2011

A Quantitative Study of Teacher Perceptions of Professional Learning Communities' Context, Process, and Content

Daniel R. Johnson
Seton Hall University

A Quantitative Study of Teacher Perceptions of Professional Learning Communities' Context, Process, and Content

By Daniel R. Johnson

Dissertation Committee
Dr. Barbara Strobert
Dr. Christopher Tienken
Dr. Kelly Cooke
Dr. Michael Valenti

Submitted in Partial Fulfillment
Of the Requirements for the Degree
Doctor of Education
Seton Hall University

2011

SETON HALL UNIVERSITY
COLLEGE OF EDUCATION AND HUMAN SERVICES
OFFICE OF GRADUATE STUDIES

APPROVAL FOR SUCCESSFUL DEFENSE

Doctoral Candidate, **Daniel R. Johnson,** has successfully defended and made the required modifications to the text of the doctoral dissertation for the **Ed.D.** during this **Spring Semester 2010.**

DISSERTATION COMMITTEE
(please sign and date beside your name)

Mentor:
Dr. Barbara Strobert Barbara Strobert

Committee Member:
Dr. Christopher Tienken Christopher Tienken

Committee Member:
Dr. Kelly Cooke Kelly A Cooke

Committee Member:
Dr. Michael Valenti Michael Valenti

External Reader:

The mentor and any other committee members who wish to review revisions will sign and date this document only when revisions have been completed. Please return this form to the Office of Graduate Studies, where it will be placed in the candidate's file and submit a copy with your final dissertation to be bound as page number two.

ABSTRACT

The purpose of this study was to research the influences of Professional Learning Communities (PLC) as perceived by New Jersey State certified educators in three specific areas: content, process, and context of the reform's implementation. This study used the Standards Inventory Assessment (SAI) to evaluate the teacher perceptions as reported anonymously through the survey instrument. The need for this specific research is evident in the current limitation of quantitative data regarding the PLC model that is being increasingly advocated for at the government, state, and district level. Accordingly, this study sought to provide data to districts that were looking to implement the PLC model regarding its effectiveness as perceived by the educators working within the model.

Data in this study was gathered using the SAI survey instrument, which was an online, anonymous Likert scale tool. Information was collected and distributed to individual schools, who then granted permission to the researcher to use that data.

Data for this research was then analyzed using statistical methods. The data analysis determined that the Professional Learning Community model had no significant effect on teacher perceptions regarding the three areas studied. The knowledge gained in this study will add to the assessment of this particular reform model as it applies to school improvement.

ACKNOWLEDGEMENTS

The road to achievement within this Doctoral Program is paved with the assistance and efforts of the many who worked diligently to assist me as I stumbled and caught my footing during the process. Without these individuals who comprised my dissertation committee, this would never have been possible.

I would first like to thank Dr. Barbara Strobert. Her guidance and feedback were invaluable to me. The time that she dedicated to my research and development will never be forgotten. Her encouragement led me to heights I never thought I could attain, and for that I am forever grateful.

I would also like to extend my sincere gratitude to Dr. Christopher Tienken. Dr. Tienken was also an integral member of my dissertation committee, and his knowledge of research taught me an incredible amount. Dr. Tienken is most definitely the future of the Seton Hall Education community, and I can only hope to continue my relationship with him in the future.

A special extension of my gratitude goes to Dr. Michael Valenti and Dr. Kelly Cooke for their friendship, guidance, and support. I am fortunate to have you as colleagues, and even more lucky to have you as friends.

Lastly, I thank the following individuals for acting as role models for me as I grew as an educator and administrator: Mr. Edward Hade, Mr. Jeff Swanson, Mr. John Petronacci, Mr. Michael Casserly, Mr. Sal Lagatutta, Dr. Thom Kane, and Mr. Robert Kramer. For better or worse, I am what I am educationally and personally in part due to all of you.

DEDICATION

This dissertation is dedicated to my family - for without family, we are nothing.

First, I would like to dedicate this to my beautiful wife, Lori Beth. She is the best person I have ever met, and she is the rock on which my life is built. Her consistent encouragement made this possible, as there were times when I was off of the path, and her encouragement got me back on track. The world is a better place because she is in it, and I will forever love her.

I also dedicate this to my children, Anthony (Cheech) and Matthew (Bam). They are the light, and they make the path worthwhile. I know that everything I do in this world is to enrich their lives, as they have given me unconditional love and support. Their understanding during this process came without asking. I have learned more from them then I could ever teach them.

I thank my parents for the example and work ethic that they provided for me. From an early age I was able to see that if you worked hard enough, you can achieve anything. In addition, I thank them for instilling in me the importance of education - at the time I did not know that it would become my world, but I am grateful daily for their insistence.

I thank my other parents as well. The natural manner in which they accepted me and encouraged me has made me a better man. I have learned much about life from the time we have spent together. Io vi amo e vi ringrazio per tutto quello che hai fatto per me. Sono sempre in debito con voi.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Chapter 1: Introduction

Education continues to face a number of reform efforts as the movement toward increased accountability becomes the norm. What was once contained within the local control of independent school districts has now become increasingly controlled at the state and federal levels. To meet the call for increased accountability, many have decreed that ongoing educator learning and development should be the focus of current reform efforts (Commissioner's Task Force on Quality Teaching and Learning, 2005; Forum on Educational Accountability, 2010; National Commission on Excellence in Education, 1983; National Commission on Teaching and America's Future, 2009; Obama, 2010; Schmoker, 2004). As this occurs, how can schools work to meet the increasing calls for accountability while assisting educators in structuring meaningful professional development for the ultimate benefit and success of students?

The purpose of this study was to research the influence of professional learning communities (PLC) as perceived by New Jersey State–certified educators in three specific areas: content, process, and context of the reform's implementation. Perceptions of content are categorized within three areas: learning communities,

leadership, and resources. Perceptions of process are categorized within six areas: data-driven, design, evaluation, learning, research-based, and collaboration. Perceptions of contexts are categorized within three areas: equity, quality teaching, and family involvement. These 12 teaching and professional learning standards were developed by the National Staff Development Council (NSDC).

PLCs can be defined as "a collegial group of administrators and school staff who are united in their commitment to student learning. They share a vision, work and learn collaboratively, visit and review other classrooms, and participate in decision making" (Hord, 1997). Hord (1997) also noted, "As an organizational arrangement, the professional learning community is seen as a powerful staff-development approach and a potent strategy for school change and improvement." The collection of information from this research study could provide implications for school districts that wish to institute PLCs concerning educators' perceptions of the context, process, and content of the model. Furthermore, this study may help serve current administrators who have PLC implementation issues. The first chapter presents the background of the study, specifies the problem, describes its significance, and presents a brief overview of the methodology used. The chapter concludes by noting some limitations of the study and defining terms.

Background of the Study

The history of formal national reform efforts can be cited as early as 1893 with the Committee of Ten, followed by the Committee of Fifteen in 1910. The task of

each committee came from the National Education Association (NEA), which called upon its educators to "recognize differences among children as to aptitudes, interests, economic resources, and prospective careers" (Lazerson & Grubb, 1974). We continue to view education within a comparative structure; systems are being looked upon more critically, in terms of national and local standards, and in comparison to other global education systems. In 2002, an education reform was introduced, the No Child Left Behind (NCLB) Act (U.S. Congress, 2001c). This act added to the historical context of reform efforts, and changed the national definition of success within our schools. This has led to increasing efforts in meeting defined measures of student achievement. The stated purpose of the NCLB reform effort was "to ensure that all children have a fair, equal, and significant opportunity to obtain a high-quality education and reach, at a minimum, proficiency on challenging State academic achievement standards and state academic assessments" (U.S. Congress, 2001c, p. 15).

Education researchers continue to examine how educators can meet the new definitions of success and accountability in helping students. The focus on teacher quality remains a large part of recent reform efforts, including the NCLB Act. Marzano led a core group of researchers in conducting a meta-analysis on teaching practices (Marzano, Pickering, & Pollack, 2001) that stated that the individual instructional strategies that a teacher uses has a powerful effect on student learning. Furthermore, the study stated that, in terms of what a school can control, an individual

teacher could have a large effect on the instruction within an institution. Curriculum also has a large effect, but the effects are still dwarfed by student characteristics.

Transformation efforts have brought forth a large amount of rhetoric and interest concerning the reform model of PLCs, but little empirical research. PLCs are defined as communities of:

> educators committed to working collaboratively in ongoing processes of collective inquiry and action research to achieve better results for the students they serve. Professional Learning Communities operate under the assumption that the key to improved learning for students is continuous, job-embedded learning for educators. (DuFour, DuFour, Eaker, & Many, 2006)

The focus on increased success for students and continuous, embedded professional learning for educators demonstrates Marzano's (2005) findings. Costa affirmed the importance of this type of learning in his assertion that "if staff were not in a mentally stimulating environment, there is no reason we should believe they would create such an environment for their students" (as cited in Hord & Sommers, 2008, p. 30).

Professional learning community organization within schools has garnered the attention of many education researchers during the past two decades (i.e., Bryk & Schneider, 2003; Louis, Marks, & Kruse, 1996; Newmann & Wehlage, 1995; Scribner, Cockrell, Cockrell, & Valentine, 1999; Scribner, Hager, & Warne, 2002; Vescisco, Ross, & Adams, 2007). In addition to this interest, American education policymakers and advocates have called for schools to be structured in a manner conducive for adult and student learning (Fullan, 2001; Garmston & Wellman, 1999;

Hord, 1994, 1997; Lambert, 1998, 2003, 2005; Schmoker, 2006). The combination of focus on adult and student learning, core standards and definitions of success, accountability within, and the shift toward a focus on the child as the learner have made PLC reform efforts attractive to federal government, education, and local leaders.

Statement of the Problem

Although reformists have observed that the PLC structure could be beneficial to teachers and students, research on teachers' perceptions during implementation is scarce. The purpose of this study was to research the influence of PLCs as perceived by New Jersey State–certified educators in three specific areas: the content, process, and context of the reform's implementation. Context is defined as actual learning communities, leadership, and resources; process is defined as data-driven practices, evaluation, research-based decisions, design, learning, and collaboration; and content is defined as equity, quality teaching, and family involvement.

The focus of this study will be to examine the transition process as it relates to educators' perceptions in 10 New Jersey schools during PLC implementation over the course of a 1-year period. By studying the process that the teachers within these schools have experienced during the transition to PLCs, it is hoped that other schools will benefit from the implementation data and the experiential data that emerge.

The philosophy of PLCs has been garnering attention from the New Jersey Department of Education as the preferred model of school community organization.

However, despite this recent attention, the evolution toward this type of community lacks empirical, quantitative data to assist educators in making this transition.

The current available literature exists mostly within the theoretical creation of such communities. Theorists have just begun to look at actual case studies in order to effectuate implementation. Richard and Rebecca DuFour are current advocates of PLCs, and have written a number of books and articles to inform educators about the philosophy behind PLCs. DuFour, DuFour, and Eaker (2008) stated, "The very essence of a learning community is a focus on and a commitment to the learning of each student" (p. 15), and educators must work within "the moral purpose and collective responsibility that clarif[ies] why their day-to-day work is so important" (p. 15). In the individual translation of this information, and then in ascertaining its implications during implementation in schools, is where most educators struggle.

Information regarding a practical means for adopting PLCs is scarce. Administrators and teachers lack data to demonstrate teacher perceptions within a school going through PLC implementation, taking the conceptual information and putting it into actual practice. This issue has made it difficult for educators to adopt this collaborative process. How are educators' perceptions of context (learning communities, leadership, and resources), process (data-driven, evaluation, research-based, design, learning, and collaboration), and content (equity, quality teaching, and family involvement) affected during the progression of establishing professional learning communities?

Purpose of the Study

The purpose of this study was to research the influence of PLCs as perceived by New Jersey State–certified educators in three specific areas: the content, process, and context of the reform's implementation. This study was conducted with 10 of the 33 schools that had received the Education Information and Resource Center (EIRC) grant for PLC training. The schools studied had to complete an application for admittance into the program. Elementary, middle, and high schools were included in this study. With the lack of quantitative research regarding this model of professional learning, this study aimed to provide quantifiable data demonstrating the level of influence PLCs have in the defined domains of content, process, and context. This study qualified the conditions under which the PLCs were introduced and implemented. Data were compared from two different survey dates, one before the PLC implementation efforts and one at the end of the school year during which the teachers worked within the PLC structure.

Insights gained by such an investigation may provide opportunities for those interested in utilizing the professional learning community model to meet the standards for accountability and increased teacher learning through ongoing professional development. Examining the perceptions of educators within the process contributes to the growing knowledge of this reform effort; provides districts with insights regarding the process and the manner in which the method affected educators' perceptions of context, process, and content; and helps districts in deciding if this model is best for their system.

Research Questions

The following questions guided this research: (a) What implications, if any, does the context of a professional learning community have on the perceptions of educators regarding the influence upon the learning community structure, school leadership, and resources during a 1-year implementation process? (b) What implications, if any, does the process of a professional learning community have on the perceptions of educators regarding the influence upon data-driven decisions, evaluation, research-based practices, design, learning, and collaboration during a 1-year PLC implementation process? (c) What implications, if any, does the content of a professional learning community have on the perceptions of educators regarding the influence on equity, quality teaching, and family involvement during a 1-year PLC implementation process?

Conceptual Framework

As schools searched for continual improvement and communities called for higher standards and greater educational outcome for their children, whispers of a reform were heard. As early as the 1960s, PLC concepts were being discussed as a means for assisting the isolated nature of teaching. In the late 1980s and early 1990s, researchers began to study smaller communities' effects within schools (Little & McLaughlin, 1993; Newman & Wehlage, 1995; Rosenholtz, 1989). The resulting

findings were shared at NSDC conferences, leading to increased interest in smaller communities as a reform effort for improving schools.

This study is embedded in the research aforementioned, as well as other research that will be reviewed in Chapter 2. The focus of this study centered on the NSDC's outline of standards for educator professional learning to measure teacher perceptions of the PLC reform implementation. To assess a district's alignment with these standards, the NSDC created the Standards Assessment Inventory (SAI), which provides an instrument for districts to assess the quality of professional learning (NSDC, n.d.). The EIRC provided the SAI to districts within New Jersey that were working to implement PLCs to measure teacher perceptions and learning within the process, with the goal being to create data that would assist in future attempts in advancing effective policies at the federal, state, and local levels.

The standards developed by the NSDC include the following:

- Standard 1 – Learning Communities: "Staff development that improves the learning of all students organizes adults into learning communities whose goals are aligned with those of the school and district" (Learning Forward).
    - Rationale: "Staff development that has as its goal high levels of learning for all students, teachers, and administrators requires a form of professional learning that is quite different from the workshop-driven approach. The most powerful forms of staff development occur in ongoing teams that meet on a regular basis, preferably several times a

week, for the purposes of learning, joint lesson planning, and problem solving" (Learning Forward).

- Standard 2 – Leadership: "Staff development that improves the learning of all students requires skillful school and district leaders who guide continuous instructional improvement" (Learning Forward).
    - Rationale: "Quality teaching in all classrooms necessitates skillful leadership at the community, district, school, and classroom levels. Ambitious learning goals for students and educators require significant changes in curriculum, instruction, assessment, and leadership practices. Leaders at all levels recognize quality professional development as the key strategy for supporting significant improvements" (Learning Forward).
- Standard 3 – Resources: "Staff development that improves the learning of all students requires resources to support adult learning and collaboration" (Leaning Forward).
    - Rationale: "Professional learning may be viewed either as an investment that will pay future dividends in improved staff performance and student learning or an expense that diminishes a school district's ability to meet its other financial obligations. While the latter view has been dominant in many school districts, the National Staff Development Council's position is that well designed and implemented professional development for school employees is an

essential long-term investment in successfully teaching all students to high standards" (Learning Forward).

- Standard 4 – Data-Driven: "Staff development that improves the learning of all students uses disaggregated student data to determine adult learning priorities, monitor progress, and help sustain continuous improvement" (Learning Forward).
    - Rationale: "Data from various sources can serve a number of important staff development purposes. First, data on student learning gathered from standardized tests, district-made tests, student work samples, portfolios, and other sources provide important input to the selection of school or district improvement goals and provide focus for staff development efforts. This process of data analysis and goal development typically determines the content of teachers' professional learning in the areas of instruction, curriculum, and assessment" (Learning Forward).
- Standard 5 – Evaluation: "Staff development that improves the learning of all students uses multiple sources of information to guide improvement and demonstrate its impact" (Leaning Forward).
    - Rationale: "The quality of staff development experienced by many teachers and administrators varies considerably from year to year and even from teacher to teacher in the same school. As a result, many educational leaders and policy makers are skeptical about the value of

staff development in improving teaching and student learning. Well-designed staff development evaluation can address this skepticism by serving two broad purposes: (1) improving the quality of current staff development efforts, and (2) determining the effects of staff development in terms of its intended outcomes" (Learning Forward).

