, & Karhanek (2004) established with their

PLC work by expressing the need for teachers to establish a common and concise set of

essential curricular standards and to teach each standard on a roughly common schedule

(p. 106). Additionally, Schmoker (2006) noted that teams should meet regularly

throughout the week to help one another implement the intended curriculum and that all

collaboration time should be focused on monitoring student learning by analyzing

common formative assessments (CFA). Similarly, Reeves (2006) referred to CFAs as the

gold standard. When these ideal components, such as unwrapping curriculum to better

understand what students need to know, writing and analyzing results from CFAs, and

using data to drive instruction are used together, they form what Marzano & Waters

(2009) referred to as a guaranteed and viable curriculum.

As with any new initiative, professional development must be provided to teachers on PLC practices. As a result, workshops and book studies have been the common model for teachers to learn how to perform in and understand the basic tenets of a PLC. This type of professional development has improved how schools have built and used common formative assessments to monitor learning, how to respond to students who are not learning, how to write SMART goals, how to write and follow norms, and how to understand and implement a guaranteed and viable curriculum.

The Doing in a Professional Learning Community

Once schools have an understanding of a PLC, they must implement the principles and beliefs that make up the "doing" in a PLC. Unfortunately, most PLCs stop at this point and do not work to move forward with implementation of PLC concepts and beliefs. Implementing PLC components is the key to effective PLCs as teachers learn by doing and reflecting on their practice. Senge's (1990) work clarified how teams who work together learn together. He described team learning as "the process of aligning and developing the capacity of a team to create the results its members truly desire" (p. 236). Great teams are made of great individuals who work together. If teams do not collaborate, individuals will continue to work in isolation. Critical factors such as dialogue and discussion cannot happen in isolation; instead, they must occur among members of a collaborative team. Through practice, learning teams can acquire skills to work together. If teams do not attempt to do the right work of a PLC, they lack the practice in building skills needed to be effective. Another researcher who expressed the importance of collaboration was Garmston (1997) who noted "collaboration included communication skills, structures for inquiring, deciding, problem solving, resolving

differences, capacities for self-assertion, integration, metacognition, and self-control," (p. 4). Garmston was instrumental in adding to the understanding of collaboration by more closely defining what collaboration might look like.

Senge's (1990) definition of collaboration and team learning included three critical dimensions. First, teams must think through complex issues (p. 236). In spite of all the powerful forces alive in the culture of the school, teams must overcome these barriers and tap into their potential by working together. Secondly, action in the PLC must be coordinated by focusing on DuFour & Marzano's (2011) aforementioned four critical questions. Relationships and trust must be built among team members so everyone feels comfortable taking risks, offering ideas for effective instruction, and asking critical questions of each other. Learning teams must engage in dialogue and discussion. Dialogue allows teams to present different viewpoints towards a new view, while discussion allows teams to make decisions (p. 247). As stated previously, teams do not want to settle for group think and fail to challenge each other's ideas. The value from dialogue and discussion is to make decisions that will most positively impact students. These actions also ensure that leadership is provided by all the teachers involved in the dialogue. The third critical dimension of team learning is that all teams present in a school culture must collaborate and work together with the same focus. This dimension of team learning directly compares to research done by DuFour, DuFour & Eaker (2008), as well as Rosenholtz (1989), Garmston (1997), and Markow & Pieters (2010). This this research specifically articulates the need for teacher teams to work together to ensure student learning. This work cannot be done in isolation. In addition, as previously noted by DuFour & Marzano (2011), teams that focus collaboratively on the right work

maintain a consistent focus throughout the year, as opposed to jumping around to different initiatives week by week. A school improvement plan should highlight the focus for the building and should be adhered to throughout the school year.

Schools must exhibit disciplined action inside a PLC to clearly align work with PLC components. Collins (2001) described how great companies stay disciplined by explaining the "hedgehog concept." Collins (2005) later described the "hedgehog concept" as a simple concept that flows from deep understanding about the intersection of the following three circles:

1. At what can you be the best in the world or at what can you be best? This defines the ability to understand what your organization stands for.

2. What are you deeply passionate about? This defines the ability of the organization to know what it stands for and why it exists. It understands its core values and mission.

3. What drives your resource engine? When an organization understands this, an organization will better use resources such as time, money, and brand. (p. 19)

The essence of a "hedgehog concept" is to attain piercing clarity about how to produce the best long-term results and to exercise the relentless discipline to say "no thank you" to opportunities that fail the hedgehog test (p. 17). To put these ideas in practice, schools and collaborative teams should use the "hedgehog concept" to focus their work and determine how to connect all three circles to guide their actions.

Applying the "hedgehog concept" to PLCs, DuFour & Marzano (2011) described how focusing on the right work has the highest potential to promote success and positive results in the PLC structure. DuFour & Marzano (2011) listed multiple components that

high-performing teams must accomplish to achieve the "right work." First, teams must

establish norms to guide their actions and set SMART goals. Secondly, collaborative

teams must have access to a guaranteed and viable curriculum. Teams can ensure they

provide a guaranteed and viable curriculum by collaboratively understanding the content

together and agreeing as a team on the essential student learning outcomes that should be

learned. DuFour & Marzano (2011) pointed out that a basic tenet of the PLC process is a

guaranteed and viable curriculum. Clarity regarding intended outcomes is a fundamental

element of effective leadership (Buckingham, 2005; Drucker, 1992). To better

understand the specific details of the intended curriculum, teachers can unpack the

standards to clearly understand what students must know to guide their instruction.

Thirdly, teams should create common formative assessments to pre-assess what students

already know and help guide instruction of what students do not know. Fourthly, student

learning needs to be monitored on a consistent basis with precise feedback given to

students so they understand what they need to know. Teams must use their collaborative

time to analyze results of these assessments and build common scoring guides to

consistently score student work. The next item that high-functioning collaborative teams

must do is to build interventions for students who are behind in learning and missing

essential skills, as well as extend learning for those who already understand the

curriculum. Little and McLaughlin (*All Things PLC*, 2012) concluded in their research

that effective schools and departments within schools functioning as strong professional

communities were characterized by the following: shared norms and beliefs, collegial

relations, collaborative cultures, collective inquiry, reflection on effective practice,

professional growth, and mutual support and obligation *(All Things PLC*, 2012). Again,

teams must develop the discipline to stay focused on these tasks and not become lost in the minutia of everyday routines.

Unfortunately, schools become easily distracted while trying to implement PLC practices. The PLC term has become widespread throughout the country and world, but that does not mean that PLCs are being implemented with fidelity. As DuFour, DuFour, Eaker, & Many (2010b) stated, "While the term has become widespread, the underlying practices have not, and many of the schools that proudly proclaim to be PLCs do none of the things that PLCs actually do" (p. 21). Although teams may say they meet on Wednesdays for one hour of PLC time or that they have early release Mondays to focus on their PLC work, these characteristics do not necessarily guarantee true PLCs; instead, they may be merely shortcuts that allow PLCs to fail. In contrast, PLCs describe the everyday work that collaborative teams perform in order to focus on student learning. The PLC concept represents "an ongoing process in which educators work collaboratively in recurring cycles of collective inquiry and action research to achieve better results for the students they serve" (DuFour, DuFour, & Eaker, 2008, p.14). PLCs are not programs that are purchased on-line and instantly implemented in the school setting. The problem lies, however, in how these PLC practices are implemented. Decades ago, Little (1987) noted, "Most team talk floats high above the level of implementation; distant from the real work in and of the classroom" (p. 507). All too often, teams continue to discuss a variety of educational topics during meetings while also discussing social components of their personal lives and upcoming events. These distractions come at the expense of dialogue about student learning. Stiggins (1999) pointed out, "Workshops do not work because they don't permit the application and

experimentation in real classrooms. The value is sharing that experience as a team" (p. 198). Due to these misconceptions of a PLC, a knowing-doing gap of PLC implementation has been created in the schools that say they implement PLCs and actually do not.

Significance of the Knowing-Doing Gap in PLC Implementation

As stated previously in the last section, without laying a solid foundation for understanding the knowing-doing gap as it pertains to Professional Learning Communities, PLCs often fail to implement aligned practices successfully. In 1998 Kruse teamed with Marks (2012) for an intensive study of 24 schools (eight elementary, eight middle, and eight high schools) to reaffirm that schools operating as professional communities had a significant impact on both the classroom practice of teachers and student achievement. Despite the consistent findings of the researchers regarding the power of the professional learning community concept to benefit schools, teachers, and students, the research was not having a significant impact on practitioners (*All Things PLC*, 2012, p. 1). In *The Knowing-Doing Gap: How Smart Companies Turn Knowledge into Action* (2000), Pfeffer & Sutton explored why companies understood the value of learning and knowledge management but frequently failed to implement the same practices known to be effective and successful in their organization. Pfeffer & Sutton conducted a comprehensive yearlong study of the presence of a knowing-doing gap in businesses throughout the country by using both qualitative and quantitative studies. Pfeffer & Sutton's research resulted in an attempt to explain why there is the existence of such a gap in organizations and to explore ways to narrow this gap through action orientation. The research consisted of spending four years scouring academic literature

to find stories and large-scale studies of multiple firms that could provide insights into the knowing-doing problem (Pfeffer & Sutton, 2000, p. 4). They examined a wide range of organizational practices commonly known by business managers, but seldom implemented to help better understand barriers that stand in the way.

Pfeffer & Sutton (2000) maintained it is not plausible to presume better ways of carrying out tasks can remain secret (p. 13), and described best practice as common sense approaches to continuous improvement that were more simple and concrete opposed to abstract and complex. For example, Southwest Airlines has traditionally used simple techniques to build and maintain a very successful business for decades. Although many companies have tried to understand these techniques, the companies have failed to achieve the same amount of success. This situation indicates that businesses are failing to implement what they know they must do because knowing how to do something is not enough. Pfeffer & Sutton (2000) also noted that the success of most interventions designed to improve organizational performance depends largely on implementing what is already known, rather than from adopting new or previously unknown ways of operating (2004, p. 14). Acquisition of knowledge is essential to the function and improvement of any organization. As Pfeffer & Sutton (2000) pointed out, the presumption that knowledge will be used effectively is inaccurate. A common problem associated with this failure is managers who are very good at acquiring knowledge but very poor in transferring that knowledge within the organization. Pfeffer & Sutton (2000) claimed that knowledge management systems seem to work best when the people who generate the knowledge are also those who store it, explain it to others,

and coach others within the implementation process (p. 21). In other words, people learn a great deal by doing the work and are able to better explain it to others.

Fundamental components of PLCs have been around for almost a century, dating back to Follett's work in 1924 and culminating with DuFour, DuFour, & Eaker's (2008) description of a professional learning community. Other theorists such as Weber, Burns, and Deming have added substantially to the information and understanding of vision, values, leadership, culture, relationships, collaboration, and moral integrity, the building blocks of PLCs. This researcher sought to provide a theoretical framework for PLCs along with a deeper understanding of organizational improvement through analysis of the work of Collins (2001) and Senge (1990).

