TEACHERS' PERCEPTIONS DURING THE IMPLEMENTATION

OF THE PROFESSIONAL LEARNING COMMUNITIES MODEL:

A SCHOOL REFORM INITIATIVE

Heather D. Kenney

B.S., Elementary Education, University of Missouri-Kansas City, 2000
M.A., Educational Administration, University of Missouri – Kansas City, 2002

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Abstract

This quantitative quasi-experimental study focused on the school reform initiative, Professional Learning Communities (PLC) proposed by DuFour and Eaker. The study investigated teachers' perceptions during the implementation of the Professional Learning Communities Model, a school reform initiative, to determine if teachers' perceptions changed during implementation. Certified teachers in three elementary schools were surveyed utilizing the Stages of Concern Questionnaire developed by George, Hall, & Stiegelbauer (2006). The survey was administered in November 2007 and in April 2008 to evaluate the differences in teachers' perceptions during the implementation process. Data collection consisted of comparing 14 sets of means to determine if the differences were significant. Conclusions found significant differences between many pairs of means, concluding that teachers' perceptions changed during the November and April Questionnaire administration.

Dedication

There are no words to describe how amazing my husband has been throughout this endeavor. His love, unwavering support, and belief in me have been a true inspiration. Travis…now it's time to begin the next chapter…

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CHAPTER ONE: INTRODUCTION

Recent national legislation has had an impact on school reform efforts throughout

the United States. The resulting pressure to establish a structure for continued school

improvement and to increase student achievement has education experts searching for a

solution. The *No Child Left Behind Act* mandates the use of "effective methods and

instructional strategies that are based on scientifically based research" (2001). With this

increased accountability, institutions across the nation are in search of initiatives,

programs, and staff development alternatives to improve student achievement and meet

the standards of the legislation. One such initiative is the Professional Learning

Communities model proposed by Richard DuFour and Robert Eaker. DuFour and Eaker

contended, "The most promising strategy for sustained, substantive school improvement

is developing the ability of school personnel to function as professional learning

communities" (1998, p. xi). Hord added, "Professional learning communities can increase

staff capacity to serve students, but success depends on what the staff do in their

collective efforts" (1997, p. 54).

In the past, teachers have worked in isolation in an attempt to achieve the results

linked to positive student achievement. Teachers have proctored assessments and applied

units of studies without analyzing the results. Instructional materials, strategies, and areas

of improvement were driven by teacher decisions based on years of experience.

Principals have been the focal point of school decisions and followers of top-down

leadership. Hord ascertained, "A paradigm shift is needed, however, both in the public

and in teachers themselves about what the role of the teacher entails" (1997, p. 18). The

components of the Professional Learning Communities Model give teachers the

opportunity to work together to focus on learning, to be results-orientated, and to engage in professional collaboration, creating an environment where students and teachers learn and thrive. Schools implementing the Professional Learning Communities Model (also known as PLC) are experiencing results in the area of instruction, professional collaboration, shared leadership, and school culture, utilizing assessments and data to make informed decisions, and above all, student achievement.

Background of the Study

A large K-12 suburban school district in Missouri was selected as the location of this study. The district was continually challenged by rapid enrollment growth. In the past 10 years, nine new facilities had been constructed to assist with school overcrowding and steady enrollment increases. At the time of the study, 16,742 students were enrolled in the school system (See Table 1). A majority of the student population was composed of white students (83.3%). The average student daily attendance rate in the district was 95.6% (DESE, 2007).

The district was composed of an early childhood center, 17 elementary, 3 middle, and 3 high schools, as well as an alternative school (grades 7-12). As enrollment increased, the district experienced a steady yearly increase in the number of students receiving free and reduced lunch. The figures were 2003, 8.7%; 2004, 9.9%; 2005, 10.6%; 2006, 11.1%, and 2007, 12.9%. Approximately 1196 certified teachers were in the school district. The average teacher salary in the district had increased each year and had reached $48,077 by 2007 (See Table 2). The average years of experience for teachers remained steady over recent years at between 12.8 and 13.4 years (See Table 2).

Table 1

K-12 District Demographic Data 2003-2007

Year	2003	2004	2005	2006	2007
Enrollment	14,861	15,496	15,934	16,458	16,742
Asian	1.70%	1.80%	2.00%	2.00%	2.10%
Black	6.40%	7.70%	8.90%	10.00%	11.00%
Hispanic	2.50%	2.70%	3.00%	3.20%	3.40%
Indian	0.10%	0.20%	0.20%	0.20%	0.20%
White	89.20%	87.70%	85.90%	84.50%	83.30%

Note. From "Demographic Data 2003-2007," by Missouri Department of Elementary and Secondary Education School Data and Statistics, 2007a

Table 2

Teacher Characteristics and Faculty Information

Year	2003	2004	2005	2006	2007
Average Teacher Salary	$44,367	$43,431	$44,842	$46,693	$48,077
Average Administrator Salary	$79,369	$75,896	$79,683	$86,463	$88,809
Average Years of Teaching Experience	13.4	13.2	13.0	12.8	13.2
Teachers with a Master's Degree	62.20%	58.10%	59.20%	55.50%	55.10%

Note. From "Faculty Information 2003-2007," by Missouri Department of Elementary and Secondary Education School Data and Statistics, 2007b

Of the 17 elementary schools in the district, three were utilized in this study. Each school has implemented the Professional Learning Communities model. The PLC model

is described in detail in chapter two. The three schools studied to understand teachers'

perceptions of the professional leaning communities' model were Elementary One,

Elementary Two, and Elementary Three. For the purposes of this study, an elementary

school is classified as a school that serves students in kindergarten through sixth grade.

Principal A was the principal of Elementary One. He opened the building in 2005

and has been the principal since its inception. Before coming to Elementary One,

Principal A served as an administrator in District XYZ for 4 years and taught 14 years in

same district as well as the Columbia Public School District (personal communication,

June 11, 2008). Principal A's leadership style could be characterized as a relational

leader. He built strong relationships with team members and spent time fostering and

cultivating the relationships on a daily basis. As he built relationships, he instilled a level

of trust in teachers. He utilized relationships with staff to encourage members of the team

to be leaders and to take instructional risks. He believed in the power of collaboration and

sought to help teachers work together to make an instructional impact on students.

Principal A listened closely to his staff and found ways to help each staff member be as

effective as possible. Principal A saw himself as a learner among learners.

The principal of Elementary Two was Principal B, who has served in the position

for 10 years. Prior to holding the position as Elementary Two principal, Principal B spent

17 years in the North Kansas City School District, where she taught for 6 years and

served as an administrator for 11 years (personal communication, June 9, 2008). She

believed in a collaborative, shared leadership style where students, staff, and parents help

make decisions for the school. She fostered collaboration among grade level and building

teams and encouraged members to take advantage of team strengths to benefit the

learning of all students. Principal B empowered teachers to engage in leadership roles to help guide the school towards its goal of meeting the needs of all students. Principal B defined her style by describing Elementary Two as a wagon wheel. She believed she is a spoke in the wheel, as were other Elementary Two staff members, which kept the wheel moving forward toward the school vision. Elementary Two opened in the fall of 1993.

The principal of Elementary Three was Principal C, the researcher in this study. Principal C opened the building and had served as the principal for 1 year. Before opening Elementary Three, Principal C held the position of Assistant Principal for 2 years at another elementary school in the district. Before holding positions in the District XYZ, she taught for 5 years in the North Kansas City School District. Principal C's leadership style was characterized as collaborative. As the school building opened, Principal C participated in shared leadership, working alongside staff to make decisions that influenced the procedures, operations, and policies. Principal C believed any decisions made about staff, which affect staff, should be made by staff. She sought to build solid trusting relationships with team members and allowed opportunities for them to collaborate with one another on issues related to learning. She was an instructional leader and led collaborative sessions as the lead learner. Elementary Three opened in fall, 2007.

Elementary One's school enrollment during the 2007-2008 school year was 498 students. The student population was composed approximately of white students at 85%, followed by black students at 10%, with 5% representing other ethnicities. Less than 2% of students participated in the free or reduced lunch program. Elementary Two's school enrollment during the 2007-2008 school year was 550 students. The student population was composed of white students at 86%, followed by black students at 9%, with 5%

representing other ethnicities. Approximately 9% of students participated in the free or reduced lunch program. Elementary Three's school enrollment during the 2007-2008 school year was 432 students. The student population was composed of white students at 86%, black students at 10%, and 4% representing other ethnicities. At Elementary Three, less than 5% of students participated in the free or reduced lunch program.

<p style="text-align:center">Problem Statement</p>

The school reform initiative, Site Based Management, was the governance system previously utilized in the district. The Site Based Management principles empowered staff members and stakeholders to be involved directly in the decision making process (Oswald, 1995, ¶ 6). Schools utilized a Site Based Team of faculty members representing diverse disciplines, to tackle school operations, issues, and concerns. Although Site Based Management involved staff members in school operations, the reform initiative did not focus on student learning to impact student achievement positively.

It was the belief of the district superintendent of schools that the implementation of the Professional Learning Communities Model would assist the district in meeting the needs of each student (anonymous, personal communication, July 20, 2007). The No Child Left Behind legislation requires holding "local educational agencies and schools accountable for improvements in student academic achievement" (2001). Professional Learning Communities (PLCs), a reform initiative, had been studied by educational researchers to increase student achievement and address areas past reforms have missed: school culture and support given to teaching and learning. School culture and support for student learning were the foci of PLCs. PLCs may assist schools in developing into a learning organization, and ultimately increase student achievement. Historically, District

XYZ students demonstrated high percentages of proficiency on state assessments. Over the last several years, the assessment data had leveled off, not yet meeting the achievement levels needed for compliance with the No Child Left Behind legislation standard of all students reaching proficiency by 2010.

Purpose of the Study

During the 2006-2007 school year, the PLC model was selected as a district initiative for the 2007-2008 school year. The initiative and implementation plan was introduced to elementary building leaders. Principals were charged with involving staff in discussions regarding the PLC model, proposed benefits, and the level of implementation for the upcoming year. Three schools choosing to implement the PLC model were chosen for this study. The purpose of this study was to examine teachers' perceptions during the implementation of the PLC model. The researcher aimed to find the effect of the PLC model on teachers to indicate progress of the innovation and to support further implementation.

Significance of the Study

This study may make a significant contribution to the scholarly literature and teaching profession by studying teachers' perceptions of schools implementing a new initiative. The results of this study may assist principals in understanding the perceptions of teachers during the implementation of the school reform initiative and drive future decision-making for continued implementation.

Overview of the Methodology

The design of this quantitative study was quasi-experimental. The initial population of the study consisted of 17 elementary schools in District XYZ. Purposive

sampling with explicit criteria was utilized to identify the sample. The sample was composed of the certified teachers in three elementary schools: Elementary One, Elementary Two, and Elementary Three. The instrument utilized in the study was the Stages of Concern Questionnaire (George et al., 2006, p. 79). The 35-item questionnaire asked subjects to rate descriptors of perceptions on a Likert-type scale according to how true the statement is to the subject. The questionnaire items were intended to represent a specific stage of concern in the change process. The questionnaire is described in detail in chapter three. The researcher administered the questionnaire to certified teachers in November 2007 and in April 2008 to evaluate the differences in teachers' perceptions during the implementation process. The two-factor analysis of variance test was utilized to investigate potential change in teacher perceptions. Data analysis is reported in table and narrative form.

Research Question and Hypothesis

In the study, the researcher included one research question and one hypothesis. The research question was, "Do teachers' perceptions change during the implementation of Professional Learning Communities, a school reform initiative in three elementary schools in District XYZ?" The researcher hypothesized there was no significant change in teachers' perceptions of the PLC model during implementation, as measured by the Stages of Concerns Questionnaire in November 2007 and in April 2008.

Delimitations

The research study was delimited to teachers' perceptions in the selected elementary schools in the large suburban K-12 school district in Missouri. The researcher

also bound the study by studying teachers' perceptions of the PLC Model during the 2007-2008 school year.

<div align="center">Assumptions</div>

The researcher assumed the sample participants honestly and accurately completed the survey. It was assumed that the training and staff development provided was effective to implement PLC with the staff.

<div align="center">Definition of Key Terms</div>

Collaboration. DuFour and Eaker defined collaboration as a "Systematic process in which we work together to analyze and impact professional practice in order to improve our individual and collective results" (1998, p. 2).

PLC training. Project schools formed a team of teachers referred to as "coaches" who entered a 3-year training process focusing on best practices to improve student achievement. The coaches then brought the process back to their schools where they initiated positive change by training their colleagues. The "train-the-trainer" format was sustained through shared resources and guidance from the MAS-PLC staff. Focus areas of training included data analysis, creating S.M.A.R.T. goals, forming a vision, collaborative teaming, giving common formative assessments, creating a pyramid of interventions, and other topics (Missouri Professional Learning Communities).

Professional Learning Community. "To create a professional learning community, focus on learning rather than teaching, work collaboratively, and hold yourself accountable for the results" (DuFour, 2003, p. 1).

Innovation. "A new strategy, program, or practice" (George et al., 2006, p. 7).

Organization of the Dissertation

The dissertation is divided into five chapters. Chapter one introduced the background of the study, problem statement, purpose and significance of the study. An overview of the methodology, research questions and hypothesis, objectives, delimitations, and the definition of key terms were provided. In chapter two, the literature reviewed for the study focuses on previous school reform efforts, learning communities, PLC, and the change process. Competing perspectives, a conceptual and theoretical framework, and synthesis and critical analysis of the research is reviewed in depth. The chapter also focuses on important terms and issues related to the PLC model.

Chapter three investigates the methods used in the research study. The chapter includes the research perspective, design, questions, hypothesis, and limitations. The research environment studied describes the population, limitations, methods for conducting the study, variables, instrumentation, and the method for data collection and analysis used in the study. The researcher provides information on the validity and reliability of the data. In chapter four, the results of the study are reported. The methodology for the study and a summary of the results are included. Chapter five includes a brief summary and discussion of the results of the study for interpretation and recommendations. Implications of the study and practice are examined and recommendations are reported. The researcher outlines the relationship of the results to existing theory regarding the PLC Model. Last, a summary and conclusion of the study are reported.