- Standard 6 – Research-Based: "Staff development that improves the learning of all students prepares educators to apply research to decision making" (Learning Forward).
    - Rationale: "The charisma of a speaker or the attachment of an educational leader to an unproven innovation drives staff development in far too many schools. Staff development in these situations is often subject to the fad du jour and does not live up to its promise of improved teaching and higher student achievement. Consequently, it is essential that teachers and administrators become informed consumers of educational research when selecting both the content and professional learning processes of staff development efforts" (Learning Forward).
- Standard 7 – Design: "Staff development that improves the learning of all students uses learning strategies appropriate to the intended goal" (Learning Forward).
    - Rationale: "Just as successful teaching requires that teachers be adept at using a variety of research-based instructional strategies, so too does

successful staff development require that planners select learning strategies that are appropriate to the intended outcome and other situational factors. That means that staff development leaders and providers must be aware of and skillful in the application of various adult learning strategies" (Learning Forward).

- Standard 8 – Learning: "Staff development that improves the learning of all students applies knowledge about human learning and change" (Learning Forward).
    - Rationale: "No matter the age at which it occurs, human learning is based on a common set of principles. While adults have more life experience to draw on than younger learners and are often clearer about what they want to learn and why it is important, the means by which the learning occurs is remarkably similar. Consequently, it is important that the learning methods used in professional development mirror as closely as possible the methods teachers are expected to use with their students" (Learning Forward).
- Standard 9 – Collaboration Skills: "Staff development that improves the learning of all students provides educators with the knowledge and skills to collaborate" (Leaning Forward).
    - Rationale: "Some of the most important forms of professional learning and problem solving occur in group settings within schools and school districts. Organized groups provide the social interaction that often

deepens learning and the interpersonal support and synergy necessary for creatively solving the complex problems of teaching and learning. And because many of the recommendations contained in these standards advocate for increased teamwork among teachers and administrators in designing lessons, critiquing student work, and analyzing various types of data, among other tasks, it is imperative that professional learning be directed at improving the quality of collaborative work" (Learning Forward).

- Standard 10 – Equity: "Staff development that improves the learning of all students prepares educators to understand and appreciate all students, create safe, orderly, and supportive learning environments, and hold high expectations for their academic achievement" (Learning Forward).
    - Rationale: "Effective educators know and demonstrate appreciation for all their students. Through their attitudes and behaviors, they establish classroom learning environments that are emotionally and physically safe and they communicate high expectations for academic achievement and quality interpersonal relationships" (Learning Forward).
- Standard 11 – Quality Teaching: "Staff development that improves the learning of all students deepens educators' content knowledge, provides them with research-based instructional strategies to assist students in meeting

rigorous academic standards, and prepares them to use various types of classroom assessments appropriately" (Learning Forward).

  - Rationale: "Successful teachers have a deep understanding of the subjects they teach, use appropriate instructional methods, and apply various classroom assessment strategies. These teachers participate in sustained, intellectually rigorous professional learning regarding the subjects they teach, the strategies they use to teach those subjects, the findings of cognitive scientists regarding human learning, and the means by which they assess student progress in achieving high academic standards" (Learning Forward).

- Standard 12 – Family Involvement: "Staff development that improves the learning of all students provides educators with knowledge and skills to involve families and other stakeholders appropriately" (Learning Forward).

  Rationale: "At its best, the education of young people is a partnership between the school, the home, and the community. Effective partnerships, however, require leadership, a compelling purpose for their work, and a set of mutually agreed-upon goals" (Learning Forward).

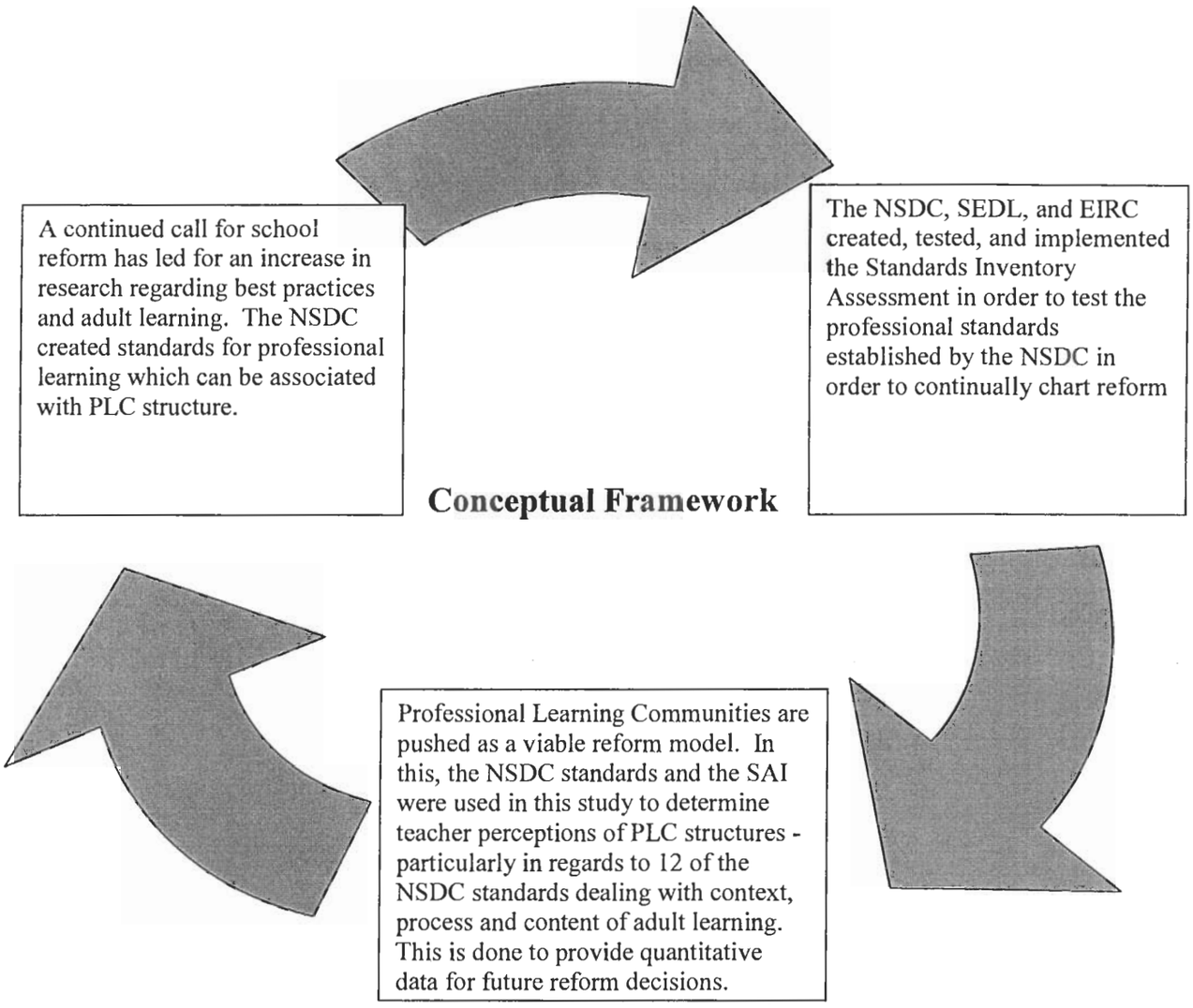

Figure 1. Conceptual framework of the study.

Design and Procedures

This study examined the perspectives of educators from 10 schools in New Jersey. The research used stratified random sampling to ensure that a proper proportional representation of population subgroups was studied. The schools are from a mix of socioeconomic backgrounds and levels, including elementary, middle, and high schools.

The schools were all recipients of a grant from the EIRC in partnership with the NSDC and the New Jersey Department of Education, which provided tools and training for each school, as well as tools that allowed the researcher to study PLC implementation. Training was conducted by outside contractors who utilized available research to assist with procedures and tools for PLC implementation.

The 10 schools that participated in this study all volunteered their data to the researcher. All data were compiled to avoid identifying any particular school in any of the research findings. The researcher contacted the administration of each school district to solicit assistance.

The conceptual design provides a method for assessing teacher perceptions of substance indentified within the PLC context, process, and content. Utilizing this information, this study explored how PLC implementation influences 12 different indicators of professional learning. These items were categorized under the three main concepts of PLC context, process, and content. These items were included

within the NSDC's standards for professional learning, as defined in the previous section.

Descriptive statistics were generated on each item comprising the SAI in response to the research questions. These descriptive statistics include the mean scores and frequency distributions of educator responses. In determining the reliability of the SAI to measure the NSDC standards, Cronbach's alphas for overall instrument reliability were consistent and high across all three pilot studies, with α = .98. Reliability estimates for all 12 subscales tested ranged from good to strong across assessments with α values ranging from α = .71 to α = .98 (Vaden-Kiernan, 2010, p. 12). Information from the survey was then inputted into SPSS statistical software to determine significance through an analysis of variance (ANOVA) output.

The conceptual framework for this study was to provide quantitative data that would assess the PLC model as it is perceived by the individuals who drive the reform—the educators in the classroom and in the smaller learning communities.

Each school created a vertical learning team that attended all of the trainings provided by the EIRC and the New Jersey Department of Education. This team was then to return to the school with the provided tools and training and turn-key what was taught in order to create the defined PLC teams and concept within the team's school building.

The consistency of the training and the materials provided to each school created an ideal situation to test PLC effectiveness as perceived by the educators. Furthermore, the SAI survey instrument provided a tested instrument that

anonymously collected pre- and post implementation data to study these effects, if any.

Significance of the Study

This study is significant because the data and findings will add to the limited quantitative data existing on the role of PLCs within reform efforts. The perceptions of practicing educators, ranging from novice to experienced, elementary to high schools, and within a range of teaching genres, could help districts looking for ways to address the increasing role of accountability within education, as well as the increasing demand for ongoing teacher training. Information could be drawn from this study to assist districts looking to implement PLC structures within schools in overcoming experienced difficulties. In addition, these findings may have significance for districts regarding potential changes that would affect the manner in which professional development had taken place previously. Through this, the process will add relevant information regarding this model's goal of adding ongoing, embedded professional development, a movement geared toward increasing teacher effectiveness in our nation's schools.

Limitations of the Study

The primary goal of this quantitative study was to investigate the implementation of a PLC, thus gaining more knowledge about teacher attitudes and perceptions of the transition. However, caution must be exercised when making

generalizations based on the findings of this study, as delimitations and limitations apply.

The researcher noted the following limitations of the study: (a) Participants' responses were self-reported, and it is assumed that participants gave honest responses. (b) The data were gathered with the SAI, provided by the NSDC, and, thus, test only the standards set forth by the NSDC. In addition, the survey did not provide a means for participants to write in short responses to quantify answers given. (c) Years of service, levels of experience, and levels of education may lead to different responses from varied educators. (d) While the 522 teachers who took the pretest provided the mean for their initial attempt, this mean would become the expectation for the posttest, with the possibility of the population regressing back to that mean. (f) As this study was conducted through a selection process conducted by the EIRC and the New Jersey Department of Education through grant submissions, schools participating in the study demonstrated an initial interest in the PLC reform. (g) Temporal validity is another issue to acknowledge as this study took place over the course of one school year. (h) Ecological validity may be questioned due to the independent nature of the varied schools implementing PLC structures, despite all receiving similar training.

Delimitations of the Study

The researcher imposed the following delimitations: The bias of the respondents, as well as the interpretation of the data, may produce potential

limitations. The tenuous situations created within the State of New Jersey due to governmental changes in funding and the emotional state of educators involved may affect outcomes.

The researcher made the following assumptions: (a) The SAI survey instrument is an accurate measure of perceptions regarding PLC implementation. (b) Subjects responded accurately and honestly to the survey. (c) Data received from the SAI survey and the NSDC are an accurate representation of teacher perceptions and how they relate to the standards for professional learning. (d) This research was a quantitative study of 10 public New Jersey school, ranging from elementary to high school (grades K–12). (e) Only teachers within the 10 studied schools are represented within the study. (f) Only faculty and administrators directly involved in the implementation and day-to-day activities of the PLCs were invited to participate. (g) This study was specifically limited to the attitudes and perceptions of the PLC structure and is not necessarily representative of other schools or educators' perceptions of professional learning within the PLC structure. (h) Data were collected from one survey instrument using the standards of professional development established by the NSDC. (i) The only variables studied dealt with the context, process, and content of teacher perceptions of PLC implementation.

Definition of Terms

The researcher chose to define some of the following terms to clarify them during the study. Some terms will also be defined in the literature review, and in that occurrence, sources are cited.

Capacity building. Developing the collective ability—the dispositions, knowledge, skills, motivation, and resources—to act together to bring about positive change (Fullan, 2005a, p. 4).

Collaboration. The process in which a group engages wherein members become interdependent, share and create knowledge, and produce work they would not be able to independently (Bruffee, 1999).

Formative assessment. An assessment of learning used to advance and not merely monitor each student's learning (Stiggins, 2002).

Law of the few. The ability of a small close-knit group of people to champion an idea or proposal until it reaches a tipping point and spreads like an epidemic throughout an organization (Gladwell, 2002).

Mission. A mission is a clear and compelling goal that serves to unify an organization's efforts. An effective mission must stretch and challenge the organization, but be attainable (Collins & Porras, 1991).

Moral purpose. Acting with the intention of making a positive difference in the lives of employees, customers, and society as a whole (Fullan, 2001, p. 3).

Power standard. The knowledge, skills, and dispositions that have endurance and leverage, and are essential in preparing students for readiness at the next level (Reeves, 2002).

Professional development. A lifelong, collaborative learning process that nourishes the growth of individuals, teams, and the school through a daily job-embedded, learner-centered, focused approach (NSDC, 2001).

Professional learning community. A community of educators committed to working collaboratively in ongoing processes of collective inquiry and action research to achieve better results for the students the educators serve. Professional learning communities operate under the assumption that the key to improved learning for students is continuous, job-embedded learning for educators (DuFour et al., 2006).

SMART Goal. James Champy (1995) wrote, "Vision is the rhetoric of inspiration . . . while goals are the rhetoric of accountancy" (p. 54). Conzemius and O'Neill (2005) created the SMART acronym to serve as a useful tool for teams to utilize in the goal-setting process, calling for goals that are:

a. Strategically and Specifically linked to the organization's overall purpose and vision while working to avoid being ambiguous to those attempting to reach them;
b. Measurable through an established set of baselines measurements used to assess progress towards the goal's completion;
c. Attainable so that the educators within the organization believe that, through their collective efforts, the goal can be accomplished;

d. **R**esults-Oriented so that the goal focuses on outcomes rather than on inputs; on results rather than on intentions.

e. **T**ime bound to include a timeframe for when the specific action will be taken and when it is anticipated that the goal will be accomplished. (DuFou et al., 2008, pp. 159–160)

Stakeholders. The local community residents, including parents, students, or other persons who have an interest or stake in what takes place in the school district (Herman & Herman, 1994).

Summative assessment. An assessment of learning (Stiggins, 2002).

Team. A group of people working interdependently to achieve a common goal for which members are held mutually accountable. Collaborative teams are the fundamental building blocks of PLCs (DuFour et al., 2008, p. 471).

Time management. The ability to organize and execute one's time based on priorities (Covey, 1989).

Summary of the Chapter

As education continues to be a focus, nationally and locally, reform efforts continue to be introduced. PLCs, while not an entirely new concept as they received their foundation in communities of practice and critical friends groups, have received attention due to the focus on student and faculty learning. Chapter 1 presented the background for this study, specified the problem, described the significance of that problem, and presented a brief overview of the methodology used. The first chapter

concluded by stating some of the specific limitations contained within the study. A review of the related literature will be presented in Chapter 2. Chapter 2 includes related theory and a historical perspective on school reform efforts and PLC structure. The chapter also considers aspects of adult learning theory in order to address the manner in which educators contribute to new reform efforts. Chapter 3 will present a description of the research design, including an annotation of the participants, the schools studied, strategies utilized during the PLC implementation, the methodology for data collection, the manner in which that data was analyzed, and the instrumentation used in this study. The results of the investigation outlined in Chapter 3 will be presented in Chapter 4. This will include a detailed statistical analysis of the data and an interpretation of the findings that link to the research questions. A summary of the research, its limitations, and implication for further research will be discussed in Chapter 5. This research study is intended to offer schools insight into 10 schools' implementation journey and the perceptions of the educators within that school, with the hopes of providing a framework of practice and feedback allowing other schools a successful implementation model.

Chapter 2: Review of Related Literature

Professional learning communities (PLCs) have continued to gain increasing recognition as more state Department of Education personnel work to implement PLCs as a recommended part of school district reform and professional development efforts. Judith Warren Little (cited in Schmoker, 2005) stated:

> True learning communities are characterized by disciplined, professional collaboration and ongoing assessment . . . Teachers do not learn best from outside experts or by attending conferences or implementing "programs" installed by outsiders. Teachers learn best from other teachers in settings where they literally teach each other the art of teaching.

