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Impact of Professional Learning Community Design on Teacher Instruction

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Impact of Professional Learning Community Design on Teacher Instruction

Impact of Professional Learning Community Design
on Teacher Instruction

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Education in Educational Leadership

by

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ABSTRACT

This descriptive case study closely examined a professional learning community in an Arkansas middle school. The site was selected because the school was removed from the state's school improvement list after implementing professional learning communities. The purpose of the study was to determine how the design of a professional learning community impacts teacher instruction in a middle school setting. The literature reviewed included historical perspective, definitions and characteristics of professional learning communities, teacher professional development, and teacher effect on student achievement. Eight teachers, one principal, and one instructional facilitator were interviewed about the professional learning communities in their school. The interviews focused on the characteristics of professional learning communities and the perceived impact of professional learning communities on instructional practices. Observations of professional learning community meetings were conducted, and related documents were also reviewed. The data revealed that a culture of collaboration, data-driven decisions, and supportive leadership impact instruction. Combined, these three factors created the conditions for teachers to build their capacity and provide better instruction to students. The data also revealed that the annual school-wide book studies were an important aspect of professional development for the teachers at this school; many described it as the most beneficial professional learning community strategy utilized by the school.

ACKNOWLEDGEMENTS

Winston Churchill said, "We make a living by what we get, but we make a life by what we give." The completion of this dissertation would not have been possible without the support, guidance, and encouragement graciously given to me by so many people. I want express my appreciation to my dissertation committee: Dr. Carleton Holt, Dr. Wenjuo Lo, and Dr. Janet Penner-Williams. Thank you for your willingness to selflessly serve on my committee and for your guidance throughout this process.

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Thank you to the countless friends, co-workers, colleagues, family members, and former professors for your role in the completion of this dissertation. Your continued support, words of encouragement, and occasional prodding were invaluable to keeping me on this path. My love and gratitude to all!

DEDICATION

To Daddy—
For your lifelong love, guidance, and encouragement and for instilling in me the value of education

To David—
For your unwavering patience and support through my many, *many* years as a student

To Jess—
As you begin to follow your star and build your future, remember anything is possible.

I love you all very much!

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Chapter 1:

Introduction

Organization of the Chapter

Chapter 1 presents an introduction to the topic and provides background information for the study. These are followed by a statement of the problem, purpose of the study, research question, theoretical framework, significance of the study, conceptual design, and theoretical sensitivity. The parameters of the study, definition of the terms, and limitations of the study are also noted. This chapter concludes with a summary and organization of the dissertation.

Introduction

The No Child Left Behind Act (NCLB) of 2001 (2002) required states to disaggregate student data according to race, gender, and other criteria. Public schools were required to show growth, or adequate yearly progress (AYP), each year in each of the identified subpopulations: African-American students, Hispanic students, Caucasian students, limited English proficiency students, students with disabilities, and economically disadvantaged students. The requirements of NCLB forced schools to not only look at the overall progress of the school but also individual student achievement and progress toward closing the achievement gap (NCLB, 2002). Schools continue to face reform efforts as the demand for increased accountability has become the norm in the education community. Requirements for increased accountability have challenged schools to find ways to track and ensure academic progress for individual students as well groups of students.

In Arkansas, the NCLB mandate resulted in the passage of the Arkansas Student Assessment and Educational Accountability Act of 2004, or Act 35 (2004) as it is known among educators. Act 35 required the Arkansas Department of Education (ADE) to establish the Arkansas Comprehensive Testing and Accountability Program (ACTAAP). The program

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requires criterion-referenced math and literacy testing in grades 3 through 8, science testing in grades 5 and 7, and literacy testing in grade 11. End-of-course exams are also required in algebra I, geometry, and biology. In addition to the criterion-referenced testing, norm-referenced testing is required in grades 1, 2, and 9 (Act 35, 2004).

There were sanctions associated with not making AYP. Schools failing to meet AYP for two years were placed in year 1 school improvement. Subsequent years of failing to meet AYP resulted in being labeled year 2, year 3, year 4, or year 5 school improvement. Sanctions range from having to provide school choice and supplemental educational services to state takeover or dissolution of the school district (Act 35, 2004).

