TEACHER CONCERNS AND PERCEPTIONS ABOUT THE IMPLEMENTATION OF PROFESSIONAL LEARNING COMMUNITIES AT THE HIGH-SCHOOL LEVEL

A Dissertation
Submitted to the Graduate Faculty
of the
North Dakota State University
of Agriculture and Applied Science

By

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In Partial Fulfillment
for the Degree of
DOCTOR OF EDUCATION

Major Program:
Education

February 2013

Fargo, North Dakota

North Dakota State University
Graduate School

Title

Teacher Concerns and Perceptions about the Implementation of Professional Learning Communities at the High-School Level

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DOCTOR OF EDUCATION

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ABSTRACT

This study investigated concerns and perceptions about the implementation of a professional learning community at the high-school level. The No Child Left Behind Act requires schools to be accountable for increasing the achievement of all students. The school reform model researched in this study is the concept of a professional learning community (PLC). A PLC establishes a framework in which teachers commit to working in collaborative teams to accomplish high levels of learning for all students (DuFour & Eaker, 1998).

A mixed-method research design was used in this study to test the three research questions, focusing on the concerns of implementing a PLC at the high-school level. The quantitative survey data were collected from 100 core (English, math, science, and social science) and non-core instructors at a high school in a suburban community in North Dakota, utilizing the Stages of Concern Questionnaire (SoCQ). The qualitative survey was constructed based on results from the SoCQ and was administered to 13 department chairpersons at the same high school. Study participants were asked to identify their years of teaching experience and if they were a core or non-core instructor.

The results of the quantitative statistical analysis indicated that, regardless of years of experience, the stage of concern that was the highest was Stage 0 (Awareness). Awareness indicated that the respondents had little concern about the innovation. Likewise, core and non-core teachers also rated Stage 0 as the highest concern stage.

The qualitative responses indicated that, at the time of implementation, the purpose of PLCs was not made clear. In addition, it was reported that many teachers were unsure what to do with the time. Additional responses indicated that many staff members feel comfortable with the innovation and have practiced the concept of a PLC in the past.

The concept of a PLC holds great promise for the improvement of schools and results. The model of a professional learning community is simple in definition, yet complex in implementation and execution. The process of identifying professional development for a successful transition to adopt and practice the fundamentals of a professional learning community is paramount.

ACKNOWLEDGEMENTS

I am blessed and very fortunate to have had many great teachers in my life. Because of their positive influence, time, knowledge, wisdom, and patience, I have benefited greatly.

Thank you to my adviser, Justin Wageman, for his support, guidance, and wisdom to assist me with the demands of the doctoral program. I am also grateful for the support, feedback, and encouragement from my other committee members: Kevin Thompson, Kim Overton, and Brent Hill. I appreciate all your leadership and insight.

Thank you to my colleagues at Fargo South High School for assisting and participating in this process. Your continued support of each other and your commitment to the students are remarkable. Thank you for teaching me how to always Strive for Excellence!

The final thank you is to my family: my talented and beautiful wife, Michelle, and my two lovely daughters, Carly and Heidi. I am richly blessed to have you in my life. Thank you for your support and understanding throughout this journey.

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CHAPTER 1. INTRODUCTION

Introduction to the Study

The No Child Left Behind (NCLB) Act (2001) has challenged and required schools to be accountable for the educational development and progress of every student. Schlechty (1997) stated, "The demands of modern society are such that America's public schools must now provide what they have never provided before: a first-rate academic education for nearly all students" (p. 235). This heightened awareness has caused schools to review current educational practices and to determine their effectiveness through school-wide data.

The National Association of Secondary School Principals (NASSP) calls upon high schools to engage in an improvement process that will ensure success for every high school student. The NASSP publication *Breaking Ranks II* (2004) encourages principals to focus on the development of a professional learning community (PLC) as a primary improvement strategy. A learning-community model challenges the traditional approach to education.

In general, teachers have historically been given a great deal of autonomy for selecting curriculum materials, determining instructional strategies, grading practices, and choosing the type of assessments used to measure learning. This isolation approach to teaching limits the ability of teachers and administrators to collaborate on improving the learning for both students and adults (DuFour, Eaker, & DuFour, 2005). In a PLC, collaboration is a means to an end, not the end itself, in which teachers work interdependently to positively influence student results in the classroom and for their school (*About*, n.d.). To create change, Fullan (2001a) suggested that creating an atmosphere conducive to change within a traditional school is not about adopting the latest innovation, but creating a culture for change that involved "the capacity to seek, critically assess, and selectively incorporate new ideas and practices" (p. 44). DuFour and Eaker (1998)

stated, “The culture of an organization is founded upon the assumptions, beliefs, values, and habits that constitute the norms for that organization-norms that shape how its people think, feel and act” (p. 131).

Whitaker (2004) identified two significant ways to improve a school: “get better teachers or improve the teachers in the school” (p. 9). While the first suggestion may be preferred, it is not practical. Therefore, it is necessary to identify how schools can become more effective at teaching and learning.

Learning communities provide a vision for a different way of conducting business in a school that requires collegial collaboration and a focus on student results. The Southwest Educational Development Laboratory (SEDL) has been instrumental in researching the value and importance of professional learning communities. Morrissey (2000) quoted a SEDL publication: “professional learning communities provide opportunities for professional staff to look deeply into the teaching and learning process and to learn how to become more effective in their work with students” (p. 3).

The professional learning community concept has become a buzz word, a lexicon, or the ubiquitous school improvement strategy, depending upon who defines it. The professional learning community models described by DuFour and Eaker (1998) and Hord (2004) supported schools that are structured around collaboration and shared decision making that influence teaching and learning.

Professional Learning Communities Defined

Defining the concept of a professional learning community is complex. The work from researchers DuFour (2004); DuFour, DuFour, Eaker, and Many (2006); Hord (2004); and Kruse

and Louis (1993) summarized ideas and principles that reflect the nature of a true professional learning community (Figure 1).

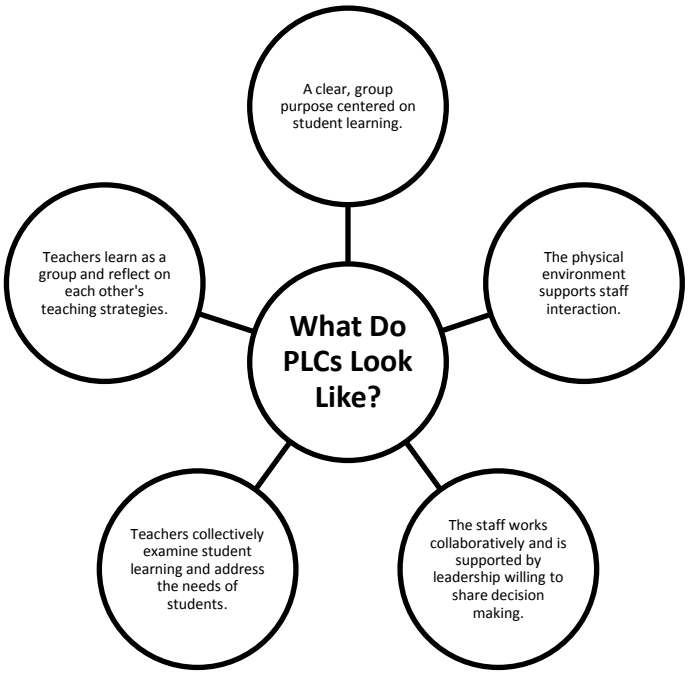

Figure 1. What Do Professional Learning Communities Look Like? (The Informed Educator Series, 2008).

Hord (1997) identified the following positive outcomes occur when teachers are engaged in professional learning communities:

- reduction of isolation of teachers
- increased commitment to the mission and goals of the school and increased vigor in working to strengthen the mission
- shared responsibility for the total development of students and collective responsibility for students' success
- powerful learning that defines good teaching and classroom practice, that creates new knowledge and beliefs about teaching and learners

- increased meaning and understanding of the content that teachers teach and the roles they play in helping all students achieve expectations
- higher likelihood that teachers will be well informed, professionally renewed, and inspired to inspire students
- more satisfaction, higher morale, and lower rates of absenteeism
- significant advances into making teaching adaptations for students, and changes for learners made more quickly than in traditional schools
- commitment to making significant and lasting changes
- higher likelihood of undertaking fundamental, systemic change. (pp. 33-34)

DuFour (2004) emphasized that the core mission of formal education is not simply to ensure that students are taught but to ensure that they learn. Professional school staffs who identify themselves as professional learning communities engage colleagues in the ongoing exploration of three crucial questions: (a) What do we want each student to learn? (b) How will we know when each student has learned it? (c) How will we respond when a student experiences difficulty in learning?

In addition to DuFour's three crucial questions, Hord (2004) described five interrelated dimensions that are characteristic of schools that have successfully adopted a professional community model. Hord proposed that a school that organized itself as a professional learning community exhibits supportive and shared leadership, shared values and vision, collective learning and an application of learning, supportive conditions, and shared practice.

Because the mission of a professional learning community concentrates on learning rather than teaching, measuring success is now based on results. Many (2009) states, "Teachers in schools with a results orientation embrace the belief that their policies, practices, and

procedures are aligned to promote the idea that all students can learn" (p. 8). To create a focus on learning, teachers must identify what students must be able to do as well as the skills that are required at each grade level, class, or course of study. Collaborative teams are a necessary ingredient if professional learning communities are to be effective at accomplishing their goal of high learning levels for all students. Collaboration is powerful when teachers systematically work together to discuss, analyze, and improve classroom practice (DuFour, 1999).

If student achievement is the focus of professional learning communities, Marzano (2003) identified three factors that contribute to student success: (a) school-level factors, (b) teacher-level factors, and (c) student-level factors. Of the three categories, schools have a direct influence on school-level factors and teacher-level factors.

The degree at which a school is able to address the school-level and teacher-level factors has a significant impact on the school's effectiveness. The Coleman report of 1996, which influenced public opinion about the equality of schooling, indicates that schools account for only 10% of the variance in student achievement (Marzano, 2003). The remaining 90% is defined by student-background characteristics.

Even though schools directly influence only 10% of student achievement, Larry Lezotte (2011), in his paper "Effective Schools: Past, Present, and Future," found that effective schools had strong instructional leadership, a strong sense of mission, demonstrated effective instructional behaviors, held high expectations for all students, practiced frequent monitoring of student achievement, and operated in a safe and orderly manner. In addition, effective school status is based on student results, performance, or outcomes. Ron Edmonds (1979) wrote:

> We can, whenever and wherever we choose, successfully teach all children whose schooling is of interest to us. We already know more than we need to do that. Whether

or not we do it must finally depend on how we feel about the fact that we haven't so far. (p. 23)

The professional learning community innovation provides schools with an effective model that focuses on the concept that all students can learn and have the variables in their control to be held accountable for that outcome. McLaughlin and Talbert (2001) stated, "Principles for professional, development policy, practice and initiative that come from nearly two decades of U.S. reform underscore our conclusion that teacher learning communities constitute the best context for professional growth and change" (p. 135).

Statement of the Problem

The No Child Left Behind (NCLB) Act has challenged and required schools to be accountable for the educational development and progress of every student. Rather than leave a student's high school experience and outcome to pure chance, the NASSP has encouraged high school principals to focus on the development of a professional learning community as a primary strategy to look deeply into the teaching and learning process.

The problem facing schools and teachers is not implementing the practices of a professional learning community, but how the professional learning community impacts professional learning that is relevant, meaningful, and positively influences student achievement as measured by teachers' perceptions and actions to a structural change. Researchers have yet to identify the common characteristics, hurdles, and methods associated with the transformation of a school culture to one that is consistent with a PLC. However, studies have determined that PLCs can be developed and may influence increased student achievement.

To determine if an educational innovation achieved the desired outcome, Fuller's work inspired the Concerns-Based Adoption Model (CBAM; George, Hall, & Stiegelbauer, 2006).

The CBAM model addressed the need to go further than just adopting an innovation. To achieve the desired outcome, CBAM researchers believed that change begins with the individual. The model focused on understanding what happens to teachers early in the intervention, identified the needs, and addressed those needs appropriately based on the information gathered from the model, as measured by the Stages of Concern Questionnaire (George et. al, 2006). The need to investigate teachers' approaches to change was supported by the lack of studies.

A study of secondary high school teachers who have been introduced to and have had limited experienced in a professional learning community model is needed to identify the concerns involved in a change process. The data collected provide information about the needs of the staff and assist with providing guidance to other schools that are in the early stages of adopting a professional learning community model.

A review of the literature can provide a description and characteristics of a professional learning community. While this information is useful in the structural design of a learning community, guidance about building professional learning communities for stakeholders is lacking. Because there is a limited amount of research that has investigated the concerns of implementing a professional learning community among staff, this study focuses on teacher concerns.

Purpose of the Study

The purpose of this study is to investigate the concerns of implementing a professional learning community at a comprehensive high school by studying the differences that exist in the responses of teachers who have varying years of teaching experience and those who teach in a core (i.e., English, math, social studies, and science) assignment from those who do not. The

following research questions are designed to accomplish this purpose for secondary high school teachers at a Midwestern school.

Research Questions

The following research questions will accomplish the study's purpose:

1. How do teachers perceive the implementation of professional learning communities?
2. How do teachers perceive the implementation of professional learning communities by years of experience?
3. How do teachers perceive the implementation of professional learning communities by core and non-core teaching assignment?

Significance of this Study

Public schools are held to a higher accountability standard than ever before. Research shows that professional learning communities have a positive impact on student learning. Leadership is important, but the impact of teachers working as a team to ensure high levels of learning is critical (Newmann & Wehlage, 1995).

School personnel must continue to find ways to learn and improve. A school-wide approach to engaging the learners (i.e., students and teachers) in a supportive, collegial, and professional environment provides the learning community with data to support current practices and to identify areas of need. This information enhances the ability to build strategies for teachers and students to meet expectations, promoting an environment of continual learning.

Learning communities provide a vision for a different way of conducting business in a school that requires collegial collaboration and a focus on student results. The need for schools to ensure a high standard of learning for all students begins with an examination of the schools current status. Within each school system, there exists a continuum of teachers with varying

years of experience and a distribution of teachers who are classified as core versus non-core instructors. This study provides valuable information about the effectiveness and needs of implementing a professional learning community model.

Definitions

For the purpose of this study, the following terms are defined to clarify their meaning.

Adequate Yearly Progress (AYP): A measurement defined by the federal No Child Left Behind Act that allows the U.S. Department of Education to determine how every public school and school district in the country is performing academically according to results on standardized tests (*Adequate*, n.d.)

Collaboration (in a PLC): "A systematic process in which educators work together interdependently to analyze and to impact their professional practice in order to achieve better results for their students, their team, and their school" (DuFour et al., 2006, p. 98).

Core instructor: An instructor who teaches in the subject areas of English, math, science, or social studies.

Non-core instructor: An instructor who does not teach in the core areas.

Professional learning community (PLC): A professional staff of teachers and administrators who continuously seek and share learning, and act on their learning to ensure that student results are guided by the attributes of a professional learning community: shared and supportive leadership, shared values and vision, supportive conditions, and shared personal practice (Hord, 1997).

Organization of Remaining Chapters

Chapter 2 includes a review of literature for the theoretical basis of the study for each of the three research questions. Chapter 3 describes the Methodology and Procedures used in the

study. Data analysis is presented in Chapter 4. Chapter 5 summarizes the study and presents findings, Conclusions, and Recommendations for further research.

CHAPTER 2. LITERATURE REVIEW

The purpose of this study is to investigate the concerns of implementing a professional learning community at a comprehensive high school by studying the differences that exist for the responses of teachers who have varying years of teaching experience and those who teach in a core (i.e., English, math, social studies, and science) assignment from those who do not. This chapter provides an overview of the literature that will highlight and frame the components of this study as it relates to the various aspects of a professional learning community.

The Literature Review focuses on theoretical and empirical implications of PLCs. The theoretical aspects include a Vision of Professional Learning Communities, Professional Development, A Brief History of the Movement of Schools Toward Learning Communities, The Concept of a Professional Learning Community, Three Models of Professional Learning Communities, Dimensions of Professional Learning Communities, Leadership in a Professional Learning Community, and Barriers of the Professional Learning Community Model. The empirical research is Professional Learning Community Studies, Dissertations on the Perceptions of Professional Learning Communities, and Research Studies that Used the Stages of Concern (SoCQ) Questionnaire.

Vision of Professional Learning Communities

Learning communities provide a vision for a different way of conducting business in a school that requires collegial collaboration and a focus on student results. DuFour (1999) states that collaborative teams are a necessary ingredient if professional learning communities are to be effective at accomplishing their goal to have high levels of learning for all students. Collaboration is powerful when teachers systematically work together to discuss, analyze, and improve classroom practice. Because the mission of a professional learning community

concentrates on learning rather than teaching, measuring success is now based on results (DuFour, 2004).