These theoretical frameworks described by Little are what have made professional learning communities such an appealing reform effort to states, particularly as they look to address the need for ongoing teacher learning and increased student achievement, along with a need to decrease spending.

The New Jersey Department of Education is one such organization that has worked to increase individual district knowledge of PLCs. The theory behind the implementation of PLCs contends that proper implementation would expand

perceptions and practices in topics ranging from increasing student achievement to escalating teacher performance through a more collaborative culture. Through this concept, schools would increase their collaborative nature, working collectively to increase the success of all students, not just students in their classroom. The movement has also gained recognition from organizations outside New Jersey, such as the National Staff Development Council (NSDC), which has included learning communities as part of its Standards for Staff Development (Feger & Arruda, 2008). The New Jersey Education Commissioner's Task Force on Quality Teaching and Learning (2005) stated that the goal for the state is to be recognized as one of the first states to implement collaborative professional learning or development that is ongoing, focused at the school level, engages teachers in collaborative learning, and is intensive and rigorous.

The shift in focus from activity-driven to results-driven professional development is working to move professional development from a consensus-based to a research-based intervention, from pull-out learning to daily job-embedded learning opportunities, and from a focus on adult work to a focus on student work (Roberts & Pruitt, 2003).

Purpose of the Review

In reviewing the extant literature on the topic of professional learning communities, a number of philosophical and theoretical research articles and books explain the premise behind this reform model. However, significant studies on actual

implementation models and teacher perceptions within those models, as well as how schools would be able to transition to this increasingly recommended model of a collaborative, professional development community, are lacking.

The purposes of this review are as follows: (a) to identify and explain the philosophical backing of professional learning communities, (b) to uncover the history of reform models, and (c) to examine the literature for significance regarding proper PLC implementation.

The intent of the review is to inform educational leaders, educators, and policymakers about professional learning communities within the continuum of educational reform.

The review will be guided by the following three questions: (a) What implications, if any, does the context of a professional learning community have on the perceptions of educators regarding the influence upon learning community structure, school leadership, and resources during a 1-year implementation process? (b) What implications, if any, does the process of a professional learning community have on the perceptions of educators regarding the influence upon data-driven decisions, evaluation, research-based practices, design, learning, and collaboration during a 1-year PLC implementation process? (c) What implications, if any, does the content of a professional learning community have on the perceptions of educators regarding the influence on equity, quality teaching, and family involvement during a 1-year PLC implementation process?

The extant body of literature is large, and it would extend well beyond the focus of this research study; thus, this review will focus on the history of educational reform to provide a foundation for the current PLC recommendations, the process and factors of PLC implementation, and the theory of changing educator views and how these views shift educational choices. Through a review of this literature, a conceptual framework can be developed that will guide the integration of the relevant bodies of literature to result in a "'progressive problem shift' that yields a new perspective on the literature with more explanatory and predictive power than is offered by existing perspectives" (Strike & Posner, 1983).

Literature Search Procedures

The literature reviewed for this chapter was accessed via online databases, including EBSCO host, AltaVista, ProQuest, ERIC, and Academic Search Premier. In addition, print editions of peer-reviewed educational journals were used. Lastly, published, peer-reviewed books were utilized during the research process. Each section of reviewed literature includes either a meta-analysis or non-experimental studies. To present relevant information that adds to the extant literature, the researcher completed this literature review using the 12-item framework for scholarly literature reviews established by Boote and Beile (2005).

Methodological Issues in the Research on Professional Learning Communities

In a review of the literature, one main issue continued to present itself; there is a shortage of quantitative data regarding teacher perceptions of implementation efforts of professional learning communities. Thus, the literature review takes the extant literature and synthesizes the information to accurately represent all facets of the reform within the context of the scholarly writings. Inclusion of materials was based on the representation of information within multiple sources.

Another issue in the literature was the continuous statement that research needed to be ongoing to gather solid quantitative, longitudinal evidence regarding the success of the PLC concept as a reform model. Thus, this literature reviews the qualitative evidence cited within the varied works reviewed in order to provide the foundation for the research study.

The focus of this literature review centered on the existing literature from 1910 through 2010 including the seminal works up through the present day. The majority of information pertaining to professional learning communities was taken from peer-reviewed writings within the past 15 years. To determine and illustrate context, older literature was reviewed to correctly frame this current reform model within the history of other reform efforts. Johnson (2010) affirmed that "non-experimental research is frequently an important and appropriate model of research in education" (p. 3). This type of research, things such as regression and control groups, is an important method for gaining insight through discovering meaning by improving our comprehension of the whole. In essence, qualitative research allows the researcher to explore the

richness, depth, and complexity of PLC theory (Neill, 2009, p. 1). Thus, qualitative research is deemed highly appropriate for use as a foundation for this research study of PLC implementation.

Inclusion and Exclusion Criteria for Literature Review

Ohio State University first conducted research on what would become known as PLCs during the university's Eight-Year study initiated in 1936. Stemming from this baseline study, varied theoretical constructs have been introduced from other recognized leaders in educational reform research. The research from nationally recognized, peer-reviewed experts was included within this study to add relevance to the theoretical and historical underpinnings of this newer reform model (Bullough, 2007).

The review of the literature presents reform efforts from Taylor's 19th-century factory model to the recent Race to the Top (RTTP) initiative introduced by the Obama administration. The inclusion of this literature is essential to place the PLC reform model in the proper historical milieu, demonstrating the synthesis of approaches from varied reform approaches, with particular emphasis on initiatives beginning with *A Nation at Risk* in 1983 to the present RTTP. The historical context of each reform is presented to demonstrate the tiered structure of ideas within recent efforts and how some of these ideals could be incorporated within the PLC model, taking the emphasis from teaching to learning within our schools.

Professional Learning Communities: Educational Philosophy and History

PLCs are, in essence, designed to allow educators to view the educational process as learner-centered. To understand the shift, understanding the history of educational philosophy is essential. Outside the philosophical transition found within PLCs, many schools operate within the construct that, despite differing environments, human nature remains the same everywhere; hence, education should remain the same for everyone (Engl & Larson, 1996). Educational goals within this particular theory are grounded in the concept of imparting a predetermined body of knowledge to all learners with a particular focus on academic subjects. A common curriculum, one that follows a liberal arts philosophy, should be designed for all students (Bagley). Within this common curriculum, it is essential to see education as the process to teach academic content (DuBois) and cultural literacy (Bennett), as opposed to focusing on items such as vocational education.

Of the many different reforms that American public education has undergone, this philosophy was seen strongest with the publication of *A Nation at Risk* (National Commission on Excellence in Education, 1983), which stressed the need for education to become more subject-centered and focused, with emphasis on English and Math (Bennett, 1987; Hirsch, 1987).

E. D. Hirsch consistently advocated teaching core knowledge that emphasizes specific information for students to learn. He described it as a "lasting body of knowledge, which includes such topics as the basic principles of constitutional government, mathematics, and language skills, important events in world history, and

acknowledged masterpieces of art, music, and literature" (O'Neil, 1999, pp. 28–31). He also asserted that "the principle aim of schooling is to promote literacy as an enabling competence" (Hirsch, 1987), in essence declaring knowledge is intellectual capital. William Bennett added to Hirsch's ideals with *First Lessons: A Report on Elementary Education* (1987), in which Bennett stated that elementary school education should focus on content first, and then look at character and choice.

The transition to a professional learning community requires educators and staff to take these theories and work to apply them within a theoretical construct that stresses that a school's educational program should be based on the development of cooperative social skills, critical thinking, and democratic behaviors. These items play an essential role in transforming a society of greed, individualism, waste, and corruption into one based on compassion, humanism, and equality (Rippa, 1997).

One influential advocate of this approach to education was John Dewey. In his work *How We Think* (1910), he described thinking as the process involving experimentation and problem solving. Within this, he worked to establish a method for teachers and students to follow as they work to gain true understanding of the knowledge being taught or learned. This construct is thought to assist in creating a better, more democratic society through an accumulation of knowledge, personal development, and a cultivation of ethics (English & Larson, 1996), while assisting students in becoming advocates for their own learning and learning experiences—in essence, learning to create themselves (Eisner, xxxx).

Grant Wiggins worked within this accumulation of theories from Bruner (1966) and Fenwick and English (1996) to develop educational approaches that allow students to own the knowledge. Wiggins's understanding by design model was accepted by the State of New Jersey as one model for curricular development. This development, coupled with the push for PLC implementation within our schools, presents an opportunity to change how our teachers learn, and, in relation, teach.

The use of the PLC model to structure professional development coupled with the aforementioned philosophy of education stress that education needs to make the shift from a curriculum as a teacher-centered model to one that places the student at the center of the learning experience (DuFour et al., 2008; Parker, 1894) while focusing on embedded teacher learning and development.

History of Educational Reform Efforts

Educational reform efforts have existed since public education first began; PLCs exist within this long history. Thomas Jefferson was an early proponent of a public school system when he first proposed that children in Virginia attend a public school for 3 years, with the 20 best male students receiving 10 years of schooling at the public's expense (DuFour et al., 2008). This initial public school education was then reformed with the implementation of Frederick Winslow Taylor's factory model of schooling, which gained wide acceptance in the 19th century, and has continued to have a presence in public education since. Taylor, who is credited with creating the

scientific method, argued that centralization, standardization, and hierarchal top-down management would create the best system of education.

In 1910, the National Education Association (NEA) called upon its educators to "recognize differences among children as to aptitudes, interests, economic resources, and prospective careers" (Lazerson & Grubb, 1974) and to design educational experiences accordingly. This push succeeded in creating controversy and debate. John Dewey added to the NEA's call for action in his work *Democracy and Education* (1916) in which he openly opposed Winslow's factory model and offered a conceptual framework for a "new education"—schools where curricula were determined by the needs, abilities, and interests of the students. The NEA's challenge and Dewey's work began the next reform efforts in schools to balance their programs.

The Cardinal Principles of Secondary Education were presented in 1918 by the Commission on the Reorganization of Secondary Education. The focus of this commission was to form objectives for secondary education. The commission decided that learning the subject matter through problem-based, integrated curricula—learn the subject matter but have it connected to other subjects and social problems—was a way to achieve the decided goals but not the only way. The commission was instrumental in starting a standard of forming goals before reforming schools (Sherer, 2010).

Reform efforts took another turn in 1953 when Arthur Bestor, in his work *Educational Wastelands*, blamed educationalists for what he claimed was a "dumbing" down of the curriculum. The National Commission on Excellence in

Education (1983) added to this criticism with the release of *A Nation at Risk*, which openly stated:

> Our nation is at risk . . . The educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a nation and as a people . . . We have, in effect, been committing an act of unthinking, unilateral education disarmament. (p. 5)

The release of this report was followed by additional reform efforts. Although much of this report has been shown to lack research base, publication of this report is still often referred to as the start of the reform-minded agendas of today's politicians.

In Goals 2000 (1989), President George Bush called for a "decentralization of authority and decision-making responsibility to the school site, so that educators are empowered to determine the means for accomplishing the goals and are to be held accountable for accomplishing them." His reform program called for a number of things from all public schools in the country, including, but not limited to, the following: (a) All children in America will start school ready to learn. (b) The high school graduation rate will increase to at least 90%. (c) American students will leave grades 4, 8, and 12 having demonstrated competency in challenging subject matter, including English, math, science, history, and geography, and every school in America will ensure that all students learn to use their minds as well, so they are prepared for responsible citizenship, further learning, and productive employment in our modern world. (d) U.S. students will rank first in the world in mathematics and science achievement. (e) Every adult will be literate and possess the knowledge and

skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship. (f) Every school in America will be free of drugs and violence and will offer a disciplined environment conducive to learning. (g) The nation's teaching force will have access to programs for continued development of professional skills and the opportunity to acquire the knowledge and skills needed to instruct and prepare all American students for the next century. (h) Every school will promote partnerships that will increase parental involvement and participation in promoting the social, emotional, and academic growth of children. This reform effort was criticized for lacking an important aspect that could lead to success—the reform efforts were focused on schools and teachers, and were not focused on learning for students and teachers.

Enactment of the No Child Left Behind (NCLB) law in January 2002 (U.S. Congress, 2001c) was the next major reform effort in the United States. The stated purpose of this reform effort was "to ensure that all children have a fair, equal, and significant opportunity to obtain a high-quality education and reach, at a minimum, proficiency on challenging State academic achievement standards and state academic assessments" (U.S. Congress, 2001c, p. 15). As with the Goals 2000 reform efforts, NCLB attempted to set forth a series of requirements that government officials believed would assist in creating effective education systems. These requirements included the following:

- Ensuring high-quality academic assessments, accountability systems, teacher preparation and training, curriculum, and instructional materials that are

aligned with challenging State academic standards that students, parents, and administrators can measure progress against common expectations for student academic achievement;

- Closing the achievement gap between high and low performing children, especially the achievement gaps between minority and non-minority students, and between disadvantaged children and their more advantage peers;
- Holding schools, local educational agencies, and States accountable for improving the academic achievement of all students, and identifying and turning around low-performing schools that have failed to provide a high-quality education to their students, while providing alternative to students in such schools to enable students to receive a high-quality education;
- Improving and strengthening accountability, teaching, and learning by using state assessment systems designed to ensure that students are meeting challenging State academic achievement and content standards and increasing overall achievement;
- Providing greater decision-making authority and flexibility to schools and teachers in exchange for greater responsibility for student performance;
- Providing children an enriched and accelerated educational program, including the use of school-wide programs or additional services that increase the amount of and quality of instructional time;
- Promoting school-wide reform and ensuing the access of children to effective, scientifically-based instructional strategies and challenging academic content;

- Significantly elevating the quality of instruction by providing staff in participating schools with substantial opportunities for professional development;
- Affording parents substantial and meaningful opportunities to participate in the education of their children. (U.S. Congress, 2001c, pp. 15–16)

This reform effort, while building upon what was established in Goals 2000, still failed to reflect the necessity of focusing on learning. This omission places the reform efforts at odds with true academic advancement.

President Barrack Obama (2010) added to the federal push for educational reform with his Race to the Top (RTTP) program, which called upon states and school districts to "compete" against each other for federal funding. Obama (2010) stated:

> There are any number of actions we can take as a nation to enhance our competitiveness and secure a better future for our people, but few of them will make as much of a difference as improving the way we educate our sons and daughters.

This impetus introduced the Race to the Top competition that had all states competing for their share of $4 billion in reform monies, which was then renewed with another $1.3 billion in reform monies for the following budget year. This reform effort also placed local school districts in direct conflict with state policymakers, as noted by President Obama, when he used school districts in Texas that are operating on their own, against policymakers at the state level. Key criteria for schools and states to

receive Race to the Top funding include the following: (a) States are encouraged to adopt more challenging standards that will actually prepare our children for college and their careers. Schools are encouraged to adopt better assessments—not just one-size-fits-all approaches—to measure what students know and what they are able to do. (b) Schools and school districts are urged to make sure that excellent principals are leading our schools and great teachers leading our classes by promoting rigorous plans to develop and evaluate teachers and principals and by rewarding their success. (c) States are urged to use cutting-edge data systems to track a child's progress throughout his or her academic career, and to link that child's progress to his or her teacher's so it is clear what is working and what is not working in the classroom. (d) States are encouraged to show stronger commitment to turning around some of their lowest-performing schools. This most recent reform effort was recently backed (Forum on Educational Accountability [FEA], 2010) by the FEA with comments rooted in two prior statements released in coordination with and in response to NCLB: the "Joint Organizational Statement on No Child Left Behind (NCLB) Act" (2004) and "Empowering Schools and Improving Learning: A Joint Organizational Statement on the Federal Role in Public Schooling" (2009), as well as in two previous reports, "Redefining Accountability: Improving Student Learning by Building Capacity" (2007) and "Assessment and Accountability for Improving Schools and Learning: Principles and Recommendations for Federal Law and State and Local Systems" (2007). The FEA's backing came with guidelines on how to improve the reform effort by rearranging the priorities within the Race to the Top reform. These

recommendations stated that the federal Department of Education should give weight to the factors that are most critical to strengthening teaching and learning (III. Selection Criteria, p. 23). The recommended changes include the following: (a) improving the quality of assessments; (b) providing for effective professional development of teachers, principals, and other educational staff; (c) ensuring equity and opportunity to learn for all students; (d) enhancing family support for student learning and family involvement in schools; and (e) building state capacity to assist systemic improvements in public schools. These recommendations did not necessarily change the intention of the Race to the Top reform; they simply rearranged the components to demonstrate priority. However, the one-size-fits-all assessment plan, despite being promoted by Obama, is still the first item in the original reform and the FEA's reallocation of priorities. This approach continued to conflict with the equity and opportunity for all students to learn.