Chapter three presents the research design, population and sample, sampling procedures, instrumentation, measurement, validity and reliability, data collection procedures, data analysis and hypothesis testing, and limitations. Chapter four explains results from descriptive statistics and hypothesis testing. Chapter five provides the interpretation and recommendations from the study, findings related to the literature, implications for action, recommendations for future research, and concluding remarks.

Chapter Three

Methods

The purpose of this research study was to determine the extent of a knowing-doing gap that existed in PLC implementation between knowledge of PLCs and implementation of those same PLC components. This quantitative research study also examined specific perceptions and barriers that prevent PLC implementation and how those identified perceptions and barriers created the knowing-doing gap. Chapter Three presents the research design, population and sample, sampling procedures, instrumentation, measurement, validity and reliability, data collection procedures, data analysis, and hypothesis testing and limitations to the research study.

Research Design

Descriptive quantitative research methods were used to determine the extent of the knowing-doing gap. The data were collected for six variables. The first three variables represent the respondents' perceptions about the level of district staffs' knowing in a PLC (LearningKnow, CollaborationKnow, ResultsKnow) and the second three variables represent the respondents' perceptions about the level of district staffs' implementation in a PLC (LearningDo, CollaborationDo, ResultsDo). LearningKnow represents the district staffs' knowledge of key idea number one in a PLC, focus on student learning. LearningDo represents district staff members' level of implementation associated with key idea one. CollaborationKnow represents the district staffs' knowing of key idea number two in a PLC, building a collaborative culture. CollaborationDo represents district staffs' level of doing components associated with key idea number two. ResultsKnow represents district staffs' knowing of PLC key idea number 3, focus

on results. ResultsDo represents district staffs' level of doing associated with key idea number three.

Data were also collected to measure the perception of potential barriers that are in place that hinder the implementation of PLC's in the elementary and pre-school buildings in Liberty Public Schools. The researcher explored the barriers of talk substituting for action, memory substituting for thinking, fear of job loss preventing action on knowledge, measurement obstructing good judgment, and internal competition turning friends into enemies (Pfeffer & Sutton, 2000).

Population and Sample

District staff invited to participate in this study were 407 certified elementary and pre-school staff members in LPS. The specific buildings and number of staff members are listed below:

Table 1

Number of Certified Staff in the 11 Liberty Elementary and Early Childhood Schools

School Name	Number	School Name	Number
Alexander Doniphan	32	Manor Hill	35
Franklin	24	Ridgeview	42
Kellybrook	40	Shoal Creek	49
Lewis and Clark	38	Warren Hills	43
Liberty Oaks	39	Early Childhood Center	23
Lillian Schumacher	42		

Sampling Procedures

The researcher used purposive sampling to identify certified teaching staff to respond to the Professional Learning Community Survey. According to Lunenburg and Irby (2008), purposive sampling involves selecting a sample based on the researcher's experience or knowledge of the group to be sampled (p. 175). In other words, respondents to this survey met the specific criteria of being an elementary or pre-school certified staff member in Liberty Public Schools.

Instrumentation

The researcher adapted the Professional Learning Community Continuum Survey instrument, a Solution Tree product, to develop his own survey instrument to conduct the research (Appendix B). Staff members responded to each of the 50 questions on the web-based survey using a 7-point Likert scale using 1 for Strongly Disagree, 4 for Neutral, and 7 for Strongly Agree. The 7-point Likert scale allowed greater variability among responses from participants.

The first 32 questions researched the potential of a knowing-doing gap by asking participants to assess their knowledge of PLC components and the implementation of those same PLC components using the Likert scale. An example is below:

Figure 1

Sample Survey Question to assess gap in Knowing and Doing in a PLC

As the figure above shows, each question addressed a PLC component and asked the respondent to assess their level of knowing and their corresponding level of

implementation with each component. The questions addressed the three key ideas of a PLC. Questions 1-16 specifically measured key idea "learning is our fundamental purpose." Questions 17-27 measured the key idea "building a collaborative culture." Questions 28-32 measured the key idea "focus on results." A subscale was created to measure a potential gap between knowing and doing with each key idea. The six subscales are as follows: LearningKnow & LearningDo, CollaborationKnow & CollaborationDo, and ResultsKnow & ResultsDo.

The last portion of the survey (questions 33-50) researched potential barriers based on the work of Pfeffer & Sutton's book, *The Knowing-Doing Gap: How Smart Companies Turn Knowledge into Action (2000).* Pfeffer & Sutton identified and explained five reasons why a knowing-doing gap often exists in organizations: when talk substitutes for action, when memory is a substitute for thinking, when fear prevents action on knowledge, when measurement obstructs good judgment, and when internal competition turns friends into enemies (Pfeffer & Sutton, 2000). The researcher wrote questions for each one of these areas to evaluate and study perceptions of barriers present that may be causing a possible knowing doing-gap of PLC implementation in LPS (Appendix B). These final 18 questions provided measurement of perceptions of potential barriers based on Pfeffer & Sutton's conceptual framework that could possibly create a knowing-doing gap in PLC implementation. Staff members once again responded to each of the 18 questions on the web-based survey using a 7-point Likert scale using 1 for Strongly Disagree, 4 for Neutral, and 7 for Strongly Agree.

An example of this type of question is below:

Figure 2

I am provided a sufficient amount of professional development in PLCs.

	Strongly Disagree			Neutral			Strongly Agree
	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7

Sample Survey Question to research potential perceptions

Total mean scores above 4.0 indicate a barrier is in existence. Total mean scores below 4.0 indicate there is not a barrier in existence that would hinder PLC implementation. Questions 34, 35, 37, 39, 43, 44, 45, and 46 were written by including positive PLC components that help PLC implementation. If respondents felt these were not barriers, they responded by disagreeing with the statement, a response less than 4.0. The rest of the questions were written in such a way that addressed the potential barrier in the question. If respondents felt these were barriers, they responded by agreeing with the statement, a response greater than 4.0. Questions 34, 35, 37, 39, 43, 44, 45, and 46 were reverse coded to ensure that results were analyzed in a consistent manner.

Table 2

Five Subscales of final 18 Questions on the PLC Survey

Subscale	Questions
Talk Substitutes for Action	33-35
Memory Is a Substitute	36-39
When Fear Prevents Action on Knowledge	40-44
Measurement Obstructs Good Judgment	45-47
Competition Turns Friends into Enemies	48-50

Validity and Reliability

The research instrument was piloted with a validation committee of educational

experts to elicit feedback for improvement and to increase the validity of the survey. A

five-member committee was selected by the researcher consisting of three experts in

PLCs, a skeptic of PLCs, and an author and noted researcher in the field. Two of the

experts provided feedback to make the questions shorter without losing the intent of the

question. Another expert provided feedback to better organize the questions into the

three key ideas of a PLC. Both of these recommendations resulted in changes to the

survey. Two questions involving affective goals were removed from the survey. Finally,

the noted author recommended asking respondents to answer using a 7-point Likert scale

instead of a 5-point Likert scale so there was more variance in responses and not to say

"we know to do this" as a label for the knowing section of the survey. Both of these

changes were made to the survey.

The researcher used Cronbach's alpha to determine the reliability of the

instrument used. According to Lunenburg & Irby (2008), an internal consistency

coefficient of .80 is acceptable for an instrument containing 40 items (p. 183). Reliability

was tested for the six subscales used to determine a knowing-doing gap in PLC

implementation and the five subscales used to measure potential barriers in place that

could hinder PLC implementation.

Data Collection Procedures

The researcher asked for and received permission from the superintendent of

Liberty Public Schools and the Director of Research, Assessment, and Evaluation

(Appendix C) to conduct the research and contact school personnel through e-mail and phone, if necessary. The Baker University Institutional Review Board (IRB) reviewed and approved (Appendix A) the research in February, 2012. E-mail addresses for all elementary staff members were collected through the school district e-mail directory, and distribution lists were created for certified school district personnel by school building.

The researcher spoke briefly to each building principal to explain the research study and the importance of the principal's staff participation. The researcher then personally attended a staff meeting at each elementary building to discuss the research study on the knowing-doing gap in PLC implementation and the importance of the study to the researcher and the LPS district. All building principals were asked to discuss the survey at their scheduled staff meetings and to follow-up with their staff members to increase the completion percentage for the survey. One week prior to the survey being sent out to all staff, the researcher sent an e-mail (Appendix D) to review the purpose of the study and to ask for participation. Finally, the SurveyMonkey electronic PLC survey link was sent to all elementary and pre-school certified staff members on Thursday, March 1, 2012. The respondents were given two weeks to complete the survey. The researcher followed up with a reminder e-mail to prompt completion of the survey on Monday, March 12, 2012. The SurveyMonkey survey window closed on Thursday, March 15, 2012. The researcher then downloaded all survey responses into an Excel file on Friday, March 16, 2012.

Data Analysis and Hypothesis Testing

The researcher completed a one-factor ANOVA for the six subscales (LearningKnow & LearningDo, CollaborationKnow & CollaborationDo, ResultsKnow &

ResultsDo) to determine if a significant difference existed between staff members' PLC knowledge and staff members' level of PLC implementation. A descriptive quantitative analysis included data gathered from the 32 questions on the PLC Survey to assess the extent of the knowing-doing gap along and 18 questions measuring potential barriers present that helped to create the knowing-doing gap in PLC implementation. Staff provided feedback using a 7-point Likert Scale to answer 32 questions assessing their level of knowledge and action orientation of PLC strategies and concepts. The respondents then used the 7-point Likert Scale to respond to potential barriers in place that inhibited PLC implementation.

Based on the research questions, the following hypotheses were tested:

H_1: There is a significant difference in the level of knowledge of student learning components and the level of implementation of student learning components in Liberty Public Schools.

H_2: There is a significant difference in the level of knowledge of collaboration components and the level of implementation of collaboration components in Liberty Public Schools.

H_3: There is a significant difference in the level of knowledge of results components and the level of implementation of results components in Liberty Public Schools.

H_4: Talking about PLCs more than implementing PLCs is a significant barrier to implementation of PLCs in the Liberty Public School District.

H_5: Principal monitoring of collaborative teams is a significant barrier to implementation of PLCs in the Liberty Public School District.

H_6: Effectively analyzing student data is a significant barrier to implementation of PLCs in the Liberty Public School District.

H_7: Using best practice techniques that have worked for me in the past is a significant barrier to implementation of PLCs in the Liberty Public School District.

H_8: Receiving sufficient professional development is a significant barrier to implementation of PLCs in the Liberty Public School District.