The No Child Left Behind (NCLB) legislation has required accountability for student performance by all states to determine if school districts and schools are making Adequate Yearly Progress (AYP). The goal of NCLB is that all students will meet minimum learning standards by the year 2014. Educational leaders must now face the reality that student performance on state-determined standardized exams has more meaning than ever. Test scores alone are not a sufficient reflection of student learning. Evidence of student performance is required (Reeves, 2010). To assist school districts and schools in achieving AYP, the need to identify improved ways of doing business is increasingly important. The pendulum must move from a culture of teachers working independently and in isolation to an environment of collaboration between teachers and administrators that focuses on ensuring high levels of learning for all students (DuFour et al., 2005).

Maldonado (2002) cited research from Darling-Hammond and McLaughlin (1999) that what teachers know has a substantial influence on what students learn. To assist teachers with their professional growth, schools and school districts provide professional development opportunities for staff.

Guskey (2003) offered that the goal of staff development is to improve student-learning outcomes. To achieve this goal, staff development must be continuous and supported by systemic changes for the implementation and collection of multiple indicators. Professional learning communities offer an infrastructure that supports the cultures and conditions necessary for achieving significant gains in teaching and learning (Morrissey, 2000).

Professional Development

In 1994, Guskey wrote, "Every modern proposal to reform, restructure, or transform schools emphasizes professional development as a primary vehicle in efforts to bring about needed change" (p. 2). This position was supported by the work of Secretary of Education Richard W. Riley and the U.S. Department of Education's Professional Development Team (Goals 2000, 1996) by identifying 10 Principles of High-Quality Professional Development. The mission of professional development is to prepare and support educators to help all students achieve high standards of learning and development by

- focusing on teachers as central to student learning
- focusing on individual, collegial, and organizational improvement
- respecting and nurturing the intellectual and leadership capacity of teachers and principals
- reflecting the best available research and practice in teaching, learning, and leadership
- enabling teachers to develop further expertise in subject content, teaching strategies, uses of technologies, and other essential elements for teaching to high standards
- promoting continuous inquiry and improvement
- planning collaboratively with all who will participate in and facilitate that development
- requiring substantial time and other resources
- having a coherent long-term plan
- evaluating on the basis of teacher effectiveness and student learning; this assessment guides subsequent professional-development efforts

McLaughlin and Talbert (2006) stated:

> School-based teacher learning communities align with current empirical evidence of the most effective professional development strategies . . . Researchers agree that teachers learn best when they are involved in activities that: (a) focus on instruction and student learning specific to the settings in which they teach; (b) are sustained and continuous, rather than episodic; (c) provide opportunities for teachers to collaborate with colleagues inside and outside of the school; (d) reflect teachers' influence about what and how they learn; and (e) help teachers develop theoretical understanding of the skills and knowledge they need to learn. (pp. 8-9)

This position coincides with the philosophy of Learning Forward which states, "Every educator engages in effective professional learning every day so every student achieves" (*Learning*, n.d.). Learning Forward identifies seven standards for professional learning.

One of the Learning Forward standards is Learning Communities. Within this standard is the concept that professional learning within communities increases the effectiveness of educators by being committed to continuous improvement, sharing responsibilities, and agreeing on school goals to increase results for all students (*Learning*, n.d.). Within this structure, a learning community engages "in inquiry, action research, data analysis, planning, implementation, reflection, and evaluation" (*Learning*, n.d.). This system requires that teachers, learning communities, and the school engage in constant professional learning. As educators identify and solve problems of practice through collaboration, honest talk, and support, students' learning and achievement are enhanced (Lieberman & Miller, 2011).

Darling-Hammond and Richardson (2009) are supportive of the need for learning standards in professional development. They stated, "To avoid disparities between what teachers learn in professional development work and what they can actually implement in their

classrooms, schools should seamlessly link curriculum, assessment, standards, and professional learning opportunities" (p. 48). This position complements the focus of six Standards for Professional Learning by Learning Forward: leadership, resources, data, learning designs, implementation, and outcomes. Therefore, effective professional learning that addresses the standards is interactive, seeks relevance, is sustainable, and is embedded in everyday practice.

Roy and Hord (2003) contend that "the most powerful forms of staff development occur in ongoing teams that meet on a regular basis . . . for the purpose of learning, joint lesson planning, and problem solving" (p. 13). The concept that professional development is a day-to-day responsibility is a paradigm shift for American educators. Therefore, the focus on professional development should not be viewed as one-shot learning opportunities but, rather, a daily practice that increases the interactions that teachers have with students and with each other. DuFour et al. (2005) stated, "The best professional development occurs in the context of the workplace rather than the workshop as teachers work together to address the issues and challenges that are relevant to them" (p. 19).

Moore and Shaw (2000) found that teachers view professional development to be most meaningful in the context of learning communities instead of workshops and presentations from experts. Also, the authors reported that teachers' knowledge, experience, and classroom practice are "an underrated and underused resource for teacher's professional development learning and building school capacity for change" (p. 31). The American Educational Research Association (Research Points, 2005) reported that "the more time teachers spend on professional development, the more significantly they change their practice, and participating in professional learning communities optimizes the time spent on professional development" (p. 2). If teachers retain a level of control and ownership over their own professional learning and sharing, then the

ability to reflect on deeper levels of teaching and learning is supported through inquiry, reflection, dialogue, and collaboration. This position is reinforced by Schmoker (2006) who stated that "teachers learn best from one another, from people in their own organizations" (p. 120).

A Brief History of the Movement of Schools Toward Learning Communities

The road to professional learning communities is long and complex. McLaughlin and Talbert (2001) stated, "Principles for professional development policy, practice and initiative that come from nearly two decades of U.S. education reform underscore our conclusion that teacher learning communities constitute the best context for professional growth and change" (p. 135).

Prior to the 1980s, education research was influenced by Benjamin Bloom and his outline for mastery learning with an emphasis that all students can learn well. The Coleman report found that student achievement is influenced more by a student's and a school's socioeconomic circumstances than by school quality. In addition to educational research, education policy was established with the Civil Rights Act and the Elementary and Secondary Education Act (ESEA). The reauthorization of ESEA became today's No Child Left Behind Act (National Staff Development Council, 2007).

The 1980s provided a decade of major advancements and contributions to the development of professional learning communities. The decade was influenced by the work of Madeline Hunter as well as her theory of mastery teaching and the components of lesson design and delivery. Her work was followed by that of Howard Gardner and his theory of multiple intelligences. Gardner's work differentiated intelligence into seven different modalities that impact thinking and practice in education. Also in the 1980s was the release of "A Nation at Risk" (National Commission on Excellence in Education, 1983), a report which stated that

American schools were failing and which caused a wave of local, state, and federal reform efforts and teacher training.

Thomas Guskey was one of the first researchers, after the release of "A Nation at Risk," to describe the process of positive teacher change through staff-development programs about classroom practices, student learning, and teachers' attitudes and beliefs. Shirley Hord and Gene Hall followed with the Concerns-Based Adoption Model which provided a sophisticated way to understand the change process and how participants experience it. The end of the 1980s was highlighted by the work of Bruce Joyce and Beverly Showers, which emphasized staff-development programs to organize teaching, schooling, and curriculum in order to improve student learning (National Staff Development Council, 2007).

The 1990s provided an explosion of information regarding professional learning communities and staff development. A number of researchers and educators provided a wealth of data and contributed to an educational society that was undergoing a great deal of change and reform. In 1990, Peter Senge authored *The Fifth Discipline* which provided a management framework that businesses function as a learning organization. Senge (1990) argued that American companies wanting to remain competitive would need leaders who were willing to adopt a new organizational paradigm. This new paradigm restructured the organization from the typical, hierarchical leadership model of top-down to one in which every member is responsible for continuous learning and improvement. This approach inspired a paradigm shift in education, impacting staff development, focusing on results, and fostering collaboration for the teaching/learning process (DuFour & Eaker, 1998; Hord, 1997, 2004; Murphy & Lick, 2001).

Murphy and Lick's (2001) work focused on whole-faculty study groups as a mechanism to improve schools and staff development. Hord (1997, 2004) and DuFour and Eaker's (1998)

efforts were geared toward the definition, characteristics, implementation, and sustainability of a professional learning community. Because of their contributions, the discussion and research about professional learning in schools continued.

School-reform efforts continued to be a driving force for change in the U.S. educational system. DuFour and Eaker (1998) argued that the factory model for which schools were modeled was no longer adequate for meeting the national education goals. Wells and Feun (2007) shared that learning communities provide a vision or a different way of conducting business in the school: one that is collegial, professional, and results driven.

The Concept of a Professional Learning Community

Professional learning communities have become one of the most talked-about concepts in education today. The conversation around PLCs focuses on schools that are working to become a learning organization in the hope that student learning will improve when adults commit themselves to talking collaboratively about teaching and learning, and taking action that will improve student learning and achievement (Thompson, Gregg, & Niska, 2004).

DuFour and Eaker (1998) speculated that "the most promising strategy for sustained substantive school improvement is developing the ability of school personnel to function as professional learning communities" (p. xi). Unpacking the phrase "professional learning community" is a complex metaphor that is multidimensional and requires further understanding about the emergence of the learning-community movement (Stoll, Bolam, McMahon, Wallace, & Thomas, 2006; Wiggins & McTighe, 2005). According to DuFour and Eaker (1998),

> Each word of the phrase "professional learning community" has been chosen purposefully. A "professional" is 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. . . . "Learning" suggests ongoing action and perpetual curiosity. . . . The school that operates as a professional *learning* community recognizes that its members must engage in ongoing study and constant practice that characterize an organization committed to continuous improvement. . . . 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. (pp. xi-xii)

In developing their framework for a professional community, Louis, Kruse, and Bryk (1995) explained that they used the term "professional learning community" "to emphasize our belief that unless teachers are provided with more supporting and engaging work environments, they cannot be expected to concentrate on increasing their abilities to reach and teach today's students more effectively" (p. 4). Stoll et al. (2006) supported the notion that developing professional learning communities appears to hold considerable promise for capacity building and sustainable improvement. Also, Seashore, Anderson, and Riedel (2003) elaborated:

> By using the term *professional learning community* we signify our interest not only in discrete acts of teacher sharing, but in the establishment of a school-wide culture that makes collaboration expected, inclusive, genuine, ongoing, and focused on critically examining practice to improve student outcomes. . . . The hypothesis is that what teachers do together outside of the classroom can be as important as what they do inside in affecting school restructuring, teachers' professional development, and student learning. (p. 3)

At the heart of the PLC structure is the notion of community. The focus is not only on individual teachers' professional learning, but also on professional learning within a community context–a community of learners–and the notion of collective learning (Stoll et al., 2006). Westheimer (1999) highlights five features exploring community identified by contemporary theorists: shared beliefs and understanding, interaction and participation, interdependence, concern for individual and minority views, and meaningful relationships. The professional learning community concept is characterized by the need to focus on community (relationships and developing shared norms) and professionalism (acquisition of knowledge and skills).

Three Models of Professional Learning Communities

As schools struggle to meet the demands and mandates of federal legislation to increase student achievement, school leaders are seeking ways to build capacity for reform and sustained improvement efforts. PLCs can be viewed as a conduit for transforming schools from the industrial-age model of education to a highly functioning, collaborative learning organization. In 1990, Senge shared that the conception of a learning (business) organization rested on five principles, which he referred to as the five disciplines of the organization: personal mastery, mental models, building shared vision, team learning, and systems thinking. Hord (2004), of the Southwest Educational Development Laboratory (SEDL), described the publication of *The Fifth Discipline* (Senge, 1990) as a watershed moment in the history of business organizations. Senge theorized that the five principles could be applied to all organizations.

Giles and Hargreaves (2006) assert that, since the emergence of Senge's (1990) *The Fifth Discipline*, a number of influential writers have advocated that schools should become learning organizations (e.g., Fullan, 1993; Leithwood & Louis, 1998; Mitchell & Sackney, 2000). Giles and Hargreaves further contend that schools would have the infrastructure needed to develop the

professional capacity to learn in, and respond quickly and flexibly to, their unpredictable and changing environment. Schools that embrace the philosophy of a learning organization have the capacity to successfully address the three key components of a learning community as identified by Newmann, King, and Youngs (2000) and Newmann and Wehlage (1995): collaborative work and discussion among the professional staff; a focus on teaching and learning within that collaborative work; and the use of assessment data to inquire, evaluate, and adjust over time. Senge (2000) asserted that learning communities are not a quick fix, but rather are adaptable and flexible to create and support sustainable improvements that build professional capacity to solve problems and make decisions diligently.

For the past decade, a great deal has been written in education about the creation of professional learning communities (DuFour & Eaker, 1998; Fullan, 2005; Hord, 2004; Senge, 2000). These scholars asserted that professional learning communities are a means for schools to reduce teacher isolation, to learn together to create sustainable change, and to build capacity to impact student achievement (Blankenship & Ruona, 2007).

There are three models of professional learning communities that dominate the PLC literature. The three models are by DuFour and Eaker, Murphy and Lick, and Hord. See Table 1 for the characteristics of each model.

Further examination of the models indicates that, although there are differences, they share common characteristics. DuFour (2004) emphasized that a PLC is founded on three "Big Ideas": ensuring that students learn, establishing a culture of collaboration, and focusing on results (p. 8).

Within this model, there are three crucial questions that drive the work of a professional learning community: What do we want each student to learn? How will we know when each

student has learned it? How will we respond when a student experiences difficulty in learning? (DuFour, 2004). This model provides a framework for a cultural change in a school community to build capacity for implementing and sustaining change.

Hord (1997) identified five requirements for academically successful learning communities:

- the collegial and facilitative participation of the principal who shares leadership—and thus, power and authority—through inviting staff input in decision making
- a shared vision that is developed from an unswerving commitment on the part of staff to students' learning and that is consistently articulated and referenced for the staff's work

Table 1. Models and Features of Professional Learning Communities

Model	Characteristics
DuFour & Eaker (1998)	Mission, vision, and values Collective inquiry Collaborative teams Action orientation and experimentation Continuous improvement Results orientation
Murphy & Lick (2001)	Principles Students are first Everyone participates Leadership is shared Responsibility is equal The work is public
Hord (2004)	Dimensions Supportive and shared leadership Shared values and vision Collective learning and application of learning Supportive conditions Shared practice

- collective learning among staff and application of the learning to solutions that address students' needs
- the visitation and review of each teacher's classroom behavior by peers as a feedback and assistance activity to support individual and community improvement
- physical conditions and human capacities that support such an operation. (p. 24)

Through Hord's model, schools gain a structure "for continuous improvement by building staff capacity for learning and change" (Hord, 2004, p. 14).

The Whole-Faculty-Study-Group Model (WFSG) is a PLC model that is guided by the question What are students learning and achieving as a result of what teachers are learning and doing in study groups? (Murphy & Lick, 2001). The WFSG process is founded on the principle that self-directed study groups function as learning teams (3-5 members) and do action research. According to Murphy and Lick (2005), learning teams do the following:

- produce learning communities and set common goals, support member interdependence, empower participants, and foster active participation
- plan and learn together, construct subject-matter knowledge, and engage broad principles of education that modify perspectives, policies, and practices
- immerse everyone in sustained work with ideas, materials, and colleagues
- cultivate action researchers, producing, evaluating, and applying relevant research
- struggle with fundamental questions of what teachers and students must learn, know, and apply. (pp. 177-178)

In summary, the three models all draw from learning organization theory (Senge, 1990). Jakubowski's (2006) comparison of a PLC and WFSG is shown in Table 2.

Table 2. Comparison of PLC and WFSG (Jakubowki, 2006)

PLC	WFSG
Shared mission, vision, values, and goals	Students are first
High levels of trust	Leadership is shared
Teachers believe they have input and assume responsibility for decisions	Responsibility is equal
Highly structured meetings	Every one participates
Ongoing assessment and sharing of results	The work is public

For further explanation of learning-community features, Hord's dimensions are selected as common language for a learning organization. The dimensions of a PLC are designed to paint a broad picture of the entire school community (Hipp & Huffman, 2003).

Dimensions of Professional Learning Communities

PLCs can be viewed as a conduit for transforming schools from the industrial-age model of education into a highly functioning, collaborative learning organization. Hord's (2004) research identifies five major dimensions of a PLC: supportive and shared leadership, shared values and vision, collective learning and application of learning, supportive conditions, and shared practice. When these dimensions work together, they create the PLC.

Dimension 1

"Supportive and shared leadership requires the collegial and facilitative participation of the principal who shares leadership . . . by inviting staff input and action in decision-making" (Hord, 2004, p. 7). Hord and Sommers (2008) explained that supportive and shared leadership happens when administrators and faculty share power and authority for making decisions. Eaker, DuFour, and DuFour (2002) shared that the principal is no longer seen as the lone

decision maker. Rather, teachers are viewed as holding key leadership positions while administrators become "leaders of leaders" (p. 22).

Andrews and Crowther (2002) stated that parallel leadership is a relationship between teachers and principals that builds capacity grounded in the values of mutual trust, shared directionality, and allowance for individual expression. In a review of their qualitative data (2002), they defined teacher leadership as "behavior that facilitates principled pedagogical action toward whole school success" (p. 154). Andrews and Crowther (2002) concluded their research by suggesting that parallel leadership enhances pedagogical practices and the focus of professional practice.