In an examination of the history of educational reform, the PLCs construct may provide a potential framework that could aid the transition of educators to meet the criteria outlined, not only in the most recent reform of Race to the Top but also in the NCLB and Goals 2000 efforts. In addition, PLCs, in theory, place onus on educators for continued development based on social cognitive theory and self-efficacy theory (Bandura, 1986), in the fact that "cognition plays a critical role in people's capability to construct reality, self-regulate, encode information, and perform behaviors." This directly equates to educators enhancing performance because:

> teachers have the challenge of improving the academic learning and confidence of the students in their charge. Using social cognitive theory as a framework, teachers can work to improve their students' emotional states and to correct their faulty self-beliefs and habits of thinking (personal factors), improve their academic skills and self-regulatory practices (behavior), and alter the school and classroom structures that may work to undermine student success (environmental factors). (Pajares, 2002)
>
> In examining this underlying theory of PLCs, they can be defined as: educators committed to working collaboratively in ongoing processes of collective inquiry and action research to achieve better results for the students they serve. Professional Learning Communities operate under the assumption that the key to improved learning for students is continuous, job-embedded learning for educators. (DuFour et al., 2006)

Fullan (2000) stated that "the inside story is that there is no substitute for internal school development. We have an increasingly clear idea about what is needed, but we don't know how to do it on a wide scale" (p. 3). This is where the theory of PLCs and the literature behind the theories lack substantial quantitative data demonstrating teacher perceptions that deal with specific areas within implementation efforts.

Theoretical Characteristics of Professional Learning Communities

Professional learning communities may become a viable reform effort if implemented properly. Six espoused key theoretical characteristics that must exist

could assist in making PLCs effective. The first item targets a purpose that is stated through a shared mission; clear direction supported through the school's vision statement; collective commitments on the part of the teachers, staff, administration, students, and the community in order to value the efforts; and clear and measurable indicators, timelines, and targets established within data-driven goals. Within this first item, the key is that all must be focused on students learning. This is a step away from past reform efforts that focused solely on increasing teaching capacity (DuFour et al., 2008).

The second item suggested is the establishment of a collaborative culture that focuses on the aforementioned learning. While the first point focuses on establishing the foundation of a school's organization, collaborative teams within the school are the first key building block for teachers to begin to place the focus on the learners. The interdependence fostered within the collaborative teams, theoretically, will work to achieve common goals. This collaboration is still just one of the necessary steps in building a PLC and cannot improve student achievement unless that collaboration affects professional practices within the team and the school as a whole (DuFour et al., 2008).

The third item suggested in establishing a true PLC is the collective inquiry by collaborative teams into what research-based, best practices state exist in order to create interventions for students struggling with concepts. In addition, the teachers within the community must continue to explore their own practices and determine if those practices continue to affect student success or will different approaches produce

greater results (DuFour et al., 2008). The DuFours did not conduct empirical research.

Once the aforementioned foundation and building blocks are put in place, the remaining items require educators to be action oriented by continuing to learn by doing. In an examination of social cognitive theory, Bandura (cited in Pajares, 2002) stated that adults learn self-efficacy through four major components: (a) interpreting the results of mastery experience, (b) vicarious experiences of watching other teachers teach, (c) cultivation of common beliefs through social persuasions, and (d) somatic and emotional states. This type of learning, which is designed in the PLC construct, develops a deeper and more profound knowledge and greater commitment than learning by reading, listening, planning, or thinking (Pfeffer & Sutton, 2000).

In addition, PLCs must continue to conduct a constant search for better ways to achieve the goals that the PLCs established earlier in the process. This is done through data collection, goal planning, and intervention research. This, in turn, then must be applied to the next intervention attempt and professional learning in order to have continuous improvement (DuFour et al., 2008).

The last part is that all efforts must be results oriented. "The rationale for any strategy for building a learning organization revolved around the premise that such organizations will produce dramatically improved results" (Senge & Kaufman, xxxx, p. 44).

Despite the lack of quantitative implementation data or information on the potential of establishing enduringly effective PLCs (Bullough, 2007), a lot of support

for the potential of PLCs remains. "[We recommend that] schools be restructured to become genuine organizations that respect learning, honor teaching, and teach for understanding" (Darling-Hammond, 1996). Research experts have stated that PLCs will address the need of organizations to continue to deal with change as an ongoing process, focused on the learners who are in the classrooms, and not change as it deals with policy updates (Fullan, 1993). This ability to learn during continual change will enhance a school's ability to increase the school's capacity to boost student achievement through a shared purpose, collaborative activities and planning, and collective ownership of the students (Newman & Wehlage, 1995).

As outlined in the most recent reform efforts of the past two decades, professional learning is an important and recognized aspect of continual school improvement. PLCs have the potential to become the central element for effective professional development within any reform effort through the enhancement of the professional culture within a school (Annenberg Institute for School Reform, 2004). In addition, as the recent reform effort established on the federal and state levels calls for an increase in standards, assessment, and accountability, school-level PLCs work within the data while balancing professional autonomy with collaboration and mutual accountability for reaching the goals established at the federal, state, and building levels (Reeves, 2005). Furthermore, as schools continue to battle the ever-increasing scrutiny of the public regarding cost savings, a school-based professional learning community may continue to support and motivate teachers to increase their professional practice through collaboration to create and sustain opportunities for

student learning (Kruse, Seashore, Louis, & Bryk, 1994). This theoretical shift from the accepted rigidity of common curriculum for all is then balanced with the approach of established student-driven interventions within standards, while continuing to support other reform efforts mandated top-down to schools.

Varied professional organizations have also supported the concept of PLCs. The National Commission on Teaching and America's Future (2009) has stated that quality teaching is not an individual accomplishment. The most powerful forms of professional development occur in ongoing professional teams that meet for professional learning for continuous improvement (NSDC, 2009). When implemented, PLCs theoretically provide a structure for educators to transition from focusing on teaching to focusing on learning, with the ultimate goal being an increase in achievement for all students, including bridging the gap between varied subgroup populations (Richardson, 2008). This community then works to structure learning that is purposeful (Interstate New Teacher Assessment and Support Consortium [INTASC], 2009) and, within this structure, provide opportunities for focused, active, and meaningful learning, while investigating practices to validate specific teaching methods (Kepner, 2008).

These organizations also acknowledge that simply saying that you are now a PLC is not adequate:

> Merely making the transition from mix-and-match training workshops to the formation of PLCs will not transform professional development unless we are

> clear about the purpose of a PLC, the roles of teachers in the PLCs, and the connection to improved student learning. (Mundry & Stiles, 2009)

The PLC concept is often misused or oversimplified to describe any weekly meeting or committee (Jessie, 2007).

The best model of ongoing professional development leads to enhanced teacher practice that increases student learning and is characterized by sustained activities and community-based learning (NCTE, 2006). That is why the learning community has the ability to become an effective method of continued learning that will most directly affect student learning and success:

> Teacher networks and study groups tend to produce greater effects on teaching than workshops or conferences. When teachers assume responsibility for their own professional development, it is more likely to be directly linked to their needs and their students' needs. (Bookhard & Jennings, 2008)

Once established, team learning must be a part of the common language and practice; team learning creates the continually developing shared vision. Team learning becomes the expectation within the collaborative work culture (Thompson & McKelvy, 2007). It is if schools hope for a viable and long-lasting reform and transition to PLCs that all involved acknowledge that this model of collaboration is not all about espousing shared mission statements. The work will remain difficult, and teachers' individual personalities will still exist. However, the focus must consistently remain, and staff must be reminded of this, on how well students are

learning, and not on the individual educators or on who is responsible for what. Team learning is a shared, common ethic (Peal, 2007, p. 1).

Professional Learning Communities as a Reform Model

As a reform model, PLCs espouse, in theory, to meet all of the requirements necessary to be successful according to Fullan's (2000) equation for successful school change: E = MCA2—where E refers to the rate of efficacy of the reform structure, M refers to the motivation inherent in the school for the reform effort (motivation defined as will, purpose, and commitment), C refers to the capacity of the school and staff for any reform (capacity defined as skills, know-how, and available resources), and A2 equates to the assistance given and accountability of the staff to meet the reform goals (Fullan, 2000). "[The] greater energy for [the] reform is generated in a system of integrated pressure and support in which capacity and accountability are both increased" (Fullan, 2000, p. 8).

After synthesizing more than 800 meta-analyses on the varied factors that impact student achievement, John Hattie (2010) concluded that the one effective way to improve education was to organize teachers into collaborative teams that work cooperatively to track, gather evidence of learning on an ongoing basis, and then analyze those results to learn which instructional strategies would be most effective. Robert Marzano added to the conclusion that PLCs may be effective, describing them as the most powerful reform initiative for school improvement he had seen in the past

decade (DuFour, 2009). That is what makes the reform theory of PLCs so interesting to state departments of education and to school leaders.

Another difference between the PLC structure as a reform effort and the other aforementioned reform models comes in the opportunity for creativity and learning that the PLC structure supplies to the teachers who must lead the reform effort—with the key component being the fact that teachers must work to lead the reform effort, and without buy-in from those educators, PLC structure will not work. Strategic plans and multistep reform efforts have "suppressed teachers' confidence in their ability to invent or adapt effective lessons and strategies. Only 'well executed learning communities' can achieve the goal of teaching for deep understanding, while cultivating the ever-important 'ownership' so essential to improvement" (Schmoker, 2004).

Reforms such as Goals 2000, NCLB, and Race to the Top create fear in educators. Pfeffer and Sutton (2000) stated, "Fear helps create knowing-doing gaps because acting on one's knowledge requires that a person believe he or she will not be punished for doing so – that taking risks based on new information and insight will be rewarded." PLC structures have the potential to eliminate some of the fear inherent in high-stakes reform efforts enacted prior; however, empirical, quantitative evidence of teacher perceptions of such initiatives within schools is lacking.

Comparative Studies of Professional Learning Communities

The literature is extensive on the theory of PLCs; however, as aforementioned, the literature lacks quantifiable or qualified examples of the "potential for establishing enduringly effective PLCs" (Bullough, xxxx, p. 1), as well as the manner in which the transition can be implemented in schools. Bullough drew parallels between PLCs and the Eight-Year Study, which took place between 1930 and 1942. Bullough explained that the Eight-Year study spawned the first PLC at Ohio State. The two, in fact, have many similarities: teacher roles must change dramatically in a culture that resists change, new abilities had to be learned and old habits had to be put aside, integrating the disciplines, teaming or "smaller schools within a school," and ongoing teacher learning (pp. 2–5). The core difference between the potential success of PLCs and the Eight-Year Study is the fact that, within the Eight-Year Study, curriculum varied from school to school; children's realities within the education system differed radically.

With the other described reform efforts of the past two decades, Goals 2000, NCLB, and Race to the Top, the accountability of common standards and common summative assessments are being presented as having the potential for this hurdle to be overcome within a PLC structure. These ideas are in contrast to the Eight-Year Study and other large studies of that era that clearly stated that common standards and common curriculum were not necessary and in fact the students who had diverse programs did better than kids in traditional programs—in elementary, middle, high school, and college. This finding has the potential to truly underpin the success of the

PLC reform efforts, and it is essential that educators recognize this potential for failure—"sustained school reform will require both a foundation of trust among teachers and life-enhancing relationships with one another and with young people" (Bullough, xxxx, p. 11).

A research proposal that demonstrated the possibility for success within the PLC reform model took place in the Southeast Missouri School District and was spurred by the accountability placed on districts within the new NCLB mandates (Bertrand, Roberts, & Buchanan, 2006). In analyzing the data from the study, Bertrand et al. found that vertical teams focused on meeting specific standards were influenced by five specific items: professional development; collaborative teaming; data/results orientation; alignment of the curriculum that is written, the curriculum that is taught, and the curriculum that is tested; and a sense of a shared vision and belief (p. 4). These items directly relate to the concepts theoretically espoused in the PLC model. Even with this study, however, conclusions could not be stated as final, as the call was for ongoing study in order to ascertain longitudinal effects. Despite the lack of concrete evidence, teachers who were surveyed viewed the initiative as worthwhile, as they had during the Eight-Year Study. The major difference between the Eight-Year Study and the Vertical Team Study in Missouri and now the present PLC reform model can be seen in Andy Hargreaves's observation: "Becoming a PLC [is a process that] creates an ethos that permeates a school" (Many, 2009). The concept is not to "do" a PLC as a short-term change effort; the concept must be ongoing and create a lasting culture.

Another example of research within the PLC concept is the Southwest Educational Development Laboratory's (SEDL) efforts in establishing a longitudinal study of the effects of PLCs in schools. In 1997, the SEDL conducted a review of the available literature on PLCs and determined that the reform effort demonstrated significant reform opportunities. To ascertain actual implementation strategies and long-term data from the reform efforts, the SEDL recruited 30 individuals ranging from teachers and administrators to representatives from state departments of education and higher education organizations. These individuals spent 3 years learning about the process and formulating strategies for other educational institutions to follow in order to create their own PLCs. The findings during this period pointed, once again, to theoretical backing but lacked quantitative data that would assist in helping teachers transition within the construct. As stated:

> The staff at SEDL has sought to provide Co-Developers . . . as educational professionals with a conceptual framework which will serve them – and others – in creating significant, positive change, in the nation's schools. In many cases, we have raised as many new questions as we have answered. In short, change of this nature does not occur overnight nor with minimum commitment. (SEDL, 2000)

Research continues to point toward ways that PLCs can be implemented but lack significant examples of educators' experiences and perceptions within that change.

Synthesis of Common Practices for Successful Professional Learning Communities

Many common factors that may contribute to a school's PLC structure are demonstrated within the literature. These factors parallel social cognitive and self-efficacy theories for continued learning. Researchers of PLC constructs and social cognitive theory believe that there must be a culture of supportive and shared leadership within the school. In this, capacity for change is demonstrated, but only when the principal within the building accepts shared power and decision-making with the PLC teams (Burnette, 2002; Hinman, 2007; Newman, 1994; SEDL, 1998). The NEASP (2008) gave the following criteria for such leadership:

- Lead schools in a way that places student and adult learning at the center
- Set high expectations for the academic, social, emotional, and physical development of all students
- Demand content and instruction that ensure student achievement of agreed-upon standards
- Create a culture of continuous learning for adults tied to student learning and other school goals
- Manage data and knowledge to inform decisions and measure progress of student, adult, and school performance
- Actively engage the community to create shared responsibility for student performance and development.

Once the supportive and shared leadership is implemented in a manner that is believed and accepted by staff, the school, in horizontal and vertical PLC teams, must work to develop a shared core vision and set of values as the fundamental characteristic of the PLC community. Furthermore, these items must focus on student learning (DuFour et al., 2006; Morrissey, 2000; NAESP, 2008). This shared purpose:

> create[s] the conditions that captivate a collegial learning community, fills them with a sense of urgency, inspires them to work diligently to accomplish their shared moral purpose, in sync and harmony with other to achieve 'poetry in motion' or what we have defined as optimal performance. (Vojtek & Vojtek, 2009)

Student and teacher learning is the foundation of the PLC model that makes it separate from more standardized, prescribed reform efforts. It is not enough to make sure that teachers teach what is laid out in the curriculum; the importance lies in whether the students learned what was taught. The literature continues to point to the need for these foundational items, while acknowledging that research needs to continue in order to create pathways for other schools to follow. "Results that demonstrate that PLCs make a difference to student leaning are an important motivator of continuing research in this area" (Corwin & OPC, 2009).

Professional Learning Communities Conclusions

As education and educators continue to be subjected to a variety of reform efforts stemming from the national and state levels, professional learning

communities provide a construct that builds upon adult learning theories to provide an opportunity for continued learning among professionals. Though this construct has a foundation in multiple research efforts, stemming from the Eight-Year Study through current leaders in the educational community, data on teachers' perceptions of implementation and PLC structure continue to be lacking. As education continues to be subjected to political educational agendas, teachers' ability to learn and assess what practices will be best for students for successful learning experiences remains a high priority for school improvement. This research aims to provide educators with quantitative data based on teacher perceptions within the indicators of context, process, and content of professional learning for consideration before implementation of professional learning communities within schools.

Chapter 3: Methodology

As described in Chapter 1, the purpose of this study was to discover the perceptions of educators as they transitioned to a professional learning community model, including embedded professional development and data tracking to meet accountability standards. Utilizing the theoretical constructs of the reviewed literature, as well as the practices outlined by the New Jersey State Department of Education, the NSDC, and the EIRC to guide implementation, this study researched educators' perceptions of the subgroups contained within the context (learning communities, leadership, and resources); process (data-driven, evaluation, research-based, design, learning, and collaboration); and content (equity, quality teaching, and family involvement) that comprise the changes most relevant within the reform model. These subgroups were identified by the NSDC based on its research on professional learning communities. This chapter describes the methods and procedures used, including research design, research questions, and sample population. In addition, the conceptual framework, instrumentation, and data collection are presented. Finally, the chapter discusses the data analysis of this study.

