

A STUDY OF THE RELATIONSHIP OF TEACHERS' SELF-EFFICACY AND THE  
IMPACT OF PROFESSIONAL LEARNING COMMUNITY AS AN ORGANIZATIONAL  
STRUCTURE

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## DEDICATION

In memory of  
Agnes Dodge Belgard  
“Maw Maw”

Your example of hard work,  
faith and determination  
have inspired and encouraged me  
throughout my journey.

## ACKNOWLEDGMENTS

This work is simply a snapshot of my work thus far. It is not intended to represent the end. Instead, I am confident, that it will serve as the catalysis for future work. Although this phase of the degree process has come to an end, the desire to be a life-long learner has become stronger through this process.

It is impossible for me to acknowledge all whom have been a part of this journey. I truly believe that people come into your life for a reason. There are no words to express the feelings of thanks that I have for each of you, nor is it possible to describe the impact that each of you have had on my life.

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...And Mom and Dad, I did it!

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## **ABSTRACT**

The study was conducted to explore the characteristics of and interrelationships between teachers' self-efficacy and professional learning community. Specifically, this study presents a quantitative study of ten Louisiana public schools participating in the second year of the Louisiana 9<sup>th</sup> Grade Redesign Initiative.

Bandura's (1977, 1986) social cognitive learning theory of self-efficacy provides the theoretical framework for the construct of self-efficacy under study. Hord's (1998) dimensions of professional learning community provide the framework for the exploration of professional learning communities in this study.

The School Professional Staff as Learning Community (SPSLCQ) instrument developed by Shirley Hord (1997) and the Teacher Efficacy Beliefs System – Self (TEBS-S), developed by Amy Dellinger (2001) were administered to 10 schools, with 248 responses received. Based on Cronbach alpha reliability estimates, it was concluded that both scales had satisfactory reliability.

This study is presented in five parts. Chapter 1 includes an overview, a brief review of the pertinent literature that supports this study, a statement of the problem, purpose and significance of the study, a description of the study variables and research questions to guide the study. Chapter 2 consists of an extensive review of the literature related to teacher self and collective efficacy beliefs and a review of pertinent studies of professional learning communities. Chapter 3 includes the methodology to be used in this study including a description of the sampling strategy, instruments to be used, data collection, and data analysis techniques to be used to address research questions presented in Chapter 1. Chapter 4 presents a summary of the results of the study. Chapter 5 offers a discussion of the results, implications of the study results and directions for further research.

## **CHAPTER 1: INTRODUCTION**

The United States faces increasing challenges and international competition in maintaining educational excellence. According to the Association for Supervision and Curriculum Development (ASCD), American high schools fail to graduate nearly one-third of their students, at great cost to both the nation and the students (Hayward, 2009). Costs can be understood in several ways. For example, students who drop out of high school have substantially lower earnings than high school graduates (Schargel & Smirk, 2001). In addition, high school graduation opens doors that are shut to dropouts, such as admission to post-secondary education at the university, community college, or technical school levels. Post-secondary education means greater earning capacity both initially and over the course of a life time. Increased earning ability is important, but it is not the only benefit of high school graduation and some experience in post-secondary schooling. Education beyond high school is associated with a lower risk of unemployment, better overall health, and longer life expectancy (Southern Regional Education Board [SREB], September 2006).

Given the global competition from first world nations and emerging third world countries, it is clearly time for the United States to focus its attention on redesigning the American high school in order to address the changing labor skills that workers must have to compete in the global job market. Research from the National Conference of State Legislatures (2006) reports that high school redesign can reduce the achievement gap, increase graduation rates, and improve access to post-secondary education. Increasing public demands to reduce the dropout rate and improve the quality of education led Louisiana to respond by creating the Louisiana High School Redesign Commission in 2006, which will henceforth be referred to as the Commission. The premise of the Commission was to redesign secondary schools such that greater emphasis was placed on student achievement in grade nine, thereby improving the

possibility that all Louisiana high school youth will graduate and be better prepared to succeed in a global economy.

According to the initial Commission report (2006), in Louisiana far too few students receive the education and training they need to become productive adults. The Commission's efforts to redesign Louisiana high schools are supported by data indicating that for every 100 students who enter 9<sup>th</sup> grade in Louisiana's public schools, 59 will receive a high school diploma on-time, 33 will enter college the following year, and 13 will earn an on-time college degree. Conversely, each year about 14,000 Louisiana students drop out of high school (Commission, 2006). This is a staggering number by itself, but when it is multiplied over several years, it becomes evident that the number of dropouts places a tremendous burden on the state's resources.

There is no doubt that increasing student achievement and reducing the dropout rate are among the key challenges facing today's educators. Many teachers find it increasingly important to improve both their teaching practices and content knowledge, but face obstacles in doing so by the bureaucratic structure of schools, as discussed more fully below. In this same context, a major question that looms before policymakers and educators is how schools that are steeped in bureaucratic traditions can make organizational changes that are cost effective and that will significantly improve teaching and student learning. Developing the individuals' and staffs' capacity to engage in meaningful reform and restructuring in order to benefit students remains one of the greatest challenges for schools.

### **Overview of the Literature**

Since the early 1900s, the era of scientific management, schools have been bureaucratic organizations that place more emphasis on the enforcement of rules than on the learning of teachers and students (Seyfarth & Bost, 1986). In these bureaucratic organizations, teacher

autonomy and isolation from peers was accepted as normative (Cuban, 1993). Although autonomy is purported to be a function of a professional position, researchers have questioned the benefits of teacher autonomy (Pearson, 1995, 1998); the framework of teacher autonomy (Pearson, 1995, 1998); and the impact teacher autonomy has on student learning (Anderson, 1987). According to Anderson (1987), teacher autonomy is derived from the nature of the formal structure of schools which leads teachers to work in isolation within the classroom. As noted above, teachers have little professional contact with other teachers or administrators. Such limited contact with other school professionals often results in lower teacher commitment to the mission and goals of the school (Anderson, 1987). There must be a balance achieved between autonomous and collective work with both aimed at improving student learning and encouraging students to graduate from high school. Such a balance has been achieved in many schools structured as professional learning communities (Cuban, 1993).

Cuban (1998) categorizes school reforms as first- or second- order changes. First-order changes are those surface changes that improve current practices through improved efficiency and more effective strategies. Second-order changes are those that attempt to alter the basic components of organizations such as structures, goals, and roles. The professional learning community model represents a second-order change as revealed by the substantial and significant changes that occur in relationships, culture, roles, norms, communication patterns, and practices (Huffman, 2001).

Regrettably, most school reform efforts have been generally unsuccessful in providing the leadership, understanding, and motivation required to empower the school's staff to make significant and lasting changes (Fullan, 1995; Lindle, 1995/1996). Some research suggests that the development of professional learning communities as an organizational strategy could make school reform more successful (Dufour & Eaker, 1998; Louis & Kruse, 1995).

## **Professional Learning Community**

The term “professional learning community” (PLC) emerged from organizational theory and human relations literature. This same term appeared in educational research as early as the 1960s, when researchers offered the concept as an alternative to the isolation in which most teachers worked. Throughout the years more and more schools have espoused PLCs, and the concept has gained wider acceptance among educational circles. Recent research (Dufour & Eaker, 1998; Printy, 2008) indicates that the bureaucratic organization of schools can be transformed into collegial environments by structuring the school as a PLC. Professional learning communities involve teachers in identifying, studying, and collectively solving problems of practice (Printy, 2008). When collaborative time is structured into the work day, teachers have time to seek advice on teaching practices from their peers and to work with peers to develop and implement instructional innovations.

Schools that operate as a PLC engage the entire group of professionals in a process of coming together in order to promote learning for all - learning within a supportive, self-created community. Newman (1994) and Printy (2008) suggest that a learning community consists of professional staff members who take collective responsibility for a shared educational purpose and collaborate with one another in order to achieve this purpose. Professional learning communities are characterized by five attributes that become infused throughout the operational structure of the school. These attributes include supportive and shared leadership; shared values and vision; collective learning and application of learning; supportive conditions for innovation; and physical conditions and human capacities that advance the learning of both teachers and students (Berlinger-Gustafson, 2004).

According to Berlinger-Gustafson (2004), some of the outcomes of establishing a professional learning community are a reduction of teacher isolation; increased teacher

commitment to the mission and goals of the school; an increased feeling of responsibility among teachers for the total development of students including their academic success; a greater likelihood that teachers are well informed and inspired to inspire students; and greater job satisfaction, higher morale, and lower rates of absenteeism among teachers. The benefits of professional learning communities for students include a decreased dropout rate; lower absenteeism; greater gains in core academic classes as compared to traditional schools; and a smaller achievement gap among students from different backgrounds (Berlinger-Gustafson, 2004).

The research on schools as professional learning communities is primarily qualitative in nature, for the most part consisting of case studies or explorations of the PLC attributes. The present quantitative study uses the Schools Professional Staff as Learning Community Questionnaire (SPSLCQ) to identify whether the conceptual dimensions of a professional learning community interact with and support the development of teachers' self-efficacy. Exploring this potential interaction is the goal of this study.

The SPSLCQ is designed to examine teachers' perceptions of the organizational structure of their school site and the extent to which the school supports each of the five conceptual dimensions of a professional learning community. In addition, data from this instrument provides information about various attributes of a professional learning community, including leadership. Thus, the present study contributes to the development of leadership theories that move past the concept of transformational leadership and toward a concept of leadership as pervasive throughout the learning organization (Ogawa & Bossert, 1995).

It is not clear how many schools have established PLCs, but Honawar (2008) points out that versions of PLC can be found at many successful schools. Current research suggests that one of the most important goals for schools planning to establish learning communities is to tailor the

PLC to the school's specific needs, instead of attempting to copy an existing model. Because of the collaborative structure of PLCs, it is likely that an unintended but positive outcome is the enhancement of teachers' self-efficacy.

### **Teachers' Self-Efficacy**

Albert Bandura, well known for his work on various types of efficacy, proposes that the task of establishing learning environments conducive to the development of cognitive competencies in students relies heavily upon the talents and self-efficacy beliefs of teachers (Bandura, 1997, p. 240). Teacher's perceived self-efficacy, as described by Bandura, is the belief that one has the ability to carry out certain actions that will result in the desired outcome. The degree of perceived efficacy an individual has impacts the choice of activities pursued, the amount of effort expended on those activities, and the persistence put forth by the individual to complete the necessary tasks related to the activities even when confronted with obstacles.

Efficacy beliefs are task and situation specific and are not believed to be a trait of an individual (Bandura, 1997; Maddux, 1999). Instead these beliefs are an active and learned system of beliefs that are held in context and vary in strength, level, and generality (Bandura 1997). According to Bandura (1977) teacher efficacy is a special type of self-efficacy. It is cognitive processes in which beliefs are constructed about an individual's capacities to perform at a given level of attainment are constructed. Effort put forth, persistence in the face of obstacles, and resilience are all influenced by self-efficacy (Bandura, 1997). Bandura (1986, 1997) describes a causal model of interactions between self and society, which he terms triadic reciprocal causation. This model maps individual behavior, personal factors, and external/environmental factors as reciprocal.

To have substantial and lasting impact on teachers' self-efficacy, the organizational structure of the school must support teacher professional development; such support can be found in schools operating as professional learning communities.

In the mid-1970's the construct of teacher sense of efficacy, later referred to as teacher efficacy, was named, defined, and measured (Bernman & McLaughlin, 1977; Armor, Conry-Oseguera, Cox, King, McDonnell, & Pascal, 1976). According to these two groups of researchers, two items combined to yield a measure of teacher efficacy. These two items were based on Rotter's (1966) locus of control theory; Bandura's self-efficacy theory was not mentioned in these reports. It was these two studies along with the RAND Change studies of the 1970's that served as the catalyst for further research of teacher efficacy (Dellinger, 2005). The RAND Change studies were conducted from 1973 through 1978 by the Rand Corporation and carried out under the sponsorship of the U.S. Office of Education. This national study of four federally funded programs intended to introduce and support innovative practices in the public schools (McLaughlin, 1990). RAND's four year, two-phase study examined a sample of 293 local projects funded by four major federal programs. The findings of the so-called "Change Agent" study marked a significant shift in the ways policymakers, practitioners, and researchers thought about affecting and understanding planned change in education (McLaughlin, 1990).

Dellinger (2002, 2005) reports that when the definition for teacher efficacy in educational literature incorporated Bandura's definition, the instruments that were being used at the time did not validly assess teachers' self-efficacy beliefs. Based on her review of the literature, Dellinger (2007) defined teachers' self-efficacy as the teacher's individual beliefs about his/her own abilities to successfully perform specific teaching and learning tasks within the context of the classroom. For some time, the terms teachers' self-efficacy and teacher efficacy

have been used interchangeably. Dellinger, however, teased differences in these terms, separating them into two distinct constructs.

Teacher efficacy is defined by several researchers as teachers' beliefs in their abilities to affect student performance (Gibson & Dembo, 1984; Tschannen Moran, Woolfolk Hoy, & Hoy, 1998). Furthermore, teacher efficacy, as defined in the literature, overlooks the role played by teachers' beliefs in their ability to perform a wide variety of teaching tasks in various teaching and learning contexts. Teacher efficacy is focused on affecting student performance. In contrast, the focus of teachers' self-efficacy is focused on successfully performing specific teaching tasks in a teacher's specific teaching situation. The significance of the difference between the two constructs lies in the outcome expectations of each.

The research is rich with evidence that teachers' self-efficacy is significantly related to changes in teaching practices and student achievement (Ross, 1993). Studies also indicate that the development of PLCs aid schools in the effort to focus on conditions that help teachers acquire and sustain feelings of competence and worth (Hord, 1997). Nonetheless, few studies involve systematic inquiry into the specific strategies associated with PLCs that may directly or indirectly influence a sense of optimism and efficacy among teachers.

### **Purpose of the Study**

This quantitative study has two purposes. One is to investigate the degree to which a professional learning community exists as the primary organizational structure at schools participating in the Louisiana High School 9<sup>th</sup> Grade Redesign Initiative grant recommended by the Louisiana High School Redesign Commission. Specifically, these schools are ninth grade centers that located either are on stand-alone campuses or are physically separated from the remaining high school grades on a regular high school campus. The second purpose of this study is to determine the degree to which PLC impacts teacher self-efficacy beliefs. If PLC is

associated with stronger teacher self-efficacy beliefs, the results of the present study can be used to inform policymakers at the state and local levels about PLC strategies and their usefulness in improving schooling for ninth grade students. Further, PLCs may serve to enhance teachers' self-efficacy and in so doing would have a positive impact on student achievement; therefore the development of PLCs may serve to mitigate the high rate of students who drop out of high school. The study does not intend to suggest that PLC strategies alone will put an end to students dropping out. However, given that teacher self-efficacy beliefs are positively associated with student achievement, if PLCs are similarly related to stronger levels of teachers' self-efficacy beliefs, this study, there would be an empirical foundation for pursuing the PLC framework in other schools.

### **Louisiana High School 9<sup>th</sup> Grade Redesign Initiative<sup>1</sup>**

#### Background

According to a nationally recognized high school dropout study released in 2006, *The Silent Epidemic*, thirty-two percent of dropouts indicated that they had repeated at least one grade. Research indicates that the most important factor in predicting dropping out of high school is grade retention. Additionally, research indicates that the highest retention rates are found in ninth grade. Those students retained in ninth grade experience unique difficulties as their retention occurs at a time when social and emotional development are especially vulnerable to academic failure (Kerr & Legters, 2001). Targeting students in the ninth grade, when they are most vulnerable to dropping out due to a lack of achievement, seems to be one effective way to curb the problem (Orfield, 2004).

Research by Cushman (2006) suggested that, according to ninth graders, they needed regular connection with high school students who were successful in grade nine, assistance with

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<sup>1</sup> Referred to as Redesign Initiative throughout the remainder of this chapter.

building strong and mutually respectful connections to adults, the opportunity to access summer transition programs before entering grade nine, the opportunity to learn in smaller learning communities, the experience of being grouped together physically, an orientation period at the beginning of the school year, student mentors, time for advisory groups within the school schedule, classroom activities that connect the student and teachers, longer class periods, and consistency in enforcing norms.

While the unique needs of ninth grade students are relatively well known, most high schools in the country are investing little time and resources needed to ensure that ninth grade students have access to the conditions needed to be successful. The purpose of this Redesign Initiative grant is to provide high schools in the state of Louisiana the opportunity to address the needs of ninth grade students. The state considers this issue a critical focus for high schools to improve the numbers of ninth grade students successfully completing ninth grade and being promoted to tenth grade, which should ultimately increase the likelihood that these students will graduate from high school.

#### Program Overview

The purpose of the Redesign Initiative is to encourage and support schools in implementing reforms which better provide students with the personal attention and support they need in order to have a successful initial year of high school, earn on-time promotion to grade ten, and be prepared for continued academic success. The Redesign Initiative is a three year program, contingent upon the availability of continued funding. Initially, 40 -50 schools were competitively selected to receive funding for 2007-08 fiscal year. If future funding continued to be available, districts with one or more schools that were recipients of grant awards in 2007-08 (year 1) could apply for continuation of funding based upon the successful completion of planned project activities.

## Purpose

It was anticipated that 2007-08 grant funds would be used primarily to support planning and professional development for ninth grade redesign strategies which would be implemented in the 2008-09 academic year, although implementation of some redesign strategies during 2007-08 was desirable.

To ensure the highest quality of ninth grade redesign efforts, schools were to use the 2007-08 grant funds for one or more of the following purposes:

- Contract with nationally-recognized expert consultant(s) to provide continuing technical assistance and/or professional development;
- Make site visit(s) to schools that are exemplary models of ninth grade redesign and/or arrange meetings with leaders of redesign programs in such schools;
- Attend conferences related to ninth grade redesign;
- Purchase resource materials that have been specifically developed to aid schools in the process of redesigning ninth grade;
- Provide stipends/substitutes for faculty to engage in professional development and planning.