Background of the Study

DuFour and Eaker (1998) stated "the most promising strategy for sustained, substantive school improvement is developing the ability of school personnel to function as professional learning communities" (p. xi). Participation in professional learning communities builds the collective capacity of educators. Increasing the capacity of only a few of teachers will not create systemic school improvement. Focused, daily, ongoing learning for each and every teacher is necessary in order for teachers to deliver more personalized and precise instruction to students (Fullan, Hill, & Crevola, 2006). Subsequently, those students will experience greater achievement.

Much literature has been written about professional learning communities, and the idea is currently in vogue. The topic is often presented at national and state conferences. The term "professional learning community" has been used to describe various educational groups and has become generic. Many schools claim to be a professional learning community, but what does a professional learning community look like in a school setting?

Some definitions of professional learning communities focus on the people that comprise the group. McRel (2003) defined a professional learning community as a group of people that shares and critically questions professional practices in a collaborative, reflective way that is focused on learning and growth. Team members that regularly collaborate and are focused on continuously improving the way in which they meet learner needs are a professional learning community (Reichstetter, 2006). Stoll et al. (2005) defined a professional learning community as a group comprised of people who support one another and learn together new ways to improve their practice and enhance student learning. Educators that are committed to collaborating with one another and engage in an ongoing process of collective inquiry and action research in order to achieve better results for the students they serve is also defined as a professional learning community (DuFour, DuFour, Eaker, & Many, 2006).

Other definitions identify professional learning communities as a process, a strategy, or a type of school culture. Feger and Arruda (2008) define professional learning communities as a strategy for improving student achievement that focuses on creating a collaborative school culture that is focused on student learning. A professional learning community is an ongoing collaborative process by which educators seek and share learning with the goal of enhancing their professional practice for the benefit of the students (Hord, 1997). Protheroe (2008) defined a professional learning community as a school culture that values and maximizes the collective strengths of educators.

In absence of a universal definition, professional learning communities are often defined by the presence of certain characteristics (Stoll, Bolam, McMahon, Wallace, & Thomas, 2006). According to DuFour and Eaker (1998), professional learning communities have six characteristics:

- shared mission, vision, and values

- collective inquiry

- collaborative teams

- action orientation and experimentation

- continuous improvement

- results orientation

These six characteristics together equate to a collaborative effort among people with a common vision, mission, and goals. Actions are planned and executed in an effort to achieve those goals. Results are evaluated to determine if the goals have been met and if further or different actions need to be taken. Harris (2002) concluded professional learning communities are characterized by interdependent relationships and require a transformation from a group of individuals to a community identified by shared goals and understanding.

Statement of the Problem

In 2011, 480 schools in Arkansas were in some level of school improvement. For many of these schools, the combined population met AYP requirements in mathematics and/or literacy. Table 1.1 indicates that most of the schools in school improvement were meeting standards for the majority of their students in mathematics and/or literacy.

Table 1.1

Number of Arkansas Schools in School Improvement in 2011

| | | Number Meeting Standards for Combined Population | | |
Level of School Improvement	Number	Mathematics	Literacy	Both
Year 1	142	26	16	59
Year 2	88	12	11	36
Year 3	65	14	7	26
Year 4	50	11	9	19
Year 5	32	10	5	10
Year 6	36	5	3	9
Year 7	32	6	4	7
Year 8	28	6	0	2
Year 9	6	1	0	1
Year 10	1	0	0	0
Total	480	91	55	169

Note. Adapted from the Arkansas Department of Education 2010-11 School Improvement List.

Of the 480 schools in school improvement in 2011, 169 of them met AYP requirements for the combined population in both mathematics and literacy. School districts and schools in Arkansas have struggled to meet AYP for all subpopulations each year in literacy and math. Possible school subpopulations are African Americans, Caucasians, Hispanics, limited English proficiency students, students with disabilities, and economically disadvantaged students. Table 1.2 indicates that of the 169 schools in school improvement whose combined populations met standards in both mathematics and literacy, many failed to meet standards for their African-

American students, their students with disabilities, and/or their economically disadvantaged students.