This study addresses three research questions: (a) What implications, if any, does the context of a professional learning community have on the perceptions of educators regarding the influence upon learning community structure, school leadership, and resources during a 1-year implementation process? (b) What implications, if any, does the process of a professional learning community have on the perceptions of educators regarding the influence upon data-driven decisions, evaluation, research-based practices, design, learning, and collaboration during a 1-year PLC implementation process? (c) What implications, if any, does the content of a professional learning community have on the perceptions of educators regarding the influence on equity, quality teaching, and family involvement during a 1-year PLC implementation process?

Research questions 1, 2, and 3 addressed the data that were collected with the SAI survey. They measured the PLC implementation processes taught to the 10 participating schools through ongoing seminars given by the EIRC and the New Jersey Department of Education. The research questions also addressed the analysis of the data in the form of stakeholders' perceptions.

Research Design

This research was conducted utilizing a survey design. This was accomplished through the use of a descriptive rating, Likert-type survey provided by the NSDC and EIRC, the Standards Inventory Assessment (SAI), which was used to collect quantitative data from educators in 10 New Jersey schools. This methodology

allowed for a statistical analysis of the data. The SAI also proved to be an efficient means of gathering data without introducing threats to reliability that can occur with other collection means (Suskie, 1996). The researcher utilized a survey design to collect the quantitative data for this study.

Due to the nature and length of the study, observations and personal interviews would not have provided the honesty that the anonymous survey allowed. In addition, observations, interviews, or focus groups would add the potential for bias and inconsistency in the administration of the survey instrument, and the data collected would not have provided the concrete data needed for statistical analysis.

SEDL (formally known as the Southwest Educational Development Laboratory) researchers worked to develop the SAI through multiple iterations of an item refinement process, working to reduce the initial question bank to the 60 items that are now included (Vaden-Kiernan, 2009, p. 2). The survey's 60 questions assess a school's performance in three broad categories: context, process, and content. These three broader categories cover a total of 12 teaching standards outlined by the NSDC, which were established by the SEDL utilizing psychometric properties that measure the degree to which school-level professional development and reform efforts adhere to the standards as reported by the teachers and staff (p. 2).

In evaluating the SAI, "the inventory [was] confirmed for content validity through several iterations of item endorsement by teachers and four experts NSCD selected" (Vaden-Kiernan, 2009, p. 2). Furthermore, "criterion-related validity also was supported by the results of descriptive analyses" (p. 2).

The SAI rating survey is set up as a Likert scale. According to Suskie (1996), a rating survey instrument adds familiarity for most people, and allows the researcher to make comparisons among the respondents. The comparative data produced by a Likert scale add to the researcher's ability for quantitative examinations.

Context of the Study

This study was conducted utilizing 10 of the 33 schools that had received the EIRC grant for PLC training. The 10 schools included within this study all participated on a volunteer basis. The schools all gave permission for use of their information. The remaining 23 districts either did not respond to a request for inclusion or did not receive permission from their district for the use of their information within this study. The schools studied had to complete an application for admittance into the program. Elementary, middle, and high schools were included in the sample population. The 10 schools used in this study were included due to their willingness to participate in the study. Information included in this study is focused on the participating schools. A sample-size calculation was not utilized to determine if this sample would allow for an overall generalization regarding the remaining school districts' information.

The sample population for this research study was composed of 522 educators, whose experience ranged from 1 year (novice) to 20-plus years (veteran). Schools within the group were in urban, suburban, and rural communities. This stratified

random sampling process was utilized to make sure that a proper proportional representation of population subgroups was studied.

The SAI survey was given at two different times during the PLC training period: once in the autumn of 2009 as a pre survey and once in the spring of 2010 as a post survey, resulting in data collection from the 522 respondents. All respondents were educators certified through the New Jersey State Department of Education.

The survey's purpose was to evaluate the influence of the professional learning community professional development training and implementation, as taught to lead teams in breakout sessions throughout the year, on the standards of professional learning outlined by the NSDC. The trainings completed by the EIRC and the New Jersey Department of Education were conducted over the course of four training sessions, each lasting 6 hours. The goal of the training was to provide school-level PLC teams with skills regarding proper building-level implementation, use of data for decision making, SMART goal planning, and common pacing and assessment strategies. Training objectives were identified before the trainings and were sent out via e-mail to all participants.

Members of individual school-level PLC teams were selected by their respective districts. Participants were then responsible for turn-key training within their own schools/districts. Implementation began in the fall of 2009 and was accompanied by the first SAI survey; the post-SAI survey was then administered in the individual districts in the spring of 2010. All participants were full-time teachers within each district.

Participants

As part of the grant application, schools receiving the grant acknowledged that implementation efforts would include all staff at the chosen schools. Furthermore, a school-level team of 4 to 5 people, including a school-level administrator, would attend the trainings. School-level staff was then asked to complete the SAI survey instrument. All participation was anonymous, and all participants signed in using a school-level key to ensure anonymity. The instrumentation section addresses the validity of the survey instrument. Specific demographic information about the participants will be presented in Chapter 4.

Instrumentation

Building upon the standards for professional learning established by the National School Development Council (NSDC, 2001), the survey instrument, the SAI, explored teacher perceptions of professional learning communities as implemented in 10 New Jersey schools. Implementation practices followed those outlined by the State Department of Education and the EIRC.

The survey (Appendix A) consisted of 60 multiple choice questions. The first part of the survey dealt with teacher demographics. This consisted of six questions. The remaining 54 questions focused on the standards, randomly ordered but falling under three main groupings: context, process, and content. Respondents answered

these questions using the following 5-point scale: *never*, *seldom*, *sometimes*, *frequently*, and *always*.

Permission to use the SAI was requested from Mr. Gerald Woehr of the EIRC, the governing body responsible for providing the survey as part of a grant award. This request was forwarded to Cathy K. Pine, Ph.D., director, Office of Professional Standards, Licensing, and Higher Education Collaboration at the New Jersey Department of Education. The request to utilize the data from the SAI was granted on October 1, 2010, via e-mail.

The validity of this instrument was studied at length. Content validity was determined through an expert $\alpha = \frac{K}{K-1}\left(1 - \frac{\sum_{i=1}^{K}\sigma_{Y_i}^2}{\sigma_X^2}\right)$ review, with the only suggestion coming from the latest review being to add more demographic information. Construct validity was determined through a factor analysis in more than 400 elementary schools in Georgia. It was determined that the SAI may capture stable school-level constructs worth exploring. The variance explained was 79.1%, and Cronbach alphas were .992 (Vaden-Kiernan, 2002, p. 12). Cronbach's α is defined as, $\alpha = \frac{K}{K-1}\left(1 - \frac{\sum_{i=1}^{K}\sigma_{Y_i}^2}{\sigma_X^2}\right)$ where K is the number of components (*K-items* or *testlets*), σ_X^2 the variance of the observed total test scores, and $\sigma_{Y_i}^2$ the variance of component i for the current sample of persons (Develles, 1991). Predictive validity using the total SAI found support for the importance of teacher-reported perceptions. Overall regression analysis found support for the positive contribution of the school-level average on the SAI (Vaden-Kiernan, pp. 12–13).

Table 1

Overall Instrument Reliability

A	N/Items	N/Cases
.98	60	297

The reliability of the SAI survey was then tested to determine the manner in which each subscale effectively grouped together. Alpha coefficients ranged from .71 to .92, which signifies that there is good to strong reliability within the 60-question instrument (Vaden-Kiernan , 2002, p. 3) (see Table 2).

Table 2

Overall Subscale Reliability

	α
Learning communities	.79
Leadership	.85
Resources	.71
Data-driven	.84
Evaluation	.81
Research-based	.84
Design	.83
Learning	.80
Collaboration	.83
Equity	.77
Quality teaching	.81
Family involvement	.76

Data Collection

The data contained within this study were collected using the SAI. Information regarding teacher perceptions on PLC implementation focusing on three areas, context, process, and content, was collected from a self-administered online survey instrument. The survey was administered in the autumn of 2009 as a pre assessment and then readministered in the spring of 2010 as a post assessment, with a 10-month period between the two administrations of the survey. To attempt to address regression to the mean, the 10-month period provided sufficient time without extending the time too far to avoid the means converging toward the underlying rate. The survey was expected to take participants approximately 20 minutes to complete.

Participants in the study included the staff members of 10 New Jersey schools. Participants were notified of the survey dates via e-mail, and each staff member was provided with a key to sign in to the SAI in order to keep all responses anonymous and confidential.

The survey results were then collected by the NSDC, and the researcher was given a separate key to access collected data from each survey period. From this, the researcher took the collected data and fed them into the SPSS statistical software in order to analyze the information utilizing a Univariate ANOVA transcript.

Data Analysis

The results of the surveys were analyzed to determine the changes, if any, in perceptions of intermediate school educators in regard to the context, process, and content of the introduction of professional learning communities.

Descriptive statistics were generated on each of the 60 individual questions, which were then separated under their three main headings. These descriptive statistics included the mean scores for each question, as well as the frequency distributions for each response. These means were then analyzed using a univariate ANOVA to determine the significance of the change over time.

The researcher recognized that using ANOVA comes with assumptions. One assumption of ANOVA is that the variances of the dependent variable are the same across the groups being studied. The data used within this study attempted to address this assumption through the stabilization of the sample size utilizing the whole collection of teachers as the base as opposed to breaking it into individual school results, which would have skewed the results due to the differences in the mean.

Summary

This chapter described the methods and procedures employed to provide insight into the perceptions of school educators during one professional learning community implementation process. The problem, research design, research questions, sample population, conceptual framework, and instrumentation were

presented. Additionally, the chapter discussed the data collection process, as well as the data analysis of the information attained. The presentation of this data in Chapter 4 will address the three research questions, as well as the general demographic information collected. A summary and discussion of the findings, along with conclusions, implications for practice, and recommendations for further research form the content of Chapter 5.

Chapter 4: Analysis and Presentation of the Data

Education is entering a critical phase of redevelopment. The pending reauthorization of the No Child Left Behind (2001) Act, as well as the Race to the Top initiative (2010), has strengthened the focus on continual improvement of our educational system. With these mounting pressures for improvement, many at the federal government, state, and district levels have looked for a means to begin to transform our educational design; one of the reform efforts examined and recommended has been PLCs.

The purpose of this research study was to investigate the influence of PLCs on teacher perceptions within three specific school components: content, process, and context. The teachers were all a part of a grant awarded to 33 schools in New Jersey offered by the EIRC and the New Jersey Department of Education. As mentioned in Chapter 1, PLC design allows for ongoing teacher development, following Marzano's (2001) research, which indicated that an individual teacher has the greatest impact on student achievement, and adding to that Fullan's (2006) statement that organizations do not change, people do. PLCs work within the context of changing the manner in which educators operate, thus changing the outcome of students' success.

This study was done as a single-phase, 1-year study employing quantitative methods. A Likert-type scale survey instrument, the SAI, was used as a pre- and post implementation collection of teacher perceptions regarding the three studied areas: content, process, and context.

This chapter begins with an overview of the analysis of the quantitative data collected from the 10 schools that participated in this research, totaling 522 teachers. The overview of the analysis will include the procedures within the analysis and a description of the demographic characteristics of those educators participating in the survey. The results of the educators' responses to each of the following research questions were examined: (a) What implications, if any, does the context of a professional learning community have on the perceptions of educators regarding the influence upon learning community structure, school leadership, and resources during a 1-year implementation process? (b) What implications, if any, does the process of a professional learning community have on the perceptions of educators regarding the influence upon data-driven decisions, evaluation, research-based practices, design, learning, and collaboration during a 1-year PLC implementation process? (c) What implications, if any, does the content of a professional learning community have on the perceptions of educators regarding the influence on equity, quality teaching, and family involvement during a 1-year PLC implementation process?

The end of Chapter 4 will present a summary of the data findings as they relate to the research questions.

Response Rate to the Survey Research

Ten schools agreed to participate in the research, for a total of 30% of the schools that were selected for the grant offered for PLC training and implementation assistance. From these 10 schools, 522 educators participated in the pre- and post surveys, for an average response rate of 92% for each question asked.

Data Analysis Procedures

The researcher utilized data collected from pre- and post surveys that were conducted within two separate 3-week windows, one in the fall and another in the spring. The instrument was Internet based, and each teacher was given a key to access the survey to keep all information confidential. The instrument measured teacher perceptions of 12 items categorized under three main classifications: the content, process, and context (see Figure 1) of the school structure before and after professional learning community implementation.

Table 3

Clarification of Items Studied within Context, Process, and Content

Context	Process	Content
Learning communities	Data-driven practices	Equity
Leadership	Evaluation	Quality teaching
Resources	Research-based decisions	Family involvement
	Design	
	Learning	
	Collaboration	

The SAI Survey (see Appendix A) consisted of 60 Likert-scale questions. The SAI consisted of two sections. The first part contained questions intended to produce demographic data of the teachers participating in the survey. The second part of the survey asked questions in the aforementioned categories. Questions were randomized throughout the survey so as to not follow concurrently under one particular aspect being studied (see Table 4).

The population of this study was composed of 522 educators certified by the New Jersey Department of Education. These educators were on staff at the 10 schools that participated in the research project. Although all 33 schools chosen for the grant by the EIRC were invited to participate in this study, only 10 responded with their data collected from the SAI instrument.

A letter of solicitation was sent to the 33 schools (see Appendix B) explaining the research being conducted and requesting the data from their individual SAI surveys. As aforementioned, the survey was housed online at the NSDC website (www.sai-nsdc.org). Data were collected from the 10 schools and then analyzed using SPSS (Statistical Package for Social Sciences), Version 16.0 for Windows software.

The three research questions were examined using descriptive statistics including means and standard deviations. The mean provided the central tendency for each area studied, while the standard deviations offered an available definition to explain potential variations for each distribution. The data were analyzed using

ANOVA. This statistical method measures the influence of an independent variable, in this case professional learning community implementation, on a dependent variable, in this case context, process, and content. Statistically significant relationships were determined based on an alpha level of .05 or less. ANOVAs require that the researcher follow the assumptions of independence, normal distribution, and homogeneity of variance. The independence assumption is based on the way data are collected. The normality assumption concerns the sampling distribution of means. The equal variance assumption addresses variances in the populations.

Table 4

Stratification of Questions

	Context	Process	Content
Question numbers	Learning communities	Data-driven	Equity
	9	12	24
	29	26	33
	32	39	37
	34	46	44
	56	50	59
	Leadership	Evaluation	Quality teaching
	1	3	7
	10	13	17
	18	20	25
	45	30	54
	48	51	60
	Resources	Research-based	Family involvement
	2	4	8
	11	14	31
	19	21	40
	35	36	47
	49	41	55
		Design	
		15	
		22	
		38	
		52	
		57	
		Learning	
		5	
		16	
		27	
		42	
		53	
		Collaboration	
		6	
		23	
		28	
		43	
		58	

Demographic Data

The SAI instrument contained questions intended to produce specific demographic data about the educators within each participating school. These questions included questions about years at the current school and years in education, grade level currently teaching, subject area currently teaching, employment status (part- or full-time), and percent of time teaching. Tables 5 through 10 show the results.

The first question asked the participants to classify how many years the participants have been at their current school. One hundred and fifty-eight educators, representing 31.2% of the population, had been at their current school for 4 or fewer years. Three hundred and sixty-four educators, representing 69.7% of the population, had been at their current school 5 years or more (see Table 5).

Table 5

Participant Years at Current School

Years teaching at current school	Frequency	Percent
0–1 years	54	10.3%
2–4 years	104	19.9%
5–9 years	139	26.6%
10–20 years	168	32.2%
21 or more years	57	10.9%

Note. $N = 522$.

The survey asked the respondents to identify how many years, in total, they had been in education. This differed from the first question, as this question sought to

ascertain tenure in the field, as opposed to tenure at one institution. Not all participants opted to answer this question. Ninety-six educators, representing 19.1% of the participating population, had been in education for 4 or fewer years. Three hundred sixty-three educators, representing 80.1% of the responding population, had been in education for 5 years or more, with more than half of the participants having been in education for 10 or more years (see Table 6).

Table 6

Participants' Years in Education

Total years in teaching	Frequency	Percent
0–1 years	23	5.1%
2–4 years	63	14%
5–9 years	98	21.8%
10–20 years	171	38.1%
21 or more years	94	20.9%

Note. $N = 459$.

The next question inquired about the grade level taught by the individuals participating in the SAI survey. Some individuals taught multiple grade levels. Three hundred and eleven participants, representing 42.2% of the responding educators, reported teaching grades 5 or below. Four hundred and twenty-six participants, representing 57.8% of the responding educators, reported teaching grades 6 and above (see Table 7).