## Goals

The goals of the Redesign Initiative grant are to:

- Increase ninth to tenth grade promotion rates;
- Decrease ninth grade dropouts;
- Increase ninth grade daily attendance;
- Reduce ninth grade course failures;
- Decrease ninth grade suspension and expulsions;
- Increase ninth grade iLEAP test scores.

## Conceptual Framework of the Study

A conceptual model, shown in Figure 1, was developed in order to depict relationships among the variables in this study. As the work on the study progressed the initial conceptual model was modified in order to more thoroughly capture the dimensions under study and their perceived relationship with one another.

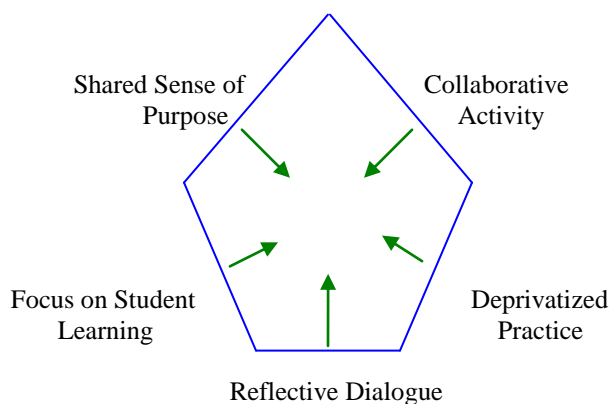


Figure 1. Conceptual Dimensions of Professional Learning Community

The five conceptual dimensions of a professional learning community are represented by blue lines forming the pentagon in the model. These dimensions act in combination to support the other components of the model. Green arrows pointing inward from the five dimensions of professional learning community symbolize the energy and opportunity for professional growth produced by a PLC, which in turn foster and improve teachers' self-efficacy beliefs.

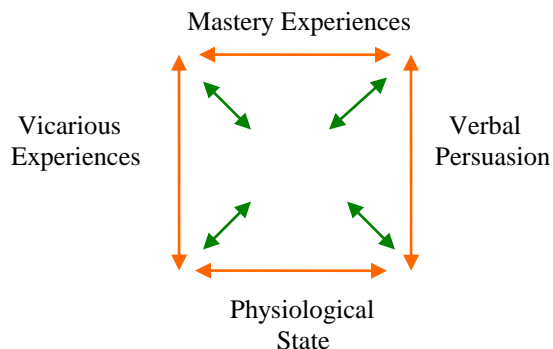


Figure 2. Sources of Teachers' Self-Efficacy

Figure 2 is consistent with Bandura's (1993) theory of sources of self-efficacy. The four double-headed orange arrows represent the four sources of teachers' self-efficacy beliefs, specifically, mastery experiences, verbal persuasion, vicarious experiences, and psychological state. In the initial development of the conceptual model, it was thought that a triangle of double-headed arrows should be placed within the pentagon representing the dimensions of a professional learning community. This triangle was representative of Bandura's theory of triadic reciprocal causation. However, careful reflection led to the change in the model. This study contends that the conceptual dimensions of a professional learning community support the development of sources of teachers' self-efficacy as depicted by the double-headed orange arrows. The double-headed green arrows represent the energy reciprocated between the inner portion of the square and the sources of teachers' self-efficacy.

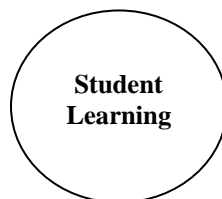


Figure 3. Student Learning

Student learning is depicted by a circle located at the center of the model. Centering student learning signifies the focus of PLC and the effect teachers' self-efficacy beliefs can have on student learning. This element of the model is presented in Figure 3.

In the conceptual model of the study the double-headed green arrows between teachers' self-efficacy beliefs and student learning indicate that teachers' self-efficacy is both oriented toward improved student learning and reinforced by student learning. The full model is presented in Figure 5.

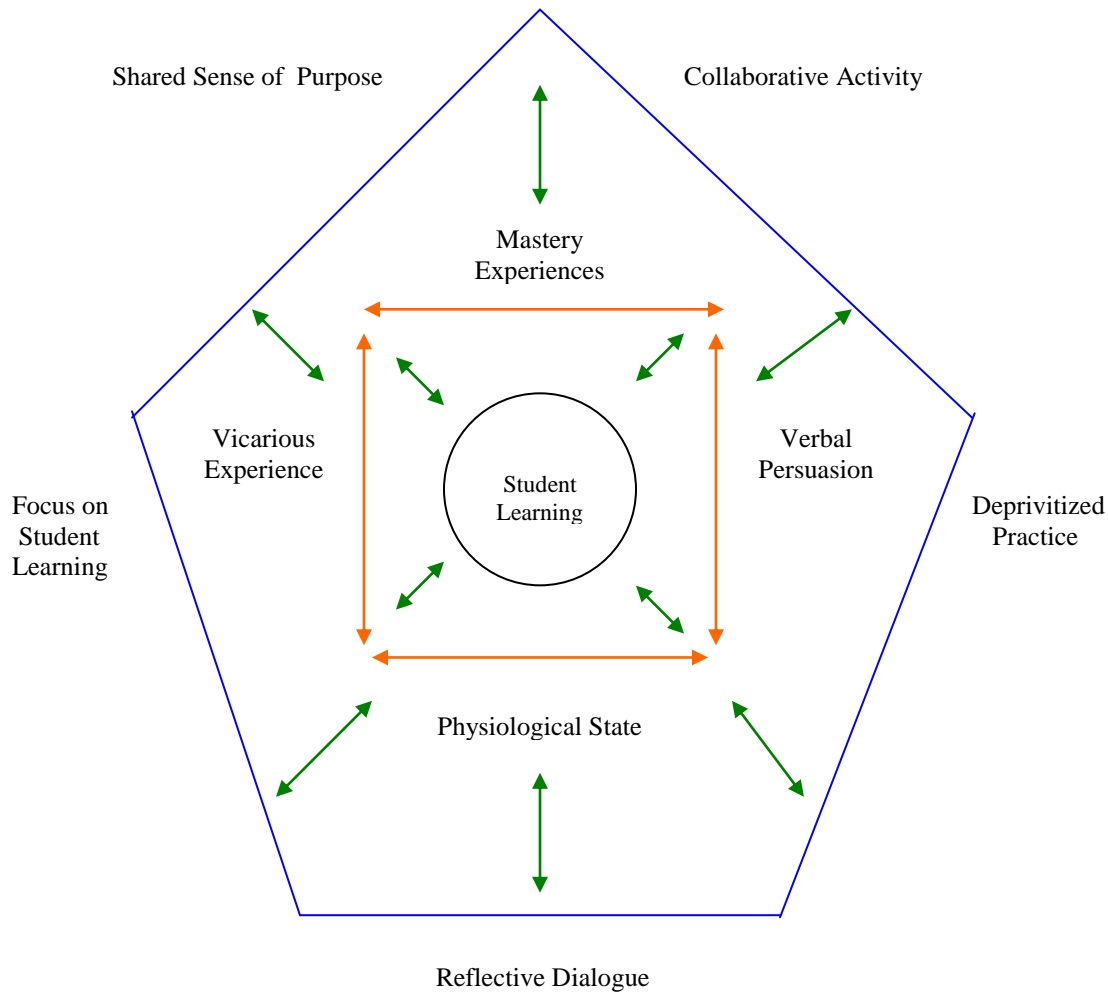


Figure 4. Professional Learning Community and Teachers' Self-Efficacy: A Conceptual Model

In summary, the conceptual model for this study represents the five conceptual dimensions of professional learning communities as they collectively and positively impact the sources of teachers' self-efficacy beliefs. Teacher self-efficacy was demonstrated by Goddard, Woolfolk Hoy, and Hoy (2000) to have a positive impact on student achievement.

## **Importance of the Study**

Studies have shown the impact that teachers' self-efficacy beliefs have on student achievement (Goddard, Woolfolk Hoy, & Hoy, 2000; Hoy & Sabo, 1998). In spite of these findings, most schools at all levels of the pre-kindergarten through twelfth grade (PK12) system remain organizationally bound to a bureaucratic structure that inhibits opportunities to foster teachers' self-efficacy beliefs. There is existing literature and empirical research regarding teachers' self-efficacy and factors that impact it; however, little is known about how an organizational shift within a school from the traditional bureaucratic structure to the professional learning community framework can influence teachers' self-efficacy beliefs.

Hall and Hord (1987) help us understand organizational change by reminding us that organizations do not change, rather individuals do. Fullan (1993) agreed, explaining that it is the individual who provides the most effective route for accomplishing systemic change. For individual change to bring about systemic change, workplace factors that promote or inhibit change require examination. The importance of teacher workplace factors was brought to the forefront by Rosenholtz (1989) in her discussion of teaching quality. Rosenholtz suggested that teachers who feel supported in their own ongoing learning and classroom practice are more committed and effective than those who do not. Among important workplace factors studied by Rosenholtz are teacher networks, cooperation among colleagues, and expanded professional roles, each of which can increase a sense of teacher self-efficacy for meeting students' needs. In addition, she found that teachers with a strong sense of their own efficacy were more likely to adopt new classroom practices and to stay in the profession. Likewise, Fullan (1991) recommended that redesigning the teacher workplace should build into teachers' daily activities opportunities for innovation and improvement. Darling-Hammond (1999, p. 10) added that

attention to redesigning the way teachers spend their time and to rethinking teacher responsibilities is greater now than at any time in the past.

The work of Senge (1990), Block (1993), Galagan (1994), and Whyte (1994) emphasizes the importance of nurturing and celebrating the work each staff member contributes to school redesign and of supporting the collective engagement of staff in such activities as shared vision development, problem identification, learning, and problem resolution. Nurturing the staff's willingness to change so that improvement is continuous is an ongoing challenge to leaders of school change. For a school to change, teachers need to engage in schoolwide collegial activities and in joint professional efforts that have students' learning as their purpose (Jalongo, 1991). Doing so provides teachers with greater collective autonomy and opportunities for shared decision making.

This study examined the effects the dimensions of professional learning community have on the dimensions of teachers' self-efficacy beliefs. The study was undertaken in the expectation that the results could be used to inform school and district leaders as well as policymakers interested in moving schools from the bureaucratic organizational structure focused on following rules toward a professional learning community focused on student learning. However, the study findings were not as strong as anticipated.

### **Definition of Terms**

The two constructs studied in this dissertation are defined conceptually and operationally below.

#### **Professional Learning Community**

According to Astuto (1993), a professional learning community can be conceptualized as an organizational arrangement in which the teachers and administrators within a school continuously seek and share learning and transform their learning in to action, a definition that is

used in this study. Professional learning community is operationally defined by teacher scores on the School Professional Staff as Learning Community Questionnaire (SPSLCQ) (Appendix C.).

### Teachers' Self-efficacy

Bandura (1997) referred to teachers' self-efficacy as the belief in one's capability to organize and execute courses of action required to produce given attainments. Building from Bandura's definition, Dellinger (2001) conceptualized teachers' self-efficacy as a belief system that one has concerning his/her self-perceived capabilities to organize and execute courses of action to acquire given levels of attainment in situation-specific teaching tasks. Dellinger's conceptual definition is used in this study. Teachers' self-efficacy beliefs are operationally defined by teacher scores on the Teacher Efficacy Belief System-Self (TEBS-S) (Appendix D).

An overview of the literature and definitions of terms specific to a study have been provided in the above sections and subsections. The research questions, limitations, delimitations, and assumptions of a study are presented in the following sections.

### **Research Questions**

The purpose of this study was to investigate the impact of professional learning communities on teachers' self-efficacy beliefs. Two questionnaires were used to study these constructs. The School Professional Staff as Learning Community Questionnaire (SPSLCQ) measures teachers' perceptions of professional learning communities at their school; the Teacher Efficacy Belief System-Self (TEBS-S) measures teachers' perceptions of their own teachers' self-efficacy beliefs.

The sample consists of regular education teachers at 10 of the 54 schools participating in the Redesign Initiative, a pilot study recommended by the Louisiana High School Redesign Commission. Data from respondents at the 10 schools were used to determine the relationship between dimensions of the two instruments, specifically the professional learning community

instrument and the teachers' self-efficacy beliefs instrument. For further analysis, the 10 schools were divided into two groups based on the mean score for each school for the measure of professional learning community, the SPSLCQ. One group was comprised of the five schools with the highest overall mean scores on the SPSLCQ, while the other group was comprised of the five schools with the lowest overall mean scores on the SPSLCQ. These two groups were referred to as the High Scoring Schools and Low Scoring Schools, respectively.

The two research questions for the study are stated below.

Research Question 1:

What relationships exist among the dimensions of professional learning community and the dimensions of teachers' self-efficacy?

Research Question 2:

Will teachers from High Scoring Schools demonstrate a higher sense of teachers' self-efficacy beliefs than those from Low Scoring Schools demonstrate?

### **Limitations and Delimitations**

There are several limitations to this study. The generalizability of the results from this study is limited to other schools participating in the Redesign Initiative. Limited generalizability accrues from the unique nature of the participating schools and the professional development teachers received as a result of their school participating in the Redesign Initiative. In addition, responses to the instruments were voluntary; therefore, those who completed the instruments may be viewed as individuals who are more conscientious or more interested in the study than those who did not return the questionnaires. Therefore, it would not be appropriate to generalize these findings beyond the schools involved in the Redesign Initiative. Nonetheless, the findings provided through this research may serve as a catalyst for future work involving the development

of professional learning communities as an organizational framework and the possible enhancement of teachers' self-efficacy beliefs as a result of working in a PLC framework.

The study is delimited by the focus on all teachers who work in public high schools that participated in the Redesign Initiative. All faculty members of participating schools were exposed to the same professional and staff development opportunities regardless of grade level or content area. Therefore all faculty members were invited to take part in the study. Administrators were not participants in the study, although they were involved in both the professional and staff development opportunities provided by being a member school in the Redesign Initiative. Finally, the study is delimited to Louisiana.

### **Assumptions**

This study is based on two assumptions. First, the self-reported data collected from teachers for this study are assumed to be honest responses to each questionnaire item. Second, it is assumed that the teacher volunteers who completed the instruments work at schools that were genuine participants in the Redesign Initiative and that administrators and teachers at the sample schools have devoted substantial resources in terms of time and money to implementing professional learning community characteristics at their respective schools.

### **Locating the Researcher in the Study**

Researchers bring biases to their work whether the design of the study is qualitative or quantitative. Therefore, it is necessary for the researcher to locate him/herself in the study. I worked as a school counselor in a non-public school for eight years. I have also worked in public schools as a teacher, school counselor, and an administrator for a total of eleven years. Currently, I am the principal of a ninth grade center that participates in the Redesign Initiative implementing the PLC framework. Therefore, I have biases regarding the results of the current study that may affect my interpretation of the data. During my tenure as a public school

administrator, I have had the opportunity to work with Richard DuFour, a well known researcher in the area of professional learning communities, in an effort to learn more about the implementation of the conceptual dimensions of the professional learning community. Additionally, as a school administrator I have sought to establish an organizational framework that closely mirrors the conceptual dimensions of a professional learning community. I have a strong bias regarding the positive implications that a professional learning community can have on teachers' self-efficacy beliefs.

### **Design of the Study**

Quantitative measures were used as a means for data collection. Two questionnaires were used to gather data regarding participants' perceptions of (a) professional learning community at their school and (b) their own teachers' self-efficacy beliefs. Using data from the instruments, relationships among the dimensions of each instrument were analyzed. A second analysis, based on the school means from the measure of professional learning community was also conducted. As described, the 10 participating schools were divided in to two groups, a group of schools with the highest overall mean scores and a group of schools with the lowest overall mean scores on the PLC instrument. The groups were compared on the dimensions of teachers' self-efficacy beliefs.

### **Summary and Organization of the Study**

The information provided in this chapter describes the need to improve outcomes for high school students, particularly ninth graders, and the need for these students to remain in high school and to graduate. A strategy that may foster such outcomes is a professional learning community in part because of the effect such a community might have on teachers' self-efficacy beliefs.

The dissertation is organized into five chapters. Chapter 1 presented a description of the study, including the purpose of the study, definitions of terms, the research questions, the

researcher's role and biases that may affect data interpretation, assumptions, limitations and delimitations, the design of the study, and the organization of the dissertation. Chapter 2 provides a review of literature and research related to professional learning communities and teachers' self-efficacy beliefs. The chapter concludes with a discussion of the influence that the organizational framework of a professional learning community may have on teachers' self-efficacy beliefs.

Chapter 3 describes the methodology used in the study. A description of the instruments used, the settings in which data collection took place, sampling procedures, and data analysis procedures are discussed. Chapter 4 reports the results of the statistical analyses conducted. Chapter 5 presents a discussion of the findings, contributions of the study to the existing knowledge base, and recommendations for districts, principals, and policymakers. The chapter concludes with recommendations for further study.

## **CHAPTER 2. REVIEW OF RELATED LITERATURE AND RESEARCH**

### **Introduction**

This chapter presents a review of the literature related to the major components of this study. The chapter is divided into sections in which each section presents a review of the pertinent literature that relates it to this study.