H_9: Avoiding staff conflict is a significant barrier to implementation of PLCs in the Liberty Public School District.

H_{10}: Reflecting on PLC practices is a significant barrier to implementation of PLCs in the Liberty Public School District.

H_{11}: Losing a job or being put on an improvement plan for not collaborating is a significant barrier to implementation of PLCs in the Liberty Public School District.

H_{12}: Feeling pressure to work in a PLC is a significant barrier to implementation of PLCs in the Liberty Public School District.

H_{13}: Not being a believer in PLCs is a significant barrier to implementation of PLCs in the Liberty Public School District.

H_{14}: Having beliefs about the benefits of PLCs that align with the building and district's belief about the benefits of PLCs is a significant barrier to implementation of PLCs in the Liberty Public School District.

H_{15}: Working hard to implement PLCs is a significant barrier to implementation of PLCs in the Liberty Public School District.

H_{16}: Being evaluated on performance in a PLC is a significant barrier to implementation of PLCs in the Liberty Public School District.

H_{17}: Receiving feedback on work in a PLC is a significant barrier to implementation of PLCs in the Liberty Public School District.

H_{18}: Having conversations driven by standardized test scores is a significant barrier to implementation of PLCs in the Liberty Public School District.

H_{19}: Too much teacher work is a significant barrier to implementation of PLCs in the Liberty Public School District.

H_{20}: Too many initiatives in our district are a significant barrier to implementation of PLCs in the Liberty Public School District.

H_{21}: Not believing in collaboration with other teachers is a significant barrier to implementation of PLCs in the Liberty Public School District.

Limitations

There were limitations to this study. First, there was no way to guarantee that all respondents were sincerely honest with their answers to the survey. Secondly, due to the fact that respondents could have been worried that there was not total anonymity for their responses to the survey, they could have been dishonest. Thirdly, some respondents may have lacked the knowledge of PLC concepts and beliefs and inadvertently answered in the wrong way or simply did not answer. Finally, some respondents may have felt pressure to answer in a certain way because their principal was the researcher in this study and their answers would reflect his ability to implement PLCs.

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Summary

</div>

A descriptive quantitative analysis included data gathered from the 32 questions on the PLC Survey to assess the extent of the knowing-doing gap along with 18 questions measuring perceptions of barriers present that helped to create the knowing-doing gap in

PLC implementation. The analysis provided specific information on the existence of a knowing-doing gap. The research instrument was piloted with a validation committee to elicit feedback for improvement and to increase the validity and reliability of the survey. The results of this research are found in Chapter four, which explains results from the hypothesis testing. Chapter five provides the interpretation and recommendations from the study, findings related to the literature, and implications for action, recommendations for future research, and concluding remarks.

Chapter Four

Results

The purpose of this research study was to explore the existence of a knowing-

doing gap in PLC implementation in the Liberty Public School District. The study also

examined potential barriers that were in place that may have obstructed PLC

implementation in the Liberty Public School District. While the preceding three chapters

described the focus of the study, a review of relevant literature, methodology, research

questions, and hypotheses related to the study, this chapter presents the results of the

quantitative analyses of the research hypotheses. The following section contains results

of the analysis for reliability of the PLC components and for potential barriers.

Reliability Analysis Results

The researcher adapted an existing PLC survey (Appendix B) to create a

measurement tool to study pre-school and elementary certified staff members' knowledge

of PLC components and staff members' level of action orientation with those same

specified PLC components. Data were collected for six numerical subscales and focused

on assessing the three key ideas of a PLC. Questions 1-16 specifically assessed the

knowing-doing gap with the focus area "learning is our fundamental purpose." Questions

17-27 assessed the potential of the knowing-doing gap of PLC implementation with the

focus area of "building a collaborative culture." Questions 28-32 assessed the focus area

of "focus on results." The chart below shows the reliability of the six subscales for the

one-factor ANOVA.. To evaluate reliability coefficients, George and Mallery (2003)

recommended the following rules of thumb: "> .9 Excellent, > .8 Good, > .7

Acceptable, > .6 Questionable, .5 – Poor, and < .5 Unacceptable" (p. 231). Johnson and

Christensen (2008) stated the coefficient alpha is used to measure internal consistency and should be greater than or equal to .70 for the purpose of research.

Table 3

Reliability of Six Subscales

Subscale	N	Cronbach's Alpha	N of Items
LearningKnow	232	.955	16
LearningDo	231	.945	16
CollaborationKnow	225	.927	11
CollaborationDo	222	.907	11
ResultsKnow	224	.908	5
ResultsDo	222	.889	5

Pfeffer & Sutton (2000) identified and explained five reasons why a knowing-doing gap often exists in organizations: when talk substitutes for action; when memory is a substitute for thinking; when fear prevents action on knowledge; when measurement obstructs good judgment; and when internal competition turns friends into enemies. The researcher wrote 18 questions to address the existence of potential barriers using these five reasons Pfeffer & Sutton (2000) articulated. There is minimal evidence of reliability of the subscales created by the researcher as evidenced in Table 4. Therefore, each of the items were analyzed as an individual measurement of the barriers. The results of these independent item analyses will be found in the hypothesis testing results.

Table 4

Reliability of Five Subscales Used in One-Sample t-Tests

Subscale	*N*	Cronbach's Alpha	N of Items
Talk Substitutes for Action	231	.685	3
Memory Is a Substitute	229	.147	4
Fear Prevents Action	227	-.066	5
Measurement Obstructs Good Judgment	225	.151	3
Competition Turns Friends into Enemies	230	.558	3

Hypothesis Testing

This section contains results of the hypothesis testing used to address the two research questions. A repeated measures one factor ANOVA was used to address research question one. One-sample *t*-tests were used to measure research question two (see Appendix G).

Research Question 1. To what extent does a knowing-doing gap exist in the implementation of Professional Learning Communities in the Liberty Public School District?

H_1: There is a significant difference in the level of knowledge of student learning components and the level of implementation of student learning components in Liberty Public Schools.

H_2: There is a significant difference in the level of knowledge of collaboration components and the level of implementation of collaboration components in Liberty Public Schools.

H$_3$: There is a significant difference in the level of knowledge of results components and the level of implementation of results components in Liberty Public Schools.

A repeated measures one factor ANOVA was conducted to test H$_1$- H$_3$. The results indicated a statistically significant difference between at least two means (F = 107.83, df =5, 895, p = .000). A follow-up post-hoc, Tukey's HSD, was conducted to determine which means were different. To be considered statistically significant, the difference between two means had to be greater than .199 (See Table 5 for the means, standard deviations, and sample sizes). The difference between LearningKnow (M = 6.250) and LearningDo (M = 5.379) was statistically significant. The mean difference was .871. This finding supported H$_1$. In fact, the sample means provided evidence that the level of knowledge was higher than the level of doing with PLC key idea number 1, student learning. The difference between CollaborationKnow (M = 6.096) and CollaborationDo (M = 5.109) was statistically significant. The mean difference was 0.987. This finding supported H$_2$. The sample means provided evidence that the level of knowledge is higher than the level of doing PLC key idea number 2, collaboration. The difference between ResultsKnow (M = 6.330) and ResultsDo (M = 5.487) was statistically significant. The mean difference was 0.843. This finding supported H$_3$. The sample means provided evidence that the level of knowledge was higher than the level of doing with PLC key idea number three, focus on results.

Table 5

Means, Standard Deviations, and Sample Sizes of Six Subscales

Subscale	M	SD	N
LearningKnow	6.250	.791	232
LearningDo	5.379	1.069	231
CollaborationKnow	6.096	.898	225
CollaborationDo	5.109	1.285	222
ResultsKnow	6.330	.874	224
ResultsDo	5.487	1.309	222

Research Question 2. What are the common barriers to implementing PLCs in the

Liberty Public School District?

H$_4$: Talking about PLCs more than implementing PLCs is a significant barrier to

implementation of PLCs in the Liberty Public School District.

A one-sample *t*-test was conducted to test H$_4$. The results of the test indicated the

average response was not significantly different from the test value 4 ($t = -1.344$, $df =$

231, $p = .180$). Respondents did not agree ($M = 3.841$, $SD = 1.808$, $n = 232$) that they

spent more time talking about PLCs than they did implementing PLCs. Talking about

PLCs more than implementing PLCs is not a significant barrier to implementation of

PLCs in the Liberty Public School District.

H$_5$: Principal monitoring of collaborative teams is a significant barrier to

implementation of PLCs in the Liberty Public School District.

A one-sample *t*-test was conducted to test H$_5$. The results of the test indicated the

average response was significantly different from the test value 4 ($t = -4.953$, $df = 232$, p

= .000). On the reverse coded survey item respondents agreed ($M = 3.468$, $SD = 1.640$, $n = 233$) that their work with a collaborative team implementing PLC components is closely monitored through feedback from their principal. Principal monitoring of collaborative teams is an integral part of effective PLC implementation, so it is not a significant barrier in the Liberty Public School District because respondents indicated the principal monitors PLCs.

H_6: Effectively analyzing student data is a significant barrier to implementation of PLCs in the Liberty Public School District.

A one-sample t-test was conducted to test H_6. The results of the test indicate the average response was significantly different from the test value 4 ($t = -17.599$, $df = 231$, $p = .000$). On the reverse coded survey item respondents agreed ($M = 2.332$, $SD = 1.444$, $n = 232$) that they often collect and analyze student data and use it effectively to enhance student learning. Effectively analyzing student data is an essential strategy for successful PLC implementation, therefore it is not a significant barrier in the Liberty Public School District because the principal effectively analyzes student data.

H_7: Using best practice techniques that have worked for me in the past is a significant barrier to implementation of PLCs in the Liberty Public School District.

A one-sample t-test was conducted to test H_7. The results of the test indicated the average response was significantly different from the test value 4 ($t = 35.399$, $df = 231$, $p = .000$). Respondents agreed ($M = 6.077$, $SD = 0.894$, $n = 232$) that they used best practice techniques that have worked for them in the past. Because teachers are not adapting to new PLC strategies and techniques needed for successful PLC implementation, this is a significant barrier in the Liberty Public School District.

H_8: Receiving sufficient professional development is a significant barrier to implementation of PLCs in the Liberty Public School District.

A one-sample *t*-test was conducted to test H_8. The results of the test indicated the average response was significantly different from the test value 4 ($t = -9.910$, $df = 233$, $p = .000$). On the reverse coded survey item respondents agreed ($M = 2.962$, $SD = 1.603$, $n = 234$) that they received a sufficient amount of professional development in PLCs. Receiving sufficient professional development is an integral part of PLC implementation, so it is not a significant barrier in the Liberty Public School District.

H_9: Avoiding staff conflict is a significant barrier to implementation of PLCs in the Liberty Public School District.