Table 1.2

Number of Schools in School Improvement for Not Meeting Standards by Subpopulation in 2011

Subpopulation	Mathematics	Literacy
African Americans	22	19
Hispanics	12	9
Caucasians	0	9
Economically Disadvantaged	21	40
Limited English Proficiency	11	6
Students with Disabilities	43	36
Total	109	119

Note. Adapted from the Arkansas Department of Education 2010-11 School Improvement List. If a school fails to meet AYP for the combined population or one or more subpopulations for two consecutive years, that school is in school improvement. To be removed from the school improvement list, schools must meet AYP for the combined population and all subpopulations for two consecutive years (ADE, 2011). This requires schools to promote teaching with more precision and personalization. Professional learning communities provide the focused, daily ongoing learning for each and every teacher necessary to deliver this type of instruction (Fullan, Hill, & Crevola, 2006). It is still unclear what a professional learning community looks like, whether it helps improve student achievement, and, if so, how.

Purpose of the Study

This descriptive case study closely examined a professional learning community in an Arkansas middle school. The purpose of the study was to determine how the design of a professional learning community impacts teacher instruction in a middle school setting. This study identified the characteristics and processes of the professional learning community and determined their perceived influence on classroom instruction.

Research Question

How does the design of a professional learning community impact teacher instruction?

Theoretical Framework

An assumption of NCLB is the way to improve student achievement is to improve the quality of teachers and their work (Cochran-Smith & Lytle, 2006). Research supports this assumption. Effective teachers can have a profound impact on student achievement (Marzano, 2003). Effective professional development is also linked directly to student learning (Reeves, 2010). The challenge for schools in this era of increasing accountability is to improve teachers' content knowledge and instructional practices and subsequently boost student achievement.

Five dimensions or common practices of effective professional learning communities were developed by Hord (1997) and modified by Hipp and Huffman (2010). The Professional Learning Communities Assessment-Revised (PLCA-R) was developed to measure educator perceptions of a school's practices in relation to the professional learning community dimensions. The dimensions identified and defined by Hipp and Huffman (2010) include the following:

1. Supportive and shared leadership: School administrators share power, authority, and decision making, while promoting and nurturing leadership.
2. Shared values and vision: The staff share visions that have an undeviating focus on student learning and support norms of behavior that guide decisions about teaching and learning.

3. Collective learning and application: The staff share information and work collaboratively to plan, solve problems, and improve learning opportunities.
4. Shared personal practice: Peers meet and observe one another to provide feedback on instructional practices, to assist in student learning and to increase human capacity.
5. Supportive conditions: Relationships include respect, trust, norms of critical inquiry and improvement, and positive, caring relationships among the entire school community. Structures include systems (i.e. personnel, facilities, time, fiscal, and materials) to enable staff to meet and examine practices and student outcomes. (p. 13)

Collectively, these five dimensions of professional learning communities create a school culture and include practices conducive to adult and student learning.

In 1998, DuFour and Eaker published *Professional Learning Communities at Work: Best Practices for Enhancing Student Achievement*. This book identified six characteristics of professional learning communities: (a) shared mission, vision, and values; (b) collective inquiry; (c) collaborative teams; (d) action orientation and experimentation; (e) continuous improvement; and (f) results orientation. Though these six characteristics are very similar to the five dimensions of professional learning communities identified by Hord in 1997, it was the publication and widespread distribution of *Professional Learning Communities at Work* that introduced the concept of professional learning communities to the mainstream education community. As a result, many schools have implemented the professional learning community model in an effort to improve student achievement. This study will focus on these six characteristics identified by DuFour and Eaker (1998) and their impact on teacher instruction. Figure 1.1 indicates that professional learning communities influence teacher effectiveness in the classroom and, subsequently, student achievement.

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                    │  Teacher effectiveness has a │
                    │   direct impact on student   │
                    │  achievement.  Demands for   │
                    │ increased accountability have│
                    │   caused schools to look for │
                    │    ways to boost teacher     │
                    │      effectiveness and,      │
                    │    subsequently, student     │
                    │        achievement.          │
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Teacher effectiveness has a direct impact on student achievement. Demands for increased accountability have caused schools to look for ways to boost teacher effectiveness and, subsequently, student achievement.