### **Early Models of Organizational Structures of Schools**

American public schools were originally organized according to the concepts and principles of Fredrick Taylor's late nineteenth century factory model, and Henry Ford's assembly line applications. These philosophies led schools into a "doing to" method of education (Owen, 2004). These schools were designed upon the principle that "one best system" could be identified to complete any task or resolve any organizational problem. Taylor's (1911) philosophy suggested that it was management's job to identify the one best way, train workers accordingly, and then provide the supervision and monitoring needed to ensure that workers followed the prescribed methods. Within this model, a disproportionately small number of people provided the leadership for the entire organization. In addition Taylor's (1911) model demanded centralization, standardization, hierarchical top-down management, a rigid sense of time and accountability all based on adherence to the prescribed system. Both business leaders and politicians argued that schools should assume a similar model in order to produce the kinds of workers that industry required (Dufour & Eaker, 1998) This model of uniformity, standardization, and bureaucracy became the accepted model for the new American schools. The key was to have the thinkers of the organization specify exactly what and how to teach at each grade level. In addition, strict supervision was to be provided to make certain that teachers followed the prescribed curriculum and methods. Decisions flowed from state boards of education down through the levels of the educational bureaucracy to the local school boards,

superintendents, and principals. Finally, decisions would reach teachers who were viewed as mere subordinates responsible for carrying out the decisions of their superiors. The raw materials within this educational model were the students who were simply moved along the educational assembly line. Students who completed this assembly line approach to education emerged prepared to function in the industrial world of the late nineteenth and early twentieth centuries (Dufour & Eaker, 1998). Taylor's principles brought results, and educators felt that applying Taylor's principles to American schools would be rewarding (Holt, 2001). Taylor's scientific management theory as it applied to the educational organizational structure soon gave way to a new theory, a blending of theories that was a result of a new stream of organizational thought. Classical organization theory evolved during the first half of the twentieth century and represented the merger of scientific management, bureaucratic theory, and administrative theory (Jones & George, 2006).

Many of the factory model principles are steeped in today's twenty-first century schools. Schools follow the assumption that if there is adherence to the rules, students will learn what they need to know. Schools remain preoccupied with such concerns as time and design, organizing class periods, school day, and academic calendar. Teachers and their opinions are still considered to be insignificant (Dufour & Eaker, 1998). Above all, the factory model has led a conservative tradition in American schools.

In a time when schools were not expected to educate large numbers of diverse students to high academic levels, the factory model served its purpose. Today, the factory model is dreadfully inadequate for meeting the national educational goals. Goals that state that all students must master rigorous content learn how to learn, pursue productive employment, and compete in a global economy (Dufour & Eaker, 1998). If educators are going to meet such new challenges

with success, they must abandon such an outdated educational model, and embrace a new conceptual model for schools (Dufour & Eaker, 1998).

### **School Reform and the Professional Learning Community**

Despite persistent attempts to reform public education, there is little evidence to suggest that schools have become significantly more effective in meeting the challenges that confront them. Schools have experienced top-down improvement initiatives that have been based on standardization, reliance on rules and regulations, and detailed specifications of school practices at the expense of local autonomy. Schools have also experienced reform initiatives that have focused on the premise that the paired concepts of national goals and local, site-based autonomy offered the best hope for genuine change. According to DuFour and Eaker (1998) past efforts to improve schools have not had the anticipated results for a number of reasons: the complexity of the task, misplaced focus and ineffective strategies, lack of clarity on the intended results, failure to persist, and lack of understanding of the change process.

Fullan (1993) suggests that the way teachers are trained, the way the hierarchy operates, and the way that education is treated by political decision-makers results in a system that is more likely to retain the status quo than to change (p.3). If schools are to be significantly more effective, they must break from the industrial model upon which they were created and embrace a new model that enables them to function as learning organizations DuFour and Eaker (1998). Covey (1996 p.149) suggests that only those organizations that have a passion for learning will have an enduring influence. Senge (1990 p.4) concludes that the most successful corporation of the future will be a learning organization. Therefore the challenge for educators is to create a community of commitment – a professional learning community (PLC) in which the school melds itself into a learning organization. Research has been suggested that a PLC offers an

infrastructure that provides a context for collegial support of both teachers and administrators, provides opportunity for the professional staff to reflect on the teaching and learning

In Fullan's (1991) message regarding the future of educational change, he focused on the teacher workplace and stressed the importance of redesigning the workplace so that innovation and improvement are built into the daily activities for all teachers. This presented educational reformers with the idea that the organizational framework of schools required a combination of reculturing as well as restructuring.

There is much research to support the notion of moving schools from the top-down bureaucratic organization to one that supports the learning of the school as an organization. In the school reform research of the late 1990's researchers began to note that school staffs were becoming more engaged in more collaboration and collegial conversations than in the past. Darling and Hammond (1996) noted a significant increase in attention to redesigning the way teachers spend their time, as well as rethinking teacher responsibilities. Darling-Hammond (1996 p. 198) concludes in their commission report that schools be restructured to become genuine learning organizations for both students and teachers; organizations that respect learning, honor teaching, and teach for understanding. The findings of Darling and Hammond support Newmann and Wehlage (1995 p.37) who conclude that if schools want to enhance their organizational capacity to boost student learning, they should work on building a professional community that is characterized by shared purpose, collaborative activity, and collective responsibility among staff. Therefore the challenge for educators is to create a community of commitment – a professional learning community.

The professional learning community (PLC) is not deemed by educational reformers as an improvement program or plan. Instead it is framework for schools to employ that provides a structure for schools to continuously improve by building staff capacity for learning and change.

In Hord's work on effective leadership and school change and improvement, she observes that "as an organizational arrangement, the PLC is seen as a powerful staff development approach and a potent strategy for school change and improvement." (1997)

### Benefits of Professional Learning Community

Research provides strong evidence that low-performing schools can overcome barriers and challenges that accompany reform efforts and increase student achievement when the staff and school are organized as a professional learning community (Hord, 1997). The professional learning community (PLC) is not an improvement program or plan, but instead it provides a structure for schools to continuously improve by building staff capacity for learning and change. Evidence exists that schools in which teachers act in collaborative settings to deeply examine teaching and learning, and then discuss effective instructional practices, show academic results for students more quickly than schools that do not. This supports the notion that organizations do not change, instead individuals within the organization change, and Fullan (1993) agrees that it is the individual who provides the most effective route for accomplishing systemic change within organizations. However, Fullan (1993) adds that the new problem with change within schools is to determine what it would take to make the educational system a learning organization, such that as an organization it becomes an expert at dealing with change as a normal part of its work, not just in relations to the latest policy, but rather as a way of life.

The metaphor of a "community" suggests a group of individuals joined by a common interest where an emphasis exists on the relationships, shared ideals, and a strong culture. According to DuFour and Eaker (1998) all of these factors are critical to school improvement. Olivier (2001) explains that the word community has roots in the Indo-European language with a base *mei*, meaning change or exchange. This is joined with another root, *kom*, meaning with. These two yield the Indo-European word *kommein*, meaning shared by all.

Learning communities are communities of inquiry where the collective process of discovery is shared by those within the community. Such communities are sustained by a commitment to share the journey of exploration with others (Ryan, 1995, p.280).

The idea of the professional learning community has come to the forefront in recent research as a powerful mechanism affecting both the teaching and learning environment (Hord, 1997; Seashore Louis, et al., 1996; Seashore Louis & Marks, 1998; DuFour, 2004). Teacher learning, which is an important facet of the professional learning community (Darling-Hammond & McLaughlin, 1995), builds faculty capacity that is manifested in improved student outcomes. Establishing a PLC provides opportunities for teachers to reflect critically on their practice and to experience opportunities to increase both self-efficacy and collective faculty efficacy beliefs. Darling-Hammond (1999, p. 10) add that attention to redesigning the way teachers spend their time and rethinking their responsibilities is greater now than at any time in the past.

Research conducted by the Center on Organization and Restructuring of Schools (Newmann & Wehlage, 1995), focused on school redesign and improvement, and included an examination of PLC. Newmann and Wehlage (1995) suggest that among the major tenants of successful school improvement is attention to enhancing organizational capacity through establishing a sense of community among school professionals. In such schools, teachers help one another, take collective responsibility for the learning of all students, and continuously learn, themselves, ways to improve their pedagogy. When PLC is established teacher isolation is greatly reduced while the likelihood that teachers are professionally renewed greatly increases. As a result, teachers redefine good teaching in ways that enrich and develop teacher self-knowledge and their beliefs regarding teaching and learning (Hord, 1997b).

In addition to this research, the Center on Organization and Restructuring of Schools reported its results from four longitudinal case-studies, including survey data and student test

data. The results indicated that comprehensive redesign of schools, including decentralization, shared decision-making, schools within schools, teachers teaming, and/or professional communities of staff, can improve student learning. (Newmann & Wehlage, 1995)

#### Factors Leading to Improved Student Outcomes

Newmann and Wehlage (1995) identified three connected factors leading to improved student outcomes. These three factors are also supported by professional learning communities and are likely to be present when a school develops a professional learning community. The first factor is student learning. In the PLC, teachers agree on a vision of authentic and high quality intellectual work for student to pursue. This includes intellectually challenging learning tasks with clear goals for high quality student learning. This agreed upon vision is articulated to all organizational stakeholders. Hord (1997, p. 30) suggests there are a number of student outcomes derived from the influence of a PLC. These outcomes include a decreased dropout rate; lower rates of absenteeism; increased learning that is distributed more equitably; larger academic gains in such core courses as math, science, social studies, and reading; and a reduction in the achievement gaps between students from diverse backgrounds.

The second factor is authentic pedagogy. The desired high quality of student learning can only be achieved in classrooms through authentic pedagogy. Such authentic pedagogy surpasses student boundaries such as social background, race, gender, or family income, and demands from all students' high quality learning. The third factor present is organizational capacity. In order to provide learning of high intellectual quality, the capacity of the staff to work well as a unit must be developed. The most successful schools functioning as professional learning communities are those where teachers help one another and there is a reduction of isolation, they take collective responsibility for student learning with an increased commitment to the mission and goals of the school and a shared responsibility for all students' success, and they work continuously to

improve teaching practices through a stronger commitment to making significant and lasting changes. (Hord, 1997 p. 29) Research supports the notion that schools in which teachers act in collaborative settings to deeply examine teaching and learning, and participate in discussions of effective instructional practices, show academic results for students more quickly than schools that do not.

### **Evolution of the Professional Learning Community**

The term professional learning community must be clearly delineated in order to accurately articulate what the community represents and how it is expected to function as an organizational framework within a school. Some educators see it as extending the classroom practice into the community, utilizing community resources, both material and human. Others suggest bringing community personnel into the school to enhance the curriculum and learning tasks for students still others it means having students, teachers, and administrators reciprocally engaged in learning. Astuto's work describing a "professional community of learners" has provided the foundation for defining a professional learning community for the purpose of this study. Astuto defines a "professional community of learners" as a place in which the teachers and administrators of a school continuously seek and share learning and act on that learning. For the purpose of this study a professional learning community will be defined as having students, teachers, and administrators reciprocally engaged in learning.

Astuto, et al. (1993) proposed three related communities: (1) the professional community of educators, (2) learning communities of teachers and students (and among students) both within and outside the classroom, and (3) the stakeholder community. The primary focus of this paper is the professional community of learners whose goal is to enhance their effectiveness as professionals for the students' benefit; therefore, this community may also be termed

communities of continuous inquiry and improvement where professionals continuously seek and share learning, and act on their learning.

Olivier (2001) suggest that the concept of the learning community stems from the blueprint of learning organizations described by Senge as being comprised of people who see themselves as connected to each other and the world, where creative thinking is nurtured and “where people are continually learning how to learn together” (Senge, 1990 p.3). DuFour and Eaker (1998) convey strong support for establishing a PLC as the organizational framework of schools and suggest that the most promising strategy for sustained, substantive school improvement is developing the ability of school personnel to function as a professional learning community.

For decades teachers have struggled to be recognized and accepted as professionals. Darling-Hammond and Goodwin (in Loup, 1994) suggested that professionalism in teaching should not be considered an end state, but instead should be thought of as a continuous process of defining and redefining goals (p.10). Dufour and Eaker (1998) define a professional as someone with expertise in a specialized field; an individual who has not only pursued advanced training to enter the field, but who is also expected to remain current in its evolving knowledge base. They defined learning as an ongoing action and perpetual curiosity (DuFour & Eaker, 1998). Therefore the school that operates as a professional learning community recognizes that its members must engage in the ongoing study and constant practice that characterize an organization committed to continuous improvement. The term community evokes the notion of commitment that is on a more personal level than that found within an organization. An organization has been defined both as an “administrative and functional structure” (Webster) and as “a systematic arrangement for a definite purpose” (Oxford). For each of these the emphasis is on structure and efficiency. The term community suggests a group linked by common interests.

Although “community” means different things to different people, McLaughlin and Davidson (1994) suggest that it represents a safe haven where survival is assured through mutual cooperation. Whereas to others it is a place of emotional support, sharing and bonding with close friends. Still others view “community” as an intense crucible for personal growth. For others, it is simply a place to pioneer their dreams. (p.471) In a professional learning community – all of these characteristics are evident. Educators create an environment that fosters mutual cooperation, emotional support, and personal growth as they work together to achieve what they cannot accomplish alone.

From “Principal’s Who Care”, Rooney (2003) concludes that schools are communities of human beings, bound together in an organic, continuously developing web of relationships. Such communities cannot be created by authorities and experts outside the school who send down mandates and expectations from above. The wisdom of the good school must be worked out by those who live within its walls – in conversations about students, about teaching, and about learning. This dialogue includes all who participate in and enhance the community. When this work takes place in an environment of intense care, students learn and thrive (p.78).

The literature supports that notion that professional learning communities produce positive outcomes for both staff and students. Shirley Hord (1997) proposes that schools that have an organizational framework that supports a PLC teacher isolation is reduced, there is an increased commitment to the mission and goals of the school, and a shared responsibility for the total development of students.

### The Learning Organization

During most of the twentieth century, the industrial/factory model was the primary operating structure of American schools (DuFour, Guidice, Magee, Martin & Zivkovic, 2002). The notion was that one best system could be identified to complete any task or solve any

organizational problem. According to DuFour et al. (2002), the twenty-first century concept of the learning organization is a model that will improve the effectiveness of organizations and the people within them. Learning organizations are those which are capable of thriving in a world of interdependence and change, and require, according to Kofman and Senge (1995), a “Galilean” mind shift in how we think and interact as members of the organization. They describe a significant adjustment, shifting from the primacy of pieces to the primacy of the whole, from self to community, and from problem solving to creating. Kofman and Senge (1995) suggest that it is imperative for people to recognize those things that they do not know, and also recognize those things which they do know. According to Silins, Mulford, and Zarins (2002) schools that function as learning organizations employ processes of environmental scanning, develop shared goals, establish collaborative teaching and learning environments, encourage initiative and risk taking, regularly review all aspects related to and influencing the work of the school, recognize and reinforce good work, and provide opportunities for continuing professional development. Evidence is accumulating to suggest that higher performing schools are functioning as learning organizations (Fullan, 1995; Leithwood & Louis, 1998; Printy & Marks, 2006). Schools that actively engage in organizational learning enable staff at all levels to learn collaboratively and continuously and put these learnings to use in response to school needs. Such activity exists within schools that operate as a professional learning community.

The Institute of Educational Leadership (2001) suggests that the organizational structure of today’s schools will not last. A new organizational model as proposed by educational researchers, schools as professional learning communities. This new organizational model has characteristics of Peter Senge’s (1990) “learning organization” concept from his book The Fifth Discipline. This new paradigm moves organizations from the hierarchical, bureaucratic structure to one in which every member is responsible for continuous learning and improvement.

## Characteristics of Professional Learning Communities

### DuFour's Characteristics of a PLC

According to DuFour and Eaker (1998) there are six characteristics of the Professional Learning Community (PLC). First there is a *shared mission, vision and values*. It is suggested that there is a collective commitment by the entire staff to the guiding principles that articulate what the people within the school believe and what they are seeking to create. These guiding principles supersede the individuals in leadership positions and become embedded in the hearts and minds of all people throughout the school. Second is *collective inquiry*. This is the catalyst of improvement, growth, and renewal. Individuals within the community are encouraged to continuously question the status quo, to develop a powerful curiosity and openness to innovations. In addition members are expected to recognize and practice the process of searching for answers. Third is the creation and nurturing of *collaborative teams*. The PLC comprised of a group of collaborative teams that share a common purpose. This allows for schools to build the capacity for learning beyond the individual and to the entire faculty. Individuals who engage in collaborative team learning are able to learn from one another, and in doing so create a momentum for continued improvement. DuFour and Eaker (1998) point out that team learning is not the same as team building. Team building focuses on creating courteous protocols, improving communication, building relationships, enhancing the group's ability to perform routine tasks together. Instead, team learning focuses on a sense of organizational renewal and a willingness among individuals to work together in a continuous improvement process. The fourth characteristic identified by DuFour and Eaker (1998) is that PLCs are *action oriented* and *willing to experiment*. Such organizations display an understanding that learning always occurs in a context of taking action, and its members are often asked to develop, test, and evaluate theories. *Continuous improvement* is another characteristic of the PLC that further extends the

notion of the action associated with the workings of the PLC and its members. With its members engaged in the continuous process of improvement, innovation, and experimentation the PLC extends the ability of the individual members to the community as a whole. Finally, all PLC are *results oriented*. A PLC realizes that its efforts to develop a shared mission, vision, and values; to engage in collective inquiry; to build and develop collaborative teams; to support these teams with action; and to focus on the continuous improvement must be assessed on the basis of results instead of intentions.

#### Hord's Dimensions of a PLC

Among the many related definitions of professional learning communities, Hord (1997) focuses on what Astute and her colleagues (1993) identify as “professional communities of learners”. Hord’s (1997) theory of professional learning communities reflects the work of several researchers (Kleine-Kracht, 1993; Leithwood, Leonard & Sharratt, 1997; Louis & Kruse, 1995; Sergiovanni, 1994; Snyder, Acker-Hocevar & Snyder, 1996). Five conceptualize dimensions emerged from Hord’s extensive review of the literature. Shared and supportive leadership is the first dimension. Hord (1997) explains this dimension is characterized by school administrators who participate democratically with teachers sharing power, authority, and decision-making. The literature suggests that empowerment of teachers is key in the development of a professional learning community. When teachers are empowered, they are more willing to take on leadership tasks (Louis & Kruse, 1995). In addition, the literature consistently addresses the role of the principal in providing learning experiences for teachers (O’Neal, 1995). The importance of the organization’s leader in the implementation of a professional learning community cannot be understated. Hord (2004) reported that without strong leaders who are willing to become learners themselves, and who empower teachers to change, a professional learning community is impossible. The second dimension is shared values and vision in this staff members share visions

for school improvement that have an undeviating focus on student learning. Hord (1997) suggests that collective learning and application is the third dimension of a professional learning community. Collective learning refers to the staff's collective learning and application of the acquired knowledge in order to create high intellectual learning tasks and solutions to address student needs. Hord's (1997) next dimension is supportive conditions. These conditions or capacities support the school staff's arrangement as a professional learning organization. Finally, Hord (1997) proposes that a shared personal practice is the fifth dimension of a professional learning community. The notion of a shared personal practice is supported by the feedback from peers regarding instructional practice in an effort to increase individual and organizational capacity.