Table 7

Grade Levels Taught by Participating Educators

Grade level(s) taught	Frequency	Percentage
Prekindergarten/preschool	7	1%
Kindergarten	31	4.2%
First grade	40	5.4%
Second grade	39	5.3%
Third grade	53	7.2%
Fourth grade	57	7.7%
Fifth grade	84	11.4%
Sixth grade	137	18.6%
Seventh grade	143	19.4%
Eighth grade	131	17.8%
Ninth grade	3	.4%
10th grade	3	.4%
11th grade	4	.5%
12th grade	4	.5%
Other	1	.1%

Note. $N = 522$.

Respondents were asked to identify all of the subjects that they currently taught. Elementary-level educators often teach more than one subject matter (see Table 8).

Table 8

Subject Areas Taught by Participants

Subject area(s) taught	Frequency	Percentage
Math	133	21.5%
Business	0	0%
Language arts/reading	148	23.9%
Fine arts	15	2.4%
World languages	11	1.8%
Science	102	16.5%
Family/consumer sciences	2	0.3%
Vocational/technical	10	1.6%
Special education	55	8.9%

English as a Second Language	3	0.5%
Physical education	14	2.3%
Social studies/history	101	16.3%
Other	26	4.2%

Note. $N = 522$.

The last question in the demographic section of the demographic survey asked educators their status within the school regarding whether they were full-time or part-time staff members. Five hundred and nine participants, representing 97.5% of all respondents, were employed full-time at their respective schools, while 13 participants, representing 2.5% of all respondents, were employed part-time in their respective schools.

Table 9

Participant Employment Status

Status	Frequency	Percentage
Full-time	509	97.5%
Part-time	13	2.5%

Note. $N = 522$.

The educators' demographic data may be summarized as follows: 522 educators responded to the SAI instrument, the highest number of respondents had been in their school for 5 years or more (69.7%) and had been in education in total for 5 or more years (80.1%), the highest number of respondents (57.8%) reported teaching grades 6 and above, the highest number of respondents reported teaching the core subjects, and the highest percentage of respondents were employed at their school full-time (97.5%).

Instrument Reliability Analysis

This subsection contains summaries to demonstrate reliability of the data collected from the SAI instrument. During the testing of the instrument, 20 schools participated in three studies that resulted in the final 60-question survey.

The SEDL tested the reliability of the instrument. For the instrument, reliability refers to the "consistency of measurement" (SEDL, 2003). As explained in Chapter 3, reliability was measured using Cronbach's alpha—a measure of the internal consistency of an instrument to determine if all areas within the subscales will correlate with each other (SEDL 2003, p. 3). The alpha coefficient ranged from 0 to 1 (the closer a scaled coefficient is to 1, the greater the reliability of the instrument), and the overall reliability of the SAI achieved an alpha coefficient of .98 (see Table 10).

Table 10

Overall Instrument Reliability

α	*N*/items	*N*/cases
.98	60	297

The reliability of the SAI survey was then tested to determine the manner in which each subscale effectively grouped together. Alpha coefficients ranged from .71 to .92, which signifies that there is good to strong reliability within the 60-question instrument (3) (see Table 11).

Table 11

Overall Subscale Reliability

	α
Learning communities	.79
Leadership	.85
Resources	.71
Data-driven	.84
Evaluation	.81
Research-based	.84
Design	.83
Learning	.80
Collaboration	.83
Equity	.77
Quality teaching	.81
Family involvement	.76

To determine construct validity, "the degree to which [a test] measures the construct or trait that it was designed to measure" (Allen, xxxx, p. 108), a factor analysis had to be performed. The SAI was developed to measure the 12 standards of professional development designed by the NSDC (SEDL, 2003, p. 9). All of the aforementioned measures indicate that the SAI is a reliable measurement tool (10).

Research Question 1

The first research question asked educators what implications, if any, the context of a professional learning community had on the participants' perceptions during the 1-year implementation process. Respondents answered questions specific to the three categories contained within the context grouping: learning communities, leadership, and resources. Respondents answered questions on a Likert-type scale

using a 5-point scale: 0 = *never*, 1 = *seldom*, 2 = *sometimes*, 3 = *frequently*, and 4 = *always*.

To examine research question 1, a Univariate ANOVA was calculated to assess whether there was significance in professional learning community implementation and teachers' perceptions of the context contained within the process. The resulting analysis is presented in Table 12.

Table 12

Analysis of Variance in Context, Fall to Spring

Tests of between-subjects effects

Dependent variable: SCORE

Source	Type III sum of squares	*df*	Mean square	*F*	Sig.
Corrected model	2.919[a]	5	.584	4.314	.006
Intercept	201.243	1	201.243	1487.017	.000
CONTEXT	2.886	2	1.443	10.663	.000
TIME_FRAME	.027	1	.027	0.200	.659
CONTEXT * TIME_FRAME	.006	2	.003	0.022	.978
Error	3.248	24	0.135		
Total	207.410	30			
Corrected total	6.167	29			

Note. [a]R^2 = .473 (Adjusted R^2 = .364)

The dependent variable for the study of context change is the scores reported on the SAI survey instrument for the questions that were categorized under leadership, learning communities, and resources. The main effect is the change in time frame, fall to spring. Within the study, leadership had a mean of 3.0 with a

standard deviation of 0.36515; learning communities had a mean of 2.3 with a standard deviation of 0.41966; and resources had a mean of 2.5 with a standard deviation of 0.23476. The ANOVA model for context is not significant at the .659 level with an *F* statistic of 0.2 and a *df* of 1, 24.

The interpretation of these data shows that the professional learning community model implemented within the 10 schools did not have a significant influence on the perceptions of the 522 teachers within the frame of context of professional learning.

Research Question 2

The second research question asked educators what implications, if any, the process of a professional learning community had on their perceptions during the 1-year implementation process. Respondents answered questions specific to the six categories contained within the process grouping: data-driven practices, evaluation, research-based decisions, design, learning, and collaboration. Respondents answered questions on a Likert-type scale using a 5-point scale: 0 = *never*, 1 = *seldom*, 2 = *sometimes*, 3 = *frequently*, and 4 = *always*.

To examine research question 2, a Univariate ANOVA was calculated to assess whether there was significance in professional learning community implementation and teachers' perceptions of the process contained within the progression. The resulting analysis is presented in Table 13.

Table 13

Analysis of Variance in Process, Fall to Spring

Tests of between-subjects effects

Dependent variable: SCORE

Source	Type III sum of squares	*df*	Mean square	*F*	Sig.
Corrected model	1.115[a]	11	.101	1.827	.075
Intercept	394.241	1	394.241	7103.435	.000
PROCESS	1.021	5	.204	3.680	.007
TIMEFRAME	.017	1	.017	0.300	.586
PROCESS * TIMEFRAME	.077	5	.015	0.279	.923
Error	2.664	48	.055		
Total	398.020	60			
Corrected total	3.779	59			

Note. [a]$R^2 = .295$ (adjusted $R^2 = .134$)

The dependent variable for the study of process change is the scores reported on the SAI survey instrument for the questions that were categorized under collaboration, data-driven, design, evaluation, learning, and research-based practices. The main effect is the change in time frame, fall to spring. Within the study, collaboration had a mean of 2.690 with a standard deviation of 0.1524, data-driven had a mean of 2.6 with a standard deviation of 0.1491, design had a mean of 2.68 with a standard deviation of 0.3615, evaluation had a mean of 2.32 with a standard deviation of 0.1619, learning had a mean of 2.47 with a standard deviation of 0.2946, and research-based had a mean of 2.62 with a standard deviation of 0.1317. The

ANOVA model for context is not significant at the .586 level with an *F* statistic of 0.279 and a *df* of 1, 48.

The interpretation of these data shows that the professional learning community model implemented within the 10 schools did not have a significant influence on the perceptions of the 522 teachers within the frame of process of professional learning.

Research Question 3

The third research question asked educators what implications, if any, the content of a professional learning community had on their perceptions during the 1-year implementation process. Respondents answered questions specific to the three categories contained within the context grouping: equity, quality teaching, and family involvement. Respondents answered questions on a Likert-type scale using a 5-point scale: 0 = *never*, 1 = *seldom*, 2 = *sometimes*, 3 = *frequently*, and 4 = *always*.

To examine research question 3, a Univariate ANOVA was calculated to assess whether there was significance in professional learning community implementation and teacher's perceptions of the content contained within the course of action. The resulting analysis is presented in Table 14.

Table 14

Analysis of Variance in Content, Fall to Spring

Tests of between-subjects effects

Dependent variable: SCORE

Source	Type III sum of squares	*df*	Mean square	*F*	Sig.
Corrected model	2.843[a]	5	.569	7.034	.000
Intercept	223.587	1	223.587	2766.025	.000
CONTENT	2.808	2	1.404	17.369	.000
TIMEFRAME	.027	1	0.027	0.334	.569
CONTENT * TIMEFRAME	.008	2	0.004	0.049	.952
Error	1.940	24	0.081		
Total	228.370	30			
Corrected total	4.783	29			

Note. [a]$R^2 = .594$ (adjusted $R^2 = .510$)

The dependent variable for the study of content change is the scores reported on the SAI survey instrument for the questions that were categorized under equity, family involvement, and quality teaching. The main effect is the change in time frame, fall to spring. Within the study, equity had a mean of 3.15 with a standard deviation of 0.3689, family involvement had a mean of 2.43 with a standard deviation of 0.2163, and quality teaching had a mean of 2.61 with a standard deviation of 0.1912. The ANOVA model for context is not significant at the .569 level with an *F* statistic of 0.334 and a *df* of 1, 24.

The interpretation of these data shows that the professional learning community model implemented within the 10 schools did not have a significant

influence on the perceptions of the 522 teachers within the frame of content of professional learning.

Summary

This chapter began with an overview of the data analysis procedures, a description of the demographic characteristics of the 522 participating educators, and a description of the reliability of the Standards Assessment Inventory survey instrument. The responses to each question contained within the three main categorical headings of context, process, and context were examined using descriptive statistics, including frequencies, means, and standard deviations. The main focus of the study was to determine if there was significant change in teacher perceptions in regard to context, process, and content during a 1-year implementation of the professional learning communities reform model.

The data suggested that there was no statistical significance in teacher perceptions in any of the three main categories surveyed. Teacher perceptions remained static during the 1-year implementation effort in the 10 participating schools.

The insights gained by this research study will contribute to the lack of quantitative data in existence regarding the ability of PLC reform models to significantly change teacher perception and practice. This will assist educational leaders, at the federal government, state, and district levels, in making decisions regarding district change and reform models. Chapter 5 will provide an interpretation

of the data and conclusions. Findings will be presented in a manner that extends the knowledge base contained within the accompanying literature review. In addition, suggestions for policy, practice, and further research will be discussed.

Chapter 5: Summary, Recommendations, Implications, and Conclusions

This research was conducted to discover the perceptions of educators as they transitioned to a professional learning community model, including embedded professional development and data tracking to meet accountability standards. Measured behaviors in relation to the NSDC's description of key standards in professional learning were identified, and these perceptions were measured on the SAI survey instrument developed in coordination between the SEDL and the NSDC. Identifying key changes in teacher perceptions can assist school district administrators who are contemplating or are currently implementing PLC structures within their own school(s). Insights gained within this research study may provide federal government-, state-, and district-level administrators interested in educational reform models a quantitative review of teacher perceptions from varied demographic and education levels regarding significant changes in key professional learning components. In addition, the findings from this study may assist school districts in ascertaining whether the PLC structure is appropriate for meeting their educational

goals. Furthermore, these findings may aid state educational officials in deciding whether the PLC structure is the proper reform model to work toward on the state level.

This chapter will present a summary of the research purpose, procedures, and findings. In addition, the relationship between the quantitative results and the literature will be discussed. Chapter 5 concludes with describing the limitations of the study, recommendations for future studies and research, and any implications the current study may have for PLC reform efforts at the district and state levels.

Summary of Purpose

The educational system in America has been increasingly scrutinized over the past two decades. A number of reports that contest the success that our educational systems have had in educating our youth exist (DuFour & Eaker, 1998). In response, many have searched for strategies and reforms that would bring America to the forefront of education among comparable nations. According to Hord (2001), the PLC model is the preferred organizational structure of schools. The purpose of this study was to quantitatively determine the success of this model as perceived by teachers in 10 New Jersey schools who undertook a 1-year training and implementation effort.

The SAI survey instrument (see Appendix A) consisted of two distinct sections. The first part of the survey contained questions designed to collect demographic information from the educators who were completing the assessment.

The second section had participants answer questions utilizing a Likert-type scale method to ascertain perceptions of three main professional learning areas: context, process, and content. These three main areas contained 12 subsections in total to provide depth of insight regarding specific components of PLC change.

Based on the findings from this study, the researcher sought to examine change in teacher perceptions within a 1-year implementation of professional learning communities. The implementation was guided by trainings conducted by the EIRC and the New Jersey Department of Education. To study possible significance in the change in teacher perceptions within the areas of context, process, and content, the following research questions guided this study: (a) What implications, if any, does the context of a professional learning community have on the perceptions of educators during a 1-year implementation process? (b) What implications, if any, does the process of a professional learning community have on the perceptions of educators during a 1-year implementation process? (c) What implications, if any, does the content of a professional learning community have on the perceptions of educators during a 1-year implementation process?

Summary of Procedures

The researcher used a Likert-type survey methodology to collect quantitative data from 522 New Jersey certified educators. The survey instrument, the SAI, was developed to assess the standards of professional learning developed by the NSDC. The survey assessed teacher perceptions in three main categories: context, process,

and content. This instrument was chosen as it was already field tested and had its validity confirmed using Cronbach's alpha and three separate trials.

The population of this study was composed of educators within 10 schools in New Jersey, all of which received a grant from the EIRC for free professional development for PLC training for proper implementation of the reform model within their schools. Although all 33 schools that received the grant from the EIRC were invited to participate, the researcher received permission from only 10 of the schools to use their preexisting data from the SAI pre- and post surveys. A letter was sent to the teams at all 33 schools, and subsequent electronic communications were sent between the researcher and the school districts to ascertain the required information. Participation in this study was voluntary; all of the teachers who participated in the SAI had their confidentiality protected as all responses were anonymous. Furthermore, the 10 schools that participated were not identified in any way within the collection and study of the statistical information.

The survey was housed online at www.sai-nsdc.org, and individuals had to receive an alpha-numeric key to gain access to the survey, ensuring that only those invited could answer questions, guaranteeing the validity of the information. The collected data were then analyzed using SPSS, Version 15.0 for Windows software. The demographic characteristics of the participants and the subsequent research questions were examined using descriptive statistics, including means and standard deviations. Statistically significant relationships between pre- and post teacher perceptions were investigated utilizing a Univariate ANOVA.

Demographic Data and Patterns

The SAI survey instrument contained questions specifically intended to produce particular demographic data about the educators who participated in the assessment. Principal questions included years at the educators' current school, years total in education, specific grade level(s) taught, specific subject area(s) taught, and employment status (full- or part-time).

The first question asked participants how long they had been at their current school. Three hundred and sixty-four respondents, representing 69.7% of the total population surveyed, had been at their current school for 5 years or more. Two hundred and twenty-five respondents, representing 43.1% of the total population, had been at their school for 10 years or longer. Only one hundred and fifty-eight educators, representing 31.2% of the total population, had been at their school for 4 or fewer years (see Table 2).

The second demographic question asked educators how long they had been in education in total years. To clarify, this question asked about teachers' tenure in the profession, not just in their current school. Ninety-six educators, representing 19.1% of the total population, had been in education for 4 or fewer years. The remaining 80.1% of respondents had been in education for 5 years or more (see Table 3). In examining this information in comparison to national data on teacher tenure, national data on average years of experience for teachers in the United States is 27 years (nationmaster.com). Compared to these national statistics, the fact that 59% of

respondents to the SAI instrument had been in education for 10 years or more is not unanticipated.

The next question asked participants to identify the grade level or levels that they taught during their school year. In total, 42.2% of educators, representing 311 participants, indicated that they taught Grade 5 or below. In contrast, 57.8% of educators, representing 426 participants, taught grades 6 and above (see Table 4). Since the total number of participants was 522, it is clear that participants within this survey taught multiple grades during the school year. These data indicate that many teachers are responsible for collaborating with each other across grade levels. In addition, these data indicate that teachers are becoming responsible for teaching more grade levels within their schools.

In relation to the previous question, educators were asked which subject area or areas they taught (see Table 5). It is not unusual to see the larger numbers within this data to indicate that the most frequently taught subject areas were Math (21.5%), Language Arts/Reading (23.9%), Science (16.5%), and History/Social Studies (16.3%), as these are the core subjects that fall under the New Jersey Core Curriculum Content Standards (NJCCCS). In addition, as many elementary-level teachers, Grade 5 and below, teach all core subjects, and 42.2% of respondents taught at these grade levels, the larger numbers of these courses were bound to be represented. The next largest subject area taught was special education at 8.9%, or 55 total respondents. This number was comparable to the total number of students enrolled in special education in New Jersey, which was 15.5% in 2007 (Annie E. Casey Foundation,

xxxx). These data indicate that challenges exist within schools for open-dialogue and embedded professional development between subject areas and grade levels.