How does the design of a professional learning community impact teacher instruction?

Professional learning communities is a model being touted as a means to increase teacher effectiveness and student learning.

Six characteristics of professional learning communities include:

shared mission, vision, and values; collective inquiry; collaborative teams;action orientation and experimentation;continuous improvement; results orientation

Figure 1.1. Theoretical framework of professional learning communities.

Significance of the Study

       The common mission of educational institutions and their members is to improve student

achievement. Educational leaders must identify ways to increase the collective capacity of the

teachers under their leadership and, in turn, improve student outcomes. Much research and

attention has been given to the creation of professional learning communities within a school to improve student achievement (DuFour & Eaker, 1998; DuFour, DuFour, Eaker, & Karhanek, 2004; Strahan, 2003). Many educators are unclear as to what a professional learning community looks like in school and whether or not it influences classroom instruction.

Conceptual Design

The conceptual design is intended to provide a clear concise visual of the steps of this qualitative study. Prior to conducting the actual study, the researcher gained cooperation from the district superintendent and the building principal to participate in the study. A middle school in a southern Arkansas town was selected as the study site due to its success in implementing professional learning communities and its availability to the researcher. In accordance with Institutional Review Board (IRB) guidelines, permissions were obtained from the district superintendent, the principal, the instructional facilitator, and selected teachers of the site school. Figure 1.2 shows the steps that were taken to collect data.
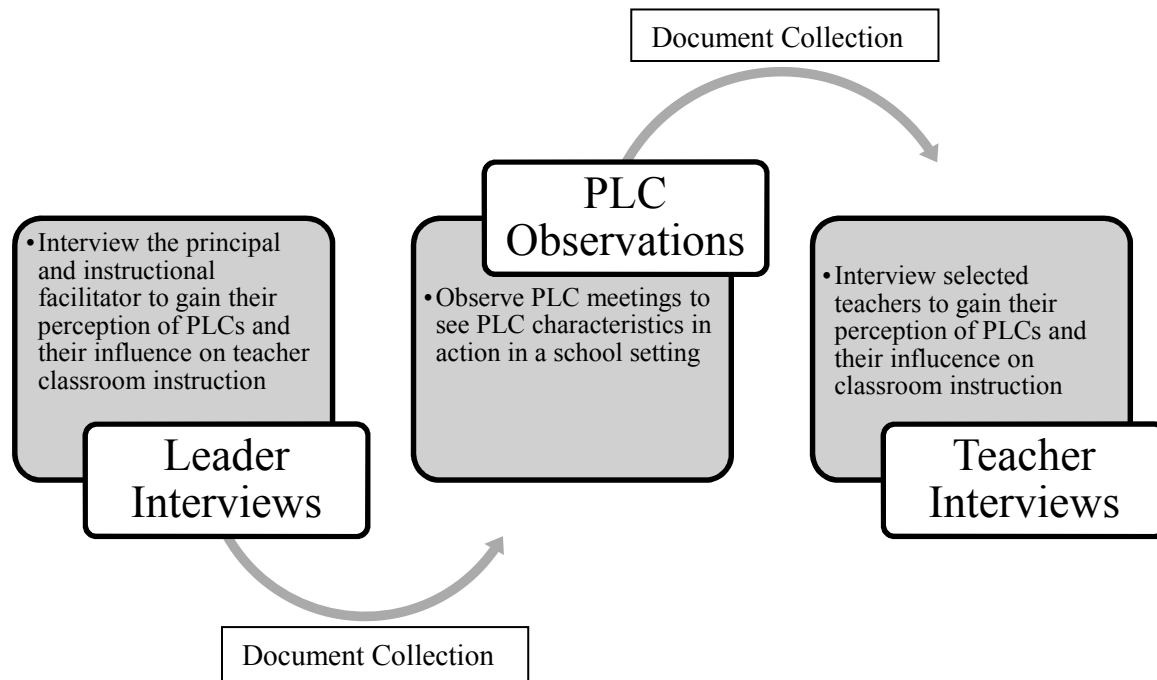
Figure 1.2. Conceptual design of this study.