### **Self-Efficacy a Preface**

A major problem in reviews of the literature is the lack of consistent definition of the construct of teacher efficacy (Hipp, 1997). The work of Albert Bandura has guided most research in the area of teacher efficacy. Efficacy is dealing with one's environment – it is not a fixed act or simply a matter of knowing what to do. Instead, it involves a generative capability in which component cognitive, social, and behavioral skills must be organized into integrated courses of action to serve innumerable purposes (Bandura, 1982).

#### **Self-Efficacy**

The central construct in Bandura's social cognitive theory is *self-efficacy*, which Bandura (1986) defines as people's judgments of their capabilities to produce designated levels of performance; their judgments of their capabilities to organize and execute courses of action required to attain designated types of performances. The social cognitive theory contends that people are more likely to perform tasks they believe they are capable of accomplishing and are less likely to engage in tasks in which they feel less competent. Individuals' beliefs about their

competencies in a given area affect the choices they make, the effort they put forth, their persistence at certain tasks, and their resiliency in the face of failure (Bandura, 1997). The social cognitive theory serves to make a distinction between enactive and vicarious learning (Milner & Woolfolk, 2003). Enactive learning is explained as one experiencing the action as well as the consequences of that action. In contrast, vicarious learning is that learning which occurs by observing others. Social cognitive theory is grounded on the assumption that humans actively shape their lives, instead of being passive creatures upon whom environmental factors act (Bandura, 1986, 1997).

#### Triadic Reciprocal Causation Model

According to Bandura's social cognitive theory, human agencies work through the triadic reciprocal causation model (1986, 1997). This purports that behavior is caused by multiple factors and behavior can impact those factors equally. As described below, internal personal factors such as attitudes, affect, etc. and the environment exercise a bi-directional causal influence on each other. Each of these elements can have influence on behavior and cognition.

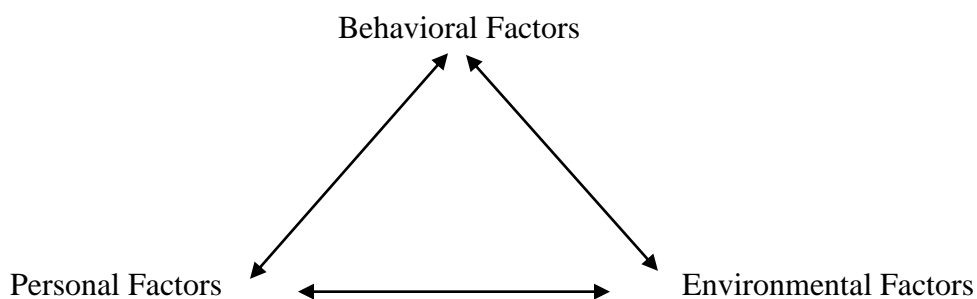


Figure 5. Bandura's (1997) Triadic Reciprocal Causation Model

Suppose for example that a teacher receives their class roster and upon review realizes that the roster includes the name of a student who has a history of hostile behavior. When greeting this student, the teacher's behavior (e.g. nonverbal demeanor, manner of communication) interacts with the teacher's internal personal factors (e.g. memory of a similar student, emotional reaction) and the environment (e.g. school climate, other students). This blending of factors impacts the teacher's perceived ability to interact in a positive manner with this student in the future. Therefore the teacher's future behavior is a result of many factors. Finally, the teacher's behavior is a function of the cognitive processing of the value and influence of all components involved.

#### Sources of Self-Efficacy

Bandura (1982) identifies four principal sources of information that influence self-efficacy: mastery experiences, vicarious experiences, verbal persuasion, and physiological state. [These include performance attainments; vicarious experiences of observing the performances of others; verbal persuasion and allied types of social influences that one possesses certain capabilities; and physiological states from which people partly judge their capability, strength, and vulnerability.]

Bandura (1997) has suggested that the most important source of information comes from the interpreted results of one's past performance, which he identifies as *mastery experiences*. Actual mastery of a given task can create a strong sense of efficacy to accomplish similar tasks in the future; conversely, repeated failure can lower efficacy perceptions, particularly when such failures occur early in the course of events and cannot be attributed to lack of effort or external circumstances (Zeldin and Pajares, 2000). On the other hand, continued success can create hardy efficacy beliefs that occasional failures are unlikely to undermine. Efficacy appraisals are partly influenced by a second source of self-efficacy information that individuals undergo when they

observe others performing tasks - *vicarious experiences*. Observing the successes and failures of others perceived similar in capability contributes to individuals' beliefs of their own capabilities. The behavior of models is particularly influential, especially given that individuals have little experience with which to form a judgment of their own competence in a particular area. Models are of extreme importance. Beliefs of personal competence are also influenced by the *verbal persuasions* one receives. Social encouragement and verbal messages help individuals to exert the extra effort and persistence often required to succeed. This persistence results in the continued development of skills and of personal efficacy. According to Bandura (1997) verbally convincing people that they are indeed capable of accomplishing a particular task is hypothesized to have the greatest effect on those who already believe themselves capable. On the contrary messages can also work to undermine efficacy beliefs and Bandura (1997) cautions that verbal persuasions can more easily undermine efficacy beliefs than strengthen them. The fourth source of information that influences individual's development of self-efficacy is their *affective/physical* and *emotional states*. Typically, optimism and positive mood enhance efficacy beliefs, whereas depression and despair diminish them.

Many studies have focused on Bandura's proposed four sources of self-efficacy, and the findings support Bandura's (1997) contention that mastery experience is the most important source of efficacy information. The more prominent contribution of mastery experience to individuals' self-efficacy perceptions may be due to several reasons. One, the nature of the survey scales that are more forced-choice does not allow for elaboration or for examples of instances. Also it would seem that past performance accomplishments may be the most relevant to individuals at the time surveys are administered. Interestingly, Hackett (1995) pointed out that "memories tapped in retrospective research of this type are heavily influenced by current attitudes. Individuals are far more likely to recall their own successes and failures than to

remember comments of others or observational experiences.” Multon, Brown, and Lent (1991) contend that self-efficacy beliefs that people hold influence the choices they make, the amount of effort they expend, their resilience to encountered hardships, their persistence in the face of adversity, the anxiety they experience and the level of success they ultimately achieve. Individuals with a strong sense of self-efficacy beliefs work harder and persist longer when they face difficulties than those who doubt their capabilities. Results from research on self-efficacy beliefs indicate that these judgments of personal competence are often stronger predictors of behavior than are prior accomplishments, skill, or knowledge (Multon, Brown & Lent, 1991). It is important to note that Bandura (1997) proposes that efficacy beliefs are pliable and can be influenced by environmental elements.

Information that is relevant for judging personal capabilities – whether conveyed inactively, vicariously, persuasively, or physiologically – is not inherently enlightening. Instead, it becomes instructive only through cognitive appraisal. The cognitive processing of efficacy information concerns the types of cues people have learned to use (Bandura, 1982).

Though used interchangeably, the terms – efficacy, sense of efficacy, and self-efficacy are defined as the extent to which a teacher believes that he or she can affect student performance (McLaughlin & Marsh, 1978). For the purpose of this research, the terms – efficacy, sense of efficacy, and self-efficacy are defined as the extent to which a teacher believes that he/she can affect student performance (McLaughlin & Marsh, 1978).

### **Teachers’ Self-Efficacy**

Historically, Bandura (1977) and Rotter (1966) have influenced the study of teacher efficacy. Although some confusion exist regarding the theoretical formulation of teacher efficacy and the psychometric attempts to measure the construct, teacher efficacy has emerged as a worthy variable in educational research (Henson, 2001). The idea that teachers’ self-beliefs are

determinants of their teaching behaviors is simple, yet powerful. Students of efficacious teachers generally outperformed students in other classes. In addition, research finds that teachers' self-efficacy was predictive of student achievement on the Iowa Test of Basic Skills (Moore & Esselman, 1992), the Canadian Achievement Tests (Anderson, Greene, & Loewen, 1988), and the Ontario Assessment Instrument Pool (Ross, 1992).

According to Bandura (1977) *teacher efficacy* is a type of self-efficacy. It is a cognitive process in which beliefs about an individual's capacity to perform at a give level of attainment are constructed. Effort put forth, persistence in the face of obstacles, and resilience are all influenced by self-efficacy (Bandura, 1997). Ashton and Webb (1986) were among the first researchers to develop a multidimensional model of teacher efficacy, based on Bandura's social cognitive theory (Bandura, 1977). Bandura (1977) states that behavior is effected by both *outcome expectations* and *efficacy expectations*. Guskey and Passaro (1994) describe outcome expectations as the judgments an individual makes about the likely consequences of specific behaviors in a particular situation; efficacy expectations are an individual's beliefs about his/her own capability to achieve a certain level performance in a given situation. According to Hoy, Hoy & Tschannen-Moran (1998) the efficacy question is "Do I have the ability to organize and execute the necessary actions to accomplish a given task at a desired level?" Where as the outcome question is, "If I accomplish the task at the desired level, what are the likely consequences?" it is important to note that efficacy expectation precede and help form outcome expectations (Hoy et al 1998).

#### Relationships Interacting with Teachers' Self-Efficacy

Teachers' sense of efficacy is related to a number of school-level variables, such as school climate, principal behavior, sense of school community, and decision-making structures within the school. Efficacy beliefs can be weakened by professional isolation, alienation, and

uncertainty; while efficacy beliefs can be increased with greater opportunity for collaboration with other adults and with increased observations made as to enhance the amount of feedback (Hoy et al. 1998).

Collaborating to improve instructional effectiveness can have a positive impact on teachers' sense of efficacy. According to Smith and Knight (1993) teacher collaboration in the form of study team participation was related to higher levels of general teacher efficacy. Although collaboration can sometimes be ambiguous, when its' purpose is clearly the improvement of teaching, and its' opportunities are embedded within the structure of the organization, such efforts have resulted in improvement of teaching behavior (McLaughlin & Talbert, 1993) the stimulation of intellectualism among teachers (Jeffery, 1995), and the promotion of professionalism (Oja & Smulyan, 1989). According to Henson (1999), such collaboration among teachers may influence teacher efficacy.

Guskey (1988) concluded that there is a significant relationship between high teacher' self-efficacy and teachers' positive attitudes toward the implementation of instructional innovations. Other studies have found a direct relationship between personal teaching efficacy and a teacher's willingness to try new techniques and/or change practices in order to improve classroom effectiveness (Smylie, 1988). Although mastery experiences are the most powerful efficacy changing force, they may be the most difficult to deliver to members of a school faculty. Staff development activities and action research projects are ways school administrators might provide efficacy-building mastery experiences. Administrators may also provide for vicarious learning experiences and social persuasion opportunities. Bandura (1997) contends that a low sense of efficacy can be contagious among faculty members, creating a self-defeating and demoralizing cycle of failure.

In a meta-analysis of 88 studies of teacher efficacy, Ross (1994) identified six correlates of efficacy connected to teacher behavior. Ross concluded the higher a teachers' efficacy the more likely they are to: (1) learn and implement new teaching techniques, (2) use developmental classroom practices, (3) attend to the needs of students with lower achievement, (4) enhance students' own self-perceptions as capable learners, (5) set high goals, and (6) exhibit persistence in the face of failure. Each of these behaviors has a positive impact on student achievement.

Positive correlations have been established between teachers' self-efficacy and student outcomes. Low teacher self-efficacy leads to low student efficacy and low academic achievement, which in turn leads to further declines in teachers' self-efficacy (Bandura, 1997). Hoy & Sabo (1998) posit that organizational features that create a cohesive culture may reverse this cycle. For teachers, a school culture that enhances an environment that provides sources of efficacy information from which teachers' self-efficacy beliefs may be created or enhanced could serve to strengthen teachers' beliefs in their own capabilities to effect educational improvements (Bandura, 1997).

In separate studies conducted during the late 1980's Ashton and Webb (1986), Anderson (1988) and Midgley (1989) similarly concluded that teachers' sense of efficacy was related to their students' sense of efficacy.

In addition to classroom level effects on teachers' self-efficacy, a number of studies have observed school-level factors or organizational variables that impact teachers' sense of efficacy. These studies found that a teacher's sense of efficacy is related to such organizational factors as principal's leadership behaviors, the social organization of the school, and the organizational health of the school. Newman, Rutter and Smith (1989) identified five organizational features (students' orderly behavior, the encouragement of innovation, teacher's knowledge of one

another's courses, the responsiveness of administrators, and teachers helping one another) that positively impacted teacher efficacy.

Current evidence suggests that teachers' self-efficacy is malleable, but that change will likely occur only through engaging and meaningful professional development opportunities (Henson, 2001).

### **Summary**

The preceding information was a review of the literature as it relates to Bandura's theory of self-efficacy beliefs and the impact that teacher self-efficacy, collective teacher efficacy, and development of a professional learning community can have on education. A positive belief of efficacy motivates individuals to try harder and longer, while a weak perception of efficacy contributes to minimal motivation (Bandura, 1977, 1986, 1997). The construct of a professional learning community was reviewed, as it is perceived to contribute to teachers' self-efficacy and teachers' collective efficacy beliefs. The following chapter outlines the design of the study.

## CHAPTER 3: METHODOLOGY

### Overview

This chapter outlines the methodology that was employed in the present study and includes a description of the procedures. Included in these procedures are sampling, instrumentation, data collection, and data analysis. The purpose of this study is to examine the relationship between teachers' perceptions of the existence of a professional learning community (PLC) within their school and teachers' self-efficacy beliefs in the context of participation in a PLC. The study employed a survey method design in an effort to generalize findings from the selected sample to the population of teachers in other schools participating in the Louisiana High School 9<sup>th</sup> Grade Redesign Initiative<sup>2</sup>. Although the generalizability of the results is limited due to the nature of the selected sample, the findings may serve as a catalyst for future research.

Research has concluded that teachers' self-efficacy is directly linked to student performance and achievement in the classroom (Ashton & Webb, 1986; Dembo & Gibson, 1985; Gibson & Dembo 1984; Smylie, 1988, 1990; Tschannen-Moran, 1998); however, research on the influence of the professional learning community, as an organizational framework for schools, on teachers' self-efficacy beliefs is limited and increases the urgency for research such as that conducted in this study.

Teachers at 10 schools participating in the Redesign Initiative formed the sample. The survey data collected through two questionnaires, described more fully below, explored the extent to which PLC is operational at the sample schools and examined the relationships between PLC and teachers' self-efficacy beliefs (Gay & Airasian, 2000, p. 11). The quantitative data analyses include descriptive statistics, correlations, and multivariate comparisons. Data were coded by school, respondent, and survey instrument.

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<sup>2</sup> Referred to as Redesign Initiative in remainder of chapter.

## **Sampling Procedures**

The sample design employed in this study is a non-probability strategy as defined by Creswell (2002). The specific procedure employed was convenience sampling. Sites considered for the study included schools representing various school districts in the state of Louisiana. The participating schools were high schools participating in their second year of the Redesign Initiative, as noted. The unique nature of the sample and its impact on the results are further discussed in Chapter 4 where the demographic results are reported.

There are a total of 54 schools<sup>3</sup> that fall into this category. In accordance with the Redesign Initiative, the state was divided into eight geographic regions with no more than 11 parishes and no fewer than 5 parishes representing a region. (Appendix E) Each region had a minimum of one school participating in its second year of the Redesign Initiative.

For the purpose of this study, 17 districts were contacted, representing each of the eight regions. Agreement to participate was offered by 12 school sites representing 12 districts; however, 248 teachers at 10 schools actually returned usable questionnaires. The composition of the sample decrease in participating schools is likely due to the timing of data collection, as discussed below. School liaisons, including assistant principals and academic coordinators, have agreed to assist with participant completion of survey instruments by reminding teachers to complete and submit the questionnaires.

## **Study Measures**

Two measures were used to collect data measuring each of the variables, as briefly discussed in Chapter 1. In addition, participating teachers were asked to complete a Demographic Information survey, which asked for information such as total years of teaching experience, race/ethnicity, and gender. These measures are discussed below.

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<sup>3</sup> To reduce bias, the school at which the researcher is employed is not included in the sample selection process.

## Schools as Professional Staff Learning Community Questionnaire (SPSLCQ)

The Schools as Professional Staff Learning Community Questionnaire (SPSLCQ), developed by Shirley Hord (1997), was selected to assess teacher's perception of their school as a learning community. This questionnaire assesses the extent to which teachers believe their school is a positive learning environment and a supportive learning community. The survey consists of five conceptual, not empirical, dimensions: shared leadership, shared visions, collective creativity, peer review, and supportive conditions/capacities. Each dimension contains items with individual Likert-type response scales of 5 (high) to 1 (low). The response scales used in the SPSLCQ vary by item and are, therefore, different from the more familiar Agree – Disagree response range. The unfamiliar response scales used in the Hord instrument may also have contributed to the decrease in the number of schools that ultimately participated in the study. Approximately 48 survey packets were excluded from data analyses due to an incomplete SPSLCQ. The response scales on the SPSLCQ have anchor statements at both end-points and at the mid-point to differentiate the high, middle, and low points on the scale. The higher the total score the more positively the school is viewed as a PLC.