CHAPTER TWO: REVIEW OF THE LITERATURE

Over the last decade, schools have been immersed in various reform efforts aimed to increase school efficiency and the success of students. The No Child Left Behind Act (2001) required schools to "develop comprehensive school reforms, based upon scientifically based research and effective practices that include an emphasis on basic academics and parental involvement so that all children can meet challenging State academic content and academic achievement standards". Federally mandated reforms pushed schools to examine current practices and determine a course of action to meet the federal guidelines and provide the best possible education for students. The research in this chapter provides examination of previous reform efforts, a history of learning communities, and a formal definition and overall explanation of DuFour and Eaker's Professional Learning Communities (PLC) model.

A Reason to Reform

On July 4, 1964, *Equality of Educational Opportunity,* commonly referred to as the Coleman Report because it was written by James Coleman and colleagues, was released to the American public. *Equality of Educational Opportunity* was based on an extensive study commissioned by Congress as part of the Civil Rights Act of 1964 to address "the lack of ability of equal educational opportunities for individuals by reason of race, color, religion, or national origin" (Viadero, 2006, ¶ 12). The study of over 650,000 students and teachers and 3,000 schools focused on the "equality of outcomes rather than equity of input" (Marshall, 1998, ¶ 2). The trend in education tended to focus on what schools had in regard to resources and textbooks, rather than the knowledge schools imparted to students.

The Coleman Report had three significant findings. First, the study revealed, "A student's educational attainment was not only related to his or her own family background, but also (less strongly) to the background of the other students in the school" (Marshall, 1998, ¶ 2). The importance of a child's upbringing and family background was an indicator of a child's school success. Second, the study found, "Variations in school quality (as indexed by the usual measures such as per pupil expenditure, size of school library, and so on) showed little association with levels of educational attainment, when students of comparable social background were compared across schools" (Marshall, 1998, ¶ 2). Essentially, a student's academic achievement was not significantly linked to the quality of a school. The third finding revealed academic success was linked to whom students went to school with each day. "Black students did better in schools that were predominately middle class than they did in lower-class schools, even though the improvements were not large enough to make up for achievement difference due to family background" (Viadero, 2006, ¶ 44). Student body makeup proved to be an essential factor in academic success for African American students.

Once published, the report became controversial and led the American public to believe schools did not matter in a pupil's education. The report and its findings have been consistently misinterpreted by researchers and politicians who twisted the results to support political and educational ideals. The report's largest contribution to the field of education was its focus on students. "The importance of the Coleman Report was that it changed the perspective to concentrating on student performance, and that has endured" (as cited in Viadero, 2006, ¶ 17).

By lending credence to the notion that "schools didn't make a difference" in

predicting student achievement, the report stimulated a vigorous reaction,

instigating many of the studies that would later come to define the research base

for the Effective Schools Movement (Lezotte, 2008, ¶ 3).

Soon, Lawrence Lezotte and Ronald Edmonds sought elementary schools

successfully educating students despite socio-economic status or family background.

After schools were identified, researchers analyzed the schools in search of similar

characteristics. "In other words, what philosophies, policies, and practices did these

schools have in common?" (Lezotte, 2008, ¶ 4). Common characteristics in the successful

schools soon became known as the Correlates of Effective Schools, and in 1982 were

published by Edmonds in a paper entitled *Programs of School Improvement: An*

Overview. The correlates Lezotte identified were instructional leadership, common

mission, effective instruction, high expectations, frequent monitoring, and safe and

orderly environment (2008, ¶ 5). Over time, the findings of the effective schools existing

in America had been confirmed and broadened to secondary institutions. Lezotte and

Edmonds continued effective schools research in the quest to focus on outputs of students

and to continue to locate schools that were effective.

<center>Looking Back at School Reform Efforts</center>

The ever-popular government report, *A Nation at Risk* (1983), confirmed there

were problems in the educational system and led the first school reform efforts. The

report outlined how American education was mediocre, at best. The Nation at Risk

reformers suggested that it had become apparent through data and statistics that the

educational systems in other industrialized countries were soaring to new heights as the

future of America was spiraling downward. "Our society and its educational institutions seem to have lost sight of the basic purposes of schooling, and of the high expectations and disciplined effort needed to attain them" ("A Nation at Risk," 1983, ¶ 4). The American public "understands the primary importance of education as the foundation for a satisfying life, an enlightened and civil society, a strong economy, and a secure Nation" (¶ 34). To avoid failure and a declining education system, predicted by *A Nation at Risk*, schools sought new initiatives to improve the education of students. Schools were challenged to redesign educational structures that would enhance student achievement. Unfortunately, the response to *A Nation at Risk* from schools was less than desirable. American education was potentially becoming a mirror image of the country outlined in *A Nation at Risk*.

The next wave of reform for American schools came in 1989, during the George H.W. Bush administration, when *Goals 2000: Educate America Act* was passed and published. The *Goals 2000* purpose was:

> To improve learning and teaching by providing a national framework for education reform; to promote the research, consensus building, and systemic changes needed to ensure equitable educational opportunities and high levels of educational achievement for all students; to provide a framework for reauthorization of all Federal education programs; to promote the development and adoption of a voluntary national system of skill standards and certifications; and for other purposes. ("Goals 2000," 1989, ¶ 1)

The act outlined six national goals, which were later amended by Congress to include two additional goals, to be achieved by the year 2000. The *Goals 2000: Educate America Act* outlined the national goals as follows:

1.   By the year 2000, all children in America will start school ready to learn;

2.   By the year 2000, the high school graduation rate will increase to at least 90 percent;

3.   By the year 2000, all students will leave grades 4, 8, and 12 having demonstrated competency over challenging subject matter including English, mathematics, science, foreign languages, civics and government, economics, arts, history, and geography, and every school in America will ensure that all students learn to use their minds well, so they may be prepared for responsible citizenship, further learning, and productive employment in our Nation's modern economy;

4.   By the year 2000, the Nation's teaching force will have access to programs for the continued improvement of their professional skills and the opportunity to acquire the knowledge and skills needed to instruct and prepare all American students for the next century;

5.   By the year 2000, United States students will be first in the world in mathematics and science achievement;

6.   By the year 2000, every adult American will be literate and will

possess the knowledge and skills necessary to compete in a

global economy and exercise the rights and responsibilities of

citizenship;

7.   By the year 2000, every school in the United States will be free

of drugs, violence, and the unauthorized presence of firearms and

alcohol and will offer a disciplined environment conducive to

learning;

8.   By the year 2000, every school will promote partnerships that

will increase parental involvement and participation in

promoting the social, emotional, and academic growth of

children. ("Goals 2000," 1989)

Although the above national goals were established to provide American

education with a road map to achievement, the goals were perceived as a way for the

federal government to move the responsibility of education away from individual states

and declare it a federal government responsibility. Many members of the public arena

opposed the Act, and the rights of public education finally rested with the individual

states. Educators and reformists felt individual states should give back components of the

decision-making process to schools to allow them to develop as organizations. The need

for achievement goals and local school autonomy developed into School/Site Based

Management (commonly referred to as SBM) (Holloway, 2000, ¶ 4).

According to Levey & Acker-Hocevar, "Site-based management is defined in a

variety of ways but typically incorporates the same components: a delegation of authority

to individual schools, a shared decision-making model involving various stakeholders, and facilitative leadership at the school level (as cited in Holloway, 2000, p. 81). The goal of SBM was to influence student achievement positively by restructuring schools and decentralizing power and control to local authorities, those closest to students. The movement had many variations in implementation. Most schools developed a council of stakeholders consisting of students, parents, teachers, staff, and community members to provide input on a variety of school-related issues such as personnel, budgeting, curriculum, and professional development—a process often referred to as shared decision making (Oswald, 1995, ¶ 5). Some school councils merely gave input to the administration, while others collectively made decisions after coming to a consensus about needed actions.

A key to SBM and the shared decision-making process is understanding the roles and responsibilities of the stakeholder council. The building principal shared delegation and school governance with the stakeholders to facilitate student success. There was a belief that, "For SBM to work successfully, the principal must use a team approach to decision-making. If this is done, supporters of SBM say, teachers will feel more positive towards school leaders and more committed to school goals and objectives" (Oswald, 1995, ¶ 6). Oswald stated that the administrator was also responsible to "conduct frequent assessments and focus the stakeholders' attention on instruction instead of politics" (¶ 11). Teachers and other stakeholders shared their opinions on topics and engaged in conversations to reach consensus on discussion topics. "Teachers influence decisions by participating in planning, developing, monitoring, and improving instructional programs within the school" (Oswald, 1995, ¶ 19).

SBM gave schools the power to control school processes. Shared decision-making was intended to make decisions in the best interests of students. Unfortunately, there were several reasons why it failed to revitalize American education and create gains in student achievement for schools initiating the reform. First, school decision-making councils took on issues that were not related to improving efficiency and classroom instruction. "Too often, site-based management efforts create 'Christmas Tree' programs with no coherent focus or direction" (Odden, 1995, ¶ 8). Councils solved problems that had no real impact on student achievement.

Second, in an SBM model, when utilizing shared decision-making, teacher leaders should focus their efforts on assuming leadership roles related to critical issues in the teaching and learning process. One challenge involves "finding time for teachers to engage in the added responsibilities of effective school-based decision-making. Meeting this challenge usually means restructuring both the school organization and the teacher's job, including how the teacher spends his or her time" (Odden, 1995, ¶ 8). Schools were not prepared to change the structure to ensure that teacher leaders had the opportunity to leave their classrooms behind and focus on school improvement efforts. Third, the model of SBM and shared decision-making was implemented in a variety of ways. There were no clear directions for developing a shared decision-making council or for the content the council should focus on to improve schools. Therefore, councils functioned in various ways and never created or accomplished a school vision (Oswald, 1995, ¶ 16).

Although issues were associated with the SBM and shared decision-making, the reform movement allowed schools the opportunity to function at a local level. There is little data to support that the reform initiative led to improved student achievement.

"Research has not found a link between SBM and gains in student academic achievement, lower dropout rates, increased attendance, and reduced disciplinary problems" (Oswald, 1995, ¶ 8). A component of the SBM movement that continued to receive attention was the belief regarding shared decision-making (also known as SDM).

> Research to date shows mixed results for SDM. Most studies agree that collaboration improves teacher morale and school climate (although it may also increase frustration at times). However, there is much less evidence that SDM has a positive impact on student learning. (Lashway, 1997, p. 2)

The lack of data led to the belief that SBM and SDM allowed for increased collaboration at a local level, but on issues not directly correlated with the teaching and learning processes.

It was evident the past reform efforts, such as Goals 2000, SBM, and SDM, were not successful as top-down or bottom-up leadership structures. American education was in need of a strong movement to push schools and achievement into the 21st century. In 2001, President George W. Bush authorized the No Child Left Behind Act. The Act had a single purpose: "To close the achievement gap with accountability, flexibility, and choice, so that no child is left behind" ("No Child Left Behind," 2001). In the legislation, four pillars were outlined to improve public education and the school experience. The four pillars included "stronger accountability for results, more freedom for states and communities, proven education methods, and more choices for parents." Schools now were "determining which educational program and practices have been proven effective through rigorous scientific research." As part of the legislation, yearly reports would be generated to determine if schools made the grade and met adequate yearly progress

targets, proficiency levels set by individual states. Schools failing to meet targets and annual yearly progress benchmarks would be mandated to implement programs to assist students in reaching proficiency standards.

In order to comply with No Child Left Behind, schools across the United States need to refocus efforts and strive to make instructional and structural changes to positively impact student achievement. "The movement to ask schools to adopt programs that have been rigorously researched could have a profound impact on the practice of education and on the outcomes of education for students" (Slavin, 2003, p. 16). PLC is one such initiative shown to be a research-based strategy for focusing on school improvement efforts to affect student learning positively.

<center>Learning Organizations</center>

The first work around learning organizations began by Peter Senge in his 1990 book, *The Fifth Discipline*. He defined learning organizations as "organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together" (p. 3). Senge's ideas first emerged in American corporations, describing a way for businesses to become more meaningful and develop into learning organizations to outperform and move ahead of competitors in the marketplace. His ideas inspired leaders to believe in their workers' ability to learn and become part of a successful organization. "Learning organizations are possible because, deep down, we are all learners" (p. 4).

The learning organization theory of Senge outlined five disciplines that were to be mastered to become a learning organization. According to Senge (1990), "A discipline is

a developmental path for acquiring certain skills or competencies" (p. 10). "What fundamentally will distinguish learning organizations from traditional authoritarian 'controlling organizations' will be the mastery of certain basic disciplines. That is why the 'disciplines of the learning organization' are vital" (p. 5). Senge believed workers could come together to build a great team by mastering each of the disciplines thoughtfully and practically to achieve greatness. The disciplines, "though developed separately, each will, I believe, prove critical to the others' success, just as occurs with any ensemble" (p. 6).

The five disciplines to achieve a learning organization, according to Senge (1990), are systems thinking; personal mastery; mental models; building shared vision; and team learning (p. 7). First, "Systems thinking is a conceptual framework, a body of knowledge and tools that has been developed over the past fifty years, to make the full patterns clearer, and to help us see how to change them effectively" (p. 7). Second, the discipline of personal mastery involves understanding our personal mission and vision and continually focusing all efforts toward achieving the vision. Personal mastery can be defined as individuals becoming more knowledgeable in their fields. The third discipline of mental models "starts with turning the mirror inward: learning to unearth our internal pictures of the work, to bring them to the surface and hold them rigorously to scrutiny" (p. 7). Building shared vision, Senge's fourth discipline, incorporates the work of all members of the learning organization to create shared visions of the future. Building the vision requires commitment of every member of the organization. The fifth discipline, team learning, begins "with 'dialogue,' the capacity of members of a team to suspend assumptions and enter into a genuine 'thinking together'" (p. 10).