  The first step of the study was to interview the building principal and the instructional facilitator of the site school for the purpose of gaining their perspective of professional learning communities and their influence on classroom instruction. These two individuals have received professional learning community training. They are responsible for implementing and facilitating professional learning community activities at the site.

  The second step of the study was to conduct observations of professional learning community meetings at the site school. The purpose was to see how a professional learning community functions in a school setting and observe professional learning community characteristics. Documents were collected for review throughout the study.

  The final step of the study was to conduct in-depth interviews with selected teachers. Teachers shared their perceptions of professional learning communities and their influence on classroom instruction.

Upon completion of the study, the researcher conducted a careful review of all collected data. The common mission of educational institutions and their members is to improve student achievement. By identifying how a professional learning community looks and whether it influences teacher classroom instruction, the findings of this study add to the literature and will benefit educators desiring to improve outcomes for students.

Theoretical Sensitivity

Theoretical sensitivity refers to the personal qualities of the researcher that impact his or her ability to understand and give meaning to the data. It is the unique insight that the researcher possesses and has gained through his or her personal and professional experiences, prior knowledge of the literature, and the analytic process.

Professional experience. The researcher has been a public school educator for 17 years. Seven years were spent as an elementary teacher, and three years were spent as an instructional facilitator whose primary duty was to implement professional learning communities at an elementary school. For the past seven years, the researcher has been employed as a building and district administrator in Arkansas.

Personal experience. The researcher is a life-long resident of Arkansas and attended public grade schools in the state. The researcher also attended a four-year public university in south central Arkansas and earned three education-related degrees (B.S.E., M.S.E., and Ed.S.) As part of graduate course requirements, the researcher has conducted prior research on the topic of professional learning communities. As a district administrator in an Arkansas school district, I have struggled to help schools meet AYP in all subpopulations each year in literacy and math. There are five schools in our district, and in any given year, at least one of them has been on the school improvement list. Beginning in the 2008-2009 school year, our district began requiring our schools to engage in the professional learning community model. Since that time we have

seen benefits that we believe can be attributed to the implementation of a professional learning community model.

Knowledge of the literature. As part of academic research and professional duties, I have read extensively on the topic of professional learning communities and attended trainings on the topic. Literature by Hord and DuFour are the works I most rely upon. *Professional Learning Communities: Communities of Continuous Inquiry and Improvement* (Hord, 1997) explores the concept of professional learning communities and lays the foundation for professional learning communities as we know them today. *Professional Learning Communities at Work: Best Practices for Enhancing Student Achievement* (DuFour & Eaker, 1998) is the seminal text that introduced professional learning communities to a wider audience of educators around the world and established the need for them in our schools. In 2011, DuFour and Marzano authored *Leaders of Learning: How District, School, and Classroom Leaders Improve Student Achievement*, which provided a blueprint for how to implement professional learning communities in a school system.

Analytic rigor. The following methods described by Lincoln and Guba (2005) were used to ensure the trustworthiness of this study: prolonged engagement, persistent engagement, peer debriefing, member checking, triangulation, and audit trail. Informal interviews, accurate transcription, and data-driven coding were also employed to ensure the analytical rigor of the study. Participants were encouraged to speak openly and freely during the interviews. Data were gathered from multiple sources.

Parameters of the Study

The site chosen for this study is a middle school in a southern Arkansas town. This selected middle school serves a diverse body of approximately 450 students in grades 6 through 8 and employs approximately 38 certified teachers and 2 administrators. This site was selected

due to the fact that the school was removed from the state's school improvement list after implementing professional learning communities and its availability to the researcher.

Ten educators were selected to participate in an in-depth interview. Each teacher participant teaches mathematics or literacy, regularly participates in professional learning community activities, and is responsible for preparing students for state standardized tests. The principal and the instructional facilitator responsible for leading and facilitating professional learning communities on the middle school campus were also interviewed. Participants were observed while engaging in a professional learning community meeting at the site school.