A one-sample *t*-test was conducted to test H_9. The results of the test indicated the average response was significantly different from the test value 4 ($t = -4.5433$, $df = 233$, $p = .000$). Respondents disagreed 4 ($M = 3.590$, $SD = 1.381$, $n = 234$) that when staff conflicts arose over PLC strategies, they chose not to become involved in the discussion. Because participants responded that they did not avoid conflicts and did engage in difficult conversations about PLC strategies, avoiding staff conflict is not a significant barrier to implementation of PLCs in the Liberty Public School District.

H_{10}: Reflecting on PLC practices is a significant barrier to implementation of PLCs in the Liberty Public School District.

A one-sample *t*-test was conducted to test H_{10}. The results of the test indicated the average response was significantly different from the test value 4 ($t = -6.646$, $df = 230$, $p = .000$). On the reverse coded survey item respondents agreed ($M = 3.325$, $SD = 1.544$, $n = 231$) that their team often reflects upon PLC practices as they tried to

implement them. Because reflecting on PLC practices is necessary to PLC

implementation it is not a significant barrier in the Liberty Public School District.

$H_{11:}$ Losing a job or being put on an improvement plan for not collaborating is a

significant barrier to implementation of PLCs in the Liberty Public School District.

A one-sample t-test was conducted to test H_{11}. The results of the test indicated

the average response was significantly different from the test value 4 (t = -4.594, df =

231, p = .000). Respondents disagreed (M = 3.504, SD = 1.644, n = 232) that they will

lose their job or be put on an improvement plan if they do not collaborate with their team

and implement PLC components. Because respondents did not fear losing their job or

being put on an improvement plan if they did not collaborate it is not a significant barrier

to implementation of PLCs in the Liberty Public School District.

H_{12}: Feeling pressure to work in a PLC is a significant barrier to implementation

of PLCs in the Liberty Public School District.

A one-sample t-test was conducted to test H_{12}. The results of the test indicated

the average response was not significantly different from the test value 4 (t = -.582, df =

233, p = .561). Respondents did not agree (M = 3.932, SD = 1.798, n = 234) that they felt

pressure by the district or building administration to work in a PLC. Feeling pressure to

work in a PLC is not a significant barrier to implementation of PLCs.

H_{13}: Not being a believer in PLCs is a significant barrier to implementation of

PLCs in the Liberty Public School District.

A one-sample t-test was conducted to test H_{13}. The results of the test indicated

the average response was significantly different from the test value 4 (t = -31.034, df =

232, p = .000). Respondents disagreed (M = 1.785, SD = 1.090, n = 233) that they were

not a believer in PLCs. Because respondents are believers in the effectiveness of PLCs, it

is not a significant barrier to PLC implementation in the Liberty Public School District.

H_{14}: Having beliefs about the benefits of PLCs that align with the building and

district's belief about the benefits of PLCs is a significant barrier to implementation of

PLCs in the Liberty Public School District.

A one-sample t-test was conducted to test H_{14}. The results of the test indicated

the average response was significantly different from the test value 4 ($t = -19.808$, $df =$

232, $p = .000$). On the reverse coded survey item respondents agreed ($M = 2.373$, $SD =$

1.253, $n = 233$) that their beliefs about the benefits of PLCs align with the building and

district's belief about the benefits of PLCs. It is essential for staff members working in a

PLC to have beliefs about the benefits of PLCs that align with their building and district's

beliefs about the benefits of PLCs, therefore it is not a significant barrier in the Liberty

Public School District.

H_{15}: Working hard to implement PLCs is a significant barrier to implementation

of PLCs in the Liberty Public School District.

A one-sample t-test was conducted to test H_{15}. The results of the test indicated

the average response was significantly different from the test value 4 ($t = -18.237$, $df =$

229, $p = .000$). On the reverse coded survey item respondents agreed ($M = 2.461$, $SD =$

1.280, $n = 230$) that they worked hard to make sure they were implementing PLC

components. Working hard to implement PLCs is an integral part of the implementation

of PLCs, so it is not a significant barrier in the Liberty Public School District.

H_{16}: Being evaluated on performance in a PLC is a significant barrier to

implementation of PLCs in the Liberty Public School District.

A one-sample *t*-test was conducted to test H$_{16}$. The results of the test indicated the average response was significantly different from the test value 4 (*t* = -2.852, *df* = 229, *p* = .005). On the reverse coded survey item respondents agreed (*M* = 3.657, *SD* = 1.826, *n* = 230) that they were evaluated on their performance in a PLC. Because being evaluated on performance in a PLC is essential to successful PLC implementation, it is not a significant barrier in the Liberty Public School District.

H$_{17}$: Receiving feedback on work in a PLC is a significant barrier to implementation of PLCs in the Liberty Public School District.

A one-sample *t*-test was conducted to test H$_{17}$. The results of the test indicated the average response was significantly different from the test value 4 (*t* = -2.386, *df* = 229, *p* = .018). On the reverse coded survey item respondents agreed (*M* = 3.717, *SD* = 1.796, *n* = 230) that they were provided feedback on their work in a PLC. Because receiving feedback on work in a PLC is an essential component to successful PLC implementation, it is not a significant barrier in the Liberty Public School District.

H$_{18}$: Having conversations driven by standardized test scores is a significant barrier to implementation of PLCs in the Liberty Public School District.

A one-sample *t*-test was conducted to test H$_{18}$. The results of the test indicated the average response was significantly different from the test value 4 (*t* = 7.317, *df* = 228, *p* = .000). Respondents agreed (*M* = 4.786, *SD* = 1.626, *n* = 229) that standardized test scores such as MAP results drove their discussions and work as a PLC. Because conversations were driven by standardized test scores such as MAP test for accountability and not more current assessment data to inform instruction or other decisions that could

be made to enhance a child's social or emotional well-being, this is a significant barrier to the implementation of PLCs in the Liberty Public School District.

H$_{19}$: Too much teacher work is a significant barrier to implementation of PLCs in the Liberty Public School District.

A one-sample *t*-test was conducted to test H$_{19}$. The results of the test indicated the average response was not significantly different from the test value 4 (*t* = -.108, *df* = 231, *p* = .914). Respondents did not agree (*M* = 3.987, *SD* = 1.831, *n* = 232) that there is too much teacher work (Ie. planning, grading, student discipline, etc) and do not have adequate time to work as a PLC. Too much teacher work is not a significant barrier to implementation of PLCs.

H$_{20}$: Too many initiatives in our district are a significant barrier to implementation of PLCs in the Liberty Public School District.

A one-sample *t*-test was conducted to test H$_{20}$. The results of the test indicated the average response was not significantly different from the test value 4 (*t* = -.108, *df* = 231, *p* = .914). Respondents did not agree (*M* = 3.987, *SD* = 1.831, *n* = 232) that they cannot focus on PLC implementation because there are too many initiatives in the district going on right now. Too many initiatives in the Liberty School District is not a significant barrier to implementation of PLCs.

H$_{21}$: Not believing in collaboration with other teachers is a significant barrier to implementation of PLCs in the Liberty Public School District.

A one-sample *t*-test was conducted to test H$_{21}$. The results of the test indicated the average response was significantly different from the test value 4 (*t* =   -16.701, *df* = 231, *p* = .000). Respondents disagreed 4 (*M* = 2.009, *SD* = 1.816, *n* = 232) that they did

not believe collaboration with other teachers was better than working alone. Teachers do

believe in collaboration with other teachers therefore it is not a significant barrier to the

implementation of PLCs in the Liberty Public School District.

Summary

This chapter presented reliability analysis results of the survey instrument

questions. The subscales used for measuring the six variables used to address research

question one were reliable. The subscales used for addressing research question two

were found to be unreliable, therefore each of the items were analyzed as an individual

measurement of the barriers. The hypothesis results included an analysis of the one-

factor ANOVA conducted using the six knowing-doing variables used in the survey's

first 32 questions to research the potential knowing-doing gap in PLC implementation in

Liberty Public Schools. The difference between LearningKnow & LearningDo,

CollaborationKnow & CollaborationDo, and ResultsKnow & ResultsDo were all found

to be statistically significant, thus supporting H_1, H_2, and H_3. These sample means

provided evidence that the level of knowledge was higher than the level of doing for all

PLC key ideas. The hypothesis results also included an analysis of the one-sample t-test

results from the survey's final 18 questions used to address the perception of potential

barriers in place that obstruct PLC implementation in Liberty Public Schools. Two

barriers were found to be present; teachers using best practice techniques that have

worked for them in the past instead of more current PLC practices and standardized test

scores driving discussions in staff members' PLC.

Chapter Five

Interpretation and Recommendations

This chapter presents a summary of the study and important conclusions from the

data analysis presented in Chapter four.   Implications from the data will be described in

Chapter five along with recommendations for further research. Chapter five also includes

an overview of the study's purpose, research questions, methodology and major findings

from the research. Also included are findings related to previous research literature.

Finally, Chapter five provides the researcher's conclusions and recommendations based

upon a comprehensive analysis of the data and related research.

Study Summary

DuFour, DuFour & Eaker (2008) defined a Professional Learning Community as

"educators committed to working collaboratively in ongoing processes of collective

inquiry and action research to achieve better results for the students they serve" (p.14).

Unfortunately, all too often in Professional Learning Communities, deep levels of PLC

implementation fail to become every day practice. To better understand the depth of

implementation of PLCs in Liberty Public Schools, the researcher further studied LPS'

PLC implementation.

Overview of the Problem. While school districts have implemented PLCs across

the country to raise student achievement, few schools have fully implemented PLCs to a

deep level (DuFour, DuFour, Eaker & Many, 2010b, p. 9). The term *professional*

learning community is used universally by schools who claim they are a full-functional

PLC. When knowledge of PLC components a particular school staff possesses is higher

than their level of implementation of those same PLC components, a knowing-doing gap exists between knowledge and action orientation of PLC components.

Pfeffer & Sutton (2000) have provided research in this area through their work in 2000 to better understand why knowing-doing gaps exist and what organizations can do to prevent and close these gaps. By conducting this study, the researcher determined if a knowing-doing gap existed between the knowledge of PLC components and the implementation of those same PLC components in the Liberty School District. The researcher also studied the existence of potential barriers in place that have helped to create this knowing-doing gap in PLC implementation.

Purpose Statement and Research Questions. The researcher studied barriers such as talk substituting for action, memory substituting for thinking, fear of job loss preventing action on knowledge, measurement obstructing good judgment, and internal competition turning friends into enemies. The study focused on pre-school- and elementary-certified staff members in Liberty Public Schools. Liberty Public Schools began a focused implementation of PLCs in 2006 by providing professional development to approximately 150 elementary certified staff members throughout a three-year cycle. In 2007, approximately 250 more elementary-certified staff members began professional development training on PLCs. This study measured the degree of implementation of PLC components compared to staff members' level of knowledge of PLC components.