Marzano, Waters, and McNulty's (2005) meta-analysis study of school leadership delineated the 21 leadership responsibilities that principals must exhibit in order to have a profound effect on student achievement. Of the 21 leadership attributes, input; intellectual stimulation; and involvement and knowledge of curriculum, instruction, and assessment align with shared school leadership. Input is "the extent to which the school leader involves teachers in the design and implementation of important decisions and policies" (Marzano et al., 2005, p. 51). Intellectual stimulation "ensures faculty and staff are aware of the most current theories and practices and makes the discussion of these a regular aspect of the school's culture" (Marzano et al., 2005, p. 52). The principal's knowledge about the design and implementation of curriculum, instruction, and assessment at the classroom level is one of action orientation and the knowledge of best practices. This combination fosters ongoing communication between teachers and administrators that targets student achievement. "Professional learning communities provide opportunities for professional staff to look deeply into the teaching and learning process and to learn how to become more effective in their work with students" (Morrissey, 2000, p. 3).

Dimension 2

"Shared values and vision include an unwavering commitment to student learning that is consistently articulated and referenced in the staff's work" (Hord, 2004, p. 7). According to Hord and Sommers (2008), in a PLC, all are invited to create the vision which guides decisions for planning, delivering instruction, and the teaching and learning decisions. Further, Hord (2004) summarized that vision and values assist the staff in determining how staff members spend their time, what problems they solve, and how resources are distributed to push for high-quality learning for all students. DuFour et al. (2006, p. 24) quoted Burt Nanus, "There is no more powerful engine driving an organization toward excellence and long-range success than an attractive, worthwhile and achievable vision of the future, widely shared."

DuFour et al. (2006) illustrated that vision provides a sense of direction to identify the current status of the school and to assess potential strategies, programs, and procedures to improve upon the current state. DuFour et al. (2006) associated the word "what" with vision. "What must our school become in order to accomplish our fundamental purpose?" (p. 24).

If vision provides direction for the future, then values define "how" a staff will operate to make a shared vision a reality (DuFour & Eaker, 1998). DuFour et al. (2006) raised the following question for values: "How must we behave to achieve our vision?" (p. 25). Clarity on this question guides a synergistic approach by community members to understand how each person can contribute to the vision:

> Achieving agreement . . . and the implementation of that agreement, is one of the most effective strategies for closing the knowing-doing gap. Those who "do" develop deeper knowledge, greater self-efficacy, and a stronger sense of ownership in results than those who talk about what should be done. (DuFour et al., 2006, p. 25)

Bolman and Deal (as cited in DuFour et al., 2006) described shared values as the "vital social glue that infuses an organization with passion and purpose" (p. 25). Barnett and McCormick (2003) examined the role of vision in the development of commitment by teachers as well as the relationship between a school's vision and the teachers' behavior. The principals described the vision as the "glue that held the school together" (p. 65) while teachers described the vision as having a positive effect on the school. The shared values and vision guided decisions about teaching and student learning, and supported norms of behavior (Morrissey, 2000).

The concept of shared values was identified by Fullan (2005) in defining culture. The Hay Group (as cited by Fullan, 2005), in its study of school cultures, defined culture as "the things that people 'agree are true' and 'agree are right'" (p. 57). The Hay Group (2004) conducted a study of cultures at 134 secondary schools in England and found that the "high-valued-added schools" exhibited the following seven traits:

- Measuring and monitoring targets and results
- A hunger for improvement–high hopes and expectations
- Raising capability—helping people lear—laying foundations for later success
- Focusing on value adde—holding hope for every child—every gain a victory
- Promoting excellence—pushing boundaries for achievement–world class
- Making sacrifices to put pupils first
- Working together—learning from each other. (Fullan, 2005, pp. 57-58)

Dimension 3

"Collective learning and application of learning requires that school staff, at all levels, are engaged in the processes that collectively seek new knowledge among staff and application of

the learning to solutions that address students' needs" (Hord, 2004, p. 7). DuFour and Murphy provided guiding questions that assist a learning community in identifying the best strategies and instructional practices to develop, monitor, and adjust to the learning needs of diverse learners. According to DuFour (2004), professional staffs of schools who identify themselves as professional learning communities will engage colleagues in the ongoing exploration of three crucial questions: (a) What do we want each student to learn? (b) How will we know when each student has learned it? (c) How will we respond when a student experiences difficulty in learning? The WFSG is a PLC model that is guided by the following question: What are students learning and achieving as a result of what teachers are learning and doing in study groups? (Murphy & Lick, 2001).

Collective learning advances the notion that school improvement is an ongoing process that requires a commitment from all professional stakeholders. The principal along with the staff members assess and evaluate where they have been effective and then determine where they need to learn to become more effective in their efforts to help students become successful learners (Hord, 2004). Thus, according to Schmoker (as cited in DuFour et al., 2005), "The use of PLCs is the best, least expensive, most professionally rewarding way to improve schools" (p. 137).

Dimension 4

"Supportive conditions include physical conditions and human capacities that encourage and sustain a collegial atmosphere and collective learning" (Hord, 2004, p. 7). Supportive conditions are identified by the when, where, what, and how the staff members come together to reflect, inquire, learn, and problem solve in a PLC (Hord & Sommers, 2008). Eastwood and Louis (as cited in Morrissey, 2000) shared the importance of supportive conditions: "Creating

supportive structures . . . has been described as 'the single most important factor' for successful school improvement and the 'first order of business' for those seeking to enhance the effectiveness of their school" (p. 6).

Two condition types are needed to support and sustain commitment to a PLC: physical or structural conditions as well as people capacities (Hall & Hord, 2011). Time is a physical condition that is a vital resource and the most difficult to find. DuFour et al. (2006) believe that the resource of time is precious and that investing in PLC time during the contractual day is paramount for teachers to augment their professional practice in creating a supportive environment. In addition to time, Louis and Kruse (as cited in Hord & Sommers, 2008) included other physical factors that need improvement. Additional factors are the physical proximity of staff members to one another, teaching assignments that are interdependent, communication structures, school autonomy, teacher empowerment, schedules and structures that reduce isolation, availability of resources, and staff development. Hipp and Huffman (2003) identified people factors that include seven critical attributes: teacher (positive and consistent) attitudes; academic focus for students; norms that support continued learning and improvement, shared vision, participatory decision-making teachers who collaborate with one another, and ownership for student learning and success; caring relationships; trust and respect; recognition and celebration; and risk taking and a unified effort to embed change. Boyd and Hord (1994) further assemble the people and physical structures into four functions that assist in change and improvement: "reducing staff isolation, increasing staff capacity, providing a caring and productive environment, and improving the quality of the school's programs for students" (as cited in Hord, 1997, p. 22).

Dimension 5

"Shared [personal] practice involves the review of a teacher's behavior by colleagues and includes feedback and assistance activity to support individual and community improvement" (Hord, 2004, p. 7). Huffman and Hipp (2003) asserted that shared personal practice involves peer observation and peer feedback for instructional practices that increase the capacity of the teacher and the organization. Teacher interaction within a formalized structure for collegial coaching provides the means for confronting the issue of isolation in professional learning communities.

In a PLC, the concept of peers helping peers can best be facilitated by reviewing each other's practices through observation and collaboration. This notion is supported by DuFour et al. (2005): "educators cannot help all students learn at high levels unless they work together collaboratively" (p. 16). Darling-Hammond (1996) cited research that teachers who spend more time collectively studying instructional practices are more effective overall at developing higher-order thinking skills and meeting the needs of diverse learners.

Sharing personal practice requires a complete paradigm shift from the traditional roles in education. It requires the teacher to allow others to observe the educational practices that occur in the classroom. The process is predicated on the mutual respect and trustworthiness of staff members. Developing the trusting relationships that are necessary to facilitate shared professional practice must be cultivated over time. Subjects in the Lovett and Gilmore study (as cited in Beason, 2007) found value in sharing classroom activities which led them to try new things. The participants also shared their concerns about the timing of observations, and deemed the visits helpful but not essential.

Leadership in a Professional Leaning Community

Developing PLCs is seemingly simple in design and, yet, complex in execution. Senge (1990) stated, "Organization-wide learning involves change in culture and change in most basic managerial practices, not just within a company but also within a whole system of management" (p. 13). A leader must be able to lead and navigate the continuum of stages for a PLC defined by DuFour et al. (2006). The intervals and their designated characteristics are as follows:

- pre-initiation: practice of PLC not addressed
- initiation: effort has been addressed, but has not begun to impact faculty
- developing stage: critical group engages in practices of PLC that modifies past thinking and traditions, and
- sustaining stage: practice is embedded in the culture and daily work of staff.

Developing PLCs appears to hold considerable promise to build capacity for sustainable improvement (Stoll et al., 2006). Senge (1990) described a successful organization as one that creates its own future, understands that change is complex, has a vision and purpose, and is aware of feedback and how the system uses the feedback. People in organizations change only if sought-after reform is meaningful for them and has application for their work (Fullan, 1993). Hord (1997) defined a professional learning community as the professional staff studying and acting together to improve student learning.

The role and influence of a school leader has transformed over time according to Johnson, Arumi, and Otto (2006). They stated:

> At one time, local school leaders mainly managed the budget, insured that schools obeyed government regulations, worked to keep the local school board happy, and of course, were the loudest cheerleaders at school sporting events. Now they are expected

> to be academic leaders and change agents who should be held accountable for increasing student learning overall and especially for improving academic achievement among minority and at risk students. (p. 2)

The effectiveness of a school staff is dependent on the quality of school leadership and the available pool of talent that exists in the teacher population (Newmann & Wehlage, 1995). A principal does not simply tell school staff members that they will become a professional learning community. Cranston (2009) summarized Elmore (2000):

> The professional learning community concept is anchored in the notion that a principal is responsible to enhance the attitudes, skills and knowledge of staff, create a culture of expectations around those skills and knowledge, and meld the pieces together in meaningful relationships while holding the individuals accountable for their contributions. (p. 4)

Huffman and Jacobson (2003) studied the perceptions of professional learning community structure and sustainability using Brown and Issac's core processes of learning communities:

1. Capability refers to the capacity for dialogue in an organization.
2. Mutual commitment in a community of learners builds when people are an active part of the experience of creating something they value together.
3. In healthy communities, opportunities for diversity of contributions are clear.
4. Continuity is essential for survival of a community. Community members must learn how to build bridges linking the past with the present.
5. Collaboration supports interdependence by creating a web of multiple constituencies and stakeholders who are working to achieve a shared vision.

6. A democratic organization is guided by a positive conscience that embodies common principles, ethics and values. (p. 242)

Huffmann and Jacobson (2003) found that leaders who advocate for the organization positively impact schools. Further, their findings supported the fact that leaders who exhibit characteristics of collaborative leadership have a greater opportunity for success in developing a professional learning community.

Toole and Louis' (2002) concept of a professional learning community emphasized a school culture of professionalism, learning, and personalization. Toole and Louis (2002) reinforced the need for principals to move beyond the practice of collaboration as comfortable and focused on non-instructional matters to establish schools as places of trust, places of risk-taking, and places for teachers to identify collective commitments that focus on student outcomes. The areas emphasized by Toole and Louis were also supported by the National Association of Secondary School Principals' publication *Breaking Ranks II* (2004).

Cranston (2009) studied principals' perceptions of professional learning communities. The study investigated the characteristics identified by principals in their conceptions of schools as professional learning communities. The findings were synthesized into eight themes:

1. Professional learning communities are about process.
2. Structural supports enable the development of professional learning communities.
3. Trust as the foundation for adult relationships.
4. Congenial relationships dominate conceptions of community.
5. Learning is an individual activity.
6. Professional teaching is derived from attitudinal attributes.

7. Teacher evaluation shapes how principals think about learning in professional communities.
8. Teacher evaluation impacts principal and teacher relationships in professional learning communities. (pp. 9-15)

Based on Cranston's results, a school developing a professional learning community is influenced by principal leadership. Barnett and McCormick (2003) state:

> Principals need to be aware that leadership in schools is mainly characterized by relationships with individuals, and it is through these relationships a principal is able to establish his/her leadership and encourage teachers to apply their abilities, skills and efforts towards shared purposes. (p. 70)

Principal leadership continues to be proclaimed as the key factor in the success of professional learning communities.

Barriers of the Professional Learning Community Model

The development of a professional learning community represents a major change in organizational beliefs, behaviors, and practices. According to DuFour et al. (2005), there are three daunting tasks that challenge an organization from becoming a PLC: "(a) developing and applying shared knowledge, (b) sustaining the hard work of change, and (c) transforming school culture" (p. 9).

When educators discuss barriers for professional learning communities in schools, their responses include a lack of money and time, recalcitrant teachers or teacher unions, and building and district administrators who lack the desire or skill for leading such efforts (Sparks, 2005). Sparks goes on to say that he believes the primary barriers to professional learning communities are as follows:

- A lack of clarity regarding values, intentions, and beliefs
- Dependence on those outside of schools for solutions to problems
- A sense of resignation that robs educators of the energy that is essential to continuously improving teaching, learning, and relationships in schools. (p. 11)

Researchers at the Annenberg Institute of School Reform (n.d.) observed that some schools were more successful while others were less so when developing PLCs. The following reasons were listed as problematic:

- focusing on process diverts attention from instructional content and approaches
- reluctance to make work public limits more rigorous feedback
- deep-seated issues of trust and equity are often not addressed
- leadership capacity often remains underdeveloped
- effects of changes in practice and improved student learning are often poorly documented
- structural changes alone do not ensure change in practice. (pp. 5-7)

DuFour (2004) dispelled the myth that all students will have access to a common curriculum if schools present their state standards or district curriculum to teachers and then expect that meaningful planning and collaboration will occur. When it comes to curriculum, Marzano (2003) stated there are three types: intended (identified standards and benchmarks or learning targets), implemented (what teachers actually teach), and attained (what students learn). The classroom teacher is accountable for ensuring that each curriculum occurs. Flexibility for what is taught has become more prescriptive; however, the means to deliver curriculum still afford the teacher a level of autonomy.

Servage (2007) added that a further critique of a professional learning community is the absolute dependence of school-wide buy-in. Administrators who implement PLCs may find that their efforts are dampened by cynicism, resistance, or indifference. In addition, the belief that this, too, shall pass or that the PLC model is just another fad is perceived. DuFour and Eaker (1998) suggested, "In short, becoming a learning community is less like getting in shape than staying in shape–it is not a fad diet, but a never-ending commitment to an essential, vital way of life" (p. 28).

Professional Learning Community Studies

Authors Feger and Arruda, from The Education Alliance at Brown University, reported in their 2008 findings that a search of PLCs yields an extensive range of publications from guidelines for organizing PLCs to implementation research. However, rigorous research and evaluation studies of PLCs are limited in number and are largely descriptive (Feger & Arruda, 2008). The majority of the literature is dedicated to describing the processes and stages that occur along the development and implementation paths. There are three significant PLC studies that contribute to the research and findings of professional learning communities. Researchers Newmann and Wehlage (1995), McLauglin and Talbert (2001), and Wells and Feun (2007) provided the following findings.

A meta-analysis study by researchers at the Center on Organization and Restructuring of Schools (Newmann & Wehlage, 1995) collected data from more than 1,500 elementary, middle, and high schools in the United States. The results showed how schools that were successful in establishing improvement initiatives increased student learning. The following factors contributed to improved student outcomes: teachers who agree on a vision of high-quality work; teachers who practice authentic pedagogy (instruction and assessment); schools that build

organizational capacity to function as a professional community where teachers help one another; teachers who took collective responsibility for student learning and worked collaboratively to improve teaching practices; and schools benefit from external support from local, state, and federal agencies to achieve high-quality student learning (Newmann & Wehlage, 1995).

Fullan (2001b) referred to the study by McLaughlin and Talbert as one of the best studies of high schools. They studied PLCs at 16 high schools in California and Michigan, and they found that "a collaborative community of practice in which teachers share instructional resources and reflections in practice appear essential to their persistence and success in innovating classroom practice" (p. 22). McLaughlin and Talbert reported that teacher involvement in PLCs resulted in more students learning at higher levels than in traditional high school cultures. Additionally, they found that PLCs could more easily be established in high schools that were divided in content-area departments rather than on a school-wide basis.

Wells and Feun (2007) studied six suburban, high-school staffs who participated in a nine-day training experience to learn about implementing professional learning communities. The faculty members who went through the training were asked for their perceptions and evidence of what was happening at their schools relative to the implementation of a professional learning community. Results of the survey data indicated that the highest level of agreement was in the area of collaboration. Teachers wanted time to connect with their colleagues to determine curriculum pacing guides as well as to exchange teaching materials. The area of least agreement focused on discussing and analyzing student results as well as agreeing on interventions that were needed to assist failing students.

Transforming a school into a professional learning community is a time-consuming process which is more easily achieved at the elementary level than at the secondary level (McLaughlin & Talbert, 2001). Fullan (2001b) shared that it can take secondary schools six to eight years to transform the school culture, whereas an elementary school requires approximately three years. According to Fullan (2001b), two factors that increase the time for cultural change at the secondary level are school size and teachers who are not comfortable or deficient sharing knowledge and developing practice.

Dissertations on the Perceptions of Professional Learning Communities

Over the past few years, the following dissertations that focus on perception data about the implementation of PLCs at the elementary, middle, and secondary levels were published. The studies provided a current view of professional learning communities in action.