A field test of Hord's instrument (Meehan, Orletsky, & Sattes, 1997) determined that it measured one general construct, rather than five distinct dimensions. Construct validity of the SPSLCQ has not yet been established. As reported in Chapter 4, analysis conducted in the present study resulted in two dimensions. Further field testing of the SPSLCQ conducted by Cowley and Meehan (2001). reported satisfactory Cronbach's alpha coefficients for each conceptual dimension. These coefficients are reported in Table 1. The SPSLCQ has consistently yielded satisfactory reliability, but the construct validity of the instrument has not been clearly established. This is further supported by the findings of this study. Despite the lack of construct validity, no other instruments were located that purported the PLC.

Table 1

Cronbach's alpha Coefficients for the SPSLCQ

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Dimension	Cronbach's alpha Coefficient
Shared sense of purpose	.74
Collaborative activity	.68
Focus on student learning	.61
Deprivatized practice	.62
Reflective dialogue	.68

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#### Teachers' Efficacy Beliefs System-Self (TEBS-S)

The Teachers' Efficacy Beliefs System-Self (TEBS-S), developed by Dellinger (2001) was chosen to measure teacher's perceptions of teachers' self-efficacy beliefs. The TEBS-S requests that teachers make judgments regarding the strength of their personal beliefs in their abilities to organize and successfully carry out teaching tasks. The 31 item survey solicits responses on a 4-point scale (1=weak beliefs in my ability, 2=somewhat strong beliefs in my ability, 3=strong beliefs in my ability, and 4=very strong beliefs in my ability). Presented in Table 2 are the psychometric properties for the TEBS-S as reported by Dellinger (2001). The four dimensions of the TEBS-S contained in Table 2 emerged from Dellinger's factor analysis of the scale. Using factor analysis procedures, Dellinger established the construct validity of the TEBS-S. These factors are reported as dimensions of the scale in Table 2 and the respective Cronbach alpha coefficient for each dimension indicates high internal consistency reliability.

Table 2

Cronbach's alpha Coefficients for the TEBS-S

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Dimension	Cronbach's alpha Coefficient
Accommodating Individual Differences (AID)	.87
Maintaining a Positive Classroom Climate (CC)	.86
Monitoring and Feedback for Learning (MFL)	.86
Managing Learning Routines (MLR)	.80

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### **Data Collection Procedures**

Teachers who are employed at selected schools participating in the second year of the Redesign Initiative comprised the sample, as noted. Following Institutional Review Board (IRB) approval at Louisiana State University (LSU), all teachers at the participating sites received an electronic questionnaire packet including the instruments discussed above. Teachers were asked to complete the packet via electronic delivery known as SurveyMonkey. All data collected remained in electronic format. As part of the introductory email requesting teacher participation, issues of confidentiality were discussed pursuant to procedures required by the IRB at LSU. Participants were given a two-week time frame to complete the measures. A reminder to complete the questionnaires was emailed to all participants at the end of the first week. In addition, the local site issued reminders at least once per week asking that the instruments be completed and submitted.

One issue that occurred during the data collection procedures that should be brought to the reader's attention is the nature to which the electronic data collection system, SurveyMonkey, linked teacher responses to the survey packet. SurveyMonkey, like many other

electronic data collection systems, links completed survey instruments to the personal computers (PC) internet protocol (IP) address. Therefore if the PC is used by multiple participants to complete the electronic survey the IP address is linked to more than one survey packet. This issue would impede the researchers ability to have clean individual data to link reported demographic data.

### **Data Analysis Procedures and Research Questions**

The purpose of this research study is to investigate the impact of professional learning communities on teachers' self-efficacy beliefs. Data were coded by school, respondent, item, and item dimension per instrument. Statistical software, *SPSS 9.0 for Windows*, was used to analyze the data. Several statistical analyses were computed to answer the two research questions listed below. For one of the analyses, the 10 schools were divided into two groups using a median split. Grouping was determined based on school means on the measure of professional learning community, the SPSLCQ. One group, to be called High Scoring Schools, is comprised of the schools with the highest overall means on the SPSLCQ , while the other group, called the Low Scoring Schools, is comprised of schools with the lowest overall means on the SPSLCQ. Although the schools were grouped by the extent to which they perceive their school to have attributes of a professional learning community, the unit of analysis was teachers.

#### **Research Questions**

The two research questions for the study are as follows:

1. What relationships exist among the dimensions of professional learning community and the dimensions of teachers' self-efficacy?
2. Will teachers from High Scoring Schools demonstrate a higher sense of teachers' self-efficacy beliefs than teachers from Low Scoring Schools demonstrate?

## Statistical Analyses Procedures

Statistical analyses in the study included the following procedures:

1. Descriptive statistics were used to describe the demographic and professional characteristics of the respondents in the sample. Summary statistics are reported for the total sample, including means, standard deviations and ranges of scores for each item for all demographic, independent, and dependent variables.
2. Correlation coefficients were calculated to determine the relationships among the dimensions of the SPSLCQ and the dimensions of the TEBS. The conceptual dimensions for the SPSLCQ are those identified by Hord (1997). The empirical dimensions of the TEBS-S are those identified by Dellinger (2001).
3. As noted above, school mean scores from the measure of professional learning community were used to create two groups of schools using a median split. Using teacher as the unit of analysis, a multivariate analysis of the variance (MANOVA) was calculated to determine whether differences exist in teacher perceptions on dimensions of the TEBS at the two groups of schools.
4. Although the MANOVA procedure resulted in non-significant findings, a post-hoc analysis using ANOVA was conducted in order to explore further any possible areas of difference among the dimensions.
5. Factor analysis were conducted to examine the construct validity of both instruments and thereby to identify the underlying dimensions of each instrument.

## **Design Issues**

In this study the principles of MAXMINCON (Creswell, 2002) were employed in an effort to reduce design error. The acronym serves as a means to center the attention of the researcher. Maximize the treatment effects as much as possible or choose strong predictor

variables. Minimize error variance by choosing reliable methods of measurement, standardizing procedures, careful data collection, homogenous sample, and so on. For the purpose of this study two existing instruments were chosen. The validity and reliability of the TEBS-S has been established through previous research. The reliability of the SPSLCQ has been established through previous research, however construct validity has not been established. In addition procedures for standardization of data collection were established with the use of the electronic medium of SurveyMonkey, and the sampling procedures employed homogeneity of the sample. Control for confounding variables. Such confounding variables that are likely to be present included but are not limited to: principal leadership; previous operational structure within the schools; and participants' prior teacher self-efficacy perceptions. As these or other confounding variables appeared they are addressed in the discussion of the findings.

### **Summary**

Chapter 3 included sampling, instrumentation, data collection, and the methodology required to answer the research questions. The questions guided the analytic methods used; the study utilized a pure quantitative approach. Descriptive statistics, multiple correlations, and MANOVA were calculated to examine results from the three survey instruments. The following chapter reports the results of the study.

## **CHAPTER 4: PRESENTATION OF THE RESULTS**

### **Overview**

The purpose of this study was to investigate the impact of professional learning communities on teachers' self-efficacy beliefs in a sample of Louisiana schools that had participated in the Louisiana High School 9<sup>th</sup> Grade Redesign Initiative<sup>4</sup> grant for two years. Schools from the Redesign Initiative were chosen because of the state attention given to redesigning high schools and because a substantial amount of financial resources had been awarded to each participating school. As mentioned in Chapter 1, the Redesign Initiative required that schools allocate financial resources to staff development and provide opportunities for teachers as well as school administrators to attend state, regional, and national conferences.

This study was carried out as a single phase study using quantitative methods. Likert-scale surveys were used to gather data regarding teachers' self-efficacy beliefs and teachers' perceptions of professional learning community at the school at which they work.

This chapter presents the results of the analysis of the quantitative data from the 10 sample schools. Teachers at each school received the survey packet that consisted of a demographic survey, the TEBS-S, and the SPSLCQ.

The results are presented in the following order: 1) characteristics of the respondents; 2) demographic information from the sample; 3) results of analyses used to address each of the research questions posed in Chapters 1 and 3.

### **Response Rate to Survey**

Seventeen schools initially agreed to participate in the study, for a total of 30% of those schools participating in the Redesign Initiative. Of these 17 schools, 248 individuals from 10 schools returned completed survey packets by the deadline, for a return rate of 59% of the 17

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<sup>4</sup> Referred to as Redesign Initiative in remainder of chapter.

schools. These 10 schools represented 18% of the 57 schools participating in the Redesign Initiative. Low school participation may be due to the particular time of the school year when data were collected. The data collection window was a two week period that followed both the week during which annual state standardized tests were administered and the week of spring break. In addition, the survey packet was somewhat lengthy which may also have contributed to the low return rates. Two other possible causes for the low return rate are that the electronic format used for data collection may have been unfamiliar to teachers and, therefore, they did not respond, and, as noted above, the response format for the SPSLCQ was unusual and perhaps dissuaded participation.

### **Summary of Descriptive Statistics for the Sample**

Descriptive statistics relative to the sample are included in this section. In Table 3, descriptive statistics are presented by school for those schools participating in the study. Demographic information from respondents is presented in Table 4.

**Table 3**  
Demographics of Participating Schools

School	Student Enrollment				Teachers Highly Qualified	Teachers w/ Valid State Credentials
	Reg. Ed #	Reg. Ed.%	SpEd #	SpEd%		
01	545	95%	29	5%	97%	Not Available
02	705	91%	74	10%	94.5%	86.9%
03	712	91%	69	9%	67%	63.5%
04	1101	96%	45	4%	83%	86.8%
05	1692	93%	137	8%	97%	97.2%
06	901	93%	71	7%	97%	94.6%
07	1154	90%	124	11%	88%	96%
08	409	92%	34	8%	79%	97.2%
09	1445	91%	149	9%	76%	89.4%
10	1067	90%	114	10%	87%	92.5%

Table 4

Respondent Demographics

Demographics		Frequency	Percent	
Gender	n = 248	Male	71	28.6
		Female	177	71.4
Ethnicity	n = 248	Black	26	10.6
		Hispanic	3	1.2
		White	212	86.2
		Bi-racial	3	1.2
		Other	2	0.8
Years of Professional Teaching	n = 248	1- 3	34	13.8
		4- 5	30	12.2
		6-10	46	18.7
		11-20	73	29.7
		21-30	36	14.6
		31 or Above	27	11.0
Years at Current School	n = 248	First year	27	11.0
		2-3	65	26.4
		4-6	55	22.4
		7-10	38	15.4
		11-15	32	13.0
		16 or more	29	11.8
Certification	n = 248	Special Education	25	10.2
		English	43	17.5
		Math	51	20.7
		Science	21	8.5
		Social Studies	18	7.3
		Health & PE	15	6.1
		Other <sup>5</sup>	73	29.7
Highest Degree Earned	n = 248	Bachelor	159	65.2
		Masters	49	20.1
		Masters +30	31	12.7
		Specialist	2	0.8
		PhD/EdD	3	1.2

<sup>5</sup> **Other** includes: ancillary personnel such as school counselors, and all other certifications not listed to include but not limited to – Vocational Education, Foreign Language, Band, Choir, etc.

According to personnel data from the 2007-2008 school year for full-time instructional staff, (Louisiana State Department of Education, 2008) Hispanic and black teachers are slightly underrepresented in the present sample. Approximately 65% of the sample reported that the highest degree completed was the bachelors degree, 20.1% reported they had at least a master's degree, and 14.7% held advanced degrees or certificates beyond the master's degree.

### **Descriptive Statistics for Demographic Characteristics of the Sample Respondents**

In Table 4, selected demographic characteristics of the respondents in this study are reported. Teachers were asked to respond to questions regarding various personal and professional characteristics. Females made up the majority of respondents. Of the 248 teachers responding to the survey, only 28.2% of the respondents reported their gender as male. Overall, the racial makeup of the participants did not vary greatly. Less than 14% of the sample were non-white.

Most of the teachers in the sample reported that they taught in regular education classrooms (89.8%). Fifteen (6.1%) of the participants reported that they taught more than one class that was not in their certification area while 93.9% teaching only subjects in which they are certified. Teacher respondents were experienced in that 29.7% reported that they had been teaching between 11-20 years and 18.7% between 6-10 years. However, 59.8% had been teaching at their current school for 6 years or less. Although well over half of the respondents had little seniority at their present school, one can extrapolate that most of these teachers had been at their school prior to the school entering the Redesign Initiative and so were able to make comparisons of the school prior to and subsequent to the implementation of the Redesign Initiative.

Although the sample is homogeneous in some respects, such as gender and ethnicity, it is unusual in other respects. Specifically, the percentage of respondents who are certified in special

education and teachers certified in non-core subject areas, such as band and industrial arts, is large. Nearly 40% of the respondents fall into these two categories. The composition of the sample indicates that the substantive findings of the study should be interpreted and used with caution. This issue is discussed more fully in Chapter 5.

The demographic survey also included a unique item created by Dellinger (2001) that is not demographic in nature and requires explanation. As shown in Table 5, this item, constructed as a 7-point continuum, used the two items from the RAND Change Agent study (McLaughlin, 1989) that were intended to measure teachers' self-efficacy beliefs. One of the RAND items measures a low sense of teachers' self-efficacy and the other measures a high sense of teachers' self-efficacy. The two items from the RAND study anchor the continuum which also includes five intermediate points arrayed to measure where respondents place themselves on the continuum. It was believed that teachers' responses to this item would closely relate to the traditional scaling and scoring of these items into a single scale (Armor et al., 1976).

The RAND items were based on Rotter's theory of locus of control. The construction of the continuum more closely paralleled Rotter's (1966) recommendations for measuring locus of control as a preference for internal versus external orientation. RAND Item 1 represented the lower end of the continuum, RAND Item 2 represented the higher end of the continuum, and a neutral response was included in the middle. The mean response on this item for all respondents was 5.5 (SD = 1.4), indicating that responding teachers tended to believe that they could positively impact student learning even when the learners were unmotivated. The results for this item in the present study are consistent with those of Dellinger's (2001) are reported on Table 5.

These results again suggest the consistency of the obtained teachers' self-efficacy data in the current study as well as the reliability and validity of Dellinger's development of both the RAND Item as well as the TEBS-S instrument.

Table 5

RAND Continuum Results

Beliefs	Frequency	Percent
Believe strongly that when it comes down to it, a teacher really can't do much because most of a student's motivation and performance depends on his or her home environment.	2	0.8
Somewhat believe...	25	10.1
Believe...	12	4.9
Neutral...	24	9.7
Believe ...	33	13.4
Somewhat believe...	75	30.4
Believe strongly that if I try really hard, I can get through to even the most difficult or unmotivated students.	76	30.8

**Summary of Results Addressing Research Questions**

In the section that follows, results of reliability analyses of the instruments are reported. In addition, results addressing each research question are presented separately. The research questions are posed at the beginning of the respective subsection and are followed by discussion of the statistical analyses and results.

## Instrument Reliability Analyses

This subsection contains summaries of reliability analyses of data from each of the measures employed in the study.

### Teachers' Self-Efficacy Beliefs System - Self (TEBS-S)

A total of 31 items from the TEBS-S were included. For the purpose of this study, the four dimensions from Dellinger's (2001) study were the primary analytic focus. Listed in Table 6 below are the four dimensions with item means and standard deviations.

Table 6

Dimension Means and Standard Deviations for the Teachers' Self-Efficacy Beliefs System - Self (TEBS-S)

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<u>Dimension and Items</u>	<u>Mean</u>	<u>Standard Deviation</u>
Accommodating Individual Differences (AID) (Items: 1, 2, 12, 13, 14, 27, 28)	2.94	0.21
Managing Learning Routines (MLR) (Items: 3, 4, 5)	3.30	0.20
Maintaining a Positive Classroom Climate (CC) (Items: 3, 4, 5, 6, 7, 8, 9, 24, 30, 31)	3.54	0.10
Monitoring and Feedback for Learning (MFL) (Items: 5, 10, 11, 15, 16, 17, 18, 22, 23)	3.30	0.20

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*Note:* The Likert-type response scale ranged from 1 to 4, with 1 being the lowest. Appendix D contains the actual items.

It should be noted that item means are lowest for the dimensions comprised of items that ask about instructional procedures that are related to accommodating individual differences and enhancing higher order thinking skills. The highest mean is associated with the dimension comprised of items dealing with maintaining a positive classroom climate. Dellinger (2001) reported the following Cronbach's alpha coefficients: 0.63, 0.61, 0.81, and 0.83 for AID, CC,

MFL, and MLR dimensions, respectively. The reliability coefficients for the AID and CC dimensions are somewhat low, unlike those reported by Dellinger (2001). Nonetheless, the coefficients alpha derived from the data for the present study for all four dimensions are acceptable.

In the process of data inspection, a factor analysis of TEBS-S using the data from the present study supported the findings of Dellinger (2001). This suggests both the reliability and construct validity of the instrument. The means and standard deviations for the extracted components of the TEBS-S are reported in Table 7.

Table 7

Dimension Means and Standard Deviations for the Teachers’ Self-Efficacy Beliefs System - Self (TEBS-S) [based on current data set]

<u>Dimension and Items</u>	<u>Min.</u>	<u>Max.</u>	<u>Mean</u>	<u>Standard Deviation</u>
Maintaining a Positive Classroom Climate (PCC) (Items: 4,6,10,12,13,15,16,22)	1.91	2.74	2.57	0.25
Accommodating Individual Differences (AID) (Items: 1,3, 7, 18,20,25,26,30,31)	2.52	2.98	2.79	0.14
Monitoring and Feedback for Learning (MFL) (Items: 19,21,28)	2.62	3.19	2.91	0.21
Managing Learning Routines (MLR) (Items: 8,11)	3.28	3.60	3.41	0.10

*Note:* The Likert-type response scale ranged from 1 to 4, with 1 being the lowest. Appendix D contains the actual items.