The disciplines were a way to achieve an ideal, genuine learning organization that is sustainable. Through personal and team mastery of the components, a learning organization would become prominent. As past school reform efforts had little effect on improving American education, educational leaders who were grappling to create meaningful and sustainable change used Senge's model to build a foundation of learning organizations in schools.

<div align="center">Professional Learning Communities</div>

DuFour and Eaker were the first educational researchers to begin advocating for professional learning communities, a school reform initiative. DuFour and Eaker (1998) "prefer characterizing learning organizations as 'professional learning communities'" (p. 15). They asked each educator participating in PLC to "focus on learning rather than teaching, work collaboratively, and hold yourself accountable for results" (DuFour, 2004, p. 6). The reform initiative is one that researchers believed would reform education and assist schools in becoming models for continuous improvement in order to help each child reach success. Fullan (2006) posited, "Professional learning communities are in fact about establishing lasting new collaborative cultures. Collaborative cultures are ones that focus on building the capacity for continuous improvement and are intended to be a new way of working and learning" (p. 1). Hord and Sommers (2008) stated, "We believe, like many other intelligent people, that professional learning communities hold a great deal of promise" (p. 6).

DuFour and Eaker's PLC model promotes three core beliefs, which are the cornerstones for transforming schools. First, "The professional learning community model flows from the assumption that the core mission of formal education is not simply

to ensure that students are taught but to ensure that they learn" (DuFour, 2004, p. 6).

Schools begin changing to ensure strong instructional practices focus on student

outcomes rather than on teachers. With this mindset, true PLCs collaborate and engage in

professional dialogue to accomplish and answer the three essential questions:

1. Exactly what is it we want all students to learn?

2. How will we know when each student has acquired the essential

    knowledge and skills?

3. What happens in our schools when a student does not learn? (DuFour,

    DuFour, Eaker, & Karhanek, 2004, p. 21)

After student outcomes are developed, the staff in a professional learning

community has the responsibility to assist students who do not meet the intended

outcomes. Learning communities strive to provide a "systematic, timely, and directive

intervention program" (DuFour, 2004, p. 7) to assist each student in receiving the support

and intervention needed to ensure success.

The second core belief is, "Educators who are building a professional learning

community recognize they must work together to achieve their collective purpose of

learning for all" (DuFour, 2004, p. 8). In a PLC, teachers no longer have the opportunity

to work in isolation and teach in their own world without continual work with colleagues.

Schmoker contended, "Teachers, like other professionals, perform more effectively–even

exponentially so–if they collaborate" (1999, p. 7). Through engaging in professional

dialogue with one another, teachers ensure the learning of each child and build upon one

another's strengths to provide the best structure, strategies, and environment for learning.

"They are continuously learning together and applying what they have learned to their work" (Hord & Sommers, 2008, p. 12).

The third core belief in the PLC community is to be results-oriented. Schools should focus on results and work toward improving instruction to ensure positive results for students. A culture of focusing on results gives teachers the opportunity to believe changes are acceptable to create a school where every child is successful. "Every teacher team participates in an ongoing process of identifying the current level of student achievement, establishing a goal to improve the current level, working together to achieve that goal, and providing periodic evidence of progress" (DuFour, 2004, p. 10). Through reflective dialogue, teacher teams monitor student learning and determine if changes are needed in the delivery or instructional strategies to meet learner needs and yield positive results. "Effective collaboration is really action research–carefully conducted experimentation with new practices and assessment of them" (Schmoker, 1999, p. 16). The core beliefs of PLCs are changing the structures to focus on student outcomes and results.

If schools are to transform into PLCs, six common characteristics should be visible within the organization. According to DuFour and Eaker (1998, pp. 25-29), the following characteristics are found in PLCs: (a) shared mission, vision, and values; (b) collective inquiry; (c) collaborative teams; (d) action orientation and experimentation; (e) continuous improvement; and (f) results oriented.

First, a school must commit to a shared mission, vision, and values. These commitments represent all members of the community and they are seen through their actions. "These guiding principles are not just articulated by those in positions of

leadership; even more important, they are embedded in the hearts and mind of people throughout the school (DuFour & Eaker, 1998, p. 25). The shared mission and vision seeks to answer the questions of "Why do we exist and what do we hope to become?" The mission and vision are constantly communicated by members of the community and are shared with external stakeholders. The commitment by each staff member to take on the mission and vision is vital to the successful foundation of a PLC. DuFour and Eaker maintained that, "Mission, vision, values, and goals will become irrelevant, and the change process will stall unless the significance of these building blocks is communicated on a daily basis throughout the school" (p. 106).

The second characteristic of a PLC is collective inquiry. School improvement efforts focus on improving the learning process for students. Teachers who engage in collective inquiry constantly challenge what has always been done, strive to find innovative approaches to teaching, and study the results of each new practice.

> Participants in these reflective and learning conversations apply new ideas and information to problem solving and are therefore able to create new conditions for students, whether it is through establishing a new curriculum, revision of instruction practices, or stepping up instruction and expectations. (Hord, 2004, p. 9)

Over time, teachers' beliefs about how students learn best are challenged and reshaped through collective inquiry. "Ultimately, it is this ability to examine and modify beliefs, which enables team members to view the world differently and make significant changes in the culture of the organization" (DuFour & Eaker, 1998, p. 26).

Third, collaborative teams are a characteristic of a professional learning community. A collaborative team of colleagues has a common purpose and strives to reach a specific goal. "Collaborative team learning focuses on organizational renewal and a willingness to work together in continuous improvement processes" (DuFour & Eaker, 1998, p. 26). Often the common purpose collaborative teams rally around involves the sharpening of skills and gaining of new knowledge by individual teachers. While individual growth and renewal is a valuable component, the growth and experience achieved by the team can foster gains in positive school culture and school improvement. "Teachers learn best from other teachers, in settings where they literally teach each other the art of teaching" (Schmoker, 2005, p. 141). Schmoker (1999) said it best in, "Collaboration works" (p. 14).

The fourth characteristic of a professional learning community is experimentation and action orientation. Teachers engage in experimentation with new strategies and innovations to assist their work in the classroom. "While traditional organizations tend to brand such experiments as failures and then seek to assign blame, learning organizations consider failed experiments to be an integral part of the learning process–opportunities to learn and then begin again more intelligently" (DuFour & Eaker, 1998, p. 28). Teachers step out of their comfort zones to find new and meaningful ways to make changes in the classroom. Action orientation is experimenting, receiving feedback, and reflecting upon the practices to see if the changes have a positive impact on student learning. "Teachers largely know how to improve their instruction or can work in teams to figure it out together" (Schmoker, 2005, p. 147).

The fifth characteristic, continuous improvement, is vital to a professional learning community. "A persistent discomfort with the status quo and a constant search for a better way characterize the heart of a professional learning community" (DuFour & Eaker, 1998, p. 28). The improvement process includes determining the purpose for teaching content, developing new strategies, and measuring learning against predetermined criteria. Schmoker (1999) suggested school improvement efforts are important because, "If we consistently analyze what we do and adjust to get better, we will improve" (p. 56).

The sixth characteristic of a professional learning community is that members must be results oriented. Schmoker is one of the most prized researchers in the area of results. He contended, "If we want these [results] to improve (and who doesn't?), we need to focus on the short-term results and feedback that tell us how we are doing in reaching short-term subgoals and long-term goals" (p. 77).

> A professional learning community realizes that its efforts to develop shared mission, vision, and values; engage in collective inquiry; building collaborative teams; take action; and focus on continuous improvement must be assessed on the basis of results rather than interventions (DuFour & Eaker, 1998, p. 29).

A tremendous amount of research (DuFour & Eaker, 1998; Hord, 2004; Lezotte, 2008) was conducted by leading educational researchers to identify attributes that contribute to successful schools. The components of successful schools are found in frameworks of PLC. Hord and Sommers (2008) advanced,

> Although to date there is only a small body of research that has explored professional learning communities, the reports have been clear about the effects or

results of school staff working as PLCs. These benefits accrue to both staff and to

students in various settings. (p. 18)

Researchers believed in the power of learning communities, but various beliefs

were held about the attributes found in successful communities. Shirley Hord, a leading

researcher in the area of learning communities and for the Southern Educational

Development Laboratory (SEDL) and William Sommers declared, "PLC has been touted

as a significant and effective school improvement strategy or structure; it has been

characterized in endless ways, depending on who defines it" (2008, p. 8). Hord and

Sommers found five attributes common to PLCs. The five characteristics are (a) shared

beliefs, values, and vision; (b) shared and supportive leadership; (c) collective learning

and its application; (d) supportive conditions; and (e) shared personal practice (p. 9). The

five common characteristics are not isolated themes, but are totally integrated. Each of

the characteristics affects the others in multiple ways. Hord and Sommers contended,

"We attempt to marry research and practice to make schools 'learningful places' for

educators and students through professional learning communities" (p. 6).

The Center on Organization and Restructuring of Schools conducted a study of

schools that used PLCs and practiced both collaboration and change in teaching practices.

There were 820 schools involved with 11,000 students (Hord, 2004). The teachers in

these schools were committed to the organization's mission and thus, changed daily

teaching practices to reflect the mission. Teachers began to see themselves as responsible

for every student's academic achievement.

As a result, they engaged students in high intellectual learning tasks, and students

achieved greater academic gains in math, science, history, and reading than

students in traditionally organized schools. In addition, the achievement gaps

between students from different backgrounds were smaller in those schools,

students learned more and, in the smaller high school, learning was distributed

more equitably. (Hord, 2004, p. 12)

A group of researchers from the Southern Educational Development Laboratory

devised a study to find and analyze schools becoming PLCs. When the five schools were

identified, the group utilized Hord's five dimensions to gain more information about how

PLCs could be built. The chosen schools varied in demographics and each participated in

a questionnaire and on-site interviews to gain information regarding their professional

learning communities. The researchers found three key themes for implementing the PLC

structure into educational institutions. First, the study revealed, "The administrator is a

key to the existence of a professional learning community" (Fleming, 2004, p. 20).

Second, the study showed that in a true PLC, "School improvement becomes an ongoing

focus in which all staff members take collective responsibility" (Fleming & Thompson,

2004, p. 31). Third, Fleming and Thompson found that the principals' behaviors were

essential components to school reform efforts. "Those principals who succeeded at

implementing professional learning communities were supportive of their teachers and

shared leadership as part of their individual leadership practice" (p. 33).

Some educators are opposed to PLCs, believing schools had tried the reform

approach with little success. Patterson (2006, ¶ 16) stated, "While PLC ideas 'are worth

considering, educators should be wary about 'jumping on the bandwagon' and following

a 'recipe-driven' process." Patterson compared Clark and Lewis, urban middle schools in

the Midwest, whose district administrators encouraged the middle schools to implement

PLCs to assist with the issues regarding stagnant student achievement.

Clark and Lewis Middle Schools began the initial stages of implementation

during the 2003-2004 school year. In 2004, Patterson collected interviews and focus

group data to understand the implementation process at both middle schools. Patterson

found that "Gaps in communication and perception between teachers and administrators

were evident at both schools, beginning with how the decision to become a learning

community came about" (¶ 31). Staff believed the PLC concept was pushed by upper

administration and not mutually agreed upon by those who would be directly involved.

Due to the lack of buy-in during the decision-making process, "Teachers at both schools

are not entirely invested in the process and are not convinced that professional learning

communities is more beneficial than the middle school team structure" (¶ 31). The

comparison of the two middle schools also showed "a unifying understanding of learning

community was also not evident among teachers and administrators at either school" (¶

32). The lack of understanding of the PLC structure as compared to the current middle

school structure led teachers to prefer the traditional system and dismiss the benefits of a

PLC.

During the comparison, Patterson determined that collaborative structures were

implemented; however, "Teachers did not exhibit an orientation toward action and

experimentation" (2006, ¶ 32). The structural changes that took place in the middle

schools did not lead to embedded cultural changes in the schools. "A professional

learning community model was more evident at Lewis, but the teachers felt it was more

disruptive and less effective than the middle school team concept" (¶ 33). Patterson

determined, "Since learning communities are a popular reform idea, it is tempting for schools desperate to raise test scores to 'jump on the bandwagon'" (¶ 35). Based on experiences with Clark and Lewis, Patterson discovered that schools implementing PLC practices should involve stakeholders in initial implementation conversations, address embedded cultural changes, improve communication, and provide on-going professional development to foster successful PLCs.

Clark and Lewis Middle School stories portrayed examples of schools unable to see the true benefits of PLCs. DuFour responded to the study by stating, "The schools studied in the Patterson and associates article (2006) had neither implemented PLC concepts nor had enough experience to assess the effectiveness of those concepts" (2007, ¶10). The findings of Clark and Lewis led DuFour to believe the schools never actually engaged in PLC processes and were PLCs in name only (¶ 8). Both Clark and Lewis were in initial stages of implementation, and studies took place too soon to understand the results or impact of shifts in structures in the organization. DuFour also stated,

> School reform efforts in the United States have followed a predictable pattern. An improvement initiative is launched with great enthusiasm, only to be buffeted by confusion, criticism, and complaints. Many educators abandon the initiative and continue their quest for the quick fix that will result in deep cultural changes that are unaccompanied by anxiety and concerns. (2007, ¶ 11)

The Change Process

Educators utilize the research conducted on the change process to assist with introducing and implementing reform initiatives, such as PLCs. Fullan (2001) suggested, "Reform is not just putting into place the latest policy. It means changing the culture of

the classrooms, the school, the district, the universities, and so on" (p. 7). By understating

the change process, leaders and members of the school community have an opportunity to

initiate changes in school culture that result in a positive impact on student learning.

"However, no innovation, however effective, can succeed unless schools accommodate

and address the process of change" (Hord, 1990, ¶ 4).

In the 1960s, Frances Fuller led several studies on teachers' concerns. The

methodologies utilized in the study were interviews and counseling sessions with student

teachers. Fuller "found that their concerns corresponded to their career stages;

preteaching, early teaching, or late teaching" (as cited in George et al., 2006, p. 2). Fuller

believed teachers' concerns followed a sequence, "from concerns about self to concerns

about the task of teaching to concerns about the impact on students" (as cited in George

et al., 2006, p. 2). In her later work, Fuller recognized four major areas of concerns for

teachers: unrelated concerns, self-concerns, task concerns, and impact concerns.