Two research questions were used for this study:

1. To what extent does a knowing-doing gap exist in the implementation of professional learning communities in the Liberty Public School District?

2. What are the common barriers to implementing PLCs in the Liberty Public

School District?

Review of the Methodology. The researcher used purposive sampling to identify

Liberty teaching staff to respond to the Professional Learning Community Survey. A

descriptive quantitative analysis was used to gather data using the 32 questions on the

PLC Survey to assess the extent of the knowing-doing gap along with 18 questions to

measure perceptions of barriers present that helped to create the knowing-doing gap in

PLC implementation. The survey was made available to all 407 certified staff members

of the district's pre-school and elementary teaching staff. Staff provided feedback using

a seven-point Likert Scale to answer 32 questions assessing the staff's level of knowledge

and action orientation regarding PLC strategies and concepts. The respondents then used

a seven-point Likert Scale to assess their perceptions of potential barriers in place that

inhibit PLC implementation. The analysis provided specific information on the existence

of a knowing-doing gap to be shared with other district employees, as well as adding to

the field of knowledge on the "knowing-doing gap" for other researchers.

The research instrument was piloted with a validation committee to elicit

feedback for improvement and to increase the content validity of the survey. In addition

to the validation committee, the researcher used Cronbach's alpha coefficients of internal

consistency of the six subscales to provide evidence for the reliability of the subscales.

The six subscales were found to a reliable measures of the three big ideas of knowing and

doing in PLC implementation. The researcher completed a one-factor ANOVA to

analyze the six subscales (LearningKnow & LearningDo, CollaborationKnow &

CollaborationDo, ResultsKnow & ResultsDo) to determine if a significant difference

existed between staff members' PLC knowledge compared to staff members' level of PLC implementation. Reliability analysis was also conducted for the five subscales used to measure the barriers to PLC implementation. However reliability was not established for these subscales. Questions 33-50 were analyzed individually. The researcher conducted one-sample *t*-tests to measure the staff members' of existing barriers that obstructed implementation of PLC components.

  Major Findings. Through analyzing the results of testing for the first three hypotheses, the researcher has determined an answer to research question 1. In fact, there is the existence of a knowing-doing gap with PLC implementation in Liberty Public Schools. Data analysis focusing on the first three hypotheses revealed a mean difference when comparing knowing and doing within the three subscales of KnowingLearn & KnowingDo, CollaborationKnow & CollaborationDo, and ResultsKnow & ResultsDo. The second big idea of a PLC, collaboration, had the largest existence of a knowing-doing gap. The PLC big idea of "focus on results" had evidence of the smallest knowing-doing gap for PLC implementation.

  Results from the research study also support the existence of barriers that could possibly hinder the implementation of PLCs in Liberty Public Schools. In fact, two barriers were identified by analyzing the results of the research study. First, respondents used best practices that have worked for them in the past rather than PLC aligned practices. This was a barrier that potentially hindered PLC implementation in Liberty Public Schools. Secondly, respondents also agreed they have had discussions driven by standardized test scores within their PLCs rather than using more formative and current student data. This was also potentially a barrier to PLC implementation.

Results from the research study provided evidence that some potential barriers that hinder the implementation of PLCs do not exist in Liberty Public Schools. Barriers to PLC implementation that do not exist in LPS are:

1. Spending too much time talking about PLC implementation.

2. Feeling pressure by building or district administration.

3. Not being provided feedback on PLC work.

4. Not collecting and analyzing student data and using it effectively.

5. Experiencing initiative fatigue leading to a lack of focus.

6. Not being a believer in PLCs.

Findings Related to the Literature

The major findings summarized in the preceding section support conclusions found in previous theories and research. Much of the literature established a foundation of collaboration being a key piece to a successful PLC (DuFour, DuFour, & Eaker, 2008; DuFour, DuFour, Eaker, & Karhanek, 2004; DuFour, DuFour, Eaker, & Many, 2010b; DuFour & Marzano, 2011; Reeves, 2006; Schmoker, 2006). In addition to the lowest mean averages for knowing and doing PLC components, collaboration also showed evidence of the largest gap between knowing and doing the PLC components in this study. Researchers such as Follett (1924), Deming (1986), Garmston (1997), Mayo (2008), and DuFour, DuFour, Eaker & Many (2010b) succinctly defined how collaborative efforts between members of an organization led to improvement, and in the case of school, increased student learning. As DuFour, DuFour, Eaker, & Many (2010b) noted, in a PLC, members of the organization can only improve effectiveness by working together to make each other better, not trying to out-perform each other. Much like the

aforementioned researchers, Burns (1978) described moral integrity and purpose in work by defining leadership as a process in which leaders and followers work so well together that they actually raise one another's level of morality and motivation. Collaborative cultures were described as members establishing relationships with each other and choosing to be together because of a shared vision and moral purpose. Implementing PLC components is the key to effective PLCs as teacher teams learn by doing and reflecting upon their practices. Senge (1990) clarified how teams must work and learn together to develop the capacity of their team to create the results the team desires. Senge noted that if teams do not collaborate, they will simply continue in isolation. Through practice, collaborative teams learn and acquire skills to work together and be effective. Similarly, Garmston (1997) noted that collaboration requires communication skills, problem-solving, resolving differences, and self-control. The findings from this research did not strongly support these noted experts. Staff members in LPS did not agree as strongly for the knowing and doing of PLC implementation in a collaborative culture.

Conversely, the analysis of PLC big idea three, focus on results, showed strong evidence of alignment with researchers. Senge (1990) defined what he called personal mastery as a group or individual's personal will to achieve success for themselves and those around them. This idea was grounded on getting positive results from one's individual work. Getzel and Guba (2002) went further by describing the need for an organization to establish quantitative goals for improvement that are not based on personal opinions or beliefs. Responses from the LPS survey participants showed evidence that key idea three had the highest level of knowing and doing of PLC

components. Respondents agreed that collecting and analyzing student data and using

data effectively was not a barrier to PLC implementation.

The results of this research study directly align with DuFour, DuFour, Eaker &

Many's (2010b) view on PLC implementation. DuFour, DuFour, Eaker, & Many

(2010b) stated, "While the term has become widespread, the underlying practices have

not, and many of the schools that proudly proclaim to be PLCs do none of the things that

PLCs actually do," (p. 21). As stated previously, the level of knowing what to implement

in a PLC was significantly higher than the actual implementation of those same PLC

components within the three key ideas. Teams of teachers all across the country are

proclaiming how they are a PLC school when, in fact, they are far from it. DuFour,

DuFour, & Eaker (2008) went on to add that many schools take "seductive shortcuts" to

more quickly implement strategies that are doomed to fail in the end. Teams take

seductive shortcuts when they do not collaborate to ensure they deliver a guaranteed and

viable curriculum, build common formative assessments, or respond quickly to students

who need intervention. In contrast, the right work in a PLC is to unpack standards, write

and analyze common assessments, agree on how to score an assessment, and have

recurring cycles of collective inquiry and action research. DuFour, DuFour, Eaker, &

Many (2010b) elaborated to say that PLCs are not programs to be purchased and instantly

implemented. They argued that PLC practices must be refined over time. This research

study provided evidence of a significant knowing-doing gap for PLC implementation in

LPS. All of these gaps proved to have significantly different mean scores.

The research by Little (1987) support this claim of a knowing-doing gap in PLC

implementation by stating that most team talk floats high above the level of

implementation. All too often teams are comfortable discussing their own personal lives and other social issues while ignoring deep conversations involving how to improve student learning. Stiggins (1999) pointed out that workshops fail to work because they do not allow for real application in the classroom. He contends that the value of true implementation is sharing the experience as a team and doing the work together. The research showed in Liberty Public Schools that staff members believed they knew a great deal about PLC implementation, but the district did not follow-through with a high level of implementation.

In analyzing the results of the research study on potential barriers in place that could obstruct PLC implementation, two barriers were found to be present that could have contributed to a knowing-doing gap with PLC implementation in Liberty Public Schools. They are as follows:

1. Staff members using best practice techniques that have worked for them in the past instead of more current PLC aligned practices.

2. Standardized test scores driving discussions in staff members' PLC.

Potential barriers were written into the survey using Pfeffer and Sutton's (2000) framework on why knowing-doing gaps exist in organizations. Pfeffer and Sutton (2000) set out to describe this phenomenon of a knowing-doing gap through extensive research in the area by conducting a yearlong study determining why certain companies claimed they had the knowledge to implement effective practices but still were unable to effectively put those same practices into place. Pfeffer & Sutton (2000) tried to explain possible reasons that existed that created a knowing-doing gap in implementation. Pfeffer & Sutton's (2000) research consisted of five reasons why a knowing-doing gap

could exist. The five reasons are when talk substitutes for action, when people resort back to past practices that have worked for them, when fear prevents action on knowledge, when focusing too much data replaces good judgment, and when competition turns friends into enemies.

In this study, barriers presented themselves in the categories of how people resort back to past practice that has worked for them in the past and when focusing on too much data replaces good judgment. Respondents agreed that they used best practice techniques that have worked for them in the past instead of more current PLC practices. This was a barrier to PLC implementation because staff members' failed to fully implement PLC aligned practices they had knowledge of; instead using older practices they were more comfortable with. Respondents also agreed that there was too much focus on standardized test scores and this data drove their PLC discussions. Although it is important to analyze data, standardized test scores often represent a snapshot of student achievement and is an assessment of learning. Certified staff members would be better suited to use data from common formative assessments that showed evidence of assessment for learning.

Conclusions

Through analyzing the results of testing for the first three hypotheses, the researcher has found evidence of the existence of a knowing-doing gap with PLC implementation in Liberty Public Schools. Significantly different means were found when comparing the six subscales: LearningKnow & LearningDo, CollaborationKnow & CollaborationDo, and ResultsKnow & ResultsDo. The researcher has also found evidence of two perceived barriers that hindered PLC implementation in LPS; staff

members using best practice techniques that have worked for them in the past instead of more current PLC aligned practices and standardized test scores driving discussions in staff members' PLC.

Implications for Action. As Jim Collins (2001) stated, it is important to confront the brutal facts, and the brutal facts for Liberty Public Schools are that PLC implementation has not happened to the degree that everyone claims it has. We must face the facts that there is work to do to become more of a PLC-aligned district. Our district can do this by implementing district practices that align with PLC components.

The results from this study must be shared with the district central office administration. Once those results are known, it will be imperative that the district reflect upon its successes, identify areas for growth, and develop an action plan to implement changes that address these areas for growth. We must make choices to fully commit the district to becoming a Professional Learning Community that will collaborate together to ensure high levels of learning for all students and focus on results in order to achieve that goal. For the most part, the levels of knowing are above the median 4.0 on PLC components and the levels of action orientation of these components lag behind. The district must focus on an action plan, including establishing a timeline when components should be implemented, determining how to implement those components, and establishing how to monitor and hold leaders accountable for these action steps.