Limitations of the Study

This descriptive case study and any results were limited to one middle school in south Arkansas. Data were gathered from 10 voluntary participants. Those participants were asked to report their perceptions of professional learning communities. Additional data were gathered by observing participants engaged in professional learning community activities in the school and by reviewing collected documents.

Definition of Terms

Benchmark Exam - the criterion-referenced exam administered in the state of Arkansas in grades 3 through 8

Middle school - a school which serves grade 8 students

Professional Learning Community - a group of experts in a specialized field who work toward a common goal; in this case, improving student achievement

Student achievement - measured in terms of the percentage of students scoring proficient or advanced on the Arkansas Benchmark Exam.

Subpopulations – African-American students, Caucasian students, Hispanic students, limited English proficiency students, economically disadvantaged students, and students with disabilities

Summary

In this era of increasing accountability in the field of education, schools are driven to search for and implement strategies aimed toward improving student outcomes. The professional learning community model is widely touted as a means to improve teacher effectiveness and student achievement. Though many schools have devoted much time, energy, and resources to the implementation of the model, it is still unclear how the design of a professional learning community impacts teacher instruction.

Organization of the Dissertation

This dissertation is organized into five chapters, a references section, and appendices. Chapter 1 provided an introduction to the topic and background information for the study. Topics researched in Chapter 2, the review of literature, include recent history of school reform movements, the history of professional learning communities, characteristics of professional learning communities, teacher professional development, organizational learning, education change theory, and the impact of professional learning communities on school culture and student achievement. Chapter 3 presents the research methodology used for this study, including a description of the population, the data collection instruments and procedures, and the analyses. The data collected from the study are presented in Chapter 4. Chapter 5 provides a summary of the research and the results of the study, including recommendations for further research.

Chapter 2:

Review of Literature

Overview of the Chapter

Chapter 2 begins with a background of professional learning communities, the literature search strategy, and historical perspective. The review of literature explores the definition and characteristics of professional learning communities. Teacher professional development and teacher effect on student achievement are also examined.

Background

Like many ideas in education, professional learning communities began in the business sector and the belief that organizations are capable of learning (Thompson, Gregg, & Niska, 2004). Organizations that fail to keep pace with the rapid changes so common today will not survive. This rapid change cannot be managed by a few top-level managers but must become the responsibility of everyone within the organization (Burnes, Cooper, & West, 2003). Likewise, schools are currently facing such sweeping changes—changes in curriculum standards, changes in teacher evaluation, changes in assessment and accountability systems. School leaders alone cannot manage all these changes. As a result, it has become necessary for schools to become learning organizations and build the capacity of teachers to meet these challenges.

Currently, the accepted business premise is that collaborative dialogue and problem solving contributes to learning and capacity building within the organization and, in turn, boosts business results (Austin & Harkins, 2008). In schools, this translates to using collaborative professional learning community structures to increase teacher capacity and effectiveness and, in turn, boost student learning and achievement. Evidence suggests organizational learning strategies may benefit schools, even those facing the most challenges (Austin & Harkins, 2008).

In 1998, DuFour and Eaker published *Professional Learning Communities at Work: Best Practices for Enhancing Student Achievement*. The authors declared a need for a new organizational model in schools and identified six characteristics of professional learning communities: (a) shared mission, vision, and values; (b) collective inquiry; (c) collaborative teams; (d) action orientation and experimentation; (e) continuous improvement; and (f) results orientation. Though these six characteristics are very similar to the five dimensions of professional learning communities identified by Hord (1997), it was the publication and widespread distribution of *Professional Learning Communities at Work* that introduced to the concept of professional learning communities to the mainstream education community.