In 1969, "Staff members of the Research and Development Center for Teacher

Education at the University of Texas at Austin observed that teachers and professors

involved in adopting an innovation appeared to express concerns similar to the ones

Fuller had identified" (George et al., 2006, p. 4). The staff documented their

observations. The staff hypothesized, "(a) there were definite categories of concerns

among innovation adopters and (b) the concerns changed in what seemed to be a logical

progression as users became increasingly confident in using the innovations" (p. 4).

After studying the concerns of teachers, the staff members "identified several

Stages of Concern (SoC) about an innovation through which individuals progressed as

they implemented an innovation and become competent using it" (George et al., 2006, p.

4). When individuals are nervous or worried about an innovation, concern is being registered. Seven stages of concern were identified that people go through while implementing and becoming competent with an innovation. The stages included unconcerned, informational, personal, management, consequence, collaboration, and refocusing. George et al. found "Concerns are an important dimension in working with individuals involved in the change process" (p. 7).

In 1971, Rogers offered a different perspective on change. Rogers analyzed studies of agricultural extension agenda, farmers, and doctors who were implementing the use of medication such as penicillin into their practices. The review "found that participants in the studies differed in their readiness to accept change. Some adopted change quickly; others took a much longer time" (as cited in Hord, 1990, ¶ 11). This study led Rogers to identify five types of people based upon their reaction to change:

1. Innovators, those persons eager to try new ideas

2. Leaders, open to change

3. The early majority, the people who were cautious and deliberate about deciding to adopt an innovation

4. The late majority, those skeptical of adopting new ideas

5. Resisters, suspicious and generally opposed to new ideas. (As cited in Hord, 1990, ¶ 11)

The study assisted researchers in discovering that individuals involved directly with the implementation of a new innovation "differed in their readiness to accept change" (Hord, 1990, ¶ 11).

In the field of the educational change and school reform, Fullan is one of the most well known researchers. To answer the question, "How do schools maintain momentum and long-term success in the changes process?" (Huffman & Hipp, 2003, p. 23), Fullan clearly defined three unique phases. Fullan referred to phase I of the change process as *initiation*, which "consists of the process that leads up to and includes a decision to adopt or proceed with a change" (2001, p. 50). During the Initiation phase, staff members participate in dialogue regarding the proposed innovation and realize its potential impact upon student achievement.

Phase II, according to Fullan's theory of the change process, is *implementation* or *initial use*. During this phase, educators strive to implement the innovation. The implementation of educational change involves "change in practice" (Fullan, 2001, p. 38). Over time with implementation, the leader of the organization allows others to share in the "power, authority, and responsibility" (Huffman & Hipp, 2003, p. 23). The Implementation phase can last for a number of years, while the innovation is formed by the culture of the organization.

Fullan's third phase in the change process was referred to as "Continuation, Incorporation, Routinization, or Institutionalization" (Fullan, 2001, p. 50). During this phase, the innovation becomes part of the culture of the organization. The beliefs are deeply embedded in the actions and behaviors of members of the community. "Our belief is that institutionalization across the five PLC dimensions [as outlined by Hord] is essential for schools to engage in sustained improvement for continuous learning to occur" (Huffman & Hipp, 2003, p. 24). Huffman and Hipp went on, "The success of any

innovation and change in schools is dependent on how well staff members can sustain their effort and embed them into the culture of their school" (p. 23).

In order to reform schools and implement initiatives that will positively affect student achievement, leaders need to understand the change process. Schools need to help and support individuals through the paradigm shift of transforming their school into a professional learning community. If the components are in place and educators realize where individuals are in the change process, they can provide support, professional development, collaboration, and leadership to make the transition. DuFour (2000) stated:

The problem is not that schools are unwilling to innovate and change. Schools innovate and change all the time. The problem is that their change initiatives are so often fragmented, so typically focused on the margins of practices rather than the core purpose of improve learning, and are so rarely sustained. Schools need more than a willingness to try something new; they need a guiding context that helps them discriminate among the many possible change initiatives they might pursue at any point in time. They also need the persistence to pursue that initiative until it becomes embedded in the culture and structure of the school (¶ 11).

Conclusion

It has always been the goal of our nation's schools to educate and produce productive citizens for the future. In the past, educational institutions strived to educate students while answering society's call to political agendas, involving stakeholders in the decision-making process, and answering the community's questions. Finally, through the implementation of PLCs, education is able to answer the needs of students. The reform initiative is focused on improving the quality of education and learning for students by

improving teachers' knowledge, expanding instructional practices, and focusing on

results.

CHAPTER THREE: METHODOLOGY

This chapter describes the research design and methodology utilized to conduct this study of teachers' perceptions during the implementation of the PLC model. Studying teachers' perceptions while they were involved in the school reform initiative assisted in analyzing progress of the innovation, understanding staff concerns during implementation, and driving future decision-making at both the district and school levels. Detailed descriptions of the research design, population sample, sampling procedures, instrumentation, validity, reliability, data collection procedures, data analysis, and limitations are included.

The district process for decision-making could be characterized by Site Based Management, SBM. School teams were intricately involved in the decision-making and problem-solving process and strived to produce a resolution that served the best interests of school and community stakeholders. The school team focused on procedures, processes, and the foundation of school workings. There was a need, as presented in district state assessment data and the No Child Left Behind legislation, to focus school efforts on learning and the instructional process to meet the needs of individual students. If the district was to achieve proficiency for all students by 2010, an organized effort was needed to focus on learning.

Research Design

In order to address the research question, "Do teachers' perceptions change during the implementation of Professional Learning Communities, a school reform initiative in three elementary schools in District XYZ?", quasi-experimental research methodology was utilized in the quantitative study. The teachers' perceptions were examined during

the implementation of the PLC model in November 2007 and April 2008. The method was selected to allow the researcher to "manipulate one or more variables and measure the effect on another variable or set of variables" (Gall, Gall, & Borg, 2005, p. 179). In this study, the methodology assisted the researcher in determining if the treatment, the implementation of the PLC model, caused an outcome to occur. The researcher submitted the study proposal to the Baker University Instructional Review Board in October 2007. The proposal was approved in November 2007.

The subjects' treatment during the 2007-2008 school year focused on PLCs. The initiative started when schools developed a team of six certified teachers and staff members to serve as building level coaches to improve student achievement. The coaching teams were trained by the Regional Professional Development Center of Kansas City PLC School Resource Specialists. Coaches brought the process back to their schools in the form of the train-the-trainer model. Schools studied the mission, vision, collaborative teaming, data collection, assessments, S.M.A.R.T. goals, and interventions. The coaches' responsibilities consisted of attending a 4-day PLC Academy in July or August, attending monthly all-day workshops on PLC topics and components, leading site PLC professional development, and serving as a member of the Building Leadership Team.

Principal A stated that Elementary One's coaches included the principal, assistant principal, one each second and fourth grade teachers, a physical education teacher, and a speech and language teacher. The coaches at Elementary One met monthly to reflect on the training received. The coaches met with the visionary team to tailor content and topics to Elementary One and assign PLC tasks to mixed grade level teams. At one staff

meeting each month, the mixed grade levels reported on assigned PLC tasks regarding

the goals, action plan, and task completion. Tasks included creating the school mission

and vision, analyzing assessment data, and writing S.M.A.R.T. goals. Staff also

participated in team-building exercises to develop school unity (Principal A, personal

communication, July 23, 2008).

Principal B related that Elementary Two coaches included the principal, the

assistant principal, one each of first, fourth, and sixth grade teachers, and the librarian.

Throughout the year, teachers met in mixed grade level teams and participated in a book

study with the text, *Getting Started: Reculturing Schools to Become Professional*

Learning Communities by Robert Eaker, Richard DuFour, and Rebecca Burnette.

Coaches led monthly meetings and two half-day professional development sessions

focused on PLC components, such as the school mission, school vision, team

collaboration, and evaluating the focus of school practices. Staff participated in team

building exercises to develop team unity and open dialogue. In addition, consensus

building and conflict resolution skills were studied (Principal B, personal communication,

July 22, 2008).

Elementary Three coaches included the principal, district mentor, one each first,

third, and fourth grade teachers, and a physical education teacher. The staff at Elementary

Three participated in 1-hour weekly grade level team collaboration sessions. Team

collaboration focused on learning, improving classroom instructional practices, reviewing

and analyzing student data, creating and evaluating assessments, discussing professional

literature, classroom observations, and participating in a book study with the text, *Getting*

Started: Reculturing Schools to Become Professional Learning Communities. In addition,

the coaches held three voluntary staff retreats to develop the school vision and mission statements. The staff discussed core beliefs about learning, examined the essential purposes of schools, and studied scholarly literature to create statements representing the school community. Additionally, the coaches hosted a half-day professional development session focused on the PLC process through cup stacking, a physical education activity. Coaches led the staff through utilizing data to develop a goal and working toward goal attainment.

Population and Sample

The population of this study consisted of 17 elementary schools in District XYZ, implementing the PLC model. The sample population consisted of three schools that satisfied the research criteria: Elementary One, Elementary Two, and Elementary Three. The district elementary schools moved forward implementing the school reform initiative to focus school improvement efforts on learning.

The three elementary schools were all in District XYZ. Subjects included K-6 certified teachers including special education teachers, librarians, counselors, reading specialists, a district mentor, art, music, and physical education teachers, and teachers of gifted students. Approximately 30 certified staff members were at each elementary site, totaling 90 teachers.

Sampling Procedures

The researcher utilized purposive sampling, choosing all cases that met the three explicit criteria. The first criterion required schools to be in the first year of implementing the PLC model, since the researcher investigated teachers' perceptions of the implementation of the PLC model. Several schools in the district had participated in

minimal awareness activities, but had not yet fully implemented the model in their

schools. Subjects in schools in the first year of implementation recalled school life prior

to implementation of the school reform model. The subjects had an opportunity to

participate in professional development activities focused on essential PLC components

to influence their perceptions of the implemented model. The second criterion required

schools to have relatively similar demographics. Schools with similar demographics gave

the researcher the ability to generalize the results to a larger population. The third

criterion required that schools were willing to participate in the study. A school's

willingness to engage in the study allowed the researcher to utilize faculty meeting time

to administer the questionnaire to gain teachers' perceptions of the PLC model during the

implementation year.

<div align="center">Instrumentation</div>

The Stages of Concern Questionnaire (also referred to as SoCQ) is a tool for

measuring the implementation of innovations and facilitating the change process in

schools (George et al., 2006). The instrument was developed by researchers working for

the Southwest Educational Development Laboratory (SEDL). Permission was granted

from SEDL to utilize the instrument in the study. The instrument, a 35-item questionnaire

formatted on two pages, consists of single-sentence descriptors that determine

individuals' perceptions at various times during an adoption of an innovation (Appendix

A). Subjects respond to each descriptor by circling a number between 0 and 7 to describe

their present concerns toward the innovation. The Likert-type scale is labeled as follows:

0 = *irrelevant*, 1-2 = *not true of me now*, 3-5 = *somewhat true of me now*, and 6-7 = *very*

true of me now. At the conclusion of the 35 items, subjects complete four demographic

questions (See Figure 1).

Questions

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1. How long have you been involved with the innovation, not counting this year?

Never _____ 1 years _____ 2 years _____ 3 years _____ 4 years _____ 5 or more _____

2. In your use of the innovation, do you consider yourself to be a:

non-user _____ novice _____ intermediate _____ old hand _____ past user _____

3. Have you received training regarding the innovation (workshops, courses)?

Yes _____ No _____

4. Are you currently in the first of second year of use of some major innovation or

program other than this one?

Yes _____ No _____

If yes, please describe briefly:

Figure 1. Demographic questions in the Stages of Concern Questionnaire

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Note. From Appendix A "The Stages of Concern Questionnaire," by A. George, G. Hall, & S. Stiegelbauer,

2006, *Measuring Implementation in School: The Stages of Concern Questionnaire,* p. 79. Copyright 2006

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Table 3

The Stages of Concern About an Innovation

Stage	Description
6 Refocusing	The individual focuses on exploring ways to reap more universal benefits from the innovation, including the possibility of making major changes to it or replacing it with a more powerful alternative.
5 Collaboration	The individual focuses on coordinating the cooperating with others regarding use of the innovation.
4 Consequence	The individual focuses on the innovation's impact on students in his or her immediate sphere of influence. Considerations include the relevance of the innovation for students; the evaluation of student outcomes, including performance and competencies; and the changes needed to improve student outcomes.
3 Management	The individual focuses on the processes and tasks of using the innovation and the best use of information and resources. Issues related to efficiency, organizing, managing, and scheduling dominate.
2 Personal	The individual is uncertain about the demands of the innovation, his or her adequacy to meet those demands, and/or his or her role with the innovation. The individual is analyzing his or her relationship to the reward structure of the organization, determining his or her part in the decision making, and considering potential conflicts with existing structures or personal commitment. Concerns also might involve the financial or status implications of the program for the individual and his or her colleagues.
1 Informational	The individual indicates a general awareness of the innovation and interest in learning more details about it. The individual does not seem to be worried about himself or herself in relation to the innovation. Any interest is in impersonal, substantive aspects of the innovation, such as its general characteristics, effects, and requirements for use.
0 – Unconcerned	The individual indicates little concern about or involvement with the innovation.

Note. From Figure 2.1 "The Stages of Concern About an Innovation," by A. George, G. Hall, & S.

Stiegelbauer, 2006, *Measuring Implementation in School: The Stages of Concern Questionnaire,* p. 8.

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Responses to the SoCQ indicate a specific stage into which the respondent fits, which include Unconcerned, Informational, Personal, Management, Consequence, Collaboration, and Refocusing. Table 3 outlines the stages of concern and provides a brief description of each stage.