In addition to this plan to address the results of research question one and work to close the gap between knowledge and action orientation with the three big ideas in a PLC, it is also important for the district to address results from research question two, barriers perceived by staff members that hinder PLC implementation. The district must

again confront brutal facts and critically analyze perceptions of barriers that are in place that obstruct PLC implementation or teachers. The district must take into account these perceptions and reflect upon practices that contribute to the existence of these barriers. Through this critical analysis, the district can once again recognize the existence of these barriers and then create an action plan on how to remove them, thus, allowing for deeper and more effective PLC implementation.

Recommendations for Future Research. Further research is recommended and needed. The question must be asked if district administration truly believes in Professional Learning Communities and whether or not they are needed in LPS. Next, studies need to be expanded to include all certified teaching staff in the entire school district to more accurately and completely assess the existence of a knowing-doing gap in Liberty Public Schools. Studies also need to be conducted to break down data analysis to study the existence of a knowing-doing gap in each individual building in the district. Through these actions, central office can gain better clarity on what needs are greatest for professional and leadership development more deeply implement PLCs.

Another way to extend this study would be to add a qualitative element to research teacher responses and attitudes towards PLCs. More detailed information could be obtained by giving respondents an opportunity to provide qualitative feedback specific to guiding questions about PLC implementation. This information could provide more clarity on exactly why certain barriers exist and add specificity to action steps that could be implemented to close the knowing-doing gap.

Research could also be extended to include a qualitative and quantitative research study of the entire administrative team in Liberty Public Schools. This element would

add to the research by not only directly involving those responsible for professional development of PLCs, but also ensuring that PLC components and practices are being implemented. This could also provide more urgency to the implementation of PLCs by allowing administrative leadership the ownership of the research and a sense of value in being included in the research study.

Finally, research could be extended by adding a measurement tool to monitor the exact work being done in PLCs across the district. By building and using an evaluation checklist, the researcher could monitor collaborative teams as they work in meetings during their collaboration time. This measurement tool would consist of components and principles that should exist in a PLC and how to assess those actions that are taking place. This research would need a large amount of time to do successfully to ensure research was conducted in all buildings across the district. A new study could also refine the questions used to address research question one by more clearly wording the questions for clarity in explanation and understanding.

Concluding Remarks. This study validates the work of previous researchers as well as builds on a tremendous amount of research of PLC implementation. This research study touched upon the heart of a breakdown that is consistent with PLC implementation in schools and districts across the country. While most research studies have analyzed the framework of a PLC and components that exist within a PLC, this research study sought to research actual levels of PLC implementation in comparison to actual levels of PLC knowledge.   It is not enough simply to believe there is an understanding of PLCs and state how their implementation is occurring; instead, the real evidence comes in the action orientation of PLC components.

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Appendix A – IRB

BAKER
UNIVERSITY

Date:

School of education   IRB PROTOCOL NUMBER _____

Graduate department   (irb USE ONLY)

IRB Request

Proposal for Research

Submitted to the Baker University Institutional Review Board

I.   Research Investigator(s) (Students must list faculty sponsor first)
Department(s)   School of Education Graduate Department

Name   Signature

1. Dr. Elizabeth Sanders   _____,   Major Advisor

        Margaret Waterman

2. Margaret Waterman   _____,   Research Analyst

3. Trilla Lyerla   _____,   University Committee Member

4. Mike Kimbrel   _____,   External Committee Member

Principal Investigator: Kyle Palmer

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Faculty sponsor: Dr. Elizabeth Sanders

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Expected Category of Review: __Exempt   __ Expedited _x__Full

II: Protocol: A STUDY OF THE KNOWING-DOING GAP IN PROFESSIONAL LEARNING
COMMUNITY IMPLEMENTATION IN THE LIBERTY PUBLIC SCHOOL DISTRICT.

_____

Summary

In a sentence or two, please describe the background and purpose of the research.

Liberty Public Schools is a suburban district of Kansas City with an enrollment of approximately 11, 500 students. Professional Learning Community (PLC) professional development and training was provided to all schools during the 2006-2009 school years. This study will determine if a gap exists between the knowledge of PLC components and the actual implementation of PLCs in the Liberty Public School District.

Briefly describe each condition or manipulation to be included within the study.

The study will examine the participant's knowledge of professional learning community components and the participant's level of implementation of those PLC components. The study will also examine participants' perceptions of barriers that get in the way of PLC implementation. No experimental manipulation will be used. Staff members will respond to each question using a 7-point Likert scale depending on their level of knowledge and their level of action in implementing a professional learning community in the school in which they work. The results from this study will provide the researcher a mean value of elementary staff members' action orientation of PLC strategies. The results from this study will also provide the researcher a mean value of elementary staff members' knowledge and understanding of PLC strategies. The researcher will then complete an independent sample *t*-test to determine if a significant difference existed between PLC action orientation and knowledge of PLC components. The analysis will provide evidence to examine the extent of a knowing-doing gap in PLC implementation in LPS.

What measures or observations will be taken in the study? If any questionnaire or other instruments are used, provide a brief description and attach a copy.

The researcher, with permission (Appendix B), will be using the Professional Learning Community Survey tool developed by Solution-Tree. The survey (Appendix A) assesses participants' views on what they know and what they do in regard to PLC implementation according to the 3 key goals of a PLC; a focus on student learning, a focus on collaboration, and a focus on results.

The researcher, with permission (Appendix B), adapted the PLC Survey to include participant questions on their perceptions of PLCs. Participants will respond using a 7-point Likert scale on "We Know This is Important" and "We are Doing This" with regard to PLC implementation. The final section of the survey will assess perceptions of barriers that are present in a PLC causing a possible knowing-doing gap in PLC implementation. This final section of the survey is organized by 5 categories originally used by Jeffrey Pfeffer and Robert Sutton in their book, *The Knowing- Doing Gap: How Smart Companies Turn Knowledge into Action.* The 5 categories are: when talk substitutes for action, when memory

is a substitute for thinking, when fear prevents action on knowledge, when measurement obstructs good judgment, and when internal competition turns friends into enemies. To ensure an unbiased staff responses, category labels are not included on the survey.

The researcher visited each school staff to inform them of the upcoming survey and ask for their participation. Limited information was given on the survey. The researcher explained the survey would take between 15-20 minutes, and it would be valuable feedback for the researcher to use in his dissertation and for the district office to reflect upon. The researcher's script is included in Appendix D.

A validation committee was used by the researcher to provide feedback on the survey before it was sent to all of the participants. The validation committee included Dennis King, Scott Carr, and Duane Graber who are all PLC leaders and presenters of PLC professional development. The fourth person was Dr. Jeffrey Pfeffer who was the co-author of *The Knowing- Doing Gap: How Smart Companies Turn Knowledge into Action.* The fifth and final member of the validation committee was Karl Krawitz. Karl is the principal of Shawnee Mission High School and a skeptic of PLCs. The e-mail used by the researcher that was sent to the validation committee is included in Appendix E.

Will the subjects encounter the risk of psychological, social, physical or legal risk? If so, please describe the nature of the risk and any measures designed to mitigate that risk.

The subjects will be Liberty Public School District elementary certified staff members. LPS certified staff members will not encounter psychological, social, physical or legal risk. The subjects will be asked to respond to the survey through an on-line tool and results will be collected for the entire group of elementary certified staff.   Certified staff members will respond privately and results will be scored for the district as a whole.

Will any stress to subjects be involved? If so, please describe.

There will be no stress involved for the subjects. The survey will be simple and concise to complete. An e-mail will be sent approximately 1 week prior to the active survey link e-mail asking participants to complete the survey. The purpose of that e-mail will be to remind participants of the survey and to ask for their participation. Subjects will be given ample opportunity to respond in their own time.

Will the subjects be deceived or misled in any way? If so, include an outline or script of the debriefing.

No, the researcher will be utilizing a simple research tool to receive quantitative feedback from district staff.

Will there be a request for information which subjects might consider to be personal or sensitive? If so, please include a description.

No, all of the research questions are written in the context of the subjects' professional responsibilities and implementation of Liberty's district-wide initiative.

Will the subjects be presented with materials which might be considered to be offensive, threatening, or degrading? If so, please describe.

No, materials presented to subjects are not offensive or degrading. Only PLC questions of implementation and actions in a PLC are asked to respondents.

Approximately how much time will be demanded of each subject?

It will take approximately 20-30 minutes to complete the survey.

Who will be the subjects in this study? How will they be solicited or contacted? Provide an outline or script of the information which will be provided to subjects prior to their volunteering to participate. Include a copy of any written solicitation as well as an outline of any oral solicitation.

The subjects in this study are pre-school and elementary certified elementary staff members in Liberty Public Schools. The researcher will attend a staff meeting for each building staff to explain the research study and answer any questions they may have. The researcher will assure the participants of the anonymity involved in the research and ask for their participation. All participants will then be contacted via e-mail one week prior to the electronic survey, and then the participants will receive the link to fill out the electronic survey. Building administrators will receive consistent communication throughout the process. E-mails used in communication with administrators and school staffs are included in Appendix C.

What steps will be taken to insure that each subject's participation is voluntary? What if any inducements will be offered to the subjects for their participation?

I will clearly communicate in my e-mail and verbal communication that participation or completing the survey is voluntary. My communication with building administrators will have the same message. No inducements will be necessary to increase participation in this study.

How will you insure that the subjects give their consent prior to participating? Will a written consent form be used? If so, include the form. If not, explain why not.

A written consent will not be used. If a certified staff member is uncomfortable responding to the survey, they may choose to not participate in the study.

Will any aspect of the data be made a part of any permanent record that can be identified with the subject? If so, please explain the necessity.

No, no data will become permanent record that can be identified with the subject.

Will the fact that a subject did or did not participate in a specific experiment or study be made part of any permanent record available to a supervisor, teacher or employer? If so, explain.

No, this will not happen. It will not be known who has and who has not participated in the study. Participating or not participating will not be a part of any permanent record for any of the subjects.

What steps will be taken to insure the confidentiality of the data?

All data collected from the participants will be kept confidential. The electronic survey will be coded to monitor the completion of surveys, but anonymity will be maintained and no individual will be identified by their responses. The researcher will collect overall data from the district and data will not be separated out by individual, grade-level or even building.

If there are any risks involved in the study, are there any offsetting benefits that might accrue to either the subjects or society?

There are no risks involved in the study. The researcher's information could be used as reflective feedback to our district on the success of our PLC implementation. Depending on the feedback, celebrations could be made on the success of implementation and/or goals could be set for future plans to increase the level of PLC implementation.

Will any data from files or archival data be used? If so, please describe.

No, there will be no archival data used in this research study.