Research Questions

The first research question asked educators what implication, if any, the context of a professional learning community had on their perceptions during a 1-year implementation process. All participants took the same SAI survey instrument, each was anonymous, and results were given as a school. The participants answered questions specific to learning communities, leadership, and resources.

The frame of context contained aspects of learning communities, leadership, and resources. Learning communities are defined as pertaining to "staff development that improves the learning of all students [which] organizes adults into learning communities whose goals are aligned with those of the school and district" (Learning Forward). In addition, the context frame contains leadership qualities, defined as "staff development that improves the learning of all students [which] requires skillful school and district leaders who guide continuous instructional improvement" (Learning Forward). Lastly, the subcategory of resources can be defined as "staff development that improves the learning of all students [which] requires resources to support adult learning and collaboration" (Learning Forward). Statistics revealed that the professional learning community reform model presented to the participating educators had no significant influence on the perceptions of educators as those perceptions applied to the context frame.

The second research question asked participants what implication, if any, the process of a professional learning community had on their perceptions during a 1-year implementation process. All participants took the same SAI survey instrument, each was anonymous, and results were given as a school. The participants answered questions specific to data-driven practices, evaluation, research-based decision making, design, learning, and collaboration.

The frame of process contained aspects in the subcategories of data-driven practices, evaluation, research-based decision making, design, learning, and collaboration. Data-driven practices are defined as "development that improves the learning of all students [which] uses disaggregated student data to determine adult learning priorities, monitor progress, and help sustain continuous improvement" (Learning Forward). Evaluation practices are defined as "development that improves the learning for all students [which] uses multiple sources of information to guide improvement and demonstrate its impact" (Learning Forward). Research-based practices are defined as "development that improves the learning of all students [which] prepares educators to apply research to decision-making" (Learning Forward). Design can be defined as "development that improves the learning of all students [which] uses learning strategies appropriate to the intended goal" (Learning Forward). Learning can be defined as "development that improves the learning of all students [which] applies knowledge about human learning and change" (Leaning Forward). Lastly, collaboration skills are defined as "development that improves the learning of all students [which] provides educators with the knowledge and skills to

collaborate" (Learning Forward). Descriptive statistics revealed that the professional learning community reform model presented to the participating educators had no significant influence on the perceptions of educators as those perceptions applied to the process frame.

The third research question asked educators what implication, if any, the content of a professional learning community had on their perceptions during a 1-year implementation process. All participants took the same SAI survey instrument, each was anonymous, and results were given as a school. The participants answered questions specific to equity, quality teaching, and family.

The frame of content contained aspects in the subcategories of equity, quality teaching, and family. In this, equity is defined as "development that improves the learning of all students [which] prepares educators to understand and appreciate all students, create safe, orderly and supportive environments; and hold high expectations for their academic achievement" (Learning Forward). Quality education can be defined as "development that improves the learning of all students [which] deepens educators' content knowledge, provides them with research-based instructional strategies that assist students in meeting rigorous academic standards, and prepares them to use various types of classroom assessments properly" (Learning Forward). Lastly, family involvement is defined as "development that improves the learning of all students [which] provides educators with knowledge and skills to involve families and other stakeholders appropriately" (Learning Forward). Descriptive statistics revealed that the professional learning community reform model presented to the

participating educators had no significant influence on the perceptions of educators as those perceptions applied to the content frame.

Limitations of the Study

In addition to the limitations presented within Chapter 1 of this study, this researcher acknowledges several delimitations and limitations that could make vulnerable the internal and external validity of this study. Caution should be used when making generalizations based on these research findings alone, due in part to following: (a) The study was limited to educators whose school was a part of the grant offered by the EIRC and the New Jersey State Department of Education. (b) The SAI survey instrument was delivered to the participating educators via the Internet, and responses were collected electronically by the NSDC, which then disseminated information back to the participating schools. (c) The data were collected within a 3-week time span. Keeping the survey window open longer may have allowed additional educators at the respective building levels to participate. (d) There was no space for participants to make comments or elaborate on the answers that they provided. (e) The study was conducted over the course of 1 school year. The results may have changed with an increased time frame, as it is acknowledged that research indicates a 3- to 5-year window for implementation for most reforms. (f) The training and post survey instrument were delivered during a time of great unrest and upheaval in the public education sector of New Jersey, which may have

influenced the manner in which participants worked toward success or reported such success on the post training survey.

Recommendations for Further Study

The following recommendations for further research can be made based on the findings from this research study: (a) This survey was limited to educators mostly at the primary and middle school levels. Furthermore, the participants were part of a district initiative for PLCs. Perhaps increasing the sample to include individuals from the high school level could provide for a greater collection of information across the entire spectrum of education. In addition, research on districts that had the teachers choose the PLC reform model as their own initiative might provide different results. (b) Only the modes of context, process, and content were studied as they related to professional learning within the PLC model. Further investigation into how these items were presented and implemented might provide additional insight into the lack of significant difference within the 1-year time span. In addition, broadening the scope of the study might include additional aspects of professional learning that may provide different results within the unstudied areas. (c) Despite the vertical school-based PLC teams all partaking in the same training, there is little to study regarding how this training was turn-keyed at the individual building levels. Perhaps a study that had the same training and trainer at each site would provide for more continuity in implementation and might result in different research results. Investigation of how this may be done on such a large scale could help reformists in future implementation

efforts. (d) A parallel study should be conducted to research the perceptions of district administration regarding the PLC model changes within the context, process, and content of the implementation. This would allow a researcher to ascertain whether there is a divide in the understanding of the reform model. This information would allow future implementations to have data regarding where administrators and teachers differ in terms of perceptions of changes. (e) Participation in the SAI survey was not mandatory for all educators within the participating schools. Perhaps future studies could make participation in the pre- and postsurvey instruments mandatory to garner a complete view of perceptions. (f) Public schools have increasingly become the focus of reform efforts on the national and state levels. It would an interesting study to compare PLC perceptions in public school versus other school choices (i.e., charters, magnets, private, etc.). It would be interesting to compare the results regarding the impact that the PLC structure would have on the context, process, and content of teacher learning. (g) While the SAI instrument provided a good amount of information, adding in components of a mixed-method study would allow the researcher to collect more information regarding the reported perceptions. Focus groups and interviews could be used to gather teacher rationales regarding teachers' perceptions. This research may provide future administrators with the means to change the implementation and training process or change the reform model that is chosen. (h) It would be of great interest to further disaggregate the collected data to compare the perceptions of teachers who have been within the profession for 10 or more years compared to educators who have been in the profession for 9 or fewer

years. This particular research study did not disaggregate data, nor did it seek to find a balance between the experience levels of the educators who took part. This information could provide reformists with insight regarding the effectiveness of PLC structure on the make-up of particular school staffs.

Implications for Practice

The results of this research study have implications for those at the federal government, state, and district levels who are looking at the PLC reform model as one to be adopted. The perceptions of educators who have undergone the training and 1 year of PLC structure implementation could assist in providing a quantitative view of the success this model could have on teacher learning, which, ultimately, influences student learning outcomes. Furthermore, these results may change the manner in which changes are implemented at state and district levels.

Reform models often gain momentum and excitement through the promise of increased staff performance, increased student success, or better school structure. This can be seen in the Whole Language movement, the understanding by design model, etc. Larger reform efforts include Goals 2000, No Child Left Behind, and the recent Race to the Top. Many within education hear of the promise of a new program or theory and quickly advocate and work to implement reform models in the hopes of reaching the aforementioned goals. Too often, this implementation occurs before any data concerning the effectiveness of the program or reform model are collected. This makes this study even more critical, as it adds to the theoretical underpinnings of the

PLC model and offers quantitative data for school districts to utilize when considering adoption. This is critical for districts as it demonstrates specific areas of need from educator viewpoints when implementing the PLC model. Thus, planning before implementation could assist in addressing these known issues. Clearly, planning with these data would assist in making the transition more attuned to teacher needs, and could lead to successful reform.

Choosing one reform effort over another might not be the proper way for schools to continue to grow with the challenges presented to educators to ensure the success and preparation of our students. This researcher suggests that individuals at the state and district levels utilize theory and data-driven research results before advocating for one individual approach. The characteristics of particular schools, leadership within the schools, and district leadership all have an impact of the success of any reform effort. Choosing one approach due to theory without researching effectiveness or fit for a school could result in the effort quickly losing promise.

Schools are continually faced with increased accountability as seen within high-stakes testing, as well as the push for increased professional learning at the district level due to decreased budgets. To accomplish these extremely difficult tasks, schools need to be provided with the proper tools and a model that will efficiently meet these needs. The PLC model offers these items in theory. This researcher suggests that districts utilize the information from this study for comparison with other quantitative studies, as well as the theoretical presentation of the model, to ascertain the future success of PLCs. The findings from this study could prove

beneficial in developing talking points that will allow reformists to understand how to present trainings, workshops, as well as to search for opportunities to combine data-proven models to create one that does not swing like a pendulum, forcing districts to continually change directions.

Conclusions

With the enactment of the No Child Left Behind Act of 2001, focus on school success and accountability at the school level for student success has increased (Rammer, 2007). The stated purpose of this act was that all students would reach state-set parameters of success by 2014. This, coupled with the Race to the Top push for increased teacher accountability linked to these high-stakes tests scores, has pushed many districts to search for a way to continue to improve their schools through increased teacher learning and a restructure in the way that schools operate. The PLC theoretically fits the need found within this call to action. PLCs can be defined as "a collegial group of administrators and school staff who are united in their commitment to student learning. They share a vision, work and learn collaboratively, visit and review other classrooms, and participate in decision making" (Hord, 1997). With the mounting pressures, the PLC model has become a popular choice at the federal government, state, and local levels.

The areas studied included context, process, and content of teacher learning. Each can be defined regarding its importance in PLC implementation. Context dealt with three subcategories contained within the context grouping: learning

communities, leadership, and resources. Process dealt with the six subcategories contained within the process grouping: data-driven practices, evaluation, research-based decisions, design, learning, and collaboration. Lastly, content dealt with three subcategories: equity, quality teaching, and family.

The data suggested that none of the three aspects of PLCs that were studied had a statistically significant influence on teacher perceptions during the 1-year study. Perhaps different results would be found after 3 to 5 years when the change has been fully implemented. This is why it was suggested that additional research over a longer period be conducted.

Insights gained through this study will provide educational leaders with quantitative data regarding educators' perceptions of the PLC model within the context, process, and content of the reform effort. The findings from this study could prove beneficial in developing talking points among educational leaders that may allow for reformists to understand how to present trainings, workshops, as well as to search for opportunities to combine data-proven models to create one that does not sway districts to continually change directions but continue to build upon success through combined, concerted efforts.

References

Allen, M.J. and Yen, W.M. (1979). *Introduction to Measurement Theory*. California: Wadsworth.

Annenberg Institute for School Reform. (2004). Professional learning communities: Professional development strategies that improve instruction. Accessed at http://www.annenberginstitute.org/pdf/ProfLearning.pdf on March 12, 2010

Annie E. Casey Foundation (2007). Students Enrolled in Special Education (Percentage). Accessed at http://datacenter.kidscount.org/data/bystate/Rankings.aspx?state=NJ&ind=2134 on November 12, 2010

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.

Bennett, W. (1987). *First Lessons. A Report on Elementary Education in America. By the U.S. Secretary of Education.* Washington, DC: Superintendent of Documents, U.S. Government Printing Office. Accessed at http://www.eric.ed.gov/ERICWebPortal/custom/portlets/recordDetails/detailmini.jsp?_nfpb=true&_&ERICExtSearch_SearchValue_0=ED270236&ERICExtSearch_SearchType_0=no&accno=ED270236 on March 29, 2010.

Bertrand, L., Roberts, R., & Buchanan, R. edd et al (2006). Striving for Success: Teacher Perspectives of a Vertical Team Initiative. National Forum of Teacher Education Journal – Electronic 16(3). Accessed at http://www.nationalforum.com/Electronic%20Journal%20Volumes/Bertrand,%20Lisa%20Striving%20for%20Success%20Teacher%20Perspectives%20of%20a%20Vertical%20Team%20Initiative.pdf on March 2, 2010.

Bestor, Arthur E., Jr. 1953, revised 1985. *Educational Wastelands: The Retreat from Learning in Our Public Schools.* Urbana, IL: University of Illinois Press.

Bookhard, L., & Jennings, T. (2008). The Professional Learning Community. Accessed at www.schenevuscs.org/webpages/TJennings/files/10-24-08%20PLC%20Presentation.ppt on March 15, 2010.

Boote, D. and Beile, P. (2008). Scholars Before Researchers: On the Centrality of the Dissertation Literature Review in Research Preparation. Educational Researcher 2005: 34(3). Accessed at http:er.aera.net

Bryk, A.S., & Schneider, B. (2003), Trust In Schools: A Core Resource for School Reform, Educational Leadership, 60(6).

Bullough, Jr., R. (2007). Professional Learning Communities and the Eight-Year Study. Bloomington, IN: Phi Lambda Pheta. Accessed at http://www.eric.ed.gov/ERICWebPortal/custom/portlets/recordDetails/detailmini.jsp?_nfpb=true&_&ERICExtSearch_SearchValue_0=EJ762729&ERICExtSearch_SearchType_0=no&accno=EJ762729 on March 10, 2010.

Burnette, B. (2002, Winter). How We Formed Our Community: Lights and Cameras Optional, but Action is Essential. National Staff Development Council. Accessed at www.allthingsplc.org on March 20, 2010.

Bush, G.H.W. (1989, September 28). Joint statement on the education summit with the nation's governors at Charlottesville, Virginia. Accessed at http://www.presidency.ucsb.edu/ws/index.php?pid=17580 on March 12, 2010

Commissioner's Task Force on Quality Teaching and Learning (2005). Quality Teaching in New Jersey: A Report. Trenton, NJ: New Jersey Department of Education.

Corwin Press and Ontario Principals Council – OPC (2009). The Principal as Professional Learning Community Leader. Thousand Oaks, CA: Corwin Press

Darling-Hammond, (1996). What matters most: A competent teacher for every child. Phi Delta Kappan, 78(3), 193-200. In DuFour, R., DuFour, R., & Eaker, R. (2008). *Revisiting Learning Communities at Work.* Bloomington, IN: Solution Tree.

Dewey, J. (1910). How We Think. Boston, MA: D.C. Heath & Co.

Dewey, J. (1916). Democracy and education: An introduction to the philosophy of education. New York: Macmillan.

DuFour, R. (2009, Fall). The Key to Improved Teaching and Learning. The AdvancED Source accessed at www.allthingsplc.com on March 13, 2010.

DuFour, R., DuFour, R., Eaker, R., & Many, T. (2006). *Learning by doing: A Handbook for professional learning communities at work.* Bloomington, IN: Solution Tree

DuFour, R., DuFour, R., & Eaker, R. (2008). *Revisiting Learning Communities at Work. Bloomington*, IN: Solution Tree.

Eisner, E. (2002). *The arts and the creation of mind.* New Haven, CT: Yale University Press.

English, Fenwick, & Larson, R. (1996). *Curriculum Management for Educational and Service Organizations*. Springfield, MA: Charles Thomas Publishers.

Forum on Educational Accountability (2010). Draft Guidelines for 'Race to the Top' has some Good Ideas, but Priorities need Changing. Accessed at http://www.edaccountability.org/FEA%20Comments%20on%20Draft%20Guidelines%20Race%20to%20the%20Top%20-%20final.pdf on March 12, 2010

Fullan, M. (1993). Change forces: Probing the depths of educational reform. In R. DuFour, R. Eaker, & r. DuFour (Eds.), *On Common Ground: The power of professional learning communities*. Bloomington, IN: National Educational Service

Fullan, M. (2000). The Three Stories of Educational Reform. Accessed at http://pil.numplus.com/SchoolLeadership/04-fullan/Resources/The_Three_Stories_of_Education_Reform.pdf on March 16, 2010

Halton, E. (2004). Pragmatism. In: *Encyclopedia of Social Theory*. George Ritzer, ed. Thousand Oaks: Sage Publications, 2004

Hirsch, E.D. (1987). *Cultural literacy, what every American needs to know*. Boston, MA. Houghton Mifflin Company.

Hinman, C. (2007). Developing a Substantive Professional Learning Community. National Forum of Educational Administration and Supervision Journal 24(1). Accessed at www.allthingsplc.com on March 1, 2010.