Carpenter (2008) investigated the process for three suburban elementary schools that participated in a district-wide initiative to develop PLCs, the progress for each school, and teacher perceptions about implementing PLCs. This case study used both qualitative and quantitative measures to document the process and results. The full PLC process was recorded over a two-year period with all elementary schools meeting district expectations. Carpenter shared that decisions for and about students need to be made at the school level with input from teachers and teacher leaders. Additionally, understanding how to lead change, providing time for building administrators and teachers to communicate and to co-learn, and establishing routines impacted student achievement. To foster a climate for PLCs, the principal and other leaders must be knowledgeable about the components of a PLC; a clear plan of action should be developed; leaders should know and be able to articulate how to lead change; and leaders should

have a vision for the future. Carpenter reinforced that professional development about implementing change is paramount and imperative for a successful transition.

Chan-Remka (2007) utilized a mixed-method case study to assess both teachers' and the principal's perceptions regarding the impact of professional learning communities at a single middle school located in an urban Rhode Island district. Hord's (2004) dimensions of a PLC were used in the results to analyze perception data. Chan-Remka found that, at this school, there was an overwhelming response from the teachers that their school does not operate as a true professional learning community due to the lack of supportive leadership from the principal. Based on this study, the lack of strategies and efforts that support a PLC created frustration among staff. Additionally, for PLCs to be successful, school leaders needed to prepare themselves to move beyond management and to focus on relationships with staff while providing opportunities to increase knowledge and to improve skills with adequate resources and time to develop professionally.

Bergevin (2006) studied responses from a southern California high school's faculty who were operating as a PLC school as modeled by DuFour and others. This mixed-method study investigated conversations about the roles, relationships, responsibilities, and ownership of the initiatives as well as outcomes of the model. He found that teachers have become more aware of each other's strengths, that climate and morale improved, and that there is a perception that better decisions are being made and that teachers have an impact on the educational environment; new teachers feel supported and feel that conversations are a source of professional development while the veteran teachers see the collaborative meeting times as an opportunity to share expertise gained over many years in the classroom. Additionally, conversations were perceived as purposeful and based on inquiry and reflection.

Christman's (2008) purpose for his qualitative study was to gauge the administrators', teacher leaders', and teachers' perceptions regarding evidence of ongoing professional learning community practices at a high school where PLCs had existed for five years. The survey data indicated that the high school was organizationally between a traditional school and a professional learning community. Of the 10 elements measured in this study, the teachers ranked collaboration and an emphasis on learning highest, followed by goal statement, vision statement, and mission statement. Teacher leaders ranked collaboration as number one, followed by emphasis on learning and persistence. Administrators ranked persistence as the most important, followed by emphasis on learning, leadership, and collaboration. Christman offered that the data collected assist the school in identifying short- and long-term goals, and help to adjust strategies to maximize institutional movement into a professional learning community.

Shaner (2009) examined teachers' and administrators' perceptions about the change process that occurred in their schools as they implemented PLCs; Shaner used a non-experimental, correlational research design. Shaner studied results from four different high schools where the mean number of years that a school was functioning as a PLC ranged from 1 to 7 years. His results indicated that both experienced and novice teachers lack the necessary skills to fully implement PLCs, with different training needed for veteran and less-experienced teachers. Participants shared that they were confused with the PLCs' goals, were unsure how to improve learning for all students, and were frustrated with the need to collect and analyze data in the context of a PLC. He recommended that professional development related to PLCs should be ongoing with the principal addressing the philosophy, concepts, and goals of the reform.

Grider (2008) identified two purposes in his quantitative study. The first was to determine teachers' perceptions regarding the degree to which their schools function as a PLC.

The second was to determine if elementary-, middle-, and high-school teachers differ in their perceptions of their schools as PLCs. The study involved surveying teachers who had undergone intensive training for the last three years in each of the elementary (16), middle (5), and high schools (4) that were becoming professional learning communities. The data showed that the majority of teachers (60%) perceived their school to function as a professional learning community with elementary teachers having the highest response, followed by the middle-school teachers and high-school teachers. Further, the perception of professional learning community practices was more consistent between elementary- and middle-school teachers than elementary- and high-school teachers.

Research Studies that Used the Stages of Concern Questionnaire

The instrument used to measure concerns about the implementation of a PLC in this study model is the Stages of Concern Questionnaire (SoCQ; George et al., 2006). The SoCQ captures the concerns for the learning organization to address in order to have a successful implementation.

Between 1987 and 2006, George et al. (2006) referenced 28 studies in educational settings that utilize the SoCQ resources. The instrument was incorporated in qualitative, quantitative, longitudinal, mixed-method, and comparative case studies to assess, evaluate, support, implement, and determine reliability and validity. The studies referenced by George et al. used concern theory to measure the progress of an innovation, to incorporate participant responses to tailor professional development, and to implement a reflective tool that enables people, in the midst of change, to see their own process and growth. According to George et al., a major role for the SoCQ is in supporting and planning professional development. There are a number of peer-reviewed research studies that have used the SoCQ.

The SoCQ was used in conjunction with other resources to develop procedures for focus groups and conferences with teachers, teams, and parents relating to the needs of gifted education as studied by Burns and Reid (1998). The SoCQ protocol provided a means to gather insight about the perceptions for identifying, monitoring, and responding to specific needs of a particular school and to effectively use this information to adapt training and assistance.

Howland and Mayer (1999) identified the SoCQ as an online tool that supports staff members facilitating the integration of technology in their curricula and as a way to help teachers view their progress in working with technology. Too often, teachers and administrators are expected to integrate new technologies and to adapt their instruction with inadequate information, time, or training about the innovation's effect on the stakeholders' impact. Thus, change is met with resistance, and the innovation often fails. From their findings, the key to successful change and innovation adoption lies within the individual affected by that change. The SoCQ is a tool that addresses support strategies by identifying the current concerns of an individual regarding the change in which he/she is involved.

The SoCQ was used by Ward, West, and Isaak (2002) to analyze a mentoring program for 45 second-year mentors and 65 first-year protégés using the Internet for teaching and learning. The research question that was addressed in this study was as follows: "Did mentors and protégés move from a focus on self toward a focus on task and impact as a result of the mentoring process?" (p. 557). The collected data consisted of pre and post use of the SoCQ as well as an open-ended questionnaire at the end of the project.

The tabulated data from the SoCQ resulted in decreased concerns related to awareness and management as well as increased concerns related to the impact on students and collaboration with others. Also, the mentors reported that professional development, providing

emotional and psychological support, and having a role model helped to reduce stress during the technology innovation (Ward, West, & Isaak, 2002).

In 2004, Dobbs used the SoCQ in a quasi-experimental, qualitative study that focused on the importance of training higher-education faculty about adapting to and implementing distance-education courses in an interactive television environment. The SoCQ measured the differences between college faculty who received classroom training on distance education (three 3-hour sessions over 6 weeks), classroom training, as well as and laboratory experiences on distance education (three 3-hour sessions over 6 weeks and 18 additional hours to receive college credit) and college faculty with no distance-education training. A pretest was administered to all participants before formal training was conducted. Participants who received classroom and laboratory training took the SoCQ upon completion of their training.

Dobbs (2004) found that concerns change over time and recommended that professional development should be addressed at the point where participants score on the SoCQ. The professional-development activities should address the individual's concern at the time and help him or her move to the next stage until the individual reaches the refocusing stage. Also, it was found that training for the new teaching methodologies increased the focus from the person to the innovation (distance learning).

Shaner (2009) utilized the SoCQ in his study to examine teachers' and administrators' perceptions of the change process that was occurring while PLCs were implemented. An area of research that was investigated using the SoCQ was to determine if a teacher's stage of concern could be predicted by his or her professional characteristics, including length of time in education, content area taught, and education level. At the consequence stage, Shaner reported that teachers with fewer years of experience had higher scores, whereas more experienced

teachers had lower scores, indicating that they had a more difficult time progressing to this Stage of Concern. Also, Shaner reported that less-experienced teachers are more likely to be functioning at the collaboration stage than experienced teachers. Teachers who taught in a core subject area scored lower at the collaboration stage of concern and higher for the management Stage of Concern than non-core teachers. Higher scores on the management and collaboration Stages of Concern indicated where participants were currently operating. Shaner's results indicated that both experienced and beginning teachers lack the necessary skills to implement PLCs. Training and professional development for PLCs must be ongoing for all teachers with the principal knowing the Stages of Concern at which the faculty is operating.

Summary

The No Child Left Behind legislation requires schools to be accountable for increasing the achievement of all students. The school-reform model that is researched in this study is the concept of a professional learning community. A professional learning community establishes a framework where teachers commit to working in collaborative teams to accomplish high levels of learning for all students (DuFour, 1999).

The mission of the U.S. Department of Education is "to promote student achievement and preparation for global competitiveness by fostering educational excellence and ensuring equal access" (*The Federal*, n.d.). If public schools continue to do what they have always done, the Department of Education's mission will neither be fulfilled nor will the state of education improve. Richard DuFour, Rebecca DuFour, Hord, Fullan, McLaughlin, Talbert, and others have provided information that the professional learning community model constitutes the best context for professional growth and change.

Whitaker (2004) stated that, to improve a school, you need to improve the teachers at the school. The development of teacher talent is a function of regularly scheduled meetings for the purpose of answering three questions: (a) What is it students are going to learn? (b) What assessments or activities will be used to measure learning? and (c) How do teachers react, and what happens when students do not learn? (DuFour & Eaker, 1998). The mission of a professional learning community concentrates on learning rather than teaching. To assist teachers, the need for schools and school districts to provide professional development that builds the knowledge and capacity for student success is paramount.

The model of a professional learning community is simple in definition, yet complex in implementation and execution. Factors that must be present in a professional learning community are supportive and shared leadership, shared vision and values, supportive conditions, shared personal practice, and collective learning and application (Hord, 1997, 2004). The development of a professional learning community represents a major change in organizational beliefs, behaviors, and practices. According to DuFour et al. (2005), there are three daunting tasks that challenge an organization from becoming a PLC: (a) developing and applying shared knowledge, (b) sustaining the hard work of change, and (c) transforming school culture.

The research on learning communities has concentrated on the organization, implementation, perception, and structural conditions of a PLC. Recent dissertation studies about teacher perception indicate that a broad range of experiences exist when schools engage in a professional learning community structure. Additional empirical research is needed to study teacher perceptions as well as the move from an independent delivery model to a collaborative and planning design. A gap of information exists when determining the concern about

implementing a learning community by its membership at the individual, department, and school level.

To identify and assist the implementation of an innovation new to an organization, the SoCQ can effectively be used to address an individual's perception about an innovation. Dobbs' (2004) research indicated that teachers who were supported and trained throughout an innovation had an increased individual focus from the person to the innovation.

The SoCQ instrument is used to provide insight about implementing a professional learning community model as it relates to teachers who teach in core versus non-core disciplines and for teachers with varying years of classroom experience. The intended use of the SoCQ has diagnostic purposes for personnel involved in the adoption of a process to chart the developmental growth and related outcomes of participants over time. The results do not indicate an end result, but the development of an innovation.

This study investigates secondary teachers' perceptions about the innovation of a professional learning community. The design of this study is discussed in the next chapter.

CHAPTER 3. METHODOLOGY AND PROCEDURES

Introduction

The purpose of this study was to investigate the concerns for implementing a professional learning community at a comprehensive high school by studying the perceptions that exist in the responses of teachers who have varying years of teaching experience as well as comparing those who teach in a core (i.e., English, math, social studies, and science) assignment to those who do not. The research questions for this study were as follows: (a) How do teachers perceive the implementation of professional learning communities? (b) How do teachers perceive the implementation professional learning communities by years of experience? and (c) How do teachers perceive the implementation of professional learning communities by core and non-core teaching assignment?

This chapter presents the methods that were used to collect and analyze the data needed to address the study's research questions. The topics included herein are as follows: Study Method, Setting for the Study, Instrumentation, Data Collection and Procedures, and data-analysis techniques.

Study Method

This dissertation uses an explanatory, mixed-method research design (Creswell, 2005). In an explanatory design, a two-phase approach is constructed to first collect quantitative data and then to collect qualitative data to help explain, refine, or elaborate the quantitative results. According to Creswell (2005), the explanatory research design "captures the best of both quantitative and qualitative data" (p. 516). The quantitative collection tool used in this study is the Stages of Concern Questionnaire (SoCQ). Data from the SoCQ allow the researcher to refine the findings for an in-depth, qualitative explanation in the second phase.

Setting for the Study

The 2010-2011 high school faculty members selected for study are from a large school district in a suburban community in Fargo, North Dakota. The high school has a student population of approximately 1,570 students in grades 10-12. The student demographics are 3% Asian, 6% African American, 87% White, 2% Hispanic, and 2% Native American. The high school has a traditional daily schedule consisting of 8 instructional periods that are each 50 minutes in length.

Format for Professional Learning Community Time

In August 2006, the school district implemented professional learning communities at the secondary level. To accommodate the planning time needed during the contracted day, late-start Wednesdays were approved by the board of education. Instead of school beginning at 7:45 AM, school began 45 minutes later. The late-start schedule required that 5 minutes of instructional time be reduced from each period on Wednesday. The altered schedule allowed teachers to meet as a professional learning community for 45 minutes each week.

Phase 1 Participants

The target population for this study was 100 licensed teaching staff members who were approved by the Education Standards and Practices Board, the licensing board in North Dakota. The teacher membership consisted of 100 licensed faculty members that was equally represented by 50 core instructors and 50 non-core instructors. All teachers, except one, were teaching 100% of their assignment in either a core or non-core area. The teacher who was teaching both core and non-core courses was selected to participate in the majority assignment's area. All instructors had at least one year of experience participating in a professional learning

community. During professional learning community time, all instructors met in common curricular departments.

Phase 2 Participants

The target population for Phase 2 was the 13 department chairpersons. The department chairpersons represented each core and non-core curricular area, and they fulfilled leadership roles and responsibilities. In addition, department chairs determined the agenda for weekly PLC meetings, and communicated the meeting notes and minutes to department members.

Instrumentation

Phase 1

The quantitative instrument used during Phase 1 was the SoCQ. The SoCQ is an instrument that measures individuals' concerns regarding educational change at their schools (George et al., 2006). The SoCQ is used in this study to determine the placement of teachers on the seven Stages of Concern per the implementation of professional learning communities. The seven Stages of Concern are presented in Table 3.

The SoCQ is a 35-item questionnaire that groups responses into seven categories (five items per stage) that provide information about where someone is in the Stages of Concern. Questions ask the respondent to indicate the degree to which each concern is true for him/her by marking a number on a 0-7 scale. A high number indicates high concern while a low number indicates low concern. A 0 indicates that the concern is very low or completely irrelevant (George et al., 2006).

Table 3. Identifying the Stages of Concern

Type of Concern	Stage of Concern	Expression of Concern
Impact	Stage 6	Refocusing: The focus is on exploring more universal benefits from the innovation, including the possibility of major changes or replacement with a more powerful alternative. Individuals have ideas about something that would work even better.
	Stage 5	Collaboration: The focus is on relating the coordination and cooperation of what individuals are doing with what co-workers are doing.
	Stage 4	Consequence: The focus is on the impact of the innovation on the students in the individual's immediate sphere of influence. The individual determines the relevance for students; evaluates student outcomes, including performance and competencies; and the changes needed to increase student outcomes.
Task	Stage 3	Management: The individual concentrates on the process and task associated with the innovation as well as the best use of information and resources. Issues include efficiency, organizing, and managing.
Self	Stage 2	Personal: The individual is uncertain about the demands of the innovation and his or her adequacy in meeting those demands. The individual reflects on his or her role in relation to the reward structure of the organization, decision making, and consideration of potential conflicts with the organization or self.
	Stage 1	Informational: The individual expresses a general awareness and interest in learning more about the innovation. The individual is not concerned about himself or herself in relationship to the innovation. He or she is interested in substantive aspects of the innovation in a selfless manner, such as general characteristics, effects, and requirements of use.
Awareness	Stage 0	Awareness: The individual indicates little concern about or involvement with the innovation.

To determine a raw score for each of the seven Stages of Concern, the responses are summed. Once a raw score has been determined for each concern stage, the raw score is converted into a percentile score using a percentile conversion chart. The stages represent a

developmental continuum that begins at low intensity (Awareness) and increases in intensity to impact an institutional stage (Impact) over time.

Phase 2

The second instrument was a qualitative questionnaire derived from the SoCQ responses which allows for further exploration and refinement of the responses. Qualitative responses provided the researcher with additional information about what people are doing and thinking (Strauss & Corbin, 1998). The questions were administered to the department chairperson from each of the core and non-core departments.

Validity

Phase 1 Instrument

The SoCQ was developed to provide an efficient-scoring means for the seven Stages of Concern about an innovation. Original development of the SoCQ occurred between 1973 and 1976 (George et al., 2006). During this time, the SoCQ was used in cross-sectional and longitudinal studies of 11 educational innovations. The validity of the SoCQ was investigated by questionnaire developers. They examined how scores relate to one another and to other variables using varimax rotation analysis (see Table 4).