#### Schools as Professional Staff Learning Community Questionnaire (SPSLCQ)

The questionnaire measuring perceptions of professional learning community consists of five conceptual, not empirical, dimensions that Hord (1997) derived from the literature. These conceptual dimensions are shared leadership, shared visions, collective creativity, peer review, and supportive conditions/capacities. These dimensions are summarized for the purpose of this

study as: shared sense of purpose (SSP), collaborative activity (CA), focus on student learning (FSL), deprivatized practice (DP) and reflective dialogue (RD). These changes reflect a summation of the PLC dimensions and characteristics referenced in this study to include a blending of the characteristics of a PLC as described by DuFour (1998) as well as those dimensions explained by Hord (1997). Listed in Table 8 are the five conceptual dimensions with the overall means and standard deviations for items comprising the respective dimension and the item numbers associated with each dimension. In the process of data inspection it was found that item 17 of the SPSLCQ did not appear on the electronic format of the survey. This suggests that respondents were not given the opportunity to respond to the complete survey instrument.

Table 8

Dimension Means and Standard Deviations for the School Professional Staff as Learning Community Questionnaire (SPSLCQ)

<u>Dimension and Items</u>	<u>Mean</u>	<u>Standard Deviation</u>
Deprivatized Practice (DP) (Items: 1a, 1b)	3.15	0.43
Shared Sense of Purpose (SSP) (Items: 2a, 2b, 2c)	3.37	0.29
Focus on Student Learning (FSL) (Items: 3a, 3b, 3c, 3d, 3e)	3.60	0.31
Collaborative Activity (CA) (Items: 4a, 4b)	2.95	0.30
Reflective Dialogue (RD) (Items: 5a, 5b, 5c, 5d, 5e)	3.55	0.33

*Note:* The Likert-type response scale ranged from 1 to 5, with 1 being the lowest. Appendix C contains the actual items.

It should be noted that item means are lowest for items that relate to collaborative activity (CA), which included items pertaining to peer observation. The notion of peers observing and

providing feedback to other professionals in order to increase individual and organizational capacity has the lowest mean score. On the other hand, the highest mean score occurs for the dimension that pertains to teachers' collective learning and application of such learning to promote instruction. In Table 12 a summary of school means and standard deviations are provided for both the SPSLCQ and the TEBS-S.

Cronbach's alpha coefficients for the SPSLCQ were 0.73, 0.63, 0.91, 0.93, and 0.63 for CA, DP, FSL, RD, and SSP dimensions, respectively. These coefficients are similar to those reported by Cowley and Meehan (2001) for CA, DP, and SSP, but are higher than for FSL and RD than those reported by Cowley and Meehan.

In the second phase of data inspection a factor analysis of SPSLCQ using the data from the present study supported the notion that although the reliability of the instrument is sound, the validity has not been empirically established. The means and standard deviations for the extracted components of the SPSLCQ are reported in Table 9.

Table 9

Dimension Means and Standard Deviations for the School Professional Staff as Learning Community Questionnaire (SPSLCQ) [based on current data set]

Dimension and Items	Min	Max	Mean	Standard Deviation
Reflective Dialogue (Item: 1,2,3,5,10,11,12,13,14,15,16)	2.99	3.91	3.38	0.30
Focus on Student Learning (Item: 4,7,8,9)	3.26	4.36	3.76	0.29

*Note:* The Likert-type response scale ranged from 1 to 5, with 1 being the lowest. Appendix C contains the actual items.

Factor analysis performed on the SPSLCQ using the current data resulted in a 2-factor solution. The same analysis of the TEBS-S resulted in a 4-factor solution.

Cronbach's alpha coefficients for the SPSLCQ were calculated based on the 2-factor solution to yield .95 and .92 for Reflective Dialogue (RD) and Focus on Student Learning (FSL) respectively. The Cronbach's alpha coefficients for the TEBS-S were reported as .94, .93, .92, and .40 for Accommodating Individual Difference (AID), Maintaining a Positive Classroom Climate (CC), Monitoring and Feedback for Learning (MFL), and Managing Learning Routines (MLR) in that order.

#### Research Question 1

What relationships exist among the dimensions of professional learning community and the dimensions of teachers' self-efficacy?

In order to examine research question one, Pearson correlations were calculated to assess whether relationships exist between dimensions of teachers' self-efficacy beliefs (AID, CC, MFL, MLR) and dimensions of teachers' perceptions of professional learning community as a school organizational structure (CA, DP, FSL, RD, SSP). The resulting correlation coefficients are presented in Table 11. These findings are reflective of the TEBS-S dimensions as reported by Dellinger (2001) and the SPSLCQ dimensions as reported by Hord (1997).

The results reveal that, for this study, dimensions of teachers' self-efficacy beliefs are negatively related to dimensions of professional learning community, a finding that was not expected. The reader is reminded that the unusual composition of the sample may account, in part, for the findings reported in Table 11. Moderate to strong, significant, negative correlation coefficients were revealed between the TEBS-S dimensions, accommodating for individual differences (AID), and the SPSLCQ dimensions, deprivatized practice (DP), reflective dialogue (RD), and shared sense of purpose (SSP). These results suggest that as accommodating for individual differences (AID) increases, DP, RD, and SSP decreases.

Table 10

## School Means and Standard Deviations for Dimensions of the SPSLCQ and the TEBS-S

School	Dimensions of SPSLCQ Mean and Standard Deviations										Sub-Scales of the TEBS-S Mean and Standard Deviations							
	DP		SSP		FSL		CA		RD		AID		MFL		MLR		CC	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
01	3.50	1.00	3.54	0.81	3.79	0.81	3.08	1.06	3.84	0.69	3.11	0.36	3.34	0.43	3.36	0.50	3.37	0.58
02	3.32	1.17	3.51	0.99	3.46	0.94	2.71	1.12	3.58	0.95	2.98	0.84	3.58	0.43	3.59	0.44	3.63	0.55
03	3.27	1.16	3.29	1.11	3.36	0.82	3.30	1.13	3.49	1.15	2.89	0.57	3.22	0.54	3.31	0.48	3.42	0.44
04	2.88	1.17	3.41	1.00	3.77	0.92	2.97	1.06	3.38	0.91	3.05	0.35	3.28	0.48	3.16	0.49	3.49	0.39
05	2.50	1.00	3.00	0.33	3.35	0.64	1.67	0.58	3.40	0.85	3.20	0.89	3.43	0.71	3.48	0.54	3.52	0.38
06	3.85	0.75	3.82	0.64	4.24	0.37	3.11	0.99	4.17	0.52	2.10	0.14	2.40	0.00	2.67	0.58	3.30	0.53
07	2.63	1.42	3.00	0.94	3.51	1.19	3.08	1.19	3.25	1.19	3.48	0.54	3.57	0.60	3.67	0.47	3.59	0.55
08	3.55	1.13	3.53	1.28	3.53	1.32	3.15	1.16	3.80	1.14	2.62	0.80	3.05	0.50	3.09	0.40	3.58	0.50
09	2.87	0.99	3.17	0.83	3.51	0.73	2.99	1.01	3.12	0.85	3.28	0.61	3.54	0.42	3.50	0.44	3.79	0.33
10	3.12	1.24	3.40	0.79	3.58	0.81	2.82	1.09	3.53	0.78	2.77	0.71	3.29	0.54	3.29	0.54	3.56	0.46

Table 11

Pearson Correlations between SPSLCQ and TEBS-S  
(n=248)

Dimensions	AID	CC	MFL	MLR
CA	-.360	-.223	-.456	-.543
DP	-.737*	-.407	-.649*	-.689*
FSL	-.351	-.347	-.510	-.681*
RD	-.708*	-.529	-.698*	-.753*
SSP	-.656*	-.335	-.598	-.684*

*Note.* \* $p \leq 0.05$ .

While the data collected for the study do not include information about students, the negative correlations for AID, DP, RD, and SSP may reflect the more private settings in which teachers certified in special education and other non-core subject area teachers work. Such settings could make it difficult to deprivatize practice, isolate such teachers from other faculty, and involve different purposes than would be true of core-subject area teachers. For example, a teacher of students with autism out of necessity accommodates for individual differences, but in a very different way than an English teacher would accommodate for individual differences. Although this explanation is acknowledged to be speculative, a similar explanation may apply to both the other correlational results and the multivariate results.

Another finding reported in Table 11 is the significant, moderate to strong, negative correlation coefficients that exist between the TEBS-S dimensions, monitoring and feedback for learning (MFL), and both the deprivatized practice (DP) and the reflective dialogue (RD) dimensions of the SPSLCQ, suggesting that as monitoring and feedback for learning (MFL) increases deprivatized practice (DP) and reflective dialogue (RD) decreases. Additionally,

significant, strong, negative correlation coefficients were found between managing learning routines (MLR), a dimension of the TEBS-S, and deprivatized practice (DP), shared sense of purpose (SSP), focus on student learning (FSL), and reflective dialogue (RD), dimensions of the SPSLCQ. Again, these results suggest that as teachers reported stronger teachers' self-efficacy beliefs related to managing learning routines (MLR), they concomitantly reported deprivatized practice (DP), shared sense of purpose (SSP), focus on student learning (FSL), and reflective dialogue (RD) decreases. Once again the reader is reminded that the uniqueness of the sample may have had some effect on the nature of the results.

Finally, the dimensions from the SPSLCQ, collaborative activity (CA), was not significantly correlated with any dimension of the TEBS-S, though two relationships were moderated in magnitude, specifically, monitoring and feedback for learning (MFL) and managing learning routines (MLR). Likewise, the TEBS-S dimension, maintaining a positive classroom climate (CC), was not significantly related to any dimension of the SPSLCQ. However, all correlations were negative and three of the five correlations were moderate in magnitude, specifically deprivatized practice (DP), focus on student learning (FSL) and reflective dialogue (RD).

Following factor analysis procedures on the current study data, new factors were extracted on the SPSLCQ. In turn, a second Pearson correlation was calculated to assess whether relationships exist between teachers' self-efficacy beliefs (AID, CC, MFL, MLR) and teachers' perceptions of professional learning community as a school organizational structure (RD and FSL). The results of the correlation calculations are presented in Table 12. This second series of correlations were important to the study due to the unique nature of the sample.

Table 12

Pearson Correlations between SPSLCQ and TEBS-S [based on current data set]

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Dimensions	AID	CC	MFL	MLR
RD	<b>-.649*</b>	<b>-.585</b>	<b>-.304</b>	<b>.090</b>
FSL	<b>-.567</b>	<b>-.049</b>	<b>-.026</b>	<b>-.041</b>

---

*Note.* \* $p \leq 0.05$ .

**Bold** indicates the factors of the SPSLCQ.

These results reveal a significant negative correlation coefficient between reflective dialogue (RD) and accommodating individual differences (AID)  $r(10) = -0.65, p = .042$  suggesting an inverse relationship exists between the two variables. Statistically there are no other significant coefficients revealed among the extracted variables. The second correlation analysis further supported the findings from the initial analyses.

#### Research Question 2

Will teachers from *high* scoring schools demonstrate a higher sense of teachers' self-efficacy beliefs than those from *low* scoring schools demonstrate?

In order to examine research question 2, a multivariate analysis of variance (MANOVA) was conducted to assess whether mean differences exist on accommodating for individual differences (AID), maintaining a positive classroom climate (CC), monitoring and feedback for learning (MFL), managing learning routines (MLR) by the SPSLCQ groups (high vs. low). The results of the MANOVA were not significant  $F(4,5) = 0.42, p = .788$ . This suggests that statistically significant differences do not exist between SPSLCQ groups on the dimensions of teachers' self-efficacy.

Results from four analyses of variance (ANOVA), conducted as follow-up analyses and presented in Table 13, confirm MANOVA results that no differences exist between the SPSLCQ

groups and each dimension of teachers' self-efficacy beliefs. Stated another way, teachers at schools that scored higher on the measure of professional learning community did not have means that differed on accommodating for individual differences (AID), maintaining a positive classroom climate (CC), monitoring and feedback for learning (MFL), or managing learning routines (MLR).

**Table 13**

ANOVA's on Monitoring and Feedback for Learning (MFL), Maintaining a Positive Classroom Climate (CC), Accommodating for Individual Differences (AID), and Managing Learning routines (MLR) by total Professional Learning Community group (*high vs. low*) as measured by the SPSLCQ.

	<i>F</i>	Sig.	Partial Eta <sup>2</sup>	Power	High		Low	
					M	SD	M	SD
Monitoring and Feedback for Learning (MFL)	1.34 (0.04)	.280	0.14	0.18	3.37	0.13	3.23	0.25
Maintaining a Positive Classroom Climate (CC)	0.59 (0.01)	.465	0.07	0.10	3.56	0.12	3.51	0.10
Accommodating for Individual Differences (AID)	1.33 (0.04)	.282	0.14	0.18	3.02	0.18	2.87	0.23
Managing Learning Routines (MLR)	1.87 (0.04)	.209	0.19	0.23	3.39	0.11	3.22	0.25

### **Factor Analysis of Study Measures**

Data for each instrument, the SPSLCQ and the TEBS-S, used in the study were analyzed through factor analysis procedures to identify the nature of the latent constructs. This procedure was used as an additional data check for the study. Exploratory factor analyses was completed for the total sample of respondents (n=248), using principal component analysis procedures with

both orthogonal and oblique rotations. The first analysis of each instrument allowed unconstrained extraction of factors with an eigenvalue > 1. This analysis was followed iteratively extracting and rotating from one to multiple factors. Factor loadings and the variance explained by factors identified in the various solutions were examined. The solutions deemed most conceptually appropriate were those containing the fewest number of factors relative to the total variance explained by the solution while still maintaining the interpretable latent constructs.

The following general decision rules were used to retain items on particular factors:

1. The minimum actor structure coefficient to retain an item on a factor was  $|\geq .33|$ .
2. If an item loaded at or above  $|\geq .33|$  on more than one factor, the item was retained on the factor with the highest loading, only if the difference between the two highest squared loadings (coefficients of determination) were at least .10.
3. If an item loaded at or above  $|\geq .33|$  on two or more factors, it was not retained.

(Tabachnick & Fidell, 2001):

The results for the factor analysis on the SPSLCQ are reported in Table 14, and the results for the TEBS-S are reported in table 12 that follows. The factor analysis for the SPSLCQ resulted in a 2-factor solution accounting for 79.2% of the variance in the data, and for teachers' self-efficacy resulted in a 4-factor solution accounting for 81.94% of the data variance.

**Table 14**  
 Summary of the Rotated Factor Structure Coefficients for Items Retained for the Two-Factor Orthogonal Solution for the School as Professional Staff Learning Community Questionnaire (SPSLCQ)  
 (n=248)

SPSLCQ Item	Factor Coefficients		Communality Estimates
	I RD	II FSL	
1	<b>.96</b>	.14	.99
2	<b>.94</b>	.03	.99

(table continues)

Table 14

SPSLCQ Item	Factor Coefficients		Communality Estimates
	I RD	II FSL	
3	<b>.92</b>	.12	.99
4	.10	<b>.93</b>	.99
5	<b>.93</b>	.16	.99
6**	<b>.68</b>	<b>.64</b>	.99
7	.14	<b>.91</b>	.99
8*	.47	<b>.81</b>	.99
9	.16	<b>.81</b>	.99
10*	<b>.65</b>	.46	.99
11	<b>.72</b>	.05	.99
12*	<b>.81</b>	.38	.99
13	<b>.90</b>	.28	.99
14*	<b>.77</b>	.42	.99
15*	<b>.58</b>	.43	.99
16*	<b>.72</b>	.48	.99

Variance Explained      10.15%      7.05%

Variance Explained by two-factor solution 17.20%

\* Indicates retained items based on established criteria that loaded on more than one factor.

\*\* Indicates items not retained based on established criteria.

**Bold type** indicates item loadings which meet criteria established for item retention.

It should be noted that Item 17 of the SPSLCQ was inadvertently not included on the electronic survey. Therefore respondents were not given the opportunity to complete the entire survey instrument.

Table 15

Summary of the Rotated Factor Structure Coefficients for Items Retained for the Four-Factor Orthogonal Solution for the Teacher Efficacy Beliefs System - Self (TEBS-S) (n=248)

TEBS-Self Item	Factor Coefficients				Communality Estimates
	I PCC	II AID	III MFL	IV MLR	
1*	<b>.88</b>	.09	.33	.24	.98
2**	<b>.35</b>	.17	<b>.55</b>	<b>.42</b>	.99
3*	<b>.84</b>	.43	.09	.14	.99
4*	.48	<b>.75</b>	.12	.05	.99
5**	.10	<b>.59</b>	<b>.48</b>	<b>.43</b>	.98
6*	.24	<b>.69</b>	.10	.34	.99
7*	<b>.78</b>	.52	.05	.16	.98
8	.08	.15	.26	<b>.61</b>	.99
9**	.19	<b>.64</b>	.01	<b>.62</b>	.99
10	.02	<b>.73</b>	.07	.10	.99
11*	.02	.36	.19	<b>.83</b>	.99
12*	.41	<b>.83</b>	.15	.17	.98
13	.21	<b>.89</b>	.19	.12	.98
14**	<b>.61</b>	<b>.62</b>	.26	.08	.98
15	.04	<b>.71</b>	.22	.20	.98
16*	.51	<b>.64</b>	.32	.20	.98
17**	<b>.74</b>	<b>.52</b>	.12	<b>.35</b>	.98

(table continues)

TEBS-Self Item	Factor Coefficients				Communality Estimates
	I PCC	II AID	III MFL	IV MLR	
18	<b>.95</b>	.20	.02	.02	.98
19	.07	.18	<b>.94</b>	.08	.98
20*	<b>.82</b>	.26	.47	.16	.98
21	.06	.09	<b>.92</b>	.07	.99
22*	.10	<b>.71</b>	.38	.04	.98
23**	<b>.44</b>	<b>.66</b>	<b>.42</b>	.04	.98
24**	<b>.59</b>	.17	.26	<b>.53</b>	.98
25	<b>.90</b>	.09	.28	.06	.99
26	<b>.82</b>	.20	.32	.23	.98
27**	<b>.61</b>	.01	<b>.65</b>	.11	.99
28*	.61	.20	<b>.75</b>	.00	.98
29**	.11	<b>.68</b>	<b>.49</b>	<b>.36</b>	.98
30*	<b>.86</b>	.40	.14	.05	.99
31	<b>.84</b>	.22	.07	.30	.99

Variance Explained 14.28% 13.40% 9.60% 7.11%

Variance Explained by the four-factor solution. **44.39%**

\* Indicates retained items based on established criteria that loaded on more than one factor.