Appendix B – Knowing-Doing Gap PLC Survey Instrument

PLC Survey 3.0

PLC Survey

Page 1 - Question 1 -

We work with colleagues on our team to build shared knowledge regarding state standards.

	Strongly Disagree				Neutral							Strongly Agree
WE KNOW THIS IS IMPORTANT	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7
WE ARE DOING THIS	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7

Page 1 - Question 2 -

We work with colleagues on our team to build shared knowledge regarding district curriculum guides.

	Strongly Disagree				Neutral							Strongly Agree
WE KNOW THIS IS IMPORTANT	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7
WE ARE DOING THIS	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7

Page 1 - Question 3 -

We work with colleagues on our team to build shared knowledge regarding trends in student achievement.

	Strongly Disagree				Neutral							Strongly Agree
WE KNOW THIS IS IMPORTANT	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7
WE ARE DOING THIS	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7

Page 1 - Question 4 -

We work with colleagues on our team to build shared knowledge regarding expectations for the next course or grade level.

	Strongly Disagree				Neutral							Strongly Agree
WE KNOW THIS IS IMPORTANT	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7
WE ARE DOING THIS	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7

Page 2 - Question 5 -

We work with colleagues on our team to clarify the criteria by which we will judge the quality of student work.

	Strongly Disagree			Neutral			Strongly Agree
WE KNOW THIS IS IMPORTANT	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7
WE ARE DOING THIS	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7

Page 2 - Question 6 -

We work with colleagues on our team to practice applying common criteria for student work until we can do so consistently.

	Strongly Disagree			Neutral			Strongly Agree
WE KNOW THIS IS IMPORTANT	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7
WE ARE DOING THIS	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7

Page 2 - Question 7 -

We monitor the learning of each student on all essential outcomes on a timely basis.

	Strongly Disagree			Neutral			Strongly Agree
WE KNOW THIS IS IMPORTANT	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7
WE ARE DOING THIS	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7

Page 2 - Question 8 -

We monitor the learning of each student on all essential outcomes through a series of frequent, team-developed formative assessments that are aligned with district and state assessments.

	Strongly Disagree			Neutral			Strongly Agree
WE KNOW THIS IS IMPORTANT	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7
WE ARE DOING THIS	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7

Page 3 - Question 9 -

We identify the specific standard or target each student must achieve on each of the essential skills being addressed by the formative assessment.

	Strongly Disagree			Neutral			Strongly Agree
WE KNOW THIS IS IMPORTANT	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7
WE ARE DOING THIS	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7

Page 3 - Question 10 -

We provide a system of interventions that guarantees each student will receive additional time and support for learning if he/she experiences initial difficulty.

	Strongly Disagree			Neutral			Strongly Agree
WE KNOW THIS IS IMPORTANT	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7
WE ARE DOING THIS	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7

Page 3 - Question 11 -

Students are required rather than invited to devote the extra time to receive additional support until they are successful.

	Strongly Disagree			Neutral			Strongly Agree
WE KNOW THIS IS IMPORTANT	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7
WE ARE DOING THIS	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7

Page 3 - Question 12 -

We have developed strategies to extend and enrich the learning of students who have mastered essential skills.

	Strongly Disagree			Neutral			Strongly Agree
WE KNOW THIS IS IMPORTANT	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7
WE ARE DOING THIS	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7

Page 4 - Question 13 -

We work together to identify policies and procedures that encourage learning through homework.

	Strongly Disagree			Neutral			Strongly Agree
WE KNOW THIS IS IMPORTANT	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7
WE ARE DOING THIS	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7

Page 4 - Question 14 -

We work together to identify policies and procedures that clarify student learning through grading practices.

	Strongly Disagree						Neutral						Strongly Agree
WE KNOW THIS IS IMPORTANT	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7
WE ARE DOING THIS	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7

Page 4 - Question 15 -

We work together to identify policies and procedures that encourage learning through implementation of positive discipline.

	Strongly Disagree						Neutral						Strongly Agree
WE KNOW THIS IS IMPORTANT	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7
WE ARE DOING THIS	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7

Page 4 - Question 16 -

We work together to identify policies and procedures that encourage learning through recognition and celebration of student learning.

	Strongly Disagree						Neutral						Strongly Agree
WE KNOW THIS IS IMPORTANT	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7
WE ARE DOING THIS	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7

Page 5 - Question 17 -

We are organized into collaborative teams in which members work together interdependently to achieve common goals.

	Strongly Disagree						Neutral						Strongly Agree
WE KNOW THIS IS IMPORTANT	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7
WE ARE DOING THIS	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7

Page 5 - Question 18 -

We are provided time during the contractual day and school year to meet as a team.

	Strongly Disagree						Neutral						Strongly Agree
WE KNOW THIS IS IMPORTANT	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7
WE ARE DOING THIS	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7

Page 5 - Question 19 -

We use team time to engage in work on questions specifically linked to gains in student achievement.

	Strongly Disagree				Neutral								Strongly Agree
WE KNOW THIS IS IMPORTANT	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7
WE ARE DOING THIS	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7

Page 5 - Question 20 -

We have developed and adhere to team norms.

	Strongly Disagree				Neutral								Strongly Agree
WE KNOW THIS IS IMPORTANT	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7
WE ARE DOING THIS	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7

Page 6 - Question 21 -

Our school has established a mission statement that my team uses to guide our work.

	Strongly Disagree				Neutral								Strongly Agree
WE KNOW THIS IS IMPORTANT	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7
WE ARE DOING THIS	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7

Page 6 - Question 22 -

Our school has created a vision statement that my team uses to guide our work.

	Strongly Disagree				Neutral								Strongly Agree
WE KNOW THIS IS IMPORTANT	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7
WE ARE DOING THIS	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7

Page 6 - Question 23 -

Each team is required to submit work products on the critical questions related to student learning.

	Strongly Disagree				Neutral								Strongly Agree
WE KNOW THIS IS IMPORTANT	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7
WE ARE DOING THIS	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7

Page 6 - Question 24 -

Each of our teams has identified a SMART goal that aligns with one of our school goals.

	Strongly Disagree			Neutral			Strongly Agree
WE KNOW THIS IS IMPORTANT	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7
WE ARE DOING THIS	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7

Page 7 - Question 25 -

Each member of the team receives frequent and timely feedback regarding the performance of his/her students on team assessments.

	Strongly Disagree			Neutral			Strongly Agree
WE KNOW THIS IS IMPORTANT	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7
WE ARE DOING THIS	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7

Page 7 - Question 26 -

Each member of the team receives frequent and timely feedback regarding the performance of his/her students on district assessments.

	Strongly Disagree			Neutral			Strongly Agree
WE KNOW THIS IS IMPORTANT	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7
WE ARE DOING THIS	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7

Page 7 - Question 27-

Each member of the team receives frequent and timely feedback regarding the performance of his/her students on state assessments.

	Strongly Disagree			Neutral			Strongly Agree
WE KNOW THIS IS IMPORTANT	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7
WE ARE DOING THIS	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7

Page 8 - Question 28 -

We use common assessments to identify students who need additional time and support for learning.

	Strongly Disagree			Neutral			Strongly Agree
WE KNOW THIS IS IMPORTANT	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7

WE ARE DOING THIS ❍ 1 ❍ 2 ❍ 3 ❍ 4 ❍ 5 ❍ 6 ❍ 7

Page 8 - Question 29 -

We use common assessments to discover strengths and weaknesses in our individual teaching.

	Strongly Disagree			Neutral			Strongly Agree
WE KNOW THIS IS IMPORTANT	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7
WE ARE DOING THIS	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7

Page 8 - Question 30 -

We use common assessments to help measure our team's progress toward its goal.

	Strongly Disagree			Neutral			Strongly Agree
WE KNOW THIS IS IMPORTANT	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7
WE ARE DOING THIS	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7

Page 9 - Question 31 -

For each of the academic goals we have identified for students we ask, "How do we know if our students are achieving this academic goal?"

	Strongly Disagree			Neutral			Strongly Agree
WE KNOW THIS IS IMPORTANT	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7
WE ARE DOING THIS	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7

Page 9 - Question 32 -

For each of the affective goals we have identified for students we ask, "How do we know if our students are achieving this affective goal?"

	Strongly Disagree			Neutral			Strongly Agree
WE KNOW THIS IS IMPORTANT	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7
WE ARE DOING THIS	❍ 1	❍ 2	❍ 3	❍ 4	❍ 5	❍ 6	❍ 7

Page 10 - Question 33 -

We spend more time talking about PLCs than we do implementing PLCs.

Strongly Disagree	Neutral	Strongly Agree

⭕ 1 ⭕ 2 ⭕ 3 ⭕ 4 ⭕ 5 ⭕ 6 ⭕ 7

Page 10 - Question 34 -

My work with a collaborative team implementing PLC components is closely monitored through feedback from my principal.

Strongly Disagree   **Neutral**   **Strongly Agree**

⭕ 1 ⭕ 2 ⭕ 3 ⭕ 4 ⭕ 5 ⭕ 6 ⭕ 7

Page 10 - Question 35 -

We often collect and analyze student data and use it effectively to enhance student learning.

Strongly Disagree   **Neutral**   **Strongly Agree**

⭕ 1 ⭕ 2 ⭕ 3 ⭕ 4 ⭕ 5 ⭕ 6 ⭕ 7

Page 11 - Question 36 -

I use best practice techniques that have worked for me in the past.

Strongly Disagree   **Neutral**   **Strongly Agree**

⭕ 1 ⭕ 2 ⭕ 3 ⭕ 4 ⭕ 5 ⭕ 6 ⭕ 7

Page 11 - Question 37 -

I am provided a sufficient amount of professional development in PLCs.

Strongly Disagree   **Neutral**   **Strongly Agree**

⭕ 1 ⭕ 2 ⭕ 3 ⭕ 4 ⭕ 5 ⭕ 6 ⭕ 7

Page 11 - Question 38 -

When staff conflicts arise over PLC strategies, I choose not to become involved in the discussion.

Strongly Disagree   **Neutral**   **Strongly Agree**

⭕ 1 ⭕ 2 ⭕ 3 ⭕ 4 ⭕ 5 ⭕ 6 ⭕ 7

Page 12 - Question 39 -

Our team often reflects upon PLC practices as we try to implement them.

Strongly Disagree   **Neutral**   **Strongly Agree**

⭕ 1 ⭕ 2 ⭕ 3 ⭕ 4 ⭕ 5 ⭕ 6 ⭕ 7

Page 12 - Question 40 -

I will lose my job or be put on an improvement plan If I do not collaborate with my team and implement PLC components.

	Strongly Disagree					Neutral							Strongly Agree
	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7

Page 12 - Question 41 -

I feel pressure by the district or building administration to work in a PLC.