The questionnaire (Appendix A) items are intended to represent a specific stage of concern. For example, an Unconcerned stage item, "I am preoccupied with things other than the innovation" (George et al., 2006, p. 81) seeks to understand if the innovation is of concern to the individual. In addition, an item in the Informational stage, "I have very limited knowledge of the innovation" (p. 80) describes the need for more information available to the individual on the innovation. "I am concerned about how the innovation affects students" (p. 80), a question in the Consequence stage displays the individuals concern regarding the affects of the innovation. "The statements were carefully selected according to concerns theory to represent the seven fundamental Stages of Concern" (p. 26). There are five chosen questions to represent each stage (see Table 4).

The SoCQ was an appropriate data collection instrument for this study because it "describes, explains, and predicts probable behaviors throughout the change process and it can help educational leaders, coaches, and staff developers facilitate the process" (George et al., 2006, p. 5). Educational researchers have utilized the SoCQ in several studies. It is most often utilized "as a tool to evaluate and understand the change process and support the implementation process" (p. 57) and "as a means to develop, focus and support professional development" (p. 58). Since its development, the tool has been utilized with teachers and administrators in the education profession. During its early use, teachers and college faculties were administered the instrument as part of the initial data

collection process. Utilizing the instrument in the District XYZ was an appropriate population and setting for the questionnaire aimed to understand the change process and provide assistance for future staff development with the implementation of PLCs.

Table 4

Questions on the Stages of Concern Questionnaire According to Stage

Stage	Questions				
6 Refocusing	2	9	20	22	31
5 Collaboration	5	10	18	27	29
4 Consequence	1	11	19	24	32
3 Management	4	8	16	25	34
2 Personal	7	13	17	28	33
1 Informational	6	14	15	26	35
0 Unconcerned	3	12	21	23	30

Note. From Figure 4.2 "Statements on the Stages of Concern Questionnaire Arranged According to Stage," by A. George, G. Hall, & S. Stiegelbauer, 2006, *Measuring Implementation in School: The Stages of Concern Questionnaire,* p. 27. Copyright 2006 by Southwest Educational Development Laboratory. Adapted with permission.

Validity and Reliability

The developers of the SoCQ conducted a number of validity studies. In September 1974, 27 professors were administered the 35-item questionnaire in conjunction with an open-ended response questionnaire regarding concerns. A stage of concern was assigned to each of the professors based on the responses on the open-ended portion of the data collection. "Independent ratings of the 27 open-ended statements had

an estimated .59 reliability. Group consensus reliability was estimated at .84, based on estimates of judgmental consistency computed using a techniques described by Ebel (1951)" (George et al., 2006, p. 14). George et al. concluded, "Considering the difficulty of the rating task, the recognition of that relationship was encouraging" (p. 15).

George et al. also wanted to ensure that the questionnaire demonstrated high internal reliability. "To do this, they included a statement, or item, only if it had responses that correlated more highly with responses to other items measuring the same Stage of Concern that with the responses to items for other stages" (2006, p. 20). "The degree of reliability of an educational measure is usually expressed by a correlation coefficient" (Gall et al., 2005, p. 140). The alpha coefficients of internal consistency for each stage of concern were Stage 0 = .64; Stage 1 = .78; Stage 2 = .83; Stage 3 = .75; Stage 4 = .76; Stage 5 = .82; and Stage 6 = .81 (p. 20). The coefficients were compiled by utilizing a stratified sample of 830 teachers and professors in the fall of 1974, from their first assessment of the instrument. "In the case of one type of reliability coefficient, Cronbach's alpha, a value of .70 or higher usually is sufficient" (Gall et al., p. 141).

Teachers were selected ($n = 171$) to complete the questionnaire 2 weeks after being administered the initial SoCQ. Of the sample, 132 teachers participated in the retest by completing the second questionnaire and mailing it back to researchers. The scores from both administrations were correlated to determine their reliability (Gall et al., 2005, p. 140). The test-retest correlations in the study were Stage 0 = .65; Stage 1 = .86; Stage 2 = .82; Stage 3 = .81; Stage 4 = .76; Stage 5 = .84; and Stage 6 = .71 (p. 20).

Data Collection Procedures

The first data collection began in November of 2007. The researcher administered the questionnaire during a monthly staff meeting to the Elementary Two faculty on November 11, 2007; to the Elementary One faculty on November 12, 2007; and to the Elementary Three faculty on November 27, 2007. The researcher opened each meeting with a formal greeting, an explanation of the purpose of the study, and the 20-minute time commitment for participation. The researcher explained that access to responses was limited to the researcher. In addition, the survey caused no risks for participants and no impact on permanent records. The researcher explained the consent form and described the requirement of a signature for participation. Subjects were encouraged to refrain from consulting other individuals during completion of the questionnaire. Each subject was verbally asked to participate in the study. Upon verbal permission, the subject was provided a cover letter and consent form (See Appendix A) and the Stages of Concern Questionnaire (See Appendix A). Consent forms were immediately returned to the researcher after being read, signed, and dated by the participants. Subjects read the cover letter, which outlined the purpose of the questionnaire, directions for completion, and a description of the term *innovation*. The researcher defined innovation as referring to PLCs and explained that subjects could substitute PLC for innovation in the questionnaire. The respondents completed the questionnaires and they were collected by the researcher, except at Elementary Three, where subjects placed surveys on a table. The researcher collected the questionnaires at the conclusion of the meeting.

The second data collection took place in April 2008. The researcher administered the questionnaire during a monthly staff meeting to the Elementary Two faculty on April

22, 2008; to the Elementary One faculty on April 23, 2008; and to the Elementary Three

faculty on April 15, 2008. The researcher opened the meeting with a formal greeting, an

explanation of the purpose of the study and additional questionnaire, and the 20-minute

time commitment for participation. The researcher explained that access to responses was

limited to the researcher. In addition, the survey caused no risks for participants and no

impact on permanent records. The researcher explained the consent form and described

the requirement of a signature for participation. A plan for reporting conclusions of the

study was shared. Subjects were encouraged to refrain from consulting other individuals

during completion of the questionnaire. Each subject was verbally asked to continue

participation in the study. Upon verbal permission, the subject was provided a consent

form, cover letter, and the Stages of Concern Questionnaire. Consent forms were

immediately returned to the researcher after being read, signed, and dated by the

participants.

Subjects read the cover letter, which outlined the purpose of the questionnaire,

directions for completion, and a description of the term *innovation*. The subjects then

completed the questionnaire. The questionnaires were collected by the researcher,

although there were two exceptions. The first exception was that 4 subjects from

Elementary One sent completed questionnaires to the researcher via inner-office mail.

The second exception was that subjects placed surveys on a table at Elementary Three.

The researcher collected the questionnaires at the conclusion of the meeting.

Following the data collection process, the November and April survey consent

forms were linked by teacher name. Each survey consent form contained a code detailing

information regarding administration month, school location, and test number for the

researcher's use. The consent form codes were utilized to match each subject's

November 2007 questionnaire to the April 2008 questionnaire.

Data Analysis

This study aimed to answer the research question: **"**Do teachers' perceptions

change during the implementation of Professional Learning Communities, a school

reform initiative in three elementary schools in District XYZ?" The researcher

hypothesized there is no significant change in teachers' perceptions of the PLC model

during implementation as measured by the SoCQ in November 2007 and in April 2008,

at the .05 level of significance. The following data analysis assisted the researcher in

testing the hypothesis.

Several types of data were reported to describe the sample in the study.

Demographic data was reported, and subjects receiving formal training on the innovation,

PLC, were represented, demonstrating the data for each building and the sample.

Numerical data for each item on the questionnaire was reported. The mean and standard

deviation for each stage of concern were reported for the sample, and the mean and

standard deviation for each stage of concern were reported for the three elementary

schools participating in the study.

The researcher utilized a 2-factor analysis of variance (ANOVA) to investigate

the differences in the SoCQ administered in November 2007 and the questionnaire

administered in April 2008. The ANOVA inferential statistic test allowed the researcher

to identify possible differences in means for three different comparisons. First, the mean

for each stage in the stages of concern was analyzed for potential differences in the

average raw score for each stage. Second, the means for the November 2007 and April

2008 questionnaire administration were analyzed for potential differences in the average raw score for each administration. Third, the interaction between the stages of concern and the questionnaire administration was analyzed to determine if the pattern of the ratings in the various stages changed between the November 2007 and in the April 2008 administration of the questionnaire. The findings of the interaction were significant at the .05 level and a post hoc analysis was conducted to determine which mean raw score ratings were different.

SPSS (Statistical Package for the Social Sciences) software was utilized to perform the ANOVA test and report the findings of the study. A narrative description of the results accompanies the statistical tests and findings in chapter four.

<div align="center">Limitations</div>

The major limitation to the study was the inability of teachers to express their perceptions through the 35-question SoCQ. Since subjects completed the questionnaires and were not able to express their perceptions in a narrative report, not all perceptions might have been reported.

Also, the genuineness of subject responses was a limitation of the study. The data was only as reliable as was the subject providing the perception data. The subjects' responses may also have been limited by striving to recall how they rated items on the November survey. Subjects striving to recall this information and rate the descriptors higher or lower in April may have skewed the results.

Additional limitations to the study were the staff coaches and the professional development sessions. The coaches' professional development sessions with the school staff members were not supervised by the researcher. The professional development

sessions, training modules, collaboration, and implementation may have differed slightly and could have an effect on teachers' perceptions of the PLC model.

Another limitation to the study was the researcher supervising all subjects at Elementary 3. Subjects may have felt compelled to answer the items in a certain manner out of concern of being identified. The researcher implemented protocols to minimize this limitation as much as possible.

In the study, the sample size and level was a limitation. The sample included three elementary schools with approximately 90 certified teachers, in a large suburban district. The data and insight gained from the study may not be applicable to the district as a whole, to secondary institutions, or to rural and urban districts.

Conclusion

This chapter described the research design and methodology used to conduct this quantitative study. Certified teachers in three elementary schools in District XYZ were administered the SoCQ in November 2007 and in April of 2008 to determine teachers' perceptions during the implementation of PLC. This chapter included information on the validity and reliability of the Stages of Concern Questionnaire. Chapter four examines the results of the data collection and tests the hypothesis. The results are interpreted to determine if a change occurred between the two questionnaire administrations. Narratives accompany the numerical data, charts, graphs, and tables to interpret the results.

CHAPTER FOUR: RESULTS

This chapter describes in detail the results of the analysis of teachers' perceptions during the implementation of Professional Learning Communities, a school reform initiative, in three elementary schools in District XYZ.

Demographics

There were 63 elementary teachers, hereinafter called subjects, in the sample. Thirty percent were from Elementary One, 35% were from Elementary Two, and 35% were from Elementary Three. The Stages of Concern Questionnaire (SoCQ) was administered to subjects in November 2007 and April 2008. The questionnaire consisted of 35 single-item descriptors that determined an individuals' perception at various times during an innovation. Subjects responded to descriptors that used a Likert-type scale, circling a number from 0-7 to describe their present concern toward an innovation. In April, the questionnaire concluded with four demographic questions related to the subjects' experience with Professional Learning Communities and other innovations.

Figure 2 reports responses of teachers at Elementary One. When the subjects were asked to describe other innovations which they were involved in, the following were reported: a new curriculum and utilizing data; implementation of an innovative spelling philosophy, Sitton Spelling; science textbook adoption; administering grade level common assessments in mathematics through the Classroom Performance System; administering the Developmental Reading Assessment; implementation of a mathematics pacing guide to determine instructional timelines; staff workshops on research based literacy components; and the implementation of reading leaders serving as literacy coaches.

Questions

---

1. How long have you been involved with the innovation, not counting this year?

Never (31.6%) 1 years (52.6%) 2 years (15.8%) 3 years (0) 4 years (0) 5 or more (0)

2. In your use of the innovation, do you consider yourself to be a:

non-user (5.3%) novice (78.9%) intermediate (15.8%) old hand (0) past user (0)

3. Have you received training regarding the innovation (workshops, courses)?

Yes (63.2%) No (36.8%)

4. Are you currently in the first or second year of use of some major innovation or

program other than this one?

Yes (31.6%) No (68.4%)

If yes, please describe briefly:

Figure 2. Elementary One responses to demographic questions

Note. From Appendix A "The Stages of Concern Questionnaire," by A. George, G. Hall, & S. Stiegelbauer,

2006, *Measuring Implementation in School: The Stages of Concern Questionnaire,* p. 79. Copyright 2006

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Figure 3 reports responses of teachers at Elementary Two. When the subjects

were asked to describe other innovations which they were involved in, the following were

reported: implementation of components of comprehensive literacy; science textbook

adoption; reading leaders serving as literacy coaches; district workshops; and

Professional Learning Communities.

Questions

---

1. How long have you been involved with the innovation, not counting this year?

Never (50%) 1 years (40.9%) 2 years (4.55%) 3 years (0) 4 years (0) 5 or more (4.55%)

2. In your use of the innovation, do you consider yourself to be a:

non-user (0) novice (68.2%) intermediate (31.8%) old hand (0) past user (0)

3. Have you received training regarding the innovation (workshops, courses)?

Yes (81.8%) No (18.2%)

4. Are you currently in the first or second year of use of some major innovation or

program other than this one?

Yes (36.4%) No (63.6%)

If yes, please describe briefly:

Figure 3. Elementary Two responses to demographic questions

Note. From Appendix A "The Stages of Concern Questionnaire," by A. George, G. Hall, & S. Stiegelbauer,

2006, *Measuring Implementation in School: The Stages of Concern Questionnaire,* p. 79. Copyright 2006

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Figure 4 reports responses of teachers at Elementary Three. When the subjects

were asked to describe other innovations which they were involved in, the following were

reported: implementation of Readers' Workshop, a format for literacy instruction; and

implementation of the MU Fellows program, where teachers earn a master's degree in 1

year while teaching.

Questions

---

1. How long have you been involved with the innovation, not counting this year?

Never (59.1%) 1 years (27.3%) 2 years (13.6%) 3 years (0) 4 years (0) 5 or more (0)

2. In your use of the innovation, do you consider yourself to be a:

non-user (4.5%) novice (54.5%) intermediate (41%) old hand (0) past user (0)

3. Have you received training regarding the innovation (workshops, courses)?

Yes (36.4%) No (63.6%)

4. Are you currently in the first or second year of use of some major innovation or

program other than this one?