The analysis of the data identified that the seven scales tapped seven independent constructs that were consistent with the seven Stages of Concern items. Based on these findings, the SoCQ appeared to have both content and construct validity. When scores from an instrument yield results that are meaningful and inferences are justifiable, Creswell (2005) asserted that the instrument is valid.

Table 4. Correlations Between Varimax Factor Scores and Raw Scores on the Pilot Stages of Concern Questionnaire (George et al., 2006)

SoCQ Stage	Varimax Factor Scores						
	7	1	6	3	4	2	5
0	.83	-.36	.41	.04	.05	-.04	-.09
1	.46	.67	-.40	-.10	.22	-.35	.01
2	-.14	.49	.72	.36	.04	-.14	.26
3	.10	-.04	-.34	.91	.10	.12	-.12
4	-.14	-.19	.00	.12	.96	-.02	-.07
5	.10	.37	.11	-.11	.11	.82	-.34
6	.16	-.05	-.17	-.02	.07	.40	.88

Phase 2 Instrument

The qualitative instrument derived from the SoCQ responses was developed to provide further refinement and exploration of participant responses. This refinement allowed for further interpretation and elaboration of the quantitative data.

Reliability

Phase 1 Instrument

Cresswell (2005) referenced reliability to mean that the scores from an instrument would yield nearly the same results, independent of the researcher. The SoCQ was tested for reliability by Hall, George, and Rutherford (1979) using Cronbach's alpha coefficients. The alpha coefficients ranged from 0.64 to 0.83, indicating adequate internal consistency. To determine stability, the instrument was administered a second time within a 2-week period. The alpha coefficients ranged from .65 to .85, indicating that the SoCQ responses were stable. The scores

for each stage were correlated using Pearson product moment correlations. Table 5 presents the internal consistency and stability of the SoCQ (George et. al, 2006).

Table 5. Stages of Concern: Reliability

Type of Concern	Stage of Concern	Alpha Coefficient	R
Impact	Refocusing	.71	.71
	Collaboration	.82	.84
	Consequence	.76	.76
Task	Management	.75	.81
Self	Personal	.83	.80
	Informational	.78	.86
Unrelated	Awareness	.64	.65

Phase 2 Instrument

The open-ended questions for the qualitative instrument were generated from the teacher SoCQ responses. An inquiry audit administered to the department chairpersons yielded dependable and credible responses. The collection of qualitative responses provided a greater understanding about the implementation of a professional learning community.

Data Collection and Procedures

The Institutional Review Board (IRB) approval of the research study (Appendix A) was obtained prior to data collection. In addition, the researcher met with the school district's assistant superintendent of curriculum and instruction to secure approval (Appendix C), to provide a procedural review, and to provide a timeline for the data collection.

Phase 1: Quantitative Questionnaire

An electronic, web-based data-collection procedure was selected to obtain participant responses for the quantitative research questions. An online version of the SoCQ, including demographic data (Appendix D), was developed with the support of Southwest Educational Development Laboratory (SEDL) personnel. Prior to using the electronic survey instrument, a SEDL Copyright Permission Request form was submitted for approval (Appendix D).

To maximize survey responses, Dillman's hybrid survey research model (Dillman, Smyth, & Christian, 2009) was used. A four-step process was identified to inform, send, remind, and replace notification for the distribution and collection of responses.

Workday 1 of Week 1, an email from the researcher was sent to all participants, informing them about their selection to participate in a survey that measures their concerns with the implementation of professional learning communities and their option to not participate. Workday three of week one, a second email was sent to all participants, explaining the steps to complete the survey. A link in the survey directed them to the website to complete the survey. Workday 5 of Week 1, a third email was sent to all participants, thanking them for their completed survey or reminding them to complete it. Workday 1 of Week 2, a replacement email was forwarded to all participants who had not completed the survey, reminding them to complete it by Workday 4 of Week 2. The response window was closed after Workday 5 of Week 2. Two weeks following the initial distribution of the survey notification, all data collection was considered complete.

The survey data were collected electronically through SEDL. The collected data were imported to other programs for more sophisticated data analysis using Statistical Analysis System software.

Phase 2: Qualitative Questionnaire

Upon collection and analysis of the data from the SoCQ, participant responses were used to compile narrative questions for further explanation and exploration by department chairpersons. Department chairpersons were selected due to their leadership and management role for department members.

The researcher sent department chairpersons a letter informing them that they would receive an email asking for their responses to the narrative questions derived from the SoCQ responses. Included with the letter was a $10.00 gift card to the school's student store. The gift card was an incentive for completion and a token of gratitude for their time and knowledge.

Questions (Appendix D) were electronically forwarded to the department chairpersons by the researcher. A time frame of one calendar week was scheduled for return responses. A reminder electronic message was sent to the department chairpersons after day three. Department chairpersons submitted their responses via Survey Monkey, ensuring participant anonymity.

Data Analysis Procedures

Phase 1: Quantitative Questionnaire

The quantitative data SEDL collected for each Stage of Concern were raw scores that were converted into percentiles per the SoCQ Percentile Conversion Chart (George et al., 2006; Appendix D). Aggregate percentile data were determined for the entire faculty, years of experience, each department, and core and non-core groups. The percentile scores for each group were charted for each Stage of Concern. Table 6 highlights the study's research questions, corresponding survey questions, scales of measurement, and statistical procedures.

Phase 2: Qualitative Questionnaire

The narrative responses of the department chairperson's were collected, organized, and analyzed by question. The researcher conceptualized (Strauss & Corbin, 1998) the responses and identified emerging ideas or themes. From the themes, theories for experiences with professional learning communities were conjectured.

Table 6. Research Questions, Survey Questions, and Scales of Measurement

Research Question	Survey Questions	Scales of Measurement	Statistical Procedure
Research Question 1: How do teachers perceive the implementation of professional learning communities?	Survey Questions 1-35	7-Point Scale	Percentile Conversion and Descriptive
Research Question 2: How do teachers perceive the implementation of professional learning communities by years of experience?	Survey Questions 1-35	7-Point Scale	Percentile Conversion and Descriptive t-test ANOVA
Research Question 3: How do teachers perceive the implementation of professional learning communities by core and non-core teaching assignment?	Survey Questions 1-35	7-Point Scale	Percentile Conversion and Descriptive t-test ANOVA

CHAPTER 4. ANALYSIS OF DATA

Introduction

The purpose of this study is to investigate high school teachers' concerns regarding the implementation of professional learning communities. This chapter presents the quantitative (t-test and Analysis of Variance) and qualitative data analysis, and results in four broad sections as follows:

- Demographics
- Research Question 1: How do teachers perceive the implementation of professional learning communities?
- Research Question 2: How do teachers perceive the implementation of professional learning communities by years of experience?
- Research Question 3: How do teachers perceive the implementation of professional learning communities by core and non-core teaching assignment?

The qualitative and quantitative data collection is presented in separate sections. The interpretation combines the two forms of data to seek convergence among the results.

Demographics

A total of 100 (50 core and 50 non-core) teachers received an invitation to complete the SoCQ instrument. There were a total of 69 (69%) surveys submitted. Of the 50 core instructors, 32 (64%) responded. Of the 50 non-core instructors, 37 (74%) responded. The years of teaching experience ranged from 0 to more than 23 years. For statistical purposes, the years of experience were categorized into three groups: 0-11 years (40.6%), 12-23 years (27.5%), and more than 23 years (31.9%). Table 7 shows the demographic data for the respondents.

Table 7. Core, Non-Core, and Years of Teaching Experience

Respondent	Number of Teachers	Percentage
Core	32	46.4
Non-Core	37	53.6
Total	69	100.0
Years of Experience		
0-11	28	40.6
12-23	19	27.5
More than 23	22	31.9
Total	69	100.0

Of the 32 core participants, 15 (46.9%) reported 0-11 years of experience, 8 (25%) reported 12-23 years or experience, and 9 (28.1%) reported more than 23 years of experience. Of the 37 non-core participants, 13 (35.1%) reported 0-11 years of experience; 11 (29.8%) reported 12-23 years of experience; and 13 (35.1%) reported more than 23 years of experience. Table 8 shows the number of core and non-core participants based on years of experience.

Table 8. Frequency Table: Years of Experience by Core and Non-Core Teachers

Years of Experience	Core	Percentage	Non-Core	Percentage
0-11	15	46.9	13	35.1
12-23	8	25.0	11	29.8
More than 23	9	28.1	13	35.1
Total	32	100.0	37	100.0

Quantitative Analysis of SoCQ

Data were obtained for the quantitative analysis after the SoCQ survey was sent to 100 core and non-core teachers who had a least 1 year of PLC participation during the 2010-2011 school year. A total of 69 teachers (32 core and 37 non-core) responded.

Research Question 1. How Do Teachers Perceive the Implementation of Professional Learning Communities?

To determine perceptions about the implementation of professional learning communities, the SoCQ was used to gather teacher responses. The SoCQ is a 35-item questionnaire that groups responses into seven categories (five items per stage) that provide information about where someone is in the Stages of Concern. Each question asks the respondent to indicate the degree to which each concern is true for him or her by marking a number on a 0-7 scale. The SoCQ measures the teacher's level of concern, or relative intensity, at each stage (Stage 0 = Awareness, Stage 1 = Information, Stage 2 = Personal, Stage 3 = Management, Stage 4 = Consequence, Stage 5 = Collaboration, and Stage 6 = Refocusing). The percentile scores indicate the relative intensity at each stage. A higher score indicates a more intense concern score at that stage. Likewise, a lower score indicates a less-intense concern at that stage.

Table 9 describes the percentile score (Appendix E) for all respondents at each stage of the SoCQ. Stage 0, or Awareness, had the highest percentile score (81) for all respondents. The second-highest percentile score for all respondents was Stage 2, or Personal, (59).

Table 9. All Respondents' Percentile Scores for Each Stage of Concern

Respondent	N	Stage 0	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
All	69	81	54	59	52	11	36	42

Research Question 2. How Do Teachers Perceive the Implementation of Professional Learning Communities by Years of Experience?

When core and non-core teacher responses are combined by years of experience, Stage 0, or Awareness, is the highest Stage of Concern (81) for all teachers. Likewise, teachers with 0-11

years of experience (75), 12-23 years of experience (75), and more than 23 years of experience (94), all rate Stage 0 as the highest Stage of Concern. The second-highest percentiles are found in Stage 2, or Personal: all teachers (59), 0-11 years of experience (63), 12-23 years of experience (52), and more than 23 years of experience (70). Table 10 represents the results of this analysis.

Table 10. Years of Experience: Core and Non-Core Stage of Concern Percentiles

Years	N	Stage 0	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
All	69	81	54	59	52	11	36	42
0-11	28	75	54	63	52	13	36	42
12-23	19	75	45	52	39	8	25	26
More than 23	22	94	57	70	60	11	44	52

When core teacher responses are disaggregated by years of experience, Stage 0, or Awareness, had the highest percentile score for each group. All core teachers (32) report a percentile score of 69. Core teachers with 0-11 years of experience (15) report a percentile score of 69. Core teachers with 12-23 years of experience (8) report a percentile score of 48. Core teachers with more than 23 years of experience (9) report a percentile score of 81. The second-highest percentile stage reported for each group is Stage 2, or Personal. Table 11 represents the results of this analysis.

Table 11. Core Teachers' Stage of Concern Percentile Scores by Years of Experience

Years	N	Stage 0	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
All	32	69	51	57	47	13	40	42
0-11	15	69	51	59	52	19	44	52
12-23	8	48	40	45	27	7	22	20
More than 23	9	81	63	67	60	11	48	47

When non-core teacher responses are disaggregated by years of experience, Stage 0, or Awareness, has the highest percentile score for each group. All non-core teachers (37) report a percentile score of 91. Non-core teachers with 0-11 years of experience (13) report a percentile score of 87. Non-core teachers with 12-23 years of experience (11) report a percentile score of 91. Non-core teachers with more than 23 years of experience (13) report a percentile score of 96. The second-highest percentile stage reported for each group is Stage 2, or Personal. Table 12 represents the results of this analysis.

Table 12. Non-Core Teachers' Stage of Concern Percentile Scores by Years of Experience

Years	N	Stage 0	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
All	37	91	54	63	56	9	31	38
0-11	13	87	57	67	56	9	31	34
12-23	11	91	48	57	47	11	28	30
More than 23	13	96	54	70	60	11	40	52

Research Question 3. How Do Teachers Perceive the Implementation of Professional Learning Communities by Core and Non-Core Teaching Assignment?

When teacher responses are disaggregated by core and non-core status, both groups reported that Stage 0 is the highest Stage of Concern. For core teachers, a percentile score of 69 is recorded for Stage 0. For non-core teachers, a percentile score of 94 is recorded for Stage 0.

The second-highest Stage of Concern is Stage 2 for both groups. Table 13 represents the results of this analysis.

Table 13. All Respondents', Core, and Non-Core SoCQ Percentiles for Each Stage

Respondent	N	Stage 0	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
All	69	81	54	59	52	11	36	42
Core	32	69	51	57	47	13	40	42
Non-Core	37	94	54	63	56	9	31	38

The SoCQ is a 35-item questionnaire that groups responses into 7 categories (5 items per stage) that provide information about where someone is in the Stages of Concern. Each question asks the respondent to indicate the degree to which each concern is true for him orher by marking a number on a 0-7 scale. A two-sample t-test was calculated to determine whether there was a significant difference in mean raw stage scores between core and non-core teachers. This test was performed at each of the seven Stages of Concern. Responses for core and non-core participants were tabulated. Results are shown in Table 14.

Of the seven stages, only Stage 0 was found to have a significant difference between raw mean scores, $t=-2.70$, $p<0.05$. At Stage 0, respondents indicated that there is little concern or involvement with the innovation. For the remaining stages, a comparison of raw mean scores indicated that a significant difference did not exist when $p<0.05$.

Table 14. t-test at Each Stage Comparing Core and Non-Core Responses

Stage	Group	N	Mean	SD	t-value	p-value
Stage 0					-2.70	0.0087*
	Core	32	11.97	6.22		
	Non-Core	37	16.16	6.60		
Stage 1					-0.48	0.6363
	Core	32	13.09	7.54		
	Non-Core	37	13.86	5.93		
Stage 2					-1.29	0.2011
	Core	32	15.16	7.85		
	Non-Core	37	17.32	6.08		
Stage 3					-1.18	0.2407
	Core	32	13.06	6.38		
	Non-Core	37	14.89	6.42		
Stage 4					0.82	0.4139
	Core	32	13.50	6.73		
	Non-Core	37	12.35	4.43		
Stage 5					1.10	0.2754
	Core	32	17.88	7.30		
	Non-Core	37	16.16	5.62		
Stage 6					0.33	0.7457
	Core	32	14.84	6.80		
	Non-Core	37	14.35	5.76		

*$p<0.05$ is a significant difference.

Additional t-tests were calculated for core and non-core respondents when the Stages of Concerns were combined into the "Self" (Stages 0-2), "Task" (Stage 3), and "Impact" (Stages 4-6) categories. The combination of stages into the Self category looks at how some teachers have not incorporated or are low-level users of the innovation. The Task stage shows how teachers spend time implementing the innovation. At the Impact category, teachers look at ways to improve, to share ideas, and to ask questions about student performance in relation to the innovation (see Table 15).

Table 15. t-test for Core and Non-Core Groups for the Self, Task, and Impact Categories

Level	Group	N	Mean	SD	t-value	p-value
Self					-1.85	0.0703
	Core	32	13.41	6.80		
	Non-Core	37	15.78	4.28		
Task					-1.18	0.2407
	Core	32	13.06	6.38		
	Non-Core	37	14.89	6.42		
Impact					0.91	0.3685
	Core	32	15.40	6.17		
	Non-Core	37	14.29	3.47		

*$p<0.05$ is a significant difference.

The raw mean scores at the Self, Task, and Impact categories were found to have little difference, thus indicating that no significant difference existed when $p<0.05$. The results indicate the identical result for core and non-core respondents.

To determine if there was a significant difference in scores based on years of teaching experience (0-11 years, 12-23 years, and more than 23 years), an ANOVA was conducted for each category (Self, Task, and Impact). When years of experience (independent variable) and stage levels (dependent variable) were compared, ANOVA tests were calculated to determine if the group means were equal. Table 16 displays these results.

The Self-level results indicated that a significant difference does exist among the three teaching experience levels with $F = 4.55$, $p < 0.05$. The Task-level results indicated that a significant difference does exist among the three teaching experience levels with $F = 3.48$, $p < 0.05$. Likewise, the Impact-level results indicated that a significant difference does exist among the teaching experience levels with $F = 4.24$, $p < 0.05$.

Table 16. ANOVA Test for Years of Experience for Each Category

Group	F Value	P
Self	4.55	0.0140*
Task	3.48	0.0367*
Impact	4.24	0.0185*

*p<0.05 is a significant difference.

To determine if there was a significant difference in scores based on years of teaching experience (0-11 years, 12-23 years, and more than 23 years), an ANOVA was conducted for each stage. When years of experience (independent variable) and concern stage (dependent variable) were compared, ANOVA tests were calculated to determine if the group means were equal. Table 17 displays these results.