\*\* Indicates items not retained based on established criteria.

**Bold type** indicates item loadings which meet criteria established for item retention.

## **Summary**

In this chapter, results from quantitative analyses were presented for the two research questions. For each dimension of both instruments, teachers' mean score was above the midpoint of the Likert-type response scales indicating that respondents tended to perceive their school as moving in the direction of a PLC and that respondents tended to report moderate to strong teachers' self-efficacy beliefs. The dimensions of the two instruments were, for the most part, moderately to strongly related, but negatively so. In addition, several, but not all, of the correlations were statistically significant. Finally, schools assigned to high and low scoring groups based on means calculated for SPSLCQ did not differ statistically on the dimensions of teachers' self-efficacy beliefs.

Chapter 5 presents a discussion of the results as well as conclusions and implications of the findings. The study will conclude with recommendations for future research.

## **CHAPTER 5: DISCUSSION, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS**

### **Overview of the Study**

This chapter provides a discussion of the study results regarding teachers' self-efficacy beliefs, professional learning community (PLC), and the relationship between these two constructs. Conclusions related to the findings are presented as are implications of the findings and recommendations for future research.

Education in the United States has been scrutinized for decades. Reports that the educational system has failed to successfully educate the youth of America (DuFour & Eaker, 1998) are plentiful. In response, strategies were borrowed from business, including the notion of learning organizations and professional learning communities. Professional learning community as an organizational structure for schools has been hailed as the most promising strategy for sustained school improvement (DuFour & Eaker, 1998). DuFour and Eaker suggested that if schools are to be more effective, they must embrace a new model that fosters learning throughout the school, by adults as well as by students. According to Hall and Hord (2001), professional learning communities are the preferred organizational structure for schools. These researchers asserted that, at least as much as any other organization, schools should be learning organizations.

The present study examined teachers' perceptions of teacher self-efficacy beliefs and their perceptions of professional learning community at their school. In doing so, dimensions underlying these two constructs were investigated. Further, the study sought to determine whether a relationship exists among the dimensions comprising the two constructs, and whether there were statistical differences in teachers' self efficacy beliefs at schools at which teachers were more likely to perceive characteristics of professional learning community than at schools at which teachers were less likely to perceive characteristics of professional learning community.

## **Theoretical and Contextual Background**

Bandura's model of triadic reciprocal causation (see Figure 5), a fluid model of behavior in which individual factors interact reciprocally with environmental and behavioral elements, served to frame this study theoretically. Bandura (1997) concluded that efficacy beliefs are context specific and that environmental factors are theoretically linked to efficacy beliefs. Bandura (1997) also suggested that learning environments which contribute to student achievement are created and fostered by the talents of the teachers and their belief in their ability to impact student learning. Studies have linked teachers' self-efficacy beliefs to student achievement (Anderson et.al 1988) as well as to instructional effectiveness in the classroom (Ashton & Webb, 1986) While limited in number, other studies suggest that professional learning communities (Cowley & Meehan, 2001) positively affect teachers' self-efficacy, creating an indirect but desirable impact on student achievement.

The participants in this study consisted of 248 high school teachers (9-12) employed in schools in 10 school districts in the state of Louisiana. The districts differed greatly in size, and although the differences in most demographic characteristics were subtle the atypical sample has likely had some impact on the study variables. Correlational methods and multivariate analyses of variance (MANOVA) were employed to analyze data from the participants in the study.

### **Organizational Structure of Schools**

Historically, the organizational and operational structure of schools has been a hierarchical, bureaucratic configuration. Such a structure typically concentrates decision making prerogatives at the formal leadership level. If decision making is shared in hierarchical organizations, it is limited to a few individuals who hold positions of authority or favor within the organization. Educational reformers have long called for a change in organizational structure of schools in order to capitalize on teachers' leadership abilities and their deep knowledge of the

students and students' learning characteristics. Where such reforms have been successfully implemented, hierarchical differences that pose barriers between school administrators and teachers break down.

The Louisiana High School 9<sup>th</sup> Grade Redesign Initiative<sup>6</sup> represents a state level effort to remove barriers between school administrators and teachers by replacing the traditional school hierarchy with a collaborative approach to leading, teaching, and learning. The mechanism selected to foster this change was professional learning community.

In an effort to spur organizational shifts, the Louisiana Department of Education established the High School Redesign Commission. One product of the Commission was the establishment of the Redesign Initiative. Through this initiative, the state allocated substantial resources to qualifying high schools in the form of a grant. In the first year of funding, the grant monies were to focus on providing professional development opportunities to teachers and principals. In addition, schools were required to participate in regional meetings that served as idea-sharing sessions. As suggested above, one goal of the initiative was to encourage the creation of professional learning communities. Because of this special attention, resource allocation, and staff development, high schools participating in the Redesign Initiative were selected to participate in this study.

### **Psychometric Properties of the Instruments Used in the Study**

To investigate the impact of professional learning communities on teacher self-efficacy beliefs, two questionnaires were used. The School Professional Staff as Learning Community Questionnaire (SPSLCQ) was developed by Hord (1997) to elicit perceptions about conceptual dimensions of professional learning community as an operational structure for a school. The

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<sup>6</sup> Referred to as the Redesign Initiative in the remainder of the chapter.

Teachers' Self-Efficacy Belief Scale-Self TEBS-S was developed by Dellinger (2001) to measure teachers' self-efficacy perceptions.

Both instruments were used in prior studies in which the underlying dimensions of each instrument were empirically examined and internal consistency reliability was analyzed. Hord (1997) qualitatively identified dimensions of professional learning community, thus the dimensions of the SPSLCQ are conceptual. However, the SPSLCQ was empirically analyzed for underlying dimensions by Meehan, Orletsky, and Sattes (1997), who found a single dimension rather than the five that Hord proposed. Data from the present study were also empirically analyzed to determine what dimensions comprised the SPSLCQ. Two dimensions were found, Reflective Dialogue (RD) and Focus on Student Learning (FSL) suggesting that the other four dimensions suggested by Hord (1997) can be collapsed to two dimensions. This supports the notion that teachers desire to be aware of administrative issues within the school, however it suggest that simply being given the opportunity to participate in decision-making process is sufficient. It also implies that teachers remain reluctant to relinquish the level of autonomy that they feel they have within their classroom. This conclusion is supported by the results from the SPSLCQ.

Although the five qualitatively determined dimensions of professional learning communities have yet to be confirmed through empirical analyses, the conceptual dimensions have been found to be reliable. In both the Cowley and Meehan (2001) study and the present study, reliability analyses of the SPSLCQ yielded acceptable results for the five dimensions posited by Hord. As often noted, reliability is necessary but insufficient to establish instrument validity. To date, the validity of the SPSLCQ is unknown. A caveat is also in order. Because something appears to be amiss with the data for the present study, all results, including the validity analysis, should be interpreted with caution.

The TEBS-S has also been used in prior studies. Four subscales were empirically identified by Dellinger (2001). In both Dellinger's studies and in the present study, reliability analyses resulted in acceptable internal consistency coefficients were found.

#### Correlational Analyses

Pearson correlations were used to determine if a relationship existed between professional learning community and teachers' self-efficacy. These results do indeed suggest a relationship exists between the five dimensions of a professional learning community and the four components of teachers' self-efficacy. Findings of the correlational statistics suggest a significant negative correlation between all sub-scales.

#### Factor Analyses

Both study instruments were subjected to a factor analysis in order to explore the nature of the empirically derived constructs measured by the SPSLCQ and the TEBS-S. Details of the factor analyses for both instruments have been previously presented in Chapter 4. Results indicated that items loaded appropriately onto the two measures.

Factor analysis of the TEBS-S revealed seven correlated subscales that represented teachers' self-efficacy beliefs about teaching tasks. The first five subscales accounted for 40.08% of the variance. The last three subscales combined for 9.49% of the variance and were limited to one loaded factor. The five significant subscales were identified as: Positive Classroom Climate and Management (10 items); Accommodating Individual Differences (6 items); Communication/Clarification (7 items); Planning to Facilitate Student Learning (PFSL). The remaining subscales were Classroom Management (1 item) and Monitoring Learning (1 item).

The factor analysis of the SPSLCQ revealed three correlated subscales. The three factored subscales of the SPSLCQ and the number of items per subscale are as follows:

Reflective Dialogue (10 items); Focus on Student Learning (5 items); Collaborative Activity (1 item).

#### Conclusions for Research Question 1

This study proposed that teachers' beliefs about their abilities to perform specific sub-scale tasks within a domain generalize to beliefs about abilities to perform more broadly defined skills. Reliability estimates for data from the teachers' self-efficacy factors in this study provide strong evidence of these relationships.

In addition, the dimensions of professional learning community, as discussed in this study, emerged through data analysis. Based on the Cronbach alpha reliability estimates, it can be concluded that both scales have satisfactory reliability.

The results of the correlational analyses present strong correlations for all dimensions of professional learning community with teachers' self-efficacy. Although these correlations are negative, there is still merit in the results.

I would suggest that when considering the demographics of the sample, nature of the dimensions of professional learning community as assessed on the SPSLCQ, and the constructs of teachers' self-efficacy as measured on the TEBS-S there are reasonable explanations.

The demographic data as reported by the participants reveals that 71.4% (177) of the participants were female. Also, 29.7% (73) participants indicated that they had been a professional educator between 11 – 20 years and 18.7% (46) for 6 – 10 years. This suggests that approximately half of the participants sampled had established themselves as veteran classroom teachers. Therefore it would seem plausible that the majority of the studies participants were individuals who had chosen to be in and remain in the classroom setting instead of seeking administrative positions within the school setting. This would further support the notion that to

such individuals the administrative decision making within the organizational setting of the school is of minimum concern.

The time of year may provide an additional explanation for the negative correlation reported in the findings. This would imply that due to the nearing of the end of the academic year, many teachers have become either disenchanted with the organizational structure of the school or perhaps they have had efficacious experiences that are not reflected within the parameters of the SPSLCQ nor the professional learning community dimensions as reported by Hord (1997).

In addition, consideration should be given to the fact that in the initial field test of Hord's instrument (Meehan, Orletsky, & Sattes, 1997) it was determined that the SPSLCQ actually measured one overall construct, rather than five distinct dimensions. It was suggested that the individual items should be combined into one total scale with the higher the total scale score, the more positively the school is viewed as a professional learning community.

In a conversation with Dr. Shirley Hord (5/11/09) she agreed that the instrument has high reliability, however, she is of the professional opinion that it is better suited to provide one overall construct. It was also suggested that in an effort to better understand the negative results reported through the correlational analysis, outlier schools should be identified and teachers representing such outliers should be interviewed using the SPSLCQ as a basis for questioning.

### **Major Findings and Conclusions for Research Question 2**

Will teachers from High Scoring Schools demonstrate a higher sense of teacher self-efficacy beliefs than those from Low Scoring Schools demonstrate?

#### Major Findings for Research Question 2

The results of the MANOVA were not significant suggesting that simultaneous difference do not exist on the dependent teachers' self-efficacy variables by the identified

professional learning community groups of *high* vs. *low* scoring schools. To ensure the results of the MANOVA were conclusive, four univariate analyses of variance (ANOVA) were conducted to ensure the results from the MANOVA were accurate. The findings from the ANOVAs supported the results of the MANOVA with neither reporting variance.

#### Conclusions for Research Question 2

A conclusion derived from the multivariate analyses of variance (MANOVA) is that differences between schools did not exist. This is supported by the high mean scores and low standard deviations calculated on each of the study instruments suggesting that the perceived differences between schools did not exist. This suggests that schools perceptions regarding the degree to which a professional learning community exists within the school are more similar than anticipated at the beginning of the study.

Furthermore, it is likely that the MANOVA results were not significant subsequent to the fact that the schools were not different. All schools were similar in configuration (9 -12) although several of the schools were formally organized as having a 9<sup>th</sup> grade wing or center. All schools were participating in common professional development regarding the formation of professional learning communities. It is suggested that a longer period of participation in the evolution of the professional learning community with in each school would yield differences between schools that would be more significant due to the unique application of the PLC structure to each school.

In addition to the similarities that have been shown to exist among the schools participating in the study, perhaps the findings were inhibited due to the small number of schools participating. The procedure for using a mean split would have provided stronger variance if the total number of schools could have been proportioned in to thirds. In so doing, this would have eliminated schools falling within the middle third where little to no variance would exist.

It is important to note that Hord (personal communication, May 11, 2009) indicated that factors in the SPSLCQ were derived from qualitative analysis. Therefore the psychometric properties of the instrument are not empirically stable. This is contrary to Dellinger's (2001) TEBS-S which has been studied for its psychometric properties in multiple studies (Dellinger 2001, Olivier, 1999).

### **Data Inspection**

In an effort to uncover possible errors that would have produced such perplexing results a number of checks were conducted. The first check included a review of participant data as entered on SurveyMonkey compared to the data downloaded to the spreadsheet used for coding responses in *SPSS*. In order to accomplish this, every fifth participant's electronic response survey was compared to the spreadsheet data. Through this process there were no errors reported. This suggests that data electronically submitted by participants was correctly represented in the electronic spreadsheet and correctly coded in the *SPSS* program.

During the inspection process it was discovered that Item 17 of the SPSLCQ was inadvertently not included in the electronic format. This precluded participants to responding to this item, and may have had some impact on the reported findings.

The last error found was significant in that it prevented the researcher from having the ability to run simple regression analyses on demographic data. As previously discussed, each electronic survey packet was electronically delivered to the school contact person. The school contact in turn electronically distributed the survey packet. This was to further ensure participant confidentiality. However, as noted earlier, as one respondent would access their personal email at a personal computer, the survey would be linked to that personal computer IP address. In so doing as multiple participants used the same personal computer the data was linked to only one

IP address. This is a precarious situation for the researcher, and prohibited the opportunity to complete regression analyses that would have added to the findings of this research.

### **Discussion and Implications**

The final sections of Chapter 5 are an attempt to bring the findings and conclusions together, and address the implications of these results and suggest areas for future research.

Each day, teachers are expected to impact and improve student learning. Bandura (1997) suggested that learning environments contributing to students' achievement are created and fostered by the talents of the teachers and the belief in their ability to impact student learning. Studies have been conducted linking teachers' self-efficacy to student achievement as well as instructional effectiveness in the classroom. While limited, studies have shown that professional learning communities (Cowley & Meehan 2001) affect teachers' self-efficacy, creating an indirect impact on student achievement. The present study does not confirm Cowley's (2001) findings. While teachers participating in the study had rather strong self-efficacy beliefs regarding their teaching and were more likely than not to perceive their schools as having attributes of a professional learning community, dimensions of self-efficacy consistently correlated negatively with dimensions of professional learning community suggesting an inverse relationship. Based on the prior literature and research, this result was both unexpected and perplexing. Both instruments presented high reliability measures. Moreover, the schools identified for the study were participants in a special grant program of interest to state education leaders. As a consequence of involvement in this grant program, teachers and administrators at the selected schools had received professional development regarding implementation of professional learning community attributes.

Based on Bandura's (1986) reciprocal effect, teachers who work within a school that functions as a professional learning community should develop a stronger sense of teachers' self-

efficacy. Again, the results of this study did not confirm this. Although the data in this study were not adequate to propose a solution to the perplexing statistical results, inferences have been made suggesting possible explanations.

One explanation for the results may be that some teachers may perceive themselves to be very efficacious as a result of professional interactions and relationships with colleagues. In addition, these teachers may not find that their perception of efficacy is dependent on the relationship between teacher(s). Instead teachers may be self-driven and not even aware of the contributions of other teachers or administrative personnel because of their own strong feelings of efficaciousness and competence.

A second explanation may be factors such as leadership of previous administrators, undergraduate programs, years of experience, or student achievement and feedback that strengthen teachers' self-efficacy without recognizing the organizational structure of the school. Such experiences may have influenced teachers' self-efficacy beliefs previously and continue to carry through to other stages of their teaching profession. For these reasons it is plausible that teachers with strong efficacy beliefs would not necessarily identify or be affected by the school's organizational structure.

A third explanation may relate to teachers' involvement in other experiences that extend beyond the school and may enhance teachers' self-efficacy. Such experiences may include but are not limited to pursuing a higher level of teacher certification, attending state, regional, and national conferences. Teachers who have such experiences are likely to contribute to a school climate that may be different from teachers who have not been exposed to such outside professional development opportunities.

Based on a review of the literature and the results of this study, there are several implications for further consideration.

One implication suggests that teachers' perceptions of teacher self-efficacy exist in varying degrees. Nevertheless, the range of these degrees is narrow rather than widely dispersed. Teachers perceive themselves to have some degree of self-efficacy, and feel that their efficaciousness, to a degree, impacts student achievement. A limited number of individuals would consider themselves as possessing low teacher self-efficacy or as inefficacious.

In a conducive setting, a significant number of the faculty will likely embrace the ideas set forth through a professional learning community, be supported by their principal, and over time be able to influence other colleagues to join them in reflective discussions and collaborative work. In other settings, teachers who do not want to upset the status quo may actively oppose the development of a professional learning community. These schools may be balkanized with some teachers who rail against the additional demands that such an organizational structure entails, and in an effort to not change the norms of unimpeded teacher autonomy.

Against the backdrop of the current study, the strong yet negative correlations between teachers' self-efficacy results and professional learning community scores reported in this study seem quite difficult to understand. Although this may be the current state of the schools under study, it does not in any sense delimit the potential of this set of ideas to transform school practice. Only the actual experience of schools seeking to work with these ideas over time can tell of the exact potential that professional learning communities as an organizational structure may have on teachers' self-efficacy and student achievement.