Yes (18.2%) No (81.8%)

If yes, please describe briefly:

Figure 4. Elementary Three responses to demographic questions

Note. From Appendix A "The Stages of Concern Questionnaire," by A. George, G. Hall, & S. Stiegelbauer,

2006, *Measuring Implementation in School: The Stages of Concern Questionnaire,* p. 79. Copyright 2006

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Descriptive Statistics

The SoCQ was administered to the same subjects in November 2007 and April

2008. Subjects rated each of the questionnaire items on a scale of 0-7, with 0 representing

this statement is irrelevant to me, 4 representing *this statement is somewhat true of me*

now, and 7 representing *this statement is very true of me at this time*. Five items on the

questionnaire represented each of the seven stages of concern. Since subjects scored each

of the items on a scale from 0-7, with five items per stage, each stage could have a combined score as low as 0 and as high as 35. The results were collected and analyzed in both November and April to understand the changes in perceptions of teachers during the implementation of PLCs.

Table 5 displays the November questionnaire results for the mean and standard deviation of each stage of concern. Detailed analyses of mean scores are taken from George et al. (2006), page 8. The mean for the Unconcerned stage indicated subjects had little concern with the innovation. The Informational stage had the second highest of the November means, demonstrating that subjects had an awareness of the innovation and would have liked more details regarding its use. Higher scores indicated that subjects required more information, but in an impersonal way (p. 8). The Personal stage had the highest mean of all stages, indicating that a subject was "uncertain about the demands of the innovation, his or her adequacy to meet those demands, and /or his or her role with the innovation" (p. 8). A subject in this stage analyzed the relationship "to the reward structure of the organization, determining his or her part in decision making, and considering potential conflicts with existing structures or personal commitment" (p. 8).

In the Management stage, subjects focused on the process and tasks related to the innovation. The low mean in this category signified that, on average, subjects did not appear to think these items were very true of themselves. In the Consequence stage, the subject was focused on the "innovation's impact on students in his or her immediate sphere of influence" (George et al., 2006, p. 8). The low mean in this stage signified that, on average, subjects reported their concerns were somewhere between *not true of me now* and *somewhat true of me now*. The higher mean in the Collaboration stage demonstrated

subjects were focused on working with others to use and implement the innovation. The low mean in the Refocusing stage signified that, on average, subjects reported the items to be *not true of me now*.

Table 5

November Mean and Standard Deviation by Stage of Concern

Stage	M	SD
0 Unconcerned	15.33	5.00
1 Informational	21.59	4.64
2 Personal	24.02	5.39
3 Management	16.27	6.42
4 Consequence	18.08	6.32
5 Collaboration	22.90	5.90
6 Refocusing	12.30	4.43

Note. n = 63

Table 6 displays the April questionnaire results, including the mean and standard deviation for each of the stages of concern. The Unconcerned stage mean demonstrated that, on average, subjects had little concern about the innovation. The mean in the Informational stage represented the subjects' need for more details about the innovation regarding its use. The Personal stage mean was the second highest mean in April, indicating that subjects were concerned with the innovation's demands, personal adequacy, and their role within the innovation. Concerns in this area involved implications of the innovation for the individual.

Table 6

April Mean and Standard Deviation by Stage of Concern

Stage	*M*	*SD*
0 Unconcerned	15.06	5.58
1 Informational	18.31	5.50
2 Personal	20.94	6.43
3 Management	14.84	5.52
4 Consequence	17.18	5.96
5 Collaboration	22.48	6.05
6 Refocusing	12.83	3.87

Note. n = 63

The mean in the Management stage was the second lowest mean for April. The mean signified subjects had low concern about the processes and tasks associated with the innovation. The mean in the Consequence stage suggested subjects' attitudes and feeling were not concerned with the innovations impact on students. The mean for the stage Collaboration was the highest mean in April, indicating that subjects were focused on "coordinating and cooperating with others regarding use of the innovation" (George et al., 2006, p. 8). Individuals in this stage focus "on coordinating and cooperating with others regarding use of the innovation" (p. 8). In the Refocusing stage, the mean was the lowest recorded mean in April, indicating that few subjects were seeking alternative ways to utilize the innovation.

Hypothesis Testing

A 2-factor ANOVA was used to investigate the differences in mean scores on the SoCQ administered in November 2007 and in April 2008. The ANOVA allowed the researcher to compare differences in means across two factors. Three analyses were conducted.

The first analysis of the main effect for survey time compared the November and April average scores. The F statistic ($F_{1,62} = 8.299$, $p = .005$) showed there was a main effect based on the time the survey was administered (See Table 7). On average, scores were significantly different on the November and April questionnaires.

Second, the analysis was used to test the main effect for stages, which compared the scores across six stages. The $F_{6,372}$ statistic (See Table 7) showed there was a main effect based on the stages of concern. On average, scores were significantly different between at least two of the stages.

Third, the analysis tested an interaction between the two factors. The interaction between the stages of concern and the questionnaire time administration was analyzed to determine if the pattern of the ratings in the various stages changed between the November 2007 and April 2008 administration. The $F_{6,372}$ statistic (See Table 7) showed evidence that there was a significant interaction between survey time and the stages of concern at the .05 level of significance. On average, scores were significantly different between at least 2 of the 14 mean scores. A post hoc analysis was conducted to determine which means were different.

Table 7

ANOVA Tests of Within-Subjects Effects

	Type III *SS*	*df*	*MS*	*F*	Sig.
Survey	356.827	1	356.83	8.30	0.005
Error (Survey)	2665.816	62	43.00		
Stages	11274.849	6	1879.14	52.52	0.000
Error (Stages)	13310.437	372	35.78		
Survey* Stages	387.527	6	64.59	4.96	0.000
Error Survey* Stages	4846.330	372	13.03		

To perform the post hoc analysis, the means for each of the stages of concern for both the November and April questionnaires were needed and were assembled into Table 8. The post hoc test used to interpret significant interactions was Tukey's HSD (Honestly Significant Difference). The Tukey's HSD tested significant differences between all pairwise comparisons of the 14 means in the within subjects interaction. The HSD is a calculation of a number that is the smallest difference that can be called a significant difference between two means at $\alpha = .05$.

To determine the HSD, the following formula (Becker, 1999) was utilized:

$$\psi(HSD) = q_{\alpha,p,v}\sqrt{\frac{MSerror}{n}}$$

The HSD is calculated by multiplying q, the studentized range statistic, times the square root of (the mean square error from the ANOVA results table divided by the

sample size). The *q* value was found in a table located in the text, *Biometrika Tables for Statisticians: Volume I* (2nd ed.). The *q* (for $\alpha = .05$, comparing 14 means, and *df* > 120) was 4.74. The *MSE* from the ANOVA table (Table 7) is 13.028. The sample size is 63. The formula utilized in this study was $4.74 * \sqrt{13.028/63}$. The HSD showed that any difference between pairs of the means was significant if it was greater than 2.155.

Table 8

November and April Means by Stage of Concern

	M	
Stage	November	April
0 Unconcerned	15.33	15.02
1 Informational	21.59	18.31
2 Personal	24.02	20.94
3 Management	16.27	14.84
4 Consequence	18.08	17.18
5 Collaboration	22.90	22.48
6 Refocusing	12.30	12.83

Note. n = 63

After the HSD of 2.155 was computed to find the significant difference, a table of differences between all possible pairs of means was created (See Appendix B). The appendix shows the difference between each pair of 14 means. Significant differences are noted with an asterisk.

During the November administration, there were differences between all of the means on the seven stages of concern. The mean in a stage suggests "the higher the score, the more intense the concerns are at that stage" (George et al., 2006, p. 12).

In November, the two highest means were in stage 2 Personal and stage 5 Collaboration. These scores were significantly higher than the other mean scores, except stage 1 Informational, but were not significantly different from each other.

In April, the highest means were in stage 5 Collaboration and stage 2 Personal. These scores were significantly higher than the other mean scores, but were not significantly different from each other.

Although there were 105 comparisons, not all were of interest in this study. For example, there was a significant difference in average scores on stage 2 Personal in November and on stage 6 Refocusing in April. Although the scores were different, the difference is of no interest to this study.

The differences were examined from an additional perspective, which included looking for a pattern in the means or between the April and November administration. Overall, the differences in means between the two administration times displayed an M-shaped pattern (See Figure 5). In November, the M-shape demonstrated high scores in the stage 1 Informational, stage 2 Personal, and stage 5 Collaboration. The other stages, stage 0 Unconcerned, stage 3 Management, stage 4 Consequence, and stage 6 Refocusing had relatively low means. The pattern demonstrated the areas of most concern to subjects: Informational, Personal, and Collaboration.
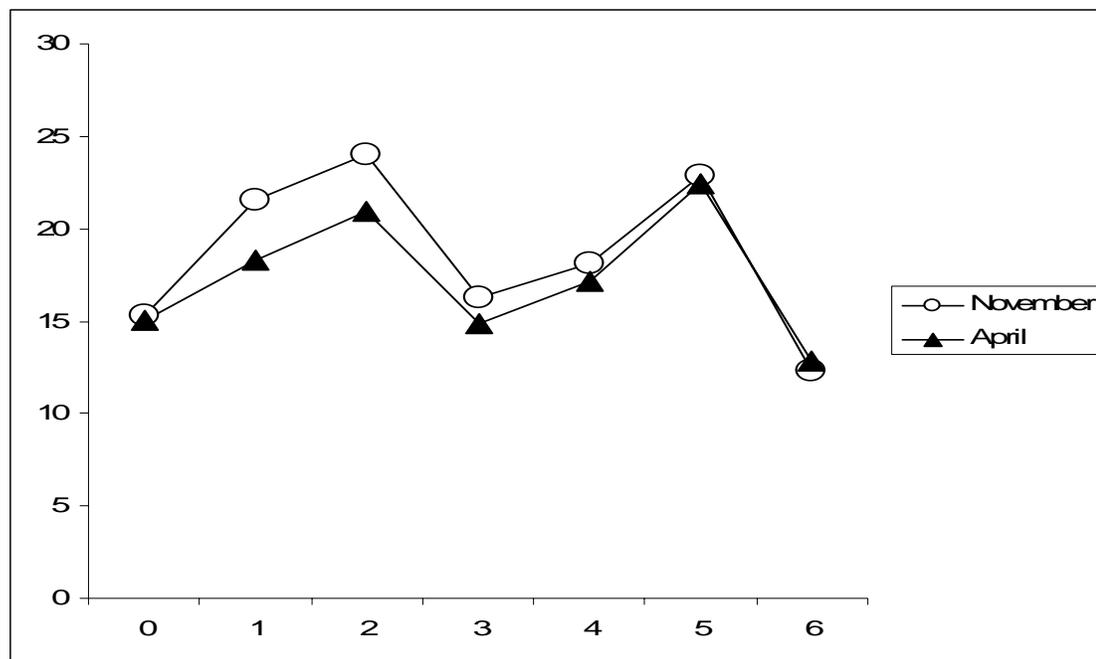
Figure 5 Means on the November and April questionnaires

In April, the M-shape occurred again, with the highest scores in the stage 2 Personal and stage 5 Collaboration stages. There were relatively low scores in the stage 0 Unconcerned, stage 1 Informational, stage 3 Management, stage 4 Consequence, and stage 6 Refocusing. The M-pattern suggested subjects have the highest degree of concern with Personal and Collaboration matters in regard to the innovation, PLCs.

The M-shaped pattern appearing during both administrations demonstrated a shift in subjects' attitudes and beliefs. On the first questionnaire, subjects were concerned with the ideas and concepts outlined in the Informational and Collaboration stages. During the second administration in April, subjects were concerned with ideas and concepts in the Collaboration stage, when working with the innovation. Overall, the shift represented a change in subjects' concerns during the implementation of PLC.

A closer look revealed the M-shaped pattern was similar across the two administrations of the questionnaire. Although the data appeared to have a similar pattern, there were differences between the means for stages one and two. However, during the two administrations, no significant difference existed on stage 0, 3, 4, 5, or 6. The differences in average scores in the same stage on the November and April questionnaires were also compared and analyzed. In stage 0 Unconcerned, the score on the November questionnaire was 0.32 higher than on the questionnaire administered in April. However, the change in scores was not significant.

For stage 1 Informational, the difference in scores was 3.28 greater on the November questionnaire than on the April questionnaire. There was a significant difference between the two questionnaire administrations. In November, subjects had a general awareness of the innovation and had an interest in learning more about its use, characteristics, and effects (George et al., 2006, p. 8). In April, subjects' involvement with the innovation showed they were less concerned with retrieving more information about its characteristics.

In stage 2 Personal, there was a significant difference of 3.08 between the scores in November and April, significantly higher in November than in April. During the November administration, subjects were "uncertain about the demands of the innovation, his or her adequacy to meet those demands, and/or his or her role with the innovation" (George et al., 2006, p. 8). During the April administration, subjects were less concerned with their roles or adequacy utilizing the innovation.

On stage 3 Management, stage 4 Consequence, stage 5 Collaboration, and stage 6 Refocusing, the difference in scores between the November and April administration

were not significant. Subjects' feelings and attitudes toward the innovation remained relatively the same. Although there was not a significant difference in scores for stage 5 Collaboration, it is important to note the scores in this stage were high during both administrations. The subjects were focused on "coordinating and cooperating with others regarding the use of the innovation" (George et al., 2006, p. 8).

<div align="center">Summary</div>

This chapter reported the results to answer the research question: "Do teachers' perceptions change during the implementation of Professional Learning Communities in three elementary schools in District XYZ?" Descriptive statistics and hypothesis testing were reported. Overall, the ANOVA hypothesis test showed there was a significant difference in the main effect based on the month the survey was administered. The test also showed there was a significant difference between at least two of the stages of concern. Last, the test indicated there was a significant interaction between the survey time and the SoCQ between at least two of the 14 mean scores. To determine where the differences were, a post hoc test, Tukey's HSD, was performed to determine which pairs of means were significant. In the next chapter, the findings of the study are discussed. Implications for future implementation of PLCs and recommendations for future studies are presented.