	Strongly Disagree					Neutral							Strongly Agree
	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7

Page 12 - Question 42 -

I am not a believer in PLCs.

	Strongly Disagree					Neutral							Strongly Agree
	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7

Page 13 - Question 43 -

My beliefs about the benefits of PLCs align with the building and district belief about the benefits of PLCs.

	Strongly Disagree					Neutral							Strongly Agree
	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7

Page 13 - Question 44 -

I work hard to make sure I am implementing PLC components.

	Strongly Disagree					Neutral							Strongly Agree
	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7

Page 13 - Question 45 -

I am evaluated on my performance in a PLC.

	Strongly Disagree					Neutral							Strongly Agree
	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7

Page 13 - Question 46 -

I am provided feedback on my work in a PLC.

Strongly Disagree				Neutral						Strongly Agree
○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7				

Page 14 - Question 47 -

Standardized test scores such as the MAP results drive our discussions and work as a PLC.

Strongly Disagree				Neutral						Strongly Agree
○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7				

Page 14 - Question 48 -

There is so much teacher work (Ie. planning, grading, student discipline, etc) I do not have adequate time to work as a PLC.

Strongly Disagree				Neutral						Strongly Agree
○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7				

Page 14 - Question 49 -

I cannot focus on PLC implementation because there are too many initiatives going on right now.

Strongly Disagree				Neutral						Strongly Agree
○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7				

Page 14 - Question 50 -

I do not believe collaboration with other teachers is better than me working alone.

Strongly Disagree				Neutral						Strongly Agree
○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7				

Thank You Page

If you have any questions or would like to see the results of my research, please contact Kyle Palmer at Lewis and Clark Elementary, 736-5430 or kpalmer@liberty.k12.mo.us.

Appendix C – Permission from LPS and Solution Tree (Jeff Jones)

Kyle,

Not sure if I responded to this email or not. Think I didn't. Sorry.

Go for it and I look forward to the results.

Jeff

From: Kyle Palmer <kpalmer@liberty.k12.mo.us>
Date: Mon, 19 Dec 2011 18:28:24 +0000
To: Jeff Jones <jeff.jones@solution-tree.com>
Subject: RE: A "knowing" survey

Jeff,

Thanks again for this survey. As I try to finalize my survey to collect data on the Knowing-Doing Gap of PLC implementation in our school district, I wanted to let you know that I am going to use the survey you sent me. I was wondering if I could gain permission to alter the survey a bit; essentially, I am going to break down the questions a bit to allow respondents to reflect on one piece at a time. I am also going to add a component of "We know to do this" and "We do this" for each question. It's still a work in progress, but I am excited about what I think I will be able to put together.

I will be sure to let you have a copy once I am done. If you would like a sneak peek now, let me know. I am also trying to add a component to my survey that will allow me to survey barriers that get in the way of PLC implementation; the questions are are organized around the work of Jeffrey Pfeffer and Robert Sutton in their 1990 book *The Knowing-Doing Gap*.

Thanks,

Kyle

From: Jeff Jones [mailto:Jeff.Jones@Solution-Tree.com]
Sent: Tuesday, August 16, 2011 10:45 AM
To: Palmer, Kyle
Subject: FW: A "knowing" survey

Kyle,

Here you go. Some great information.

Good luck.

Jeff

From: Becky DuFour <beck.dufour@jetbroadband.com>
Date: Tue, 16 Aug 2011 09:45:26 -0400
To: Jeff Jones <jeff.jones@solution-tree.com>
Subject: Re: A "knowing" survey

Hi Jeff,

AS a matter of fact....:)

I'm pasting two different links (below) to recent dissertations we've reviewed and posted on the site - Chad's was on the Knowing-doing Gap with H.S. Principals.... Kyle might find some useful tools there.

We've also had folks use our survey that's now part of the PLC at Work Progress Report (attached). The questions can be uploaded into Survey Monkey or another software program for ease in administering and collecting/dissaggregating the data. Still others have used the PLC at Work Continuum Documents from LBD 2nd Edition to craft their own surveys.

Finally, the PLC survey that Ellen Williams and Joe Matthews from BYU developed has been used by several doctoral students. They charge big bucks for school districts to use their instrument, but I THINK they share it with doctoral students for "free" if the student is willing to share his/her research with Joe & Ellen. Ellen just retired from BYU and Joe has moved to aother university, but a contact is:

Ellen_Williams@Byu. Edu <ellen_williams@byu.edu>

Please let Kyle know he is welcome to contact us with questions/clarification.

Hope you are well & having a great week.

Best,

Becky

1. http://www.allthingsplc.info/articles/articles.php

2. On Jul 6, 2011, at 4:10 PM, Chad Dumas wrote:

Becky: I had spoken with you briefly in San Antonio about my dissertation on the Knowing-Doing Gap with high school principals, and you mentioned that you'd be interested in seeing it and possibly using it on the allthingsplc website. So you can retrieve the dissertation at this address: http://digitalcommons.unl.edu/cehsedaddiss/33/

Thank you for excellent learning in San Antonio, and I hope you have a most wonderful rest of the summer! Cd

Chad Dumas, Ed.D.
Director of Curriculum, Instruction, and Assessment
Hastings Public Schools
1924 West A St
Hastings, NE 68901
(402) 461-7500
cdumas@esu9.org

On Aug 16, 2011, at 9:28 AM, Jeff Jones wrote:

Becky,

Do you have, or know of, a tool that Kyle can use to in his dissertation work?

Thanks

Jeff

On 8/15/11 2:37 PM, "Palmer, Kyle" <kpalmer@liberty.k12.mo.us> wrote:

Thanks Jeff. I replied back to Gretchen. I did receive your approval; I was more asking for advice with something I could use to measure a PLC "knowing" of what to do as opposed to their "doing" in a PLC.

I am looking forward to my dissertation and excited too. I also applied

to be an associate this year, hoping that this experience would allow me

great background and experience to share with others!

Sounds like a perfect topic and I support it 100 percent.

I hope your first day went well…I am sorry I did not make it out, I was swamped with KB and LNHS events today. I will make it out in the next couple of days to see if you need anything.

Have a great start to the year.

Mike

Mike Brewer

Superintendent of Schools

Liberty School District #53

650 Conistor

Liberty, Missouri 64068

(816) 736-7098

From: Palmer, Kyle
Sent: Wednesday, August 18, 2010 7:10 AM
To: Brewer, Mike
Subject: dissertation

Mike,

My research study involves studying the "knowing-doing" gap of PLC implementation compared to what we know as a school to implement. After meeting with my advisor a few times, we came up with a plan to study our school district, in particular our elementary buildings (except mine). I will do more official paperwork later once I know what that is, but I wanted to get your permission to do this study in Liberty and to survey other elementary principals and staff members. If you have any questions, or concerns, let me know. This study will probably happen next fall, October/November of 2011.

Thanks,

Kyle

Appendix D- E-mail correspondence to participants and building principals

I am currently in the process of writing my dissertation as a part of the process of attaining my doctorate through Baker University. My dissertation is titled A Study on the Existence of a Knowing-Doing Gap in Liberty Public School's Implementation of Professional Learning Communities. Mike Brewer and Colleen Jones have knowledge of my work and approved my dissertation topic last spring. I will be surveying pre-school and elementary certified staff members in our district. As I prepare for the research component of my study, I would like to visit with your staffs to briefly explain my research study and answer any questions they may have. My presentation will take no longer than 3-5 minutes. I will be providing a copy of my dissertation and research data to Colleen at the conclusion of my work. It is also important to note that survey data collected by me will be for the district as a whole and will not be separated out by building. I will have no knowledge of individuals' responses nor what building they work in. The survey should take no longer than 15-20 minutes and a 7-10 day window will be offered to help guarantee there is plenty of time to complete it.

I really appreciate all of your support through this process. Please let me know when there will be a good time in January to come and speak with your staff. If you have any questions, please contact me at extension 5432, my cell phone 522-0341 or e-mail kpalmer@liberty.k12.mo.us.

I am currently in the process of writing my dissertation as a part of the process of attaining my doctorate through Baker University. In one week, you will receive an electronic survey via your district e-mail account. The survey should take no longer than 15-20 minutes to complete and you will have a 10-day window to complete the survey. I greatly appreciate your participation through this process. Your participation will help provide authentic data to correctly assess a potential gap in our district's PLC implementation.

If you have any questions, please contact me at extension 5432, my cell phone 522-0341 or e-mail kpalmer@liberty.k12.mo.us. The survey will be sent to you in approximately one week.

Appendix E- Staff meeting script

School Visits for research study

1. **Introduction**
   a. Kyle Palmer
   b. Lewis and Clark principal- 5th year
   c. Baker University- doctoral degree
   d. Dissertation research study in Liberty Public Schools, PLCs

2. **Purpose for visit**
   a. Zoomerang
      i. Will receive an introductory e-mail
      ii. Will receive shortly after live survey
   b. Really appreciate your time in filling out the survey
   c. 15-20 minutes max- take it once
   d. Approximately a 10-day window- EARLY February
   e. *ALL OF YOU ARE AN ESSENTIAL PIECE TO MY RESEARCH!*

3. **Protection**
   a. Results analyzed for district as a whole, not by individual building
   b. No connection to person filling out survey
   c. I can track who has filled it out, will send e-mails to remind you

Appendix F- Validation Committee script

Good evening,

As you may know, I am currently working on my dissertation through Baker University and I continue to move towards obtaining my doctoral degree. I am conducting my final review of the research survey on PLC implementation that I am using for my dissertation. I am asking each of you to take my survey as part of my validation committee to provide feedback on my survey. I would like you to click on the link below, take the survey, and provide me your thoughts and feelings on the following:

1. The ease of taking the survey

2. If my questions were clear and concise

3. How well PLC implementation components are being assessed

Please provide me your thoughts on those areas. I am hoping to get my IRB finished in the next few weeks and get my survey out to all certified elementary and pre-school teachers in Liberty Public Schools in early March. I would really appreciate your feedback by Sunday, February 12.

Here is the link:

http://www.zoomerang.com/Survey/WEB22EP5ZP489V

Let me know if you have any questions.

I really appreciate your support.

Kyle

816-522-0341

Appendix G- Table of H$_4$-H$_{21}$ Mean Scores

Hypothesis	M	SD	N
4	3.841	1.808	232
5	3.468	1.640	233
6	2.332	1.444	232
7	6.077	.894	232
8	2.962	1.603	234
9	3.590	1.381	234
10	3.325	1.544	231
11	3.504	1.644	232
12	3.932	1.798	234
13	1.785	1.090	233
14	2.373	1.253	233
15	2.461	1.280	230
16	3.657	1.826	230
17	3.717	1.796	230
18	4.786	1.626	229
19	3.987	1.831	232
20	3.987	1.831	232
21	2.009	1.816	232