Currently, based on the findings of this study, there are neither implications nor recommendations for policy.

## **Recommendations for Future Research**

In terms of future research it is important to focus on three areas that would add to the research on both professional learning community as well as teachers' self-efficacy.

The first area of focus should be on the psychometric development of the SPSLCQ. Based on the current study, the five dimensions of the professional learning community as measured by the SPSLCQ are not stable, further development of the instrument by conducting a factor analysis is necessary. Construct validity must be addressed in order to support the quantitative pursuits of researchers.

Another consideration for future research is methodology. A mixed-methods study of teachers' self-efficacy and teachers' perceptions of the school as a professional learning community would serve to clarify the findings from this study. Conducting focus groups at identified outlier schools would provide additional data. Through such methods researchers could observe what schools are doing to develop the dimensions of a professional learning community. It is important to focus more attention on how such school-based professional learning communities actually emerge and are sustained. In addition to qualitative methods, a true longitudinal study of the school change process would afford a more detailed look at such development and variables that may impact such development. It would also add to the existing research and expand our understanding of the actual processes involved as schools move from a typical hierarchical bureaucratic structure to one of collective faculty involvement organized around a clear focus of learning for all.

## **Final Thoughts**

According to Bandura (1986) what people think, believe, and feel affects how they behave. The natural effects of persons actions, in turn, partly determine their thought patterns and affective reactions.

Teachers must be provided with opportunities to experience success, feel that they are supported, and be knowledgeable of the latest instructional strategies. These along with other sources of efficacy may be provided through participation in a professional learning community. Dr. Hord (May 11, 2009) concludes that the professional learning community is the most powerful setting for teacher professional development through which teachers' self-efficacy can be supported.

This research addresses the fundamentals of 21<sup>st</sup> Century educational reform, in that school involved in focused efforts to expand the leadership capacity of the organization to include both teachers and administrators, to define shared vision based on student learning, and to provide a culture of support, will move towards becoming a professional learning community.

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**APPENDIX A**  
**LETTERS REQUESTING PERMISSION FROM SUPERINTENDENT AND**  
**PRINCIPAL**

April 14, 2009

School Superintendent:  
School District Anywhere  
City, State Zip Code

Dear School Superintendent:

I am requesting permission to survey a number of teachers in high school(s) in your parish to collect data for a research study. I am conducting the study as a part of my doctoral dissertation at Louisiana State University. As a purpose for the study, I will examine the relationship between Professional Learning Communities as an organizational framework within a school and teachers' self and collective efficacy.

My research includes all safeguards as established by LSU's Institutional Review Board. The safeguards that I employ include confidentiality in all data collected.

The knowledge that I gain can mean increased benefits to the teachers and students in your parish. If you have any questions, please feel free to contact me at 225-937-7024 or email me: [dana.nolan@lpsb.org](mailto:dana.nolan@lpsb.org). Please indicate your permission for this data collection to take place.

Sincerely,

Dana Nolan

\_\_\_\_\_ Permission is granted for Ms. Nolan to conduct a study in \_\_\_\_\_ Parish  
Schools.

\_\_\_\_\_ (Signed)                      \_\_\_\_\_ (Date)

April 14, 2009

School Principal  
Public School  
Somewhere, LA

Dear School Principal:

I am requesting permission to survey teachers at your school in order to collect data for a research study. I am conducting the study as a part of my doctoral dissertation at Louisiana State University. As a purpose for my study, I will examine the relationship between Professional Learning Communities as an organizational framework within a school and teachers' self and collective efficacy.

In order to collect the data, I will provide participating teachers with a pass code to complete three survey instruments online.

Your superintendent has given permission for me to pursue data collection with your approval. I feel that much can be learned from studying the degree to which a professional learning community relates to teachers' self and collective efficacy.

I understand the pressures and time constraints within a school setting, and I ensure you that the time required of your teachers to complete the survey instruments will be nominal. My research includes all safeguards as established by LSU's Institutional Review Board. The safeguards that I will employ include confidentiality in all data collection.

The knowledge I gain can mean increased benefits to the teachers and students in your school. If you have any questions, please feel free to contact me at 225-937-7024 or email me: [dana.nolan@lpsb.org](mailto:dana.nolan@lpsb.org).

Please indicate your permission for your teachers to participate.

Sincerely,

Dana Nolan

\_\_\_\_\_ Permission is granted for Ms. Nolan to conduct a study in \_\_\_\_\_ School.

\_\_\_\_\_ (Signed)

\_\_\_\_\_ (Date)

**APPENDIX B  
DEMOGRAPHIC SURVEY**

Please answer the following questions:

1. Gender: (01, 02)

- Male
- Female

2. Ethnicity (01, 02, 03, 04, 05)

- Asian
- Black
- Hispanci
- White
- Other

3. Content area in which you are currently teaching:

- Special Education
- English/ Language Arts
- Math
- Science
- Social Studies
- Health & PE
- Other

(01, 02, 03, 04, 05, 06, 07)

4. Total number of years as a professional educator:

- 0
- 1 – 3
- 4 – 5
- 6 – 10
- 11 – 20
- 21 – 30
- 31 – over

(00, 01, 02, 03, 04, 05, 06, 07)

5. Total number of years working at your current school:

- 1
- 2 – 3
- 4 – 6
- 7 – 10
- 11 – 15
- 16 – more

(01, 02, 03, 04, 05, 06)

6. Highest degree completed:

- Bachelor
- Masters
- Masters + 30
- Specialist
- PhD/EdD

(01, 02, 03, 04, 05)

7. Do you teach more than one class that is not in your certification area?

- Yes
- No

(01, 02)

**RAND Continuum**

Please select the number on the scale below which corresponds to your beliefs:

\_\_\_\_\_

1                      2                      3                      4                      5                      6                      7

**APPENDIX C**  
**SCHOOL PROFESSIONAL STAFF AS LEARNING COMMUNITY QUESTIONNAIRE (SPSLCQ)**

**Directions:** This questionnaire concerns your perceptions about your school staff as a learning organization. There are no right or wrong responses. Please consider where you believe your school is in its development of each of the five numbered descriptors shown in bold-faced type on the left. Each sub-item has a five-point scale. On each scale, circle the number that best represents the degree to which you feel your school has developed.

**1. School administrators participate democratically with teachers sharing power, authority, and decision making.**

	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>1a</b>	Although there are some legal and fiscal decisions required of the principal, school administrators consistently involve the staff in discussing and making decisions about school issues.		Administrators invite advice and counsel from staff and then make decisions themselves.		Administrators never share information with the staff nor provide opportunities to be involved in decision making.
<b>1b</b>	Administrators involve the entire staff.		Administrators involve a small committee, council, or team of staff.		Administrators do not involve any staff.

**2. The staff shares visions for school improvement that have an undeviating focus on student learning, and these visions are consistently referenced in the staff's work.**

	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>2a</b>	Visions for improvement are discussed by the entire staff such that consensus and a shared vision result		Visions for improvement are not thoroughly explored; some staff members agree and others do not.		Visions for improvement held by the staff members are widely divergent.
<b>2b</b>	Visions for improvement are always focused on students, teaching, and learning.		Visions for improvement are sometimes focused on students, teaching, and learning.		Visions for improvement do not target students, teaching, and learning.

**2. The staff shares visions for school improvement that have an undeviating focus on student learning, and these visions are consistently referenced in the staff’s work.**

	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>2c</b>	<b>5</b>		<b>3</b>	<b>2</b>	<b>1</b>
	Visions for improvement target high-quality learning experiences for all students.		Visions for improvement address quality learning experiences in terms of students’ abilities.		Visions for improvement do not include concerns about the quality of learning experiences.

**3 The staff’s collective learning and application of learnings (take action) create high intellectual learning tasks and solutions to address student needs.**

	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>3a</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
	The entire staff meets to discuss issues, share information, and learn with and from one another.		Subgroups of the staff meet to discuss issues, share information, and learn with and from one another.		Individuals randomly discuss issues, share information, and learn with and from one another.
<b>3b</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
	The staff meets regularly and frequently on substantive student-centered educational issues.		The staff meets occasionally on substantive student-centered educational issues.		The staff never meets to consider substantive student-centered educational issues.
<b>3c</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
	The staff discusses the quality of their teaching and students’ learning.		The staff does not often discuss their instructional practices nor its influence on student learning.		The staff basically discusses non-teaching and non-learning issues.

**3 The staff's collective learning and application of learnings (take action) create high intellectual learning tasks and solutions to address student needs.**

<b>3d</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
	The staff, based on their learnings, makes and implements plans that address students' needs, more effective teaching and more successful student learning.		The staff occasionally acts on their learnings and makes and implements plans to improve teaching and learning.		The staff does not act on their learning.
<b>3e</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
	The staff debriefs and assesses the impact of their actions and makes revisions.		The staff infrequently assesses their actions and seldom makes revisions based on the results.		The staff does not assess their work.

**4 Peers review and give feedback based on observing one another's classroom behaviors in order to increase individual and organizational capacity.**

<b>4a</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
	Staff members regularly and frequently visit and observe one another's classroom teaching.		Staff members occasionally visit and observe one another's teaching.		Staff members never visit their peers' classrooms.
<b>4b</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
	Staff members provide feedback to one another about teaching and learning based on their classroom observations.		Staff members discuss non-teaching issues after classroom observations.		Staff members do not interact after classroom observations.

**5. School conditions and capacities support the staffs' arrangement as a professional learning organization.**

<b>5a</b>	<b><u>5</u></b>	<b><u>4</u></b>	<b><u>3</u></b>	<b><u>2</u></b>	<b><u>1</u></b>
	Time is arranged and committed for whole staff interactions.		Time is arranged but frequently the staff fails to meet.		Staff cannot arrange time for Interacting.
<b>5b</b>	<b><u>5</u></b>	<b><u>4</u></b>	<b><u>3</u></b>	<b><u>2</u></b>	<b><u>1</u></b>
	The size, structure, and arrangements of the school facilitate staff proximity and interaction.		Considering the size, structure, and arrangements of the school, the staff are working to maximize interaction.		The staff takes no action to manage the facility and personnel for interaction.
<b>5c</b>	<b><u>5</u></b>	<b><u>4</u></b>	<b><u>3</u></b>	<b><u>2</u></b>	<b><u>1</u></b>
	A variety of processes and procedures are used to encourage staff communication.		A single communication method exists and is sometimes used to share information.		Communication devices are not given attention.
<b>5d</b>	<b><u>5</u></b>	<b><u>4</u></b>	<b><u>3</u></b>	<b><u>2</u></b>	<b><u>1</u></b>
	Trust and openness characterize all of the staff members.		Some of the staff members are trusting and open.		Trust and openness do not exist among the staff members.
<b>5e</b>	<b><u>5</u></b>	<b><u>4</u></b>	<b><u>3</u></b>	<b><u>2</u></b>	<b><u>1</u></b>
	Caring, collaborative, and productive relationships exist among all staff members.		Caring and collaboration are inconsistently demonstrated among the staff members.		Staff members are isolated and work alone at their task.

**APPENDIX D**  
**TEACHER'S SELF-EFFICACY BELIEF SYSTEM - SELF**  
**(TEBS-S)**

Response scale:

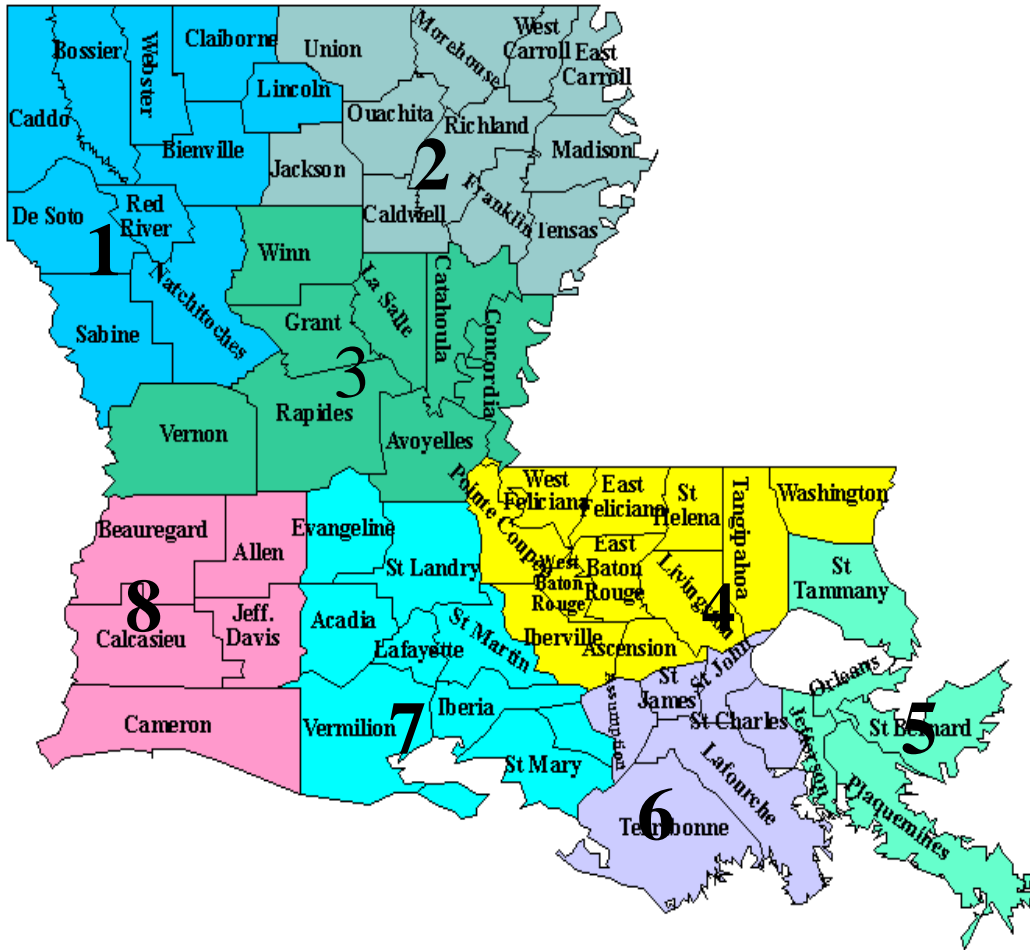
1. Weak beliefs in my capabilities
2. Moderate beliefs in my capabilities
3. Strong beliefs in my capabilities
4. Very strong beliefs in my capabilities

Item Right now in my present teaching situation, the strength of my personal beliefs in my capabilities to.....123 4

- |   |         |
|---|---------|
| 1. Plan activities that accommodate the range of individual differences among my studentes.....                 | 1 2 3 4 |
| 2. Plan evaluation procedures that accommodate individual differences among my students.....                    | 1 2 3 4 |
| 3. Use allocated time for activities that maximize learning.....  | 1 2 3 4 |
| 4. Effectively manage routines and procedures for learning tasks.....   | 1 2 3 4 |
| 5. Clarify directions for learning routines.....  | 1 2 3 4 |
| 6. Maintain high levels of student engagement in learning tasks.....  | 1 2 3 4 |
| 7. Redirect students who are persistently off task.....   | 1 2 3 4 |
| 8. Maintain a classroom climate of courtesy and respect.....  | 1 2 3 4 |
| 9. Maintain a classroom climate that is fair and impartial.....   | 1 2 3 4 |
| 10. Communicate to students the specific learning outcomes of the lesson...                                     | 1 2 3 4 |
| 11. Communicate to students the purpose and/or importance of learning tasks..                                   | 1 2 3 4 |
| 12. Implement teaching methods at an appropriate pace to accommodate differences among my students.....         | 1 2 3 4 |
| 13. Utilize teaching aids and learning materials that accommodate individual differences among my students..... | 1 2 3 4 |
| 14. Provide students with opportunities to learn at more than one cognitive and/or performance level.....       | 1 2 3 4 |
| 15. Communicate to students content knowledge that is accurate and logical...                                   | 1 2 3 4 |

16. Clarify student misunderstandings or difficulties in learning.....	1 2 3 4
17. Provide students with specific feedback about their learning.....	1 2 3 4
18. Provide students with suggestions for improving learning.....	1 2 3 4
19. Actively involve students in developing concepts.....	1 2 3 4
20. Solicit a variety of questions throughout the lesson that enable higher order thinking.....	1 2 3 4
21. Actively involve students in critical analysis and/or problem solving.....	1 2 3 4
22. Monitor students' involvement during learning tasks.....	1 2 3 4
23. Adjust teaching and learning activities as needed.....	1 2 3 4
24. Manage student discipline/behavior.....	1 2 3 4
25. Involve students in developing higher order thinking skills.....	1 2 3 4
26. Motivate students to perform to their fullest potential.....	1 2 3 4
27. Provide a learning environment that accommodates students with special needs.....	1 2 3 4
28. Improve the academic performance of students, including those with learning disabilities.....	1 2 3 4
29 Provide a positive influence on the academic development of students.....	1 2 3 4
30. Maintain a classroom environment in which students work cooperatively.....	1 2 3 4
31. Successfully maintain a positive classroom climate.....	1 2 3 4

APPENDIX E  
REGIONAL MAP OF LOUISIANA



## VITA

Dana Nolan is the daughter of Wade and Faye Nolan of Deville, Louisiana. She was born in December 1965.

Dana graduated in 1983 from Buckeye High School in Buckeye, Louisiana. She began teaching English in 1989 after receiving her Bachelor of Science degree from Louisiana Tech University in health, physical education and English. Two years later she completed the Master of Arts degree in school counseling from Louisiana Tech University.

Dana has been a teacher, School Counselor, Assistant Principal, and Principal in both public and private secondary schools in Louisiana. She has worked in school administration for the past two years. Dana is active in several professional organizations. She will receive the degree of Doctor of Philosophy at the August 2009 commencement.