CHAPTER FIVE: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter presents a summary of the study, conclusions drawn from the results reported in chapter four, and implications for using the results and recommendations for future research. The chapter is organized in three parts: (a) a brief summary of the quantitative quasi-experimental study, (b) a summary of the findings, and (c) conclusions and recommendations.

Study Summary

No Child Left Behind legislation mandates reading and mathematics proficiency for all students by the year 2010. In District XZY, schools worked to improve under the school reform initiative, Site Based Management (SBM). SBM's foundation for school improvement focused on including stakeholders in the decision-making process and allowing team members to bring concerns to the group to discuss. Issues related to helping students improve were rarely topics for the group. It was the belief of the superintendent of schools that if schools were to reach proficiency, learning organizations would need to focus on learning. The learning ideals would be related directly to improving student achievement and staff would work in a proactive manner to ensure that all student needs were met in the learning process. Professional Learning Communities, PLC, was the school reform initiative focused on learning and achievement ideals.

The research question was, "Do teachers' perceptions change during the implementation of Professional Learning Communities, a school reform initiative in three elementary schools in District XYZ?" The quantitative quasi-experimental study examined teachers' perceptions in three elementary schools in District XYZ. Purposive

sampling based on three criteria explained in chapter 3 was utilized to choose the three elementary schools participating in the study. A 35-item questionnaire, the Stages of Concern Questionnaire (SoCQ), was utilized to collect teachers' perceptions during the implementation of the innovation in November 2007 and April 2008. Responses on the SoCQ indicated how true the concerns were for teachers at the time the questionnaire was administered. The stages of concern include Unconcerned, Informational, Personal, Management, Consequence, Collaboration, and Refocusing (See Table 3).

Data collection was completed in November 2007 and April 2008 by the researcher. The researcher attended faculty meetings at each of the three schools to administer the questionnaire to subjects. Before both administrations of the questionnaire, each subject was asked to read and sign a consent form. The questionnaires were collected. Following both data collection times, the survey consent forms contained a unique code detailing the administration month, school location, and test number for the researcher's use. The consent form codes were utilized to match each subject's November 2007 questionnaire to the April 2008 questionnaire.

A 2-factor analysis of variance (ANOVA) was utilized to investigate the differences in the questionnaire administrations. The researcher used ANOVA to identify possible differences in means for three different comparisons: (a) the mean for each stage was analyzed for potential differences in the average raw score for each stage, (b) the means for both administrations were analyzed for potential differences in raw scores for each administration, and (c) the interaction between the stages of concern and the questionnaire administration was analyzed to determine if the pattern of rating in the various stages changed between the November 2007 and April 2008 administrations. The

main effect for both factors and the interaction between the factors were found to be

significant and a post hoc analysis was conducted to determine the differences between

the 14 means in the interaction.

An M-shaped pattern emerged during both the November 2007 administration and

the April 2008 administration (See Figure 7). The M-shaped pattern in November showed

high scores in stage 1 Informational, stage 2 Personal, and stage 5 Collaboration. In

April, the pattern showed high scores in stage 2 Personal and stage 5 Collaboration. The

scores in November in stage 1 Informational and stage 2 Personal were lower in April,

but the scores in stage 5 Collaboration were the same during both administrations of the

questionnaire. The pattern appearing during both November and April demonstrated a

shift in subjects' attitudes and beliefs about the innovation of Professional Learning

Communities.

There were changes in teachers' perceptions during the implementation of PLCs

in this study. Significant changes occurred in stage 1 Informational and stage 2 Personal

between the two questionnaire administrations. There may have been several reasons

significant changes occurred between the two questionnaire administrations in stage 1

Informational and stage 2 Personal. Changes in the stage 1 Informational may have taken

place because subjects received more information about the innovation prior to the April

questionnaire administration. Subjects may have increased their knowledge level through

training, book studies, and continuing PLC implementation which may have been a factor

in the change. In November, subjects were beginning to implement the innovation and

may have needed more information about PLCs. The differences in stage 2 Personal may

have been impacted by principal and teacher leaders addressing individual personal

concerns, assisting with staff understanding their role in the innovation, and describing the process for implementation. Personal concerns may have decreased from the November administration because the concerns of teachers were addressed. Significant differences did not occur in stage 0 Unconcerned, Stage 3 Management, stage 4 Consequence, stage 5 Collaboration, and stage 6 Refocusing between the two questionnaire administrations. Possible reasons for why stages did not experience significant changes may have been the brief time between questionnaire administrations, changes in school culture, and the degree to which subjects were involved in tasks and activities related to PLCs.

<div align="center">Findings Related to the Literature</div>

In the review of the literature, research was shared on school reform initiatives, PLCs, and the change process. As discussed in the literature review and chapter three, the change process was assessed by understanding the perceptions and concerns of teachers during the implementation of an innovation. The SoCQ was used in this study, and it has also been utilized in other studies striving to understand the concerns of individuals implementing an innovation. The results of studies addressing concerns of individuals assist in supporting the change process and developing a plan for future professional development.

In 2002, Rakes and Casey studied teachers' concerns with utilizing instructional technology in the classroom. There were 659 preK-12 teacher participants and at least two teachers from each state in the United States. Teachers in the study subscribed to several technology email lists and, at the time, were integrating instructional technology in their teaching. The study "overall showed high Informational, Personal, and

Collaboration concerns and low Consequence concerns" (as cited in George et al., 2006, p. 59). The researchers concluded teachers were still in the early stages of utilizing instructional technology in the classroom. The researchers believed teachers would become more apt to integrate technology into their teaching as they became more comfortable. Professional Development should focus on personal concerns of teachers first in order to assist teaching in feeling more comfortable. Rakes and Casey (2002) concluded, "Administrators and trainers seeking to make technology an integral part of teaching and learning first need to provide a clear demonstration of how the use of instructional technology tools can address the personal concerns of teachers".

The researchers related teachers' personal concerns to the application and use of technology in the classroom. Rakes and Casey (2002) found intense concerns often develop in the later stages as teachers become more comfortable with technology, thus reducing their personal concerns and allowing concerns in other stages to register at a higher intensity. The researchers concluded that high concerns in early stages, such as the Personal stage, might lead to teachers discontinuing the implementation of technology. For the best results, Rakes and Casey concluded that training should consist of demonstrating technology, which would address the personal concerns of teachers.

During the November 2007 SoCQ administration of the current study, the stages with the highest means were the Personal and Collaboration stages. As in the Rakes and Casey study, subjects were in the beginning stages of implementing an innovation. Subjects needed information regarding the innovation, as well as information about their role and their adequacy to meet the needs of the innovation. Rakes and Casey (2002)

contended that professional development should address Personal concerns in order to continue implementation of an innovation.

The most important difference between this study and the Rakes and Casey study was the second administration of the SoCQ. Rakes and Casey had only one data set to judge the implementation of technology instruction in the classroom. The second administration in this study allowed the researcher to gain understanding of teachers' concerns twice during the implementation of an innovation and to examine changes in teachers' perceptions. During the second administration, the stage with the highest concern was Collaboration. Rakes and Casey concluded that concerns often appear in the later stages, as was the case in this study. Concerns during the Collaboration stage focus on "coordinating and cooperating with others regarding use of the innovation (George et al., 2006, p. 8). The second administration provided additional information during the implementation period.

In another study, the SoCQ was utilized as a pretest-posttest to "investigate the experimental effects of online instruction in a graduate research methods course on K-12 teachers' concerns about technology integration" (Liu, Theodore, & Lavelle, 2004, ¶ 1). There were 28 teacher participants who were administered the SoCQ before the first class and then after the last class of the research methods graduate course. The results showed significant differences in the pretest and posttest scores in all 7 stages. During the pretest, stage 4 Consequence and stage 6 Refocusing had the highest means. During the posttest, stage 2 Personal and stage 6 Refocusing had the highest means. The researchers concluded the significant differences showed "online instruction can effectively help K-12 teachers heighten their concerns about technology" (Liu et al., ¶ 23). Utilizing the

questionnaire in this pretest-posttest study, explored the changes in concerns of individuals during the innovation.

The results of the Liu et al. study on technology integration were similar to the findings in this study. Both studies found significant differences between the two administrations of the SoCQ. Although the results during the first administration of the questionnaire in both studies had different results, the second administrations results were similar, in that during the second administration, subjects' demonstrated high concerns in the Personal stage. It appears that as the implementation of an innovation continues, there are high concerns in the Personal stage, focused on personal adequacy and role in the innovation.

This study contributes to the current knowledge base by providing an additional study that supports the existing theory on the change process and implementation of an innovation. The study demonstrated that teachers' perceptions might change during an innovation's implementation, depending on the process and components associated with the innovation. George et al. (2006) stated, "In general, however, it appears that a user's concerns about an innovation progress toward the later, higher level stages (i.e., toward impact concerns) with time, successful experience, and the acquisition of new knowledge and skills" (p. 9). The George et al. findings apply to this study, since, during the second administration, stage 5 Collaboration had the highest mean score, as compared to the November administration when high scores were in stage 1 Informational, stage 2 Personal and stage 5 Collaboration. Subjects in the study had a change in concerns as they received more information and experiences with the innovation. Just as Fullan (2001, 2006) described the change process, individuals seem to follow the stages of

change in a developmental pattern. The additional administration of the survey provided valuable information about the change process and stages of concern individuals go through. The survey assisted in determining if the treatment between November and April had an effect on the subjects. It appears the activities and professional development focused on the innovation influenced teachers' perceptions.

This study provides information for educational administrators when implementing an innovation. The study, theory, and research suggest teachers' concerns should be met and addressed at each stage during an innovation. By addressing concerns, administrators have the opportunity to move teachers into deeper levels of implementation because lower levels of concerns have been eliminated. Changing ideals and implementing innovations in schools are not new. In order to implement innovations successfully, administrators must attend to concerns. George et al. (2006) stated, "Our studies have demonstrated how effective it can be to recognize the inevitable presence of concerns within individuals and to extend a helping hand to assist in coping with and resolving those concerns" (p. 9).

<div align="center">Conclusions</div>

Based on the findings from the study, the researcher has drawn one major conclusion. In general, teachers' perceptions changed during the implementation of the innovation between the two administrations. During the November 2007 administration, the highest means were in Stage 1 Informational (21.59) and stage 5 Collaboration (22.90), with the highest mean in stage 2 Personal (24.02). On the April 2008 administration, the high means were in stage 2 Personal (20.94) and stage 5 Collaboration

(22.48). The difference in means demonstrated that on average teachers rated the single item descriptors in these stages higher on the scale, closer to *very true of me now*.

The finding suggests the subjects seemed to have the highest concerns in the Personal stage in November and the Collaboration stage in April. "The Stages of Concern Questionnaire is the primary tool for determining where an individual is in the stages" (George et al., 2006, p. 8). According to George et al., "Group averages will reflect the dominant high and low Stages of Concern of the composite groups" (p. 34). The Personal stage focused on personal concerns such as adequacy and a person's perception of his/her role in the innovation, whereas the Collaboration stage focused on cooperating with others in the use of the innovation. The change during the two administration times appeared to demonstrate that subjects were moving through the developmental stages of concern. "They are called stages because usually there is developmental movement through them; that is, the user of an innovation may experience a certain type of concern rather intensely, and then as that concern subsides, another type of concern may emerge" (p. 7). Teachers' concerns appeared to move through the stages from the November to April administration of the Stages of Concern Questionnaire.

There appear to be several reasons teachers moved through the developmental stages of concern. Teachers appeared to have their concerns met and addressed in the lower stages, allowing their concerns to register at a higher level, stage 5 Collaboration during the April administration. George et al. (2006) stated, "earlier concerns must first be resolved (lowered in intensity) before later concerns can emerge (increase in intensity)" (p. 8). The staff development and focused learning sessions provided

information, new skills, and tasks associated with PLCs that helped teachers engage

successfully in the PLC implementation process.

It appears the on-going professional development each school participated in had

an effect on the teachers' perceptions in stage 1 Informational and stage 2 Personal.

Professional development may also have been the reason stage 5 Collaboration scores

remained the same during both administrations of the questionnaire. Schools participated

in a book study about PLCs, professional development retreats focused on components of

the PLC process, and mission and vision activities. Schools also developed school

S.M.A.R.T. goals aimed to increase achievement. These professional development

sessions were led by coaches utilizing the train-the-trainer model. The coaches had

received extensive training through the Regional Professional Development Center of

Kansas City - Professional Learning Communities Center. The high-quality training and

professional development provided to staff may have impacted teachers' perceptions and

assisted with supporting teachers through the implementation process.

Leadership may have been another factor in changing teachers' perceptions

during the implementation of PLCs in stage 1 Informational and stage 2 Personal. The

school reform initiative was supported by top administration at the district's central

office. The superintendent of schools continually communicated the importance of PLCs

to the school community through newspaper articles, staff newsletters, onsite visits, and

letters to the schools. In addition, all three building principals supported the initiative and

allowed time for the staff to learn together and experience the components of PLCs. "We

found clear evidence that the administrator is key to the existence of a professional

learning community" (Fleming, 2004, p. 20). Principals provided time during the school

day to participate in activities aimed to help the school become a PLC. Principals created and supported cultures where teachers could collaborate and work together on tasks associated with PLCs. Each principal modeled and communicated the innovation foci through their actions and behaviors.

More than likely, teacher leadership was another reason teacher perceptions changed. Teacher leaders emerged and led the staff to new learning. "Principals, rather than serving as the sole decision makers, seek ways to share decision-making authority formally and informally with others and thereby increase the leadership capacity of school staffs" (Huffman & Hipp, 2003, p. 78). The teacher leaders built trust among colleagues and assisted them in understanding the philosophy behind PLC. They were continually supportive of efforts and afforded teachers the opportunity to provide feedback and ask questions.