Table 17. ANOVA Test for Years of Experience at Each Stage of Concern

Group	F Value	P
Stage 0	2.17	0.1224
Stage 1	2.86	0.0643
Stage 2	3.64	0.0317*
Stage 3	3.48	0.0367*
Stage 4	1.04	0.3580
Stage 5	3.01	0.0564
Stage 6	5.19	0.0081*

*p<0.05 is a significant difference.

Stage 2, or Personal, results indicated that a significant difference exists among the three teaching experience levels with $F = 3.64$, $p < 0.05$. Stage 3, or Management, results indicated that a significant difference exists among the three teaching experience levels with $F = 3.48$, $p <$

0.05. Likewise, Stage 6, or Refocusing, results indicated that a significant difference exists among the teaching experience levels with $F = 5.19$, $p < 0.05$.

To determine if there was a significant difference in scores based on years of teaching experience for core teachers (0-11 years, 12-23 years, and more than 23 years), an ANOVA was conducted for each stage. When years of experience (independent variable) and concern stage (dependent variable) were compared, ANOVA tests were calculated to determine if the group means were equal. Table 18 displays these results.

Table 18. ANOVA Test for Years of Experience for Core Teachers at Each Stage of Concern

Group	F Value	P
Stage 0	1.83	0.1782
Stage 1	2.66	0.0869
Stage 2	2.12	0.1384
Stage 3	5.11	0.0126*
Stage 4	2.17	0.1329
Stage 5	2.47	0.1023
Stage 6	4.46	0.0205*

*$p<0.05$ is a significant difference.

Stage 3, or Management, results indicated that a significant difference exists among the three teaching experience levels with $F = 5.11$, $p < 0.05$. Likewise, Stage 6, or Refocusing, results indicated that a significant difference exists among the teaching experience levels with $F = 4.46$, $p < 0.05$.

To determine if there was a significant difference in scores based on years of teaching experience for non-core teachers (0-11 years, 12-23 years, and more than 23 years), an ANOVA

was conducted for each stage. When years of experience (independent variable) and concern stage (dependent variable) were compared, ANOVA tests were calculated to determine if the group means were equal. Table 19 displays these results.

Table 19. ANOVA Test for Years of Experience for Non-Core Teachers at Each Stage of Concern

Group	F Value	P
Stage 0	1.14	0.3324
Stage 1	0.78	0.4674
Stage 2	1.71	0.1953
Stage 3	0.46	0.6370
Stage 4	0.29	0.7533
Stage 5	0.92	0.4091
Stage 6	2.42	0.1038

*$p<0.05$ is a significant difference.

The results at each stage for non-core teachers were consistent. There were no significant differences calculated for years of experience by non-core teachers.

Qualitative Analysis

This portion of the study consisted of a survey taken by 10 of the 13 department chairpersons at the selected high school. The survey contained a combination of seven closed- and open-ended questions that were tied to the research questions. The department chairpersons were notified about the survey through email. Ten department chairpersons responded to the survey which was administered via Survey Monkey. The results were analyzed using Strauss and Corbin's (1998) coding techniques.

Survey Quesiton 1 asked respondents to indicate if they were a department chair for a core or non-core area. Of the eight people who responded, six indicated that they were non-core department chairs; two indicated that they were core department chairpersons; and two skipped the question. Table 20 provides the breakdown of responses to Survey Question 1.

Table 20. Number of Department Chairpersons

Group	N	Percentage
Core	2	20.0
Non-Core	6	60.0
Skipped	2	20.0
Total	10	100

There were six open-ended questions that were derived from the quantitative data. The process of analyzing responses from the qualitative questions involved reading all the group responses for each survey question. Once the responses were read, the researcher looked for common responses for that particular question. The researcher used this same analysis method for each survey question. Once this process was completed, the researcher looked for themes or patterns that emerged from the responses. Open coding using line-by-line analysis for each response generated categories (Strauss & Corbin, 1998). Key words or phrases were identified, and references were made in the margins to identify themes.

The themes that emerged from the nine respondents for Survey Question 2 (Why do you think this stage "Unconcerned" was rated the highest?) were as follows:

1. Four respondents (44%) indicated that the purpose of PLCs was not made clear. Representative responses were as follows:

a. "If they do not feel that the time is organized and has a purpose, they may have little concern for this time."
b. "I think that many people were unsure what to do with PLC's (their purpose) and didn't know how to spend their time when we first began the practice of meeting together on Wednesday mornings."
c. "I think PLC's have become part of our school culture and for the most part we know their purpose."

2. Five respondents (56%) indicated that implementation of PLCs was not communicated well. Responses were as follows:
    a. "PLCs were done incorrectly by the DO [District Office]."
    b. "When this concept of department time was pitched to the staff it was presented in a way that led us to believe that we would have about 30 minutes a week of department time to be used for department business."
    c. "Our department values the PLC time on Wednesday morning; however, I believe the buy-in has to come from the staff."
    d. "I think that many people were unsure what to do with PLCs."
    e. "I think teachers are feeling they have little say or control over what is done in PLCs."
3. Two respondents (22%) indicated their comfort with PLCs. Responses were as follows:
    a. "I think it was rated highest because the staff feels pretty comfortable with the PLC concept and process . . ."
    b. "PLC is not new to our school."

The themes emerging from the seven respondents for Survey Question 3 (Why do you think this stage "Personal" was rated second highest?) were as follows:

1. Five respondents (71%) indicated that the expectations or demands of a PLC may or may not be met with resistance. Representative responses were as follows:
    a. "I am guessing that this stage is second highest because as teachers, I find that many teachers never feel that they are doing all that they can do."
    b. "They [staff members] need to identify what issues/concerns they have (re: students, teaching practices, curriculum, etc.)."
    c. "I think some of the personal concern is that PLC time was not being utilized the way for which it was designed. It is my understanding that it is designed for departments to assess, discuss, and record student achievement . . . and to design differentiated methods of instruction."
    d. "While the purpose of a PLC is understood and some areas are effectively using PLC time, other areas may not. Inconsistency may influence the results."

The themes emerging from the eight respondents for Survey Question 4 (Why do you think that responses are consistent between core and non-core teachers and years of experience?) were as follows:

1. Five respondents (63%) suggested that a lack of understanding about a PLC was responsible. Representative responses were as follows:
    a. "We do not do PLC's right and nobody knows how."
    b. "I can only guess that it might be because the questions are interpreted similarly by these teachers."

c. “Again, I think this is due to a lack of understanding in what PLC time stands for.”

d. “Everyone is overwhelmed with the amount of additional intrusions into the classroom.”

2. One respondent (13%) indicated that experience was the factor:

    a. “I would ‘guess’ that these responses have more to do with the experience level of teachers versus core/non-core departments.”

The themes emerging from the eight respondents for Survey Question 5 (What have been the greatest challenge(s) regarding the implementation of Professional Learning Communities?) were as follows:

1. Five respondents (63%) indicated that time was a challenge. Responses were as follows:

    a. “It seems like we are making good use of our time and discussing the many things that PLC’s are suppose to be about but at times some teachers feel that we are being made to do things that are taking away from the purpose of PLC because some groups are not using the time for productive purposes.”

    b. “Many in our dept. travel between schools . . . and also don’t have another course alike teacher to meet with during PLC times.

    c. “I feel the greatest challenge has been convincing the administration to resist the temptation to use our PLC time for other than what it was designed for.”

    d. “The biggest challenge is the time to work together–it goes so quickly and it’s hard to continue your project with a week in between meetings.”

    e. “Time and proximity to another teacher may present challenges.”

2. Two respondents (25%) suggested that accountability is a challenge. Responses were as follows:
    a. "Although professional learning communities have many variations, best practices would suggest a well-designed plan; share that plan and stay true to that plan."
    b. "A challenge over the years is the accountability factor–teachers realizing that their participation directly affects the products."

The themes emerging from the eight respondents for Survey Question 6 (What have been the greatest rewards regarding the implementation of Professional Learning Communities?) were as follows:

1. Four respondents (50%) indicated that the focus on student learning was a reward. Responses were as follows:
    a. "We have muddled our way through and come up with some good common assessments and it is nice to compare with other teachers and adjust questions/teaching styles to better fit."
    b. "Having the time to implement new programs/activities, revising the way we previously conducted programs and mainly, the time to brainstorm together for what we can do for students."
    c. "The greatest reward is definitely having a set time to talk to teachers in common disciplines to see what is going on with students and where their students are having trouble or being successful."
    d. "The greatest rewards are felt when our professional learning community, focuses on learning, and student achievement within our department."

2. Three respondents (38%) indicated that relationships with colleagues have been a reward. Responses were as follows:
    a. “Bonding with members of our department and sharing our concerns, best practices, challenges, triumphs, creativity, etc.”
    b. “My greatest resource are those I work with–we seldom have enough time to share information or teach new skills.”
    c. “I appreciate the opportunity to work with another teacher to grow as a professional.”

The themes emerging from the three respondents for Survey Question 7 (If there are comments that you would like to include about Professional Learning Communities, but were not asked, you are invited to share.) were as follows:

1. One respondent (33%) indicated that it is a time to share:
    a. “PLC’s are beneficial, it is a time for teachers to get together, a planned time.
2. Two respondents (66%) indicated that it is about attitude. Responses were as follows:
    a. “I hope we continue to have PLCs and please keep these meetings in the morning!”
    b. “It all begins with the teachers mindset. You are either of a fixed mindset or a growth mindset. Even if you have tried and failed as a teacher you have learned.”

Summary

This chapter presented an analysis of quantitative and qualitative data from teachers’ survey instruments regarding their perceptions and concerns about the implementation of professional learning communities. Of the 100 teachers invited to complete the Stages of

Concern Questionnaire, 69 (69%) responded while 10 of the 13 (77%) department chairpersons provided responses to the open-ended, qualitative questions.

The collected responses for the quantitative research questions are reported in one of seven stages. The SoCQ measures the teacher's level of concern, or relative intensity, at each stage (Stage 0 = Awareness, Stage 1 = Information, Stage 2 = Personal, Stage 3 = Management, Stage 4 = Consequence, Stage 5 = Collaboration, and Stage 6 = Refocusing). The percentile scores indicate relative intensity at each stage. A higher score indicates a more intense concern at that stage. Likewise, a lower score indicates a less-intense concern at that stage.

Research Questions 1, 2, and 3 addressed the teachers' perception about the implementation of a learning community by years of experience and by core and non-core teaching assignment. The stage that received the highest percentile ranking was Stage 0, or Awareness, for all teachers (81). This finding was also true for years of experience: 0-11 years (75), 12-23 years (75), and more than 23 years (94). Stage 0 was also identified as the highest stage for core (69) and non-core (94) teaching assignments. The results indicated that all groups report little concern about the implementation of professional learning communities. Further quantitative analysis of Research Question 3, comparing core and non-core teacher responses, determined that a significant difference was found only at Stage 0.

The qualitative, open-ended questions and responses provided an in-depth look into the perceptions and concerns about the implementation of professional learning communities. The lack of communication, purpose, and time were identified as areas of concern. The opportunity to collaborate, plan, discuss, and meet with fellow instructors to concentrate on what is best for students and their achievement were reported as rewards.

Limitations of Study

Limitations of this study included the following items: (a) researcher bias may be present because the researcher was the principal for the selected high school; (b) the study was unique to one high school; and (c) core and non-core teacher selection. All teachers, except one, were teaching 100% of their assignment in either a core or non-core area. In addition, teachers who did not have at least one year of experience with a professional learning community, during the 2011-12 school year at the selected high school, were not invited to participate.

CHAPTER 5. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

The purpose of this study was to investigate the concerns of implementing a professional learning community at a comprehensive high school by studying the differences that exist in the responses of teachers who have varying years of teaching experience as well as those who teach in a core (i.e., English, math, social studies, and science) assignment from those who do not. The format for this chapter follows with Research Questions, Summaries, Conclusions, Recommendations, and Suggestions for Further Study.

Research Questions

1. Research Question 1: How do teachers perceive the implementation of professional learning communities?
2. Research Question 2: How do teachers perceive the implementation of professional learning communities by years of experience?
3. Research Question 3: How do teachers perceive the implementation of professional learning communities by core and non-core teaching assignment?

Research Question 1 (Teacher Perception of the Implementation of PLCs)

Summary

As schools struggle to meet the demands and mandates of federal legislation to increase student achievement, school leaders are seeking ways to build capacity for reform and to sustain improvement efforts. Professional learning communities can be viewed as a conduit for transforming schools from the industrial-age model of education to a highly functioning, collaborative learning organization. The No Child Left Behind Act has challenged and required schools to be accountable for the educational development and progress of every student. This

heightened awareness has caused school systems to review their current educational practices and to determine effectiveness. Whitaker (2004) stated that, to improve a school, you need to improve the teachers in the school. DuFour and Eaker (1998) and Hord (2004) both described the vision for a professional learning community to support collegial collaboration, share decision making, and influence and focus on student results.

To determine the perception of implementing professional learning communities, the Stages of Concern Questionnaire was used to gather teacher responses. The SoCQ measured the teacher's level of concern, or relative intensity, at each stage (Stage 0 = Awareness, Stage 1 = Information, Stage 2 = Personal, Stage 3 = Management, Stage 4 = Consequence, Stage 5 = Collaboration, and Stage 6 = Refocusing). The percentile scores indicated relative intensity at each stage. Awareness, or Stage 0, had the highest percentile score for all respondents (81) with Personal, or Stage 2, being a distant second (59). The Awareness stage indicated that there is little concern or involvement with the innovation, whereas the Personal stage indicated that respondents are uncertain about the demands for the innovation and their adequacy in meeting those demands.

The themes that originated from the open-ended responses were consistent with responses from the questionnaire. Respondents indicated that the purpose of a PLC was not made clear; many people were unsure what to do with PLCs and did not know how to spend their time; and there was a feeling that teachers had little say or control over what is done in PLCs. In addition, others indicated that personal concern was a result of PLC time not being utilized the way in which it was designed.

Conclusions

The model of a professional learning community is simple in definition, yet complex in implementation and execution. The development of a professional learning community represents a major change in organizational beliefs, behaviors, and practices. According to DuFour et al. (2005), there are three daunting tasks that challenge an organization from becoming a PLC: (a) developing and applying shared knowledge, (b) sustaining the hard work of change, and (c) transforming school culture.

The results from both questionnaires are consistent with the tasks identified by DuFour as challenges for an organization to become a PLC. The Awareness stage indicates that there is little concern, or involvement, with the innovation. The Personal stage indicates that respondents are uncertain about the demands for the innovation and their adequacy in meeting those demands. Respondents indicate that the purpose of a PLC was not made clear, that many people were unsure what to do with PLCs and did not know how to spend their time, and that there was a feeling that teachers had little say or control about what is done in PLCs. In addition, others indicate that personal concern was a result of PLC time not being utilized the way in which it was designed.

Recommendations

1. Prior to a school transforming into a professional learning community, a well-defined implementation and professional development plan is needed. The mission of professional development is to prepare and support educators before and during the organization's reform and restructuring.
2. The leader (principal) of a building must understand the concept and benefits of a professional learning community and must provide feedback about how the reform is

meaningful for teachers and has application for their work. Principal leadership continues to be proclaimed as the key factor in the success of professional learning communities.

3. The principal must model collaboration by establishing a leadership teacher/administration team to assist with building capacity for addressing the goals, demands, and implementation of a professional learning community.
4. District and building leaders must remove barriers for professional learning communities. Barriers include not providing time; a lack of resources (money); a lack of clarity regarding values, intentions, and beliefs; dependence on individuals outside the schools for solutions to problems; and a sense of resignation that robs educators of the energy that is essential to continuously improve teaching, learning, and relationships in schools.

Research Question 2 (Teacher Perception of PLCs by Years of Experience)

Summary

The PLC literature is consistent that, when teachers are structured around collaboration and shared decision making, teaching, and learning are positively influenced. Hord (1997) identified that, when teachers are engaged in professional learning communities: teacher isolation is reduced; commitment to the mission and goals of the school is increased; responsibility for the development of students is shared; teaching practices are shared; new knowledge helps all students achieve expectations; teachers will be professionally renewed, and fundamental systemic changes will be sustained; and greater satisfaction, higher morale, and lower rates of absenteeism are noted. The pendulum must move from a culture of teachers

working independently and in isolation to an environment of collaboration between teachers and administrators.

This collaboration structure provides for enabling teachers to develop further expertise in subject content, teaching strategies, technology use, and other essential elements for teaching to high standards. The American Educational Research Association (Research Points, 2005) reports that "the more time teachers spend on professional development, the more significantly they change their practice, and participating in professional learning communities optimizes the time spent on professional development" (p. 2). If teachers retain a level of control and ownership over their own professional learning and sharing, then the ability to reflect on deeper levels of teaching and learning is supported through inquiry, reflection, dialogue, and collaboration. Sharing personal practice requires a complete paradigm shift from traditional roles in education. This position is reinforced by Schmoker (2006) who stated that "teachers learn best from one another, from people in their own organizations" (p. 120).

Shaner (2009) recommended that professional development related to PLCs should be ongoing with the principal addressing the philosophy, concepts, and goals of the reform. Shaner's results indicated that both experienced and beginning teachers lack the necessary skills to implement PLCs. Training and professional development for PLCs must be ongoing for all teachers, with the principal knowing the Stages of Concern at which the faculty is operating.