Hord, S. M. (1997b). *Professional learning communities: What are they and why are they important?* [Online]. Available: http://www.sedl.org/change/issues/issues61.html

Interstate New Teacher Assessment and Support Consortium (2009). Interstate New Teacher Assessment and Support Consortium Standards. Accessed at http://www.emu.edu/maed/INTASC.html on March 15, 2010.

Jessie, L. (2007, Winter). The Elements of a Professional Learning Community: Professional learning communities will change how you and your staff view learning. Leadership Compass, 5(2). Accessed at http://www.naesp.org/resources/2/Leadership_Compass/2007/LC2007v5n2a4.pdf on March 15, 2010.

Kepner, H. (2008, September). Making decisions – It's What You Do Everyday. Accessed at http://www.nctm.org/about/content.aspx?id=15975&itemid=15975&linkidentifier=id on March 15, 2010.

Kruse, S., Seashore Louis, K., & Bryk, A. (1994, Spring). Building professional learning community in schools. Issues in Restructing Schools, 6, 3-6. Accessed at http://www.wcer.wisc.edu/archive/cors/issues%5Fin%5FRestructuring%5FSchools/issues_NO_6_SPRING_1994.pdf on March 12, 2010

Lazerson, M. & Grubb, W.N. (Eds). (1974). In: DuFour, R., DuFour, R., & Eaker, R. (2008). *Revisiting Learning Communities at Work. Bloomington*, IN: Solution Tree

Louis, K. S., Marks, H. M. & Kruse, S. D. (1996). Teachers' professional community in restructuring schools. *American Educational Research Journal*, 33 (4).

Many, T. (2009, November/December). What's on Your Refrigerator Door? Clarifying What Really Matters in Your School. Accessed at www.tepsa.org on March 1, 2010.

Mickelson, (1999). A Brief History of Business Involvement in School Reform. Accessed at http://eric.uoregon.edu/publications/policy_reports/corporate_involvement/brief_history.html on March 15, 2010

Mundry, S. & Stiles, K. (2009). Professional Learning Communities for Science Teaching: Lessons from Research and Practice. Arlington, VA: NSTA Press.

National Association of Elementary School Principals – NAESP (2008). Leading Learning Communities, 2nd Edition. Alexandria, VA: NEASP.

National Commission on Excellence in Education. (1983, April). A nation at risk. Accessed at http://www.ed.gov/pubs/NatAtRisk/risk.html on March 12, 2010

National Commission on Teaching and America's Future (2009, November). The Next Generation of Learning Teams. Accessed at http://www.learningteams.org/ on March 15, 2010.

National Council for Teachers of English (2006, November). NCTE Position Statement: Principles of Professional Development. Accessed at http://www.ncte.org/positions/statements/profdevelopment on March 15, 2010.

Nationmaster.com (2010). Education Statistics > Teacher qualifications > Years experience > Age 13 (most recent) by country. Accessed at ***http://www.nationmaster.com/graph/edu_tea_qua_yea_exp_age_13-qualifications-years-experience-age-13*** on November 12, 2010

Neill, J. (2009). Analysis of Professional Literature – Qualitative Research.

Newmann, F. (1994, Spring). School-wide Professional Community. Issues in Restructuring Schools: Center of Organization and Restructuring of Schools. Issue Report No. 6. Accessed at www.allthingsplc.org on March 12, 2010.

Newmann, F. & Wehlage, G. (1995). Successful school restructuring: A report to the public and educators by the Center of Restructuring Schools. In R. DuFour, R. Eaker, & r. DuFour (Eds.), *On Common Ground: The power of professional learning communities*. Bloomington, IN: National Educational Service

Obama, B. (2010, January 19). Remarks by the President on Race to the Top at Graham Road Elementary School Graham Road Elementary School, Falls Church, Virginia. Accessed at **http://www.whitehouse.gov/the-press-office/remarks-president-race-top-graham-road-elementary-school** on March 12, 2010

Ohanian, S. (2000, January). Goals 2000: What's in a name? Phi Delta Kappan 81(5) pp. 344-355. Accessed at http://www.admin.mtu.edu/ctlfd/Ed%20Psych%20Readings/Goals%202000%20Ohanian.pdf on March 15, 2010.

O'Neil, J. (1999). Core knowledge & standards: a conversation with E.D. Hirsch. Educational Leadership, 56, 28-31. Accessed at **http://www.newfoundations.com/GALLERY/Hirsch.html** on March, 29, 2010.

Pajares (2002). *Overview of social cognitive theory and of self-efficacy*. Retrieved March 26, 2010, from http://www.emory.edu/EDUCATION/mfp/eff.html

Parker, F.W. (1894). Talks on Pedagogics: An Outline of the Theory of Concentration. New York, NY: E.L.Kellogg & Company.

Peal, C. (2007, Winter). In the Real World: Professional Learning Communities – It's Not About "My Class." Leadership Compass 5(2). Accessed at www.naesp.org on March 12, 2010.

Pfeffer, J. & Sutton, R. (2000). *The knowing-doing gap: How smart companies turn knowledge into action.* Boston: Harvard Business School Press

Rammer, R. (2007). Call to action for superinendents: Change the way you hire principals. *The Journal of Educational Research,* 101(2), 67-76.

Reeves, D. (2005). Putting it all together: Standards, assessment and accountability in successful professional learning communities. In R. DuFour, R. Eaker, & R. DuFour (Eds.), On common ground: The power of professional learning communities (pp. 45-63). Bloomington, IN: Solution Tree (formerly National Educational Service).

Richardson, J. (ed.). (2008). *JSD, Professional Learning Communities.* 29(3). Accessed at http://www.literacycoachingonline.org/library/resources/richardson-j-ed-2008-emjsd-professional.html on March 15, 2010

Rippa, Alexander (1997). *Education in a Free Society. An American History.* NY: Longman.

Roberts, S. & Pruitt, E. (2003). Schools as professional learning communities: Collaborative and strategies for professional development. Thousand Oaks, CA: Corwin.

Schmoker, M. (2004). Tipping Point: From Feckless reform to substantive instructional improvement. Phi Delta Kappan, 85(6), 424-432. Accessed at http://mikeschmoker.com/tipping-point.html on March 12, 2010

Schmoker, M. (2005). No turning back. In R. DuFour, R. Eaker, & r. DuFour (Eds.), *On Common Ground: The power of professional learning communities.* Bloomington, IN: National Educational Service

Scribner, J., Cockrell, K., Cockrell, D. & Valentine, J. (1999). Creating professional communities in schools through organizational learning: An evaluation of a school improvement process. *Educational Administration Quarterly,* 35(1), 130- 160.

Scribner, J. P., Hager, D., & Warne, T. (2002). *The paradox of professional community: Tales from two high schools.* Educational Administration Quarterly, 38(1), 45-76.

Senge, R. (1990). The fifth discipline: The art and practice of the learning organization. In R. DuFour, R. Eaker, & r. DuFour (Eds.), *On Common Ground: The power of professional learning communities.* Bloomington, IN: Solution Tree (formerly National Educational Service).

Senge, P., & Kofman, F. (1995). Communities of commitment: The heart of learning organization. In S. Chawla & J. Renesch (Eds). *Learning organizations: Developing cultures for tomorrow's workplace* (pp. 15-44). New York: Productivity Press.

Sherer, M. (2010). The Cardinal Principles of Secondary Education. Accessed at http://www.nd.edu/~rbarger/www7/cardprin.html on November 17, 2010

Southwest Educational Development Laboratory – SEDL (1998). Creating a Professional Learning Community: Cottonwood Creek School. Issues about Change 6(2). Accessed at www.allthingsplc.com on March 23, 2010.

Southwest Educational Development Laboratory – SEDL (2000). Co-Developers – Partners in a Study of Professional Learning Communities. Issues about Change 8(2). Accessed at www.allthingsplc.com on March 23, 2010.

Southwest Educational Development Laboratory - SEDL (2003). National Staff Development Council Standards Assessment Inventory: Summary Report of Instrument Development Process and Psychometric Properties. Accessed at http://www.sedl.org/re/reports/2003_NSDC_SumRpt.pdf on November 10, 2010.

Sparks, D. (2005). Leading for transformation in teaching, learning, and relationships. In R. DuFour, R. Eaker, & r. DuFour (Eds.), *On Common Ground: The power of professional learning communities.* Bloomington, IN: Solution Tree (formerly National Educational Service).

Strike, K., & Posner, G. (1983). Types of synthesis and their criteria. In S. Ward and L. Reed (Eds.), Knowledge structure and use: Implications for synthesis and interpretation (pp. 343–362). Philadelphia: Temple University Press.

Suskie, L.A. (1996). *Questionnaire survey research that works.* Tallahassee, FL.: Association for Institutional Research

Thompson, S. & McKelvy, E. (2007). Shared Vision, Team Learning, and Professional Learning Communities. Middle Ground, 10(3), 12-14. Accessed at http://www.nmsa.org/Publications/MiddleGround/Articles/February2007/Article1/tabid/1210/Default.aspx on March 15, 2010.

Vescio, V., Ross, D. & Adams, A. (2008). A review of research on the impact of professional learning communities on teaching practice and student learning. *Teaching and Teacher Education, 24,* (1), 80-91.

Vojtek, R.O. & Vojtek, R. (2009) Motivate! Inspire! Lead! 10 Strategies for Building Collegial Learning Communities. Thousand Oaks, CA: Corwin Press

Appendix A

Standards Inventory Assessment (SAI)

Standards Assessment Inventory (SAI)

	Never	Seldom	Sometimes	Frequently	Always
1. Our principal believes teacher learning is essential for achieving our school goals	0	1	2	3	4
2. Fellow teachers, trainers, facilitators, and/or consultants are available to help us implement new instructional practices at our school.	0	1	2	3	4
3. We design evaluations of our professional development activities prior to the professional development program or set of activities.	0	1	2	3	4
4. Our school uses educational research to select programs	0	1	2	3	4
5. We have opportunities to practice new skills gained during staff development	0	1	2	3	4
6. Our faculty learns about effective ways to work together.	0	1	2	3	4
7. Teachers are provided opportunities to gain deep understanding of the subjects they teach.	0	1	2	3	4
8. Teachers are provided opportunities to learn how to involve families in their children's education.	0	1	2	3	4
9. The teachers in my school meet as a whole staff to discuss ways to improve teaching and learning.	0	1	2	3	4
10. Our principal's decisions on school-wide issues and practices are influenced by faculty input.	0	1	2	3	4
11. Teachers at our school have opportunities to learn how to use technology to enhance instruction.	0	1	2	3	4
12. Teachers at our school learn how to use data to assess student learning needs	0	1	2	3	4
13. We use several sources to evaluate the effectiveness of our professional development on student learning (e.g., classroom observations, teacher surveys, conversations with principals or coaches).	0	1	2	3	4
14. We make decisions about professional development based on research that shows evidence of improved student performance.	0	1	2	3	4
15. At our school teacher learning is supported through a combination of strategies (e.g., workshops, peer coaching, study groups, joint planning of lessons, and examination of student work).	0	1	2	3	4

Please mark the responses that most accurately reflect your experiences at your school.

	Never	Seldom	Sometimes	Frequently	Always
16. We receive support implementing new skills until they become a natural part of instruction	0	1	2	3	4
17. The professional development that I participate in models instructional strategies that I will use in my classroom	0	1	2	3	4
18. Our principal is committed to providing teachers with opportunities to improve instruction (e.g., observations, feedback, collaborating with colleagues).	0	1	2	3	4
19. Substitutes are available to cover our classes when we observe each others' classes or engage in other professional development opportunities.	0	1	2	3	4
20. We set aside time to discuss what we learned from our professional development experiences	0	1	2	3	4
21. When deciding which school improvement efforts to adopt, we look at evidence of effectiveness of programs in other schools.	0	1	2	3	4
22. We design improvement strategies based on clearly stated outcomes for teacher and student learning.	0	1	2	3	4
23. My school structures time for teachers to work together to enhance student learning.	0	1	2	3	4
24. At our school, we adjust instruction and assessment to meet the needs of diverse learners.	0	1	2	3	4
25. We use research-based instructional strategies	0	1	2	3	4
26. Teachers at our school determine the effectiveness of our professional development by using data on student improvement.	0	1	2	3	4
27. Our professional development promotes deep understanding of a topic.	0	1	2	3	4
28. Our school's teaching and learning goals depend on staff's ability to work well together.	0	1	2	3	4
29. We observe each other's classroom instruction as one way to improve our teaching.	0	1	2	3	4
30. At our school, evaluations of professional development outcomes are used to plan for professional development choices.	0	1	2	3	4
31. Communicating our school mission and goals to families and community members is a priority.	0	1	2	3	4
32. Beginning teachers have opportunities to work with more experienced teachers at our school.	0	1	2	3	4

	Never	Seldom	Sometimes	Frequently	Always
33. Teachers show respect for all of the student subpopulations in our school (e.g., poor, minority).	0	1	2	3	4
34. We receive feedback from our colleagues about classroom practices.	0	1	2	3	4
35. In our school we find creative ways to expand human and material resources.	0	1	2	3	4
36. When considering school improvement programs we ask whether the program has resulted in student achievement gains.	0	1	2	3	4
37. Teachers at our school expect high academic achievement for all of our students.	0	1	2	3	4
38. Teacher professional development is part of our school improvement plan	0	1	2	3	4
39. Teachers use student data to plan professional development programs.	0	1	2	3	4
40. School leaders work with community members to help students achieve academic goals	0	1	2	3	4
41. The school improvement programs we adopt have been effective with student populations similar to ours.	0	1	2	3	4
42. At my school, teachers learn through a variety of methods (e.g., hands-on activities, discussion, dialogue, writing, demonstrations, practice with feedback, group problem solving).	0	1	2	3	4
43. Our school leaders encourage sharing responsibility to achieve school goals	0	1	2	3	4
44. We are focused on creating positive relationships between teachers and students.	0	1	2	3	4
45. Our principal fosters a school culture that is focused on instructional improvement.	0	1	2	3	4
46. Teachers use student data when discussing instruction and curriculum.	0	1	2	3	4
47. Our principal models how to build relationships with students' families.	0	1	2	3	4
48. I would use the word, empowering, to describe my principal.	0	1	2	3	4
49. School goals determine how resources are allocated.	0	1	2	3	4
50. Teachers analyze classroom data with each other to improve student learning.	0	1	2	3	4
51. We use students' classroom performance to assess the success of teachers' professional development experiences	0	1	2	3	4

	Never	Seldom	Sometimes	Frequently	Always
52. Teachers' prior knowledge and experience are taken into consideration when designing staff development at our school.	0	1	2	3	4
53. At our school, teachers can choose the types of professional development they receive (e.g., study group, action research, observations).	0	1	2	3	4
54. Our school's professional development helps me learn about effective student assessment techniques	0	1	2	3	4
55. Teachers work with families to help them support students' learning at home.	0	1	2	3	4
56. Teachers examine student work with each other	0	1	2	3	4
57. When we adopt school improvement initiatives we stay with them long enough to see if changes in instructional practice and student performance occur.	0	1	2	3	4
58. Our principal models effective collaboration	0	1	2	3	4
59. Teachers receive training on curriculum and instruction for students at different levels of learning.	0	1	2	3	4
60. Our administrators engage teachers in conversations about instruction and student learning.	0	1	2	3	4

Appendix B

List of Participating Schools

PARTICIPATING SCHOOLS

School	Bragg School
Level	Elementary
District	Chester School District
School	Memorial School
Level	Middle School
District	Paramus Boro School District
School	Hammonton High School
Level	High School
District	Hammonton Township School District
School	Gregory School
Level	Elementary
District	Trenton City School District
School	Thomas B. Conley
Level	Elementary
District	Bethlehem Township School District
School	Harrington Park Middle School
Level	Middle School
District	Harrington Park Boro School District
School	Woodstown Middle School
Level	Middle School
District	Woodstown-Pilesgrove Regional School District
School	Memorial
Level	Middle School
District	Cedar Grove School District
School	Manasquan Elementary
Level	Elementary
District	Manasquan Boro School District
School	Jefferson Township Middle School
Level	Middle School
District	Jefferson Township School District

Appendix C

IRB Non Review Certification

IRB Non Review Certification

STUDENT: Daniel Johnson

Title of Dissertation: A Quantitative Study of Teacher Perceptions of Professional Learning Communities' Context, Process, and Content

I certify, by my signature below, that the above indicated study does not require IRB review as a result of a lack of involvement with human subjects (see OHRP flow chart) and as indicated by any or all of the following (check all that apply).

1. Historical research	_____
2. Public data base	_____
3. *Proprietary data base	X
4. Freedom of Information	_____
5. Right to know – sunshine law	_____

Student signature: [signature] **Date:** 10/10/10

Advisor approval: Barbara Strobert **Date:** 10/10/10

Reviewed by: _____ Barbara Strobert

Joseph Stetar – Higher Ed Barbara Strobert – K-12

Date of Review: 10/10/10

*** Proprietary data that does not identify individuals**