It also seems the PLC focus on collaboration as one of its pillars may have affected teachers' perceptions. During implementation, there was a continued focus on collaborating with colleagues to create the school mission and vision statements, improve student learning experiences, and help students succeed. "Collaborators plan, identify, and implement innovative approaches to solve problems using the enhanced creative capacity wrought by discussion and dialogue on critical issues about students, teaching, and learning (Huffman & Hipp, 2003, p. 79). Teachers appeared to be interested in working with peers to use and implement PLCs in their schools.

The changes in perceptions may have been caused by other reasons as well. For example, teachers may have experienced the feelings of peer pressure and felt forced to accept the change due to district, building, and colleague pressure. Teachers may have

felt pressure to collaborate with individuals in order to be perceived as a team player.

These feelings may have led to participation in the innovation.

The foremost conclusion in this study is that teachers' perceptions changed during

the implementation of the innovation during the two administrations of the SoCQ. Many

possible factors may have contributed to teachers' perceptions changing during the

course of this study.

<div align="center">Implications for Action</div>

This study has contributed to the scholarly literature and profession by studying

teachers' perceptions of schools implementing a new initiative. Researchers studying

Professional Learning Communities may utilize the results to understand teachers'

perceptions during implementation and how professional development efforts may assist

with changing perceptions.

Principals and leadership teams may benefit from the results of this study by

understanding the beliefs and attitudes of teachers during the implementation process and

by knowing how teachers are feeling about the innovation. School staffs will be able to

differentiate staff development based on the stages teacher groups may be in at the time

of the development. For example, if teachers concerns are high in stage 5 Collaboration,

staff development should focus on collaborating and working with one another around

the innovation's use. This activity would assist staff members in addressing concerns

about an innovation.

School teams may choose to share the results of the survey with teachers as a

reflective tool to help teachers understand their own concerns as part of the

developmental sequence. Principals will be able to support teachers' concerns associated

with each stage to assist in moving teachers forward with the school reform initiative. George et al. (2006) stated, "Our studies have demonstrated how effective it can be to recognize the inevitable presence of concerns within individuals and to extend a helping hand to assist in coping with and resolving those concerns" (p. 9).

Schools facing state sanctions and being labeled "School in Improvement" may benefit from the results of this study. Understanding that teachers' perceptions change during a year-long implementation of PLCs, may be good news to schools needing to implement strong research-based initiatives to improve student achievement. Schools forced to change can make changes in a short time.

<div align="center">Recommendations for Further Research</div>

Several recommendations describe how this study could be improved and provide ideas for future research. This study focused on teachers' perceptions during the implementation of Professional Learning Communities, a school reform initiative in three elementary schools in District XYZ. Participating schools were in their first year of implementation of the school reform initiative. An extension of the study would be continuing data collection in November 2008 and April 2009, during the second year of implementation. The data collection would allow researchers to understand the change process and determine whether teachers' attitudes and beliefs continued to shift during the implementation process.

Future research in the areas of teachers' perceptions would assist schools in understanding the attitudes and beliefs of teachers during the change process when implementing an innovation. An additional recommendation for future research is a qualitative-quantitative mixed methods study on teachers' perceptions regarding an

innovation. The researcher would collect quantitative data on teachers' perceptions, as well as qualitative data through personal interviews with subjects to ask questions and clarify responses not able to be communicated through a set of predefined single-item descriptors such as the SoCQ. The qualitative interview data may assist with understanding the quantitative data and provide the researcher with ideas for improving the implementation process of an innovation. Additional future research may include studying teachers' perceptions during the second and third years of implementation of an innovation. The data collected may assist researchers in understanding the change process and how teachers' perceptions change and shift throughout a longer period of time, as new components of an innovation are implemented. Researchers may be able to determine if patterns of change develop over time.

Another valuable study might include focus on student achievement levels. Comparing student achievement during the school reform initiative Site Based Management to student achievement levels now, as schools are striving to become PLCs, may help researchers determine the relative effectiveness of PLCs. PLCs focus on learning, collaboration, and results. Research relating to the effectiveness of the school reform initiative may assist with understanding if the reform initiative is an effective way to raise student achievement.

If the study were to be replicated or repeated, several improvements should be implemented. First, increasing the number of schools participating would be an important improvement to this study. The schools involved were chosen by three criteria outlined in chapter three. Developing new criteria and adding schools to the study would assist the researcher in understanding teachers' perceptions on a district-wide scale. The

information would be beneficial to district staff when planning professional development and understanding the impact of the school reform initiative. In addition, including schools at a variety of educational levels would improve the study. The current study focused on the implementation of PLCs in elementary schools. Comparing the results from elementary and secondary teachers' perceptions might provide insight into the change process. The data collection would be valuable to principals and district officials to guide future implementation and understand the needs, beliefs, and attitudes of teachers. An additional improvement to the study would be administering the questionnaire in November 2008 and April 2009. The added data would assist the researcher in determining the long-term changes in teachers' perceptions of PLCs. The data would be helpful to district and building administrators striving to understand teachers' perceptions during the implementation of an innovation and to address the concerns through professional development. Last, an improvement to the study would be examining principal leadership in the participating schools. The additional data would assist the researcher in understanding the link between principal leadership, teachers' perceptions, and the success of PLCs.

<div style="text-align:center">Concluding Remarks</div>

This chapter reported a summary of the study, major findings, study implications, recommendations for future research, and study conclusions. The current study on teachers' perceptions during the implementation of a school reform initiative provided significant changes in teacher perceptions in two of the seven stages. The findings demonstrated there were significance differences between the Stages of Concern on the Personal stage in November and the Collaboration stage in April, the administration time,

and the stages and time the questionnaire was administered. The results showed the subjects' perceptions can and do change during the implementation process. Also, administrators guiding the change process should ensure a change friendly culture.

The study showed that teachers' perceptions occurred in two of the seven stages during the implementation of a new school reform initiative. The research assists with the understanding of the change process, meaning that perceptions can change to assist schools in implementing new innovations. Understanding where teachers are and what they need to move forward with an innovation is the key to success. Fullan (1993) stated,

Teachers (and all of us) should think of change and innovation as they would about their own lives. Life (and change) is not always moving forward, bad things happen beyond our control, fortune shines on us unexpectedly, etc., etc. That is life. But, and this is the key, some people cope better and even thrive, while others fall apart. The very first place to begin the change process is within ourselves. (p. 138)

As a leader, it is important to consider the concerns of individuals during the change process. People do not change in the same way or at the same rate. Change is difficult for some, while others embrace innovations. To be successful and move an organization forward, leaders must determine the concerns of the individuals and develop a plan to manage these concerns.

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Appendix A: Stages of Concern Questionnaire

Questionnaire Consent Form

Please read all of the information below.

You are invited to participate in a study conducted by Heather Kenney, doctoral student at Baker University. The purpose of the study is to collect data on teachers' perceptions during the Implementation of a Professional Learning Community model. You have been selected to participate in the study because your school is implementing the PLC model during the 2007-2008 school year.

Your participation in this study is completely voluntary and there will not be any compensation for participating. There are 35-questions on the questionnaire and your participation will take approximately 20-30 minutes. Should you choose to participate and find a question you are unable to answer or any reason, you may refuse to answer it.

Your answers are anonymous and the records of this study will be kept private. Only the researcher will have access to the original survey documents. When the results are published, no information provided would identify you or your school building.

If you have questions about the study, please contact Dr. Willie Amison, Baker University, Assistant Professor of Education, at 913-491-4432.

* *

☐ I have read the information above and consent to participate in the study and complete the questionnaire.

Participant Name (please print):

_____

Participant Signature:

_____

School: _____   Date: _____

SoCQ 075

Stages of Concern Questionnaire

Name (optional): _____

The purpose of this questionnaire is to determine what people who are using or thinking about using various programs are concerned about 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 circle "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:

This statement is very true of me at this time.	0	1	2	3	4	5	6	(7)
This statement is somewhat true of me now.	0	1	2	3	(4)	5	6	7
This statement is not at all true of me at this time.	0	(1)	2	3	4	5	6	7
This statement seems irrelevant to me.	(0)	1	2	3	4	5	6	7

Please respond to the items in terms of **your present concerns,** or how you feel about your involvement with **this** innovation. 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.

0	1	2		3	4	5		6	7
Irrelevant		Not true of me now			Somewhat true of me now				Very true of me now

Circle One Number For Each Item

1. I am concerned about students' attitudes toward the innovation.	0 1 2 3 4 5 6 7
2. I now know of some other approaches that might work better.	0 1 2 3 4 5 6 7
3. I am more concerned about another innovation.	0 1 2 3 4 5 6 7
4. I am concerned about not having enough time to organize myself each day.	0 1 2 3 4 5 6 7
5. I would like to help other faculty in their use of the innovation.	0 1 2 3 4 5 6 7
6. I have a very limited knowledge of the innovation.	0 1 2 3 4 5 6 7
7. I would like to know the effect of reorganization on my professional status.	0 1 2 3 4 5 6 7
8. I am concerned about conflict between my interests and my responsibilities.	0 1 2 3 4 5 6 7
9. I am concerned about revising my use of the innovation.	0 1 2 3 4 5 6 7
10. I would like to develop working relationships with both our faculty and outside faculty using this innovation.	0 1 2 3 4 5 6 7
11. I am concerned about how the innovation affects students.	0 1 2 3 4 5 6 7
12. I am not concerned about the innovation at this time.	0 1 2 3 4 5 6 7
13. I would like to know who will make the decisions in the new system.	0 1 2 3 4 5 6 7
14. I would like to discuss the possibility of using the innovation.	0 1 2 3 4 5 6 7
15. I would like to know what resources are available if we decide to adopt the innovation	0 1 2 3 4 5 6 7
16. I am concerned about my inability to manage all that the innovation requires.	0 1 2 3 4 5 6 7
17. I would like to know how my teaching or administration is supposed to change.	0 1 2 3 4 5 6 7
18. I would like to familiarize other departments or persons with the progress of this new approach.	0 1 2 3 4 5 6 7

Southwest Educational Development Laboratory

0	1	2		3	4	5		6	7
Irrelevant		Not true of me now			Somewhat true of me now			Very true of me now	

Circle One Number For Each Item

19. I am concerned about evaluating my impact on students.	0 1 2 3 4 5 6 7
20. I would like to revise the innovation's approach.	0 1 2 3 4 5 6 7
21. I am preoccupied with things other than the innovation.	0 1 2 3 4 5 6 7
22. I would like to modify our use of the innovation based on the experiences of our students.	0 1 2 3 4 5 6 7
23. I spend little time thinking about the innovation.	0 1 2 3 4 5 6 7
24. I would like to excite my students about their part in this approach.	0 1 2 3 4 5 6 7
25. I am concerned about time spent working with nonacademic problems related to the innovation.	0 1 2 3 4 5 6 7
26. I would like to know what the use of the innovation will require in the immediate future.	0 1 2 3 4 5 6 7
27. I would like to coordinate my efforts with others to maximize the innovation's effects.	0 1 2 3 4 5 6 7
28. I would like to have more information on time and energy commitments required by the innovation.	0 1 2 3 4 5 6 7
29. I would like to know what other faculty are doing in this area.	0 1 2 3 4 5 6 7
30. Currently, other priorities prevent me from focusing my attention on the innovation.	0 1 2 3 4 5 6 7
31. I would like to determine how to supplement, enhance, or replace the innovation.	0 1 2 3 4 5 6 7
32. I would like to use feedback from students to change the program.	0 1 2 3 4 5 6 7
33. I would like to know how my role will change when I am using the innovation.	0 1 2 3 4 5 6 7
34. Coordination of tasks and people is taking too much of my time.	0 1 2 3 4 5 6 7
35. I would like to know how the innovation is better than what we have now.	0 1 2 3 4 5 6 7

Please complete the following:

1. How long have you been involved with the innovation, not counting this year?
   Never ___   1 year ___   2 years ___   3 years ___   4 years ___   5 or more ___

2. In your use of the innovation, do you consider yourself to be a:
   non-user ___   novice ___   intermediate ___   old hand ___   past user ___

3. Have you received formal training regarding the innovation (workshops, courses)?
   Yes ___   No ___

4. Are you currently in the first or second year of use of some major innovation or program other than this one?
   Yes ___   No ___

   If yes, please describe briefly:

   _____

   _____

   _____

Thank you for your help!

Appendix B: Matrix of Differences in Stages Means

	M	11-0	11-1	11-2	11-3	11-4	11-5	11-6	04-0	04-1	04-2	04-3	04-4	04-5	04-6
	M	15.33	21.59	24.02	16.27	18.08	22.90	12.30	15.02	18.31	20.94	14.84	17.18	22.48	12.83
11-0	15.33														
11-1	21.59	-6.25*													
11-2	24.02	-8.68*	-2.43*												
11-3	16.27	-0.94	5.32*	7.75*											
11-4	18.08	-2.75*	3.51*	5.94*	-1.81										
11-5	22.90	-7.57*	-1.32	1.11	-6.63*	-4.83*									
11-6	12.30	3.03*	9.29*	11.71*	3.97*	5.78*	10.60*								
04-0	15.02	0.32	6.57*	9.00*	1.25	3.06*	7.89*	-2.71*							
04-1	18.31	-2.98*	3.28*	5.71*	-2.04	-0.23	4.60*	-6.01*	-3.29*						
04-2	20.94	-5.60*	0.65	3.08*	-4.67*	-2.86*	1.97	-8.63*	-5.92*	-2.63*					
04-3	14.84	0.49	6.75*	9.17*	1.43	3.24*	8.06*	-2.54*	0.17	3.47*	6.10*				
04-4	17.18	-1.85	4.40*	6.83*	-0.91	0.90	5.72*	-4.88*	-2.17*	1.13	3.75*	-2.34*			
04-5	22.48	-7.14*	-0.89	1.54	-6.21*	-4.40*	0.43	10.17*	-7.46*	-4.17*	-1.54	-7.63*	-5.29*		
04-6	12.83	2.51*	8.76*	11.19*	3.44*	5.25*	10.08*	-0.52	2.19*	5.48*	8.11*	2.02	4.36*	9.65*	