To determine the perception about implementing professional learning communities by years of teaching experience, the Stages of Concern Questionnaire was used to gather teacher responses. The SoCQ measured the teachers' level of concern, or relative intensity, at each stage (Stage 0 = Awareness, Stage 1 = Information, Stage 2 = Personal, Stage 3 = Management, Stage

4 = Consequence, Stage 5 = Collaboration, and Stage 6 = Refocusing). The percentile scores indicated relative intensity at each stage.

For statistical purposes, teachers' years of experience were categorized into three groups: 0-11 years (40.6%), 12-23 years (27.5%), and more than 23 years (31.9%). Awareness, or Stage 0, had the highest percentile score for each years-of-experience group: 0-11 years of experience (75), 12-23 years of experience (75), and more than 23 years of experience (94). The second-highest percentiles were found in Stage 2, or Personal: 0-11 years of experience (63), 12-23 years of experience (52), and more than 23 years of experience (70). The Awareness stage results indicated that there is little concern or involvement with the innovation. The Personal stage results indicated that respondents are uncertain about the demands for the innovation and their adequacy in meeting those demands.

The themes that originated from the open-ended responses were consistent with responses from the questionnaire. Respondents indicated that a lack of understanding about a PLC was responsible for consistent responses between core and non-core teachers as well as years of teaching experience. Also, respondents indicated that many teachers are overwhelmed with additional classroom responsibilities and that responses have more to do with the experience level of teachers versus core/non-core departments. In addition, others indicated that personal concern was a result of PLC time not being utilized the way in which it was designed.

Additional themes from the open-ended responses included having time to brainstorm together to determine assessments, to create activities, to review past and prepare for future presentations, and to talk with each other. The ability to meet as a discipline team created a stronger team, allowed for individuals to grow professionally, and assisted with keeping the focus on student learning and achievement.

An Analysis of Variance test was calculated to determine if there was a significant difference in scores based on years of teaching experience (0-11 years, 12-23 years, and more than 23 years) at each Stage of Concern. A significant difference was found to occur at Stage 2, or Personal; Stage 3, or Management; and Stage 6, or Refocusing. The Personal stage indicated that respondents were uncertain about the demands for the innovation and their adequacy to meet those demands. The Management stage indicated that respondents concentrated on the process and tasks associated with the innovation. At the Refocusing stage, the focus was on exploring more universal benefits from the innovation.

Additional ANOVA tests were calculated for years of experience (0-11 years, 12-23 years, and more than 23 years) when the stages of concerns were combined into the Self (stages 0-2), Task (Stage 3), and Impact (Stages 4-6) categories. The Self category looked at how some teachers have not incorporated or are low-level users of the innovation. The Task stage showed how teachers spend time implementing the innovation. At the Impact category, teachers looked for ways to improve, to share ideas, and to ask questions about student performance in relation to the innovation. It was calculated that a significant difference existed at the Self, Task, and Impact levels.

Conclusions

Senge (2000) asserted that learning communities are not a quick fix, but rather are adaptable and flexible to create and support sustainable improvements that build professional capacity to solve problems and make decisions diligently. Hord's (2004) Dimension 4, Supportive Conditions, included human capacities that encourage and sustain a collegial atmosphere and collective learning. Hipp and Huffman (2003) identified people factors that include seven critical attributes: teacher (positive and consistent) attitudes; academic focus for

students; norms that support continued learning and improvement, shared vision, participatory decision-making teachers who collaborate with one another, and ownership for student learning and success; caring relationships; trust and respect; recognition and celebration; and risk taking and a unified effort to embed change.

Transforming a school into a professional learning community is a time-consuming process which is more easily achieved at the elementary level than at the secondary level (McLaughlin & Talbert, 2001). Fullan (2001a) reported that it can take secondary schools 6-8 years to transform the school culture, whereas an elementary school requires approximately 3 years. According to Fullan (2001a), two factors that increase the time for cultural change at the secondary level were school size along with teachers who are resistant to sharing knowledge and developing common practice.

The results of the statistical analysis indicated that there was no difference in teacher responses about the innovation of a professional learning community based on years of experience. Whether all teachers (69) or teacher groups (0-11 years, 12-23, and more than 23 years) were reported, each group ranked Stage 0, or Awareness, as the stage of highest concern. The Awareness stage indicated that there was little concern or involvement with the innovation.

Recommendations

1. Provide the following professional-development factors when transitioning to a professional learning community: supportive and shared leadership, shared vision and values, supportive conditions, shared personal practice, and collective learning and application.
2. Provide and allow the concepts and practices of a professional learning community at the high-school level to mature and transform.

3. Empower teachers to assume leadership roles that create and support sustainable improvements that build professional capacity to solve problems and make decisions diligently.
4. Provide a trusting and safe environment for teachers to take risks and to stretch their professional comfort zone.
5. Celebrate the growth and accomplishments of goals at the individual, department, and school levels.
6. The practices and philosophy of a professional learning community must be embedded in the community of all teachers to compensate for teacher turnover.

Research Question 3: (Teacher Perception of PLCs by Core and Non-Core Teaching Assignment)

Summary

The structure of a PLC at the high-school level is predicated on the assumption that teams of teachers meet based on their discipline at the high-school level. DuFour (2004) emphasizes that the core mission of formal education is not only to ensure that students are taught, but also to ensure that they learn. Professional staffs of schools who identify themselves as professional learning communities will engage colleagues in the ongoing exploration of three crucial questions: (a) What do we want each student to learn? (b) How will we know when each student has learned it? (c) How will we respond when a student experiences difficulty in learning? To create a focus on learning, teachers need to identify what students must be able to do as well as the skills that are required for each grade level, class, or course of study. Collaborative teams are a necessary ingredient if professional learning communities are to be effective at accomplishing their goal of high levels of student learning. Collaboration is powerful when teachers

systematically work together to discuss, analyze, and improve classroom practice (DuFour, 1999). The hypothesis is that what teachers do together outside the classroom can be as important as what they do inside to affect school restructuring, teachers' professional development, and student learning.

McLaughlin and Talbert (2001) reported that teacher involvement in PLCs resulted in more students learning at higher levels than in traditional high-school cultures. Additionally, the authors found that PLCs could more easily be established at high schools that were divided into content-area departments rather than on a school-wide basis.

Results of the statistical analysis indicated that there was no difference in teacher responses by core or non-core status for the innovation of a professional learning community based on years of experience (0-11 years, 12-23 years, and more than 23 years). Core and non-core teachers both ranked Stage 0, or Awareness, as the stage of highest concern, regardless of their years of experience. The Awareness stage indicated that there is little concern or involvement with the innovation. Core and non-core teachers both ranked Stage 2, or Personal, as the second-highest stage. The Personal stage indicated that respondents are uncertain about the demands for the innovation and their adequacy in meeting those demands.

The themes that originated from the open-ended responses were consistent with the questionnaire answers. Respondents indicated that a lack of understanding about a PLC was responsible for consistent responses between teachers (core or non-core) and years of teaching experience. Also, respondents indicated that many teachers are overwhelmed with additional classroom responsibilities and that responses have more to do with the experience level of teachers versus core/non-core departments. In addition, others indicated that personal concern was a result of PLC time not being utilized the way in which it was designed.

Additional themes from the open-ended responses included having time to brainstorm together to determine assessments, having activities, having time to review past and prepare for future presentations, and having time to talk with each other. The ability to meet as a discipline team created a stronger team, allowed for individuals to grow professionally, and assisted in keeping the focus on student learning and achievement.

Further statistical analysis was calculated for core and non-core teacher responses for each stage. A two-sample t-test was calculated to determine whether there was a significant difference in mean, raw stage scores between core and non-core teachers. This test was performed at each of the seven Stages of Concern. Of the seven stages, only Stage 0, or Awareness, was found to have a significant difference.

Additional t-tests were calculated for core and non-core teachers when the Stages of Concerns were combined into Self (Stages 0-2), Task (Stage 3), and Impact (Stages 4-6) categories. The combination of stages into the Self category looked at how some teachers have not incorporated or are low-level users of the innovation. The Task category showed how teachers spend time implementing the innovation. For the Impact category, teachers looked at ways to improve, to share ideas, and to ask questions about student performance in relation to the innovation. The raw mean scores for the Self, Task, and Impact categories were found to have little difference, indicating that no significant difference exists.

An ANOVA statistical analysis was calculated to determine if there was a significant difference in scores for core teachers (0-11 years, 12-23 years, and more than 23 years) at each concern stage. The analysis indicated that a significant difference existed at Stage 3, or Management, and Stage 6, or Refocusing.

Likewise, an ANOVA statistical analysis was calculated to determine if there was a significant difference in scores for non-core teachers (0-11 years, 12-23 years, and more than 23 years) at each concern stage. The analysis indicated that no significant differences were calculated for years of experience for non-core teachers at each Stage of Concern.

Conclusions

The PLC literature is consistent that, when teachers are structured around collaboration and shared decision making, teaching and learning are positively influenced. Hord (1997) identifies that, when teachers are engaged in professional learning communities, teacher isolation is reduced; teacher commitment to the mission and goals of the school is increased; teacher responsibility for the development of students is shared; teaching practices are shared; teachers creating new knowledge assists in helping all students achieve expectations; teachers are professionally renewed, and fundamental systemic changes are sustained; and teacher satisfaction, morale, and absenteeism all improve. The pendulum must move from a culture of teachers working independently and in isolation to an environment of collaboration between teachers and administrators.

This structure provides for enabling teachers to develop further expertise in subject content, teaching strategies, technology use, and other essential elements for teaching to high standards. The American Educational Research Association (Research Points, 2005) reported that "the more time teachers spend on professional development, the more significantly they change their practice, and participating in professional learning communities optimizes the time spent on professional development" (p. 2). If teachers retain a level of control and ownership over their own professional learning and sharing, then the ability to reflect on deeper levels of teaching and learning is supported through inquiry, reflection, dialogue, and collaboration.

Sharing personal practice requires a complete paradigm shift from the traditional roles in education. This position is reinforced by Schmoker (2006) who stated that "teachers learn best from one another, from people in their own organizations" (p. 120).

Recommendations

1. Foster a meeting structure that allows members of the same discipline to meet as a PLC.
2. Provide the following professional development factors when transitioning to a professional learning community: supportive and shared leadership, shared vision and values, supportive conditions, shared personal practice, and collective learning and application.
3. Provide and allow the concepts and practices of a professional learning community at the high-school level to mature and transform at the department level.
4. Instill ownership that the instruction and assessment of identified student-learning outcomes are teacher responsibilities.
5. Establish a supportive, collaborative departmental environment that improves classroom practice through the discussion and analysis of student work.
6. Consistently apply, answer, and reflect on the three crucial questions in a PLC: (a) What do we want each student to learn? (b) How will we know when each student has learned it? (c) How will we respond when a student experiences difficulty in learning?
7. Celebrate the growth and accomplishments for department members and the department(s).

Suggestions for Further Study

This study investigated the concerns and perceptions for implementing a professional learning community at the high-school level. The use of PLCs is the best, financially sound, and most professionally rewarding way to improve schools. Additional research is needed to ascertain the steps involved and taken to establish a professional learning community. As more high schools implement PLCs, studies that address transforming school culture would broaden the research base about PLCs and their effectiveness.

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APPENDIX A. PERMISSION FROM IRB OF NORTH DAKOTA STATE UNIVERSITY

NDSU NORTH DAKOTA STATE UNIVERSITY

Institutional Review Board
Office of the Vice President for Research, Creative Activities and Technology Transfer
NDSU Dept. 4000
1735 NDSU Research Park Drive
Research 1, P.O. Box 6050
Fargo, ND 58108-6050

701.231.8995
Fax: 701.231.8098
Federalwide Assurance #FWA00002439

February 13, 2012

Justin Wageman
School of Education
155C EML

Notice of IRB Approval

Protocol **#HE12127**
"Teacher Concerns and Perceptions about the Implementation of Professional Learning Communities at the High School Level"
Co-investigator(s) and research team: **Todd Bertsch**

Approval period: 2/13/2012 to 2/12/2013 **Continuing Review Report Due: 1/1/2013**

Research site(s): **Fargo South High School** Funding agency: **n/a**
Review Type: ☒ Expedited category # 7
IRB approval is based on original submission, with revised: consent form (received 2/13/2012), and covers only the online survey portion of the project.

Additional approval is required:

- prior to implementation of any proposed changes to the protocol (*Protocol Amendment Request Form*), including the qualitative focus groups.
- for continuation of the project beyond the approval period (*Continuing Review/Completion Report Form*). A reminder is typically sent two months prior to the expiration date; timely submission of the report is your responsibility. To avoid a lapse in approval, suspension of recruitment, and/or data collection, a report must be received, and the protocol reviewed and approved prior to the expiration date.

A report is required for:

- any research-related injuries, adverse events, or other unanticipated problems involving risks to participants or others within 72 hours of known occurrence (*Report of Unanticipated Problem or Serious Adverse Event Form*).
- any significant new findings that may affect risks to participants.
- closure of the project (*Continuing Review/Completion Report Form*).

Research records are subject to random or directed audits at any time to verify compliance with IRB regulations and NDSU policies.

Thank you for cooperating with NDSU IRB procedures, and best wishes for a successful study.

Sincerely,

Teryl Grosz, MS, CIP

Last printed 2/13/2012 9:42:00 AM

NDSU is an EO/AA university.

APPENDIX B. INQUIRY EMAILS

North Dakota State University
College of Human Development and Education
Phone: (701) 231 – 8211 – Fax: (701) 231 – 7174
PO Box 6050, Dept. 2600, EML 255 – Fargo, ND 58108-6050

TITLE OF RESEARCH STUDY: TEACHER CONCERNS AND PERCEPTIONS ABOUT THE IMPLEMENTATION OF PROFESSIONAL LEARNING COMMUNITIES AT THE HIGH SCHOOL LEVEL

Dear Fargo South Instructor:

My name is Todd Bertsch. I am a doctoral graduate student in the Education Department at North Dakota State University, and I am conducting research to determine teacher concerns and perceptions about the implementation of Professional Learning Communities (PLC) at the high school level.

I am inviting you and other selected high school instructors from Fargo South High School who were contracted during the 2010-2011 school year and were involved in Professional Learning Communities to take part in this study. Your participation is voluntary and you are free to decline participation with no penalty or loss of benefits to which you are already entitled. Your decision to participate or not will have no impact on your employment status or relationship with Fargo South or the administration.

The survey will ask you to indicate your PLC experience on 35 questions. In addition to the survey questions, you will be asked to indicate if you are a teacher of a core subject area (English, science, math, or social studies) or not, and your years of teaching experience. Agreeing to participate in this research study, will present no more than minimal risk. The survey will take you approximately 15 minutes to complete. Your responses will remain confidential and anonymity is ensured by completing all survey responses electronically. The electronic survey is managed by the Southwest Educational Development Laboratory.

Here is the link to the survey questions: *https://www.sedl.org/concerns/index.cgi?sc=fsh1840*

By completing the 35 question survey, you will help provide feedback on the implementation and perceptions of professional learning community practices at Fargo South High School. The development of a professional learning community represents a major change in organizational beliefs, behaviors, and practices. Additional empirical research is needed to study teacher perception and the move from an independent delivery model to a collaborative and planning design. A gap of information exists when determining the concern about implementation of a learning community by its membership.

If you have any questions about this project, you may contact me by replying to this message or calling (701) 730-8196. You may contact my advisor Dr. Justin Wageman at (701) 231-7108 or email him at Justin.Wageman@ndsu.edu. Inquiries can also be directed to the NDSU Human Research Protection Program at (701) 231-8908, ndsu.irb@ndsu.edu for information regarding your rights as a research participant, or to make a compliant.

Thank you for taking part in this research. Your input is greatly appreciated.

Todd Bertsch

North Dakota State University
College of Human Development and Education
Phone: (701) 231 – 8211 – Fax: (701) 231 – 7174
PO Box 6050, Dept. 2600, EML 255 – Fargo, ND 58108-6050

TITLE OF RESEARCH STUDY: TEACHER CONCERNS AND PERCEPTIONS ABOUT THE IMPLEMENTATION OF PROFESSIONAL LEARNING COMMUNITIES AT THE HIGH SCHOOL LEVEL

Dear Fargo South Department Chairperson:

My name is Todd Bertsch. I am a doctoral graduate student in the Education Department at North Dakota State University, and I am conducting research to determine teacher concerns and perceptions about the implementation of Professional Learning Communities (PLC) at the high school level.

I am inviting you and other department chairpersons from Fargo South High School who were in charge of leading a department Professional Learning Community to take part in this study. Your participation is voluntary and you are free to decline participation with no penalty or loss of benefits to which you are already entitled. Your decision to participate or not will have no impact on your employment status or relationship with Fargo South or the administration.

The survey will ask you to indicate your PLC experience on 7 open ended questions. Agreeing to participate in this research study, will present no more than minimal risk. The survey will take you approximately 15 minutes to complete. Your responses will remain confidential and anonymity is ensured by completing all survey responses electronically.

Here is the link to the survey questions: http://www.surveymonkey.com/s/FSHPLC

By completing the 7 question survey, you will help provide feedback on the implementation and perceptions of professional learning community practices at Fargo South High School. The development of a professional learning community represents a major change in organizational beliefs, behaviors, and practices. Additional empirical research is needed to study teacher perception and the move from an independent delivery model to a collaborative and planning design. A gap of information exists when determining the concern about implementation of a learning community by its membership.

If you have any questions about this project, you may contact me by replying to this message or calling (701) 730-8196. You may contact my advisor Dr. Justin Wageman at (701) 231-7108 or email him at Justin.Wageman@ndsu.edu. Inquiries can also be directed to the NDSU Human Research Protection Program at (701) 231-8908, ndsu.irb@ndsu.edu for information regarding your rights as a research participant, or to make a complaint.

Thank you for taking part in this research. Your input is greatly appreciated.

Todd Bertsch

APPENDIX C. PERMISSIONS

January 4, 2012

Dr. Robert Grosz
Assistant Superintendent for Teaching & Learning
Fargo Public Schools
415 North 4th Street
Fargo, ND 58102

Dear Dr. Grosz:

I am a doctoral student at North Dakota State University and I am seeking your permission to survey the 2010-2011 instructional staff at Fargo South High School. The purpose of this study is to investigate comprehensive high school teachers' perspectives regarding the implementation of professional learning communities by core and non-core teaching assignment and by total of years of teaching experience.

In 2006, Fargo South High's teaching staff began meeting in learning communities. This study will focus on measuring the perceptions and concerns regarding the implementation of professional learning communities. To measure teacher responses, an explanatory, mixed method research design will be constructed. In an explanatory design, a two-phase approach is constructed to first collect quantitative data and then to collect qualitative data to help explain, refine, or elaborate the quantitative results.

The quantitative data will be collected using the Stages of Concern Questionnaire (SoCQ). The SoCQ is a 35-item questionnaire that groups responses into 7 categories that provide information about where a teacher is in the Stages of Concern. The stages represent a developmental continuum that begins at a low intensity, or personal stage, and increases in intensity to impacting an institutional stage over time. The qualitative questionnaire will be generated from further investigating the responses from the SoCQ. Once quantitative data has been reviewed, qualitative questions will be developed and be presented to the department chairpersons at Fargo South. The discussion and results will be facilitated and tabulated by a non-staff member.

The data from this study will assist building and district personnel understand concerns and perceptions about the development of professional learning communities. This data will be extremely useful in identifying areas of concern and generating plans to strengthen the professional learning community focus at South High School.

I look forward to receiving notification from you that permission has been granted to approve the study. If further information is needed, please contact my advisor Dr. Justin Wageman at 701.231.7108 or by email Justin.Wageman@ndsu.edu. My phone contact information is 701.730.8196 or by email Todd.D.Bertsch@my.ndsu.edu.

Sincerely,

Todd D Bertsch

Todd D. Bertsch

AF 4800

RESEARCH STUDY REQUEST

I hereby request permission to conduct a research study in the Fargo Public School District during the period from January 2012 to February 2012.

TOPIC: TEACHER CONCERNS AND PERCEPTIONS ABOUT THE IMPLENTATION OF PROFESSIONAL LEARNING COMMUNITIES AT THE HIGH SCHOOL LEVEL

If this request is granted, I agree to abide by Administrative Policy 4800: *refer to the FPS web site at www.fargo.k12.nd.us*

Signature of Researcher Todd D Bertsch

Institution of Higher Education North Dakota State University

Signature of Graduate Advisor

Date 1-23-2012

In addition to completing the Research Study Request Form, a copy of the following items are attached for review:

1. Abstract of the project
2. Questionnaire(s) to be used
3. Consent letter to be sent to parents

Endorsement: This request is ___ approved ___ disapproved

Administrator:

Date 1/5/12

A copy of this approval form must be presented to the school building principal before conducting any survey. The principal has the final approval to conduct a survey in a school building.

Please print your name and the mailing address where you want this form returned:

Name: Todd Bertsch
Street Address: 1640 15th Ave South
City, State & Zip: Fargo, ND 58103

ADVANCING RESEARCH
SEDL
IMPROVING EDUCATION

SEDL License Agreement

To: Todd Bertsch (Licensee)
1840 15th Avenue South
Fargo, ND 58103

From: Nancy Reynolds
Information Associate
SEDL
Information Resource Center—Copyright Permissions
4700 Mueller Blvd.
Austin, TX 78723

Subject: License Agreement to reproduce and distribute SEDL materials

Date: January 13, 2012

Thank you for your interest in using the ***Stages of Concern Questionnaire*** (SoCQ 075) published by SEDL and written by Archie A. George, Gene E. Hall, and Suzanne M. Stiegelbauer in 2006 as Appendix A, pages 79-82 in *Measuring Implementation in Schools: The Stages of Concern Questionnaire*, as a PDF document on an accompanying CD-ROM, in electronic format as SEDL's *Stages of Concern Questionnaire (SoCQ) Online* and published on pages 48-49 in the SEDL publication *Taking Charge of Change*, revised ed., published in 2006, 2nd printing, 2008, that was written by Shirley M. Hord, William L. Rutherford, Leslie Huling, and Gene E. Hall.

This instrument will be referred to as the "work" in this License Agreement. SEDL is pleased to grant permission to the Licensee who will administer copies of the work to 100 secondary high school instructors to investigate the concerns of and perceptions of professional learning communities at the high school level. The following are the terms, conditions, and limitations governing this limited permission to reproduce the work:

1. All distribution activities shall be in print format or in the electronic format of SEDL's *Stages of Concern Questionnaire (SoCQ) Online* which would require the Licensee's purchase of the use of surveys to be accessed only by designated participants in a password-protected environment. All copies distributed shall be solely for educational, non-profit use. Precise compliance with the following terms and conditions shall be required for any permitted reproduction of the work described above.

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Fax: 512-476-2286
www.sedl.org
4700 MUELLER BLVD. AUSTIN, TX 78723

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I'm e-mailing you a PDF of this agreement. Please print and sign one copy below, indicating that you understand and agree to comply with the above terms, conditions and limitations, and send the original back to me. If you wish to keep a copy with original signatures, please also print, sign, and return a second copy and, after I receive and sign the copies, I'll return one with both of our signatures to you.

Thank you, again, for your interest in using the ***Stages of Concern Questionnaire (SoCQ)***. If you have any questions about this License Agreement, please contact me at 800-476-6861, ext. 6548 or 512-391-6548, or by e-mail at nancy.reynolds@sedl.org.

Sincerely,

Nancy Reynolds
Nancy Reynolds for SEDL

January 18, 2012
Date signed

Agreed and accepted:

Signature: Todd D Bertsch

1-18-2012
Date signed

Printed Name: Todd Bertsch

APPENDIX D. SURVEY INSTRUMENTS

Stages of Concern Questionnaire

A Message from Your Survey Coordinator Continue to the questionnaire

Dear Current/Former Fargo South Instructor:

Thank you for participating in this survey to measure teacher's concerns and perceptions about the implementation of Professional Learning Communities at Fargo South High School. The survey should take you approximately 10 - 15 minutes.

Your assistance is greatly appreciated.

Todd Bertsch

About the Stages of Concern Questionnaire

The purpose of this questionnaire is to determine what people are thinking about when using various programs or practices. It is intended to assess their levels of concerns at various times during the adoption process.

The items were developed from typical responses of school and college teachers who ranged from no knowledge at all about various programs to many years' experience using them. Therefore, **many of the items on this questionnaire may appear to be of little relevance or irrelevant to you at this time.** For the completely irrelevant items, please select "0" on the scale. Other items will represent those concerns you do have, in varying degrees of intensity, and should be marked higher on the scale.

For example:

The fictional survey items below demonstrate how responses might be filled in by a person who loves to eat pizza but does not like pepperoni. The person has never left the United States before, and the person does not enjoy eating the same meal two days in a row. In this case, the concern being asked about is "EATING PIZZA" and is highlighted in each question.

	Irrelevant	Not true of me now	Somewhat true of me now			Very true of me now		
	0	1	2	3	4	5	6	7
I enjoy Eating Pizza.	○	○	○	○	○	○	○	◉
I enjoy Eating Pizza four or five days per week.	○	○	○	○	◉	○	○	○
I enjoy Eating Pizza with pepperoni.	○	◉	○	○	○	○	○	○
I have enjoyed Eating Pizza when traveling to foreign countries.	◉	○	○	○	○	○	○	○

Please click the button below to start the questionnaire.

Continue to the questionnaire

Stages of Concern Questionnaire

Please respond to the items in terms of **your present concerns**, or how you feel about your involvement with **Professional Learning Communitiy**. We do not hold to any one definition of the innovation so please think of it in terms of your own perception of what it involves. Phrases such as "this approach" and "the new system" all refer to the same innovation. Remember to respond to each item in terms of your present concerns about your involvement or potential involvement with the innovation.

Thank you for taking time to complete this task.

Please answer the following 2 items:

Core (Math, English, Social Studies or Science) or Non-core teacher:

- ○ Core
- ○ Non-Core

Years of teaching experience - do not include this year:

- ○ 0-3
- ○ 4-7
- ○ 8-11
- ○ 12-15
- ○ 16-19
- ○ 20-23
- ○ 24+

Select one response for each question below.

		Irrel-evant	Not true of me now	Somewhat true of me now			Very true of me now		
#		0	1	2	3	4	5	6	7
1.	I am concerned about students' attitudes toward Professional Learning Communitiy.	○	○	○	○	○	○	○	○
2.	I now know of some other approaches that might work better than Professional Learning Communitiy.	○	○	○	○	○	○	○	○
3.	I am more concerned about another innovation.	○	○	○	○	○	○	○	○
4.	I am concerned about not having enough time to organize myself each day (in	○	○	○	○	○	○	○	○

	relation to Professional Learning Communitiy).								
5.	I would like to help other faculty in their use of Professional Learning Communitiy.	○	○	○	○	○	○	○	○
6.	I have a very limited knowledge about Professional Learning Communitiy.	○	○	○	○	○	○	○	○
7.	I would like to know the effect of Professional Learning Communitiy on my professional status.	○	○	○	○	○	○	○	○
		Irrel-evant	Not true of me now	Somewhat true of me now			Very true of me now		
#		0	1	2	3	4	5	6	7
8.	I am concerned about conflict between my interests and my responsibilities.	○	○	○	○	○	○	○	○
9.	I am concerned about revising my use of Professional Learning Communitiy.	○	○	○	○	○	○	○	○
10.	I would like to develop working relationships with both our faculty and outside faculty using Professional Learning Communitiy.	○	○	○	○	○	○	○	○
11.	I am concerned about how Professional Learning Communitiy affects students.	○	○	○	○	○	○	○	○
12.	I am not concerned about Professional Learning Communitiy at this time.	○	○	○	○	○	○	○	○
13.	I would like to know who will make the decisions in the new system.	○	○	○	○	○	○	○	○
14.	I would like to discuss the possibility of using Professional Learning Communitiy.	○	○	○	○	○	○	○	○
		Irrel-evant	Not true of me now	Somewhat true of me now			Very true of me now		
#		0	1	2	3	4	5	6	7
15.	I would like to know what resources are available if we	○	○	○	○	○	○	○	○

	decide to adopt Professional Learning Communitiy.								
16.	I am concerned about my inability to manage all that Professional Learning Communitiy requires.	○	○	○	○	○	○	○	○
17.	I would like to know how my teaching or administration is supposed to change.	○	○	○	○	○	○	○	○
18.	I would like to familiarize other departments or persons with the progress of this new approach.	○	○	○	○	○	○	○	○
19.	I am concerned about evaluating my impact on students (in relation to Professional Learning Communitiy).	○	○	○	○	○	○	○	○
20.	I would like to revise the Professional Learning Communitiy approach.	○	○	○	○	○	○	○	○
21.	I am completely occupied with things other than Professional Learning Communitiy.	○	○	○	○	○	○	○	○
		Irrel-evant	Not true of me now	Somewhat true of me now			Very true of me now		
#		0	1	2	3	4	5	6	7
22.	I would like to modify our use of Professional Learning Communitiy based on the experiences of our students.	○	○	○	○	○	○	○	○
23.	I spend little time thinking about Professional Learning Communitiy.	○	○	○	○	○	○	○	○
24.	I would like to excite my students about their part in Professional Learning Communitiy.	○	○	○	○	○	○	○	○
25.	I am concerned about time spent working with nonacademic problems related to Professional Learning Communitiy.	○	○	○	○	○	○	○	○
26.	I would like to know what the use of Professional Learning Communitiy will require in the immediate future.	○	○	○	○	○	○	○	○

27.	I would like to coordinate my efforts with others to maximize the effects of Professional Learning Communitiy.	○	○	○	○	○	○	○	○
28.	I would like to have more information on time and energy commitments required by Professional Learning Communitiy.	○	○	○	○	○	○	○	○
		Irrel-evant	Not true of me now	Somewhat true of me now			Very true of me now		
#		0	1	2	3	4	5	6	7
29.	I would like to know what other faculty are doing in this area.	○	○	○	○	○	○	○	○
30.	Currently, other priorities prevent me from focusing my time on Professional Learning Communitiy.	○	○	○	○	○	○	○	○
31.	I would like to determine how to supplement, enhance, or replace Professional Learning Communitiy.	○	○	○	○	○	○	○	○
32.	I would like to use feedback from students to change the program.	○	○	○	○	○	○	○	○
33.	I would like to know how my role will change when I am using Professional Learning Communitiy.	○	○	○	○	○	○	○	○
34.	Coordination of tasks and people (in relation to Professional Learning Communitiy) is taking too much of my time.	○	○	○	○	○	○	○	○
35.	I would like to know how Professional Learning Communitiy is better than what we have now.	○	○	○	○	○	○	○	○

Thank you for taking the survey.

Submit Survey Responses

South Dept. Chair PLC

Exit this survey

The purpose of this study is to investigate comprehensive high school teachers' perspectives regarding the implementation of professional learning communities. The goals of the research are to answer the following questions: How do teachers perceive the implementation of professional learning communities? How do teachers perceive the implementation of professional learning communities by years of experience? How do teachers perceive the implementation of professional learning communities by core and non-core teaching assignment?

Next

South Dept. Chair PLC

Exit this survey

1. Are you a department chair of a core (English, Science, Math, or Social Studies) or non-core area?

- ○ Core
- ○ Non-Core

2. The faculty responses from the Stages of Concern Questionnaire indicate that the stage that is rated the highest is the "Unconcerned" Stage. The Unconcerned Stage indicates little concern about or involvement with professional learning communities. Why do you think this stage was rated the highest?

3. The faculty responses from the Stages of Concern Questionnaire indicate that the stage that is rated the second highest is the "Personal" Stage. A high Personal Stage indicates that the respondents are uncertain about the demands of the innovation, their adequacy to meet the demands, or their role with Professional Learning Communities. Although these concerns reflect uneasiness regarding Professional Learning Communities, they do not necessarily indicate resistance. Why do you think this stage was rated second highest?

4. The faculty responses from the Stages of Concern Questionnaire indicate that the highest rated stages (Unconcerned and Personal) are the same if you are a Core or Non-Core instructor and the responses are consistent given the years of

teaching experience. Why do you think that responses are consistent between core and non-core teachers and years of experience?

5. What have been the greatest challenge(s) regarding the implementation of Professional Learning Communities?

6. What have been the greatest reward(s) regarding the implementation of Professional Learning Communities?

7. If there are comments that you would like to include about Professional Learning Communities, but were not asked, you are invited to share.

Prev Done

APPENDIX E. PERCENTILE CONVERSION CHART FOR SOCQ

Raw Scale Score	Percentile Scores						
	Stages						
	0	1	2	3	4	5	6
0	0	5	5	2	1	1	1
1	1	12	12	5	1	2	2
2	2	16	14	7	1	3	3
3	4	19	17	9	2	3	5
4	7	23	21	11	2	4	6
5	14	27	25	15	3	5	9
6	22	30	28	18	3	7	11
7	31	34	31	23	4	9	14
8	40	37	35	27	5	10	17
9	48	40	39	30	5	12	20
10	55	43	41	34	7	14	22
11	61	45	45	39	8	16	26
12	69	48	48	43	9	19	30
13	75	51	52	47	11	22	34
14	81	54	55	52	13	25	38
15	87	57	57	56	16	28	42
16	94	60	59	60	19	31	47
17	94	63	63	65	21	36	52
18	96	66	67	69	24	40	57
19	97	69	70	73	27	44	60
20	98	72	72	77	30	48	65
21	99	75	76	80	33	52	69
22	99	80	78	83	38	55	73
23	99	84	80	85	43	59	77
24	99	88	83	88	48	64	81
25	99	90	85	90	54	68	84
26	99	91	87	92	59	72	87
27	99	93	89	94	63	76	90
28	99	95	91	95	66	80	92
29	99	96	92	97	71	84	94
30	99	97	94	97	76	88	96
31	99	98	95	98	82	91	97
32	99	99	96	98	86	93	98
33	99	99	96	99	90	95	99
34	99	99	97	99	92	97	99
35	99	99	99	99	96	98	99

Raw Scores Averages are determined and then converted to a SoCQ Percentile: Example: the average raw score of Stage 0 in Table 9 is 14, which converts to a percentile of 81.