Much literature has been written about professional learning communities as this organizational model is widely considered to be a promising practice for improving schools and building the capacity of educators (DuFour & Eaker, 1998). In a review of literature, Vescio, Ross, and Adams (2008) stated:

> The collective results of these studies offer an unequivocal answer to the question about whether the literature supports the assumption that student learning increases when teachers participate in professional learning communities. The answer is a resounding and encouraging yes. (p. 87)

It is believed by many educators that professional learning communities will increase teacher effectiveness and student learning. But what exactly is a professional learning community, and what does it look like in a school setting? The term *professional learning community* has been used to describe any number of educational groups to the point it has become generic (DuFour, 2004b). School leaders are always looking for ways to improve their schools and outcomes for their students, so many have invested time, energy, and resources into creating professional learning communities. Creating and sustaining high-functioning professional learning communities is not done easily, quickly, or by accident. The creation of such professional

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learning communities is a result of dedication and hard work on the part of the administration and the teaching staff (Morrissey, 2000). Implementation of the model is hampered by the fact that there is confusion among educators as to what a professional learning community actually is and how it functions within a school. In dissertations by Aylworth (2012), Cassity (2012), and Jacobs (2010), a qualitative study, including teacher interviews and observations of professional learning communities in action, was suggested to gather more insight and understanding of professional learning communities and how they work.

Search Strategy

Electronic databases, including ProQuest, JSTOR, EBSCO, and Google Scholar, were used to locate relevant articles and books. The criteria used to select articles and books for this review of literature were: (a) relevance, (b) quality, and (c) scholarly nature. An article or book was deemed to be relevant if it was applicable to a school setting and valuable in answering the research questions or provided some historical perspective to the development of professional learning communities. A ProQuest search using the term *professional learning communities* yielded 6,117 scholarly articles. By working with a research librarian, the search was narrowed by the use of the terms *professional learning communities* and *middle school student achievement* and yielded 320 scholarly results. The ProQuest database was used to search for dissertations. Dissertations were selected for review using the following criteria: (a) relevance, (b) research method, and (c) findings.

The first category of literature reviewed was related to the progression of school reform initiative. The purpose of this literature is to provide historical context for the reader and to help the researcher understand how accountability measures for public schools have evolved into the current system. The cited research indicates that federal involvement in public education has increased over the years. It is no longer good enough to meet the academic needs of most

students; educators now must focus on the performance of subpopulations and the needs of individual students.

In the second phase of the literature review, the researcher sought to define and understand exactly what a professional learning community is and what it looks like in a school setting. The research yielded that there is no universal definition for professional learning community and that there is confusion as to how to implement the model in schools.

The third category reviewed was literature related to teacher professional development and teacher effect on student achievement. These topics serve as the theoretical framework for the study. Tables 2.1 and 2.2 provide an overview of the literature reviewed for the historical perspective of this study.

Table 2.1

Historical Perspective

Author	Research	Description
Callier, 2007	Journal Article	Examined states' progress toward meeting NCLB goals.
Cochran-Smith & Lytle, 2006	Journal Article	Provided a critique of NCLB and its implications for teachers.
Darling-Hammond, 2009	Journal Article	Provided a framework for President Obama's education platform.
DuFour & Eaker, 1998	Book	Provided an overview of school reform efforts.
Gardner, Larsen, & Baker, 1983	Journal Article	Provided a synopsis of the *A Nation at Risk* report.
Good, 2010	Journal Article	Provided a reflection of *A Nation at Risk* and its impact on school reform.
Grady, Helbing, & Lubeck, 2008	Journal Article	A typical school climate has a negative impact on teacher professionalism.
Johanningmeier, 2010	Journal Article	Provided historical context of education reform efforts.
Kantor & Lowe, 2006	Journal Article	Described the impact of social policy on education reform.
King & Bouchard, 2011	Journal Article	Described the importance of building organizational capacity to school improvement efforts.
Hanushek & Riven, 2010	Journal Article	Explored the impact of NCLB on teacher quality.

Table 2.1

Historical Perspective (cont.)

Author	Research	Description
Hunt, 2008	Journal Article	Assessed the impact of school reform movements from 1983 through 2008.
Manna, 2010	Journal Article	Described the latest education reform initiative.
Miller, 2000	Journal Article	Provided a summary of school reform efforts since 1983.
Murmane & Papay, 2010	Journal Article	Provided teachers' perspectives of NCLB.
National Association of State Directors of Special Education, 1994	U. S. Government Report	Provided a summary of Goals 2000: Educate America Act.
National Commission on Excellence in Education, 1983	U. S. Government Report	A landmark publication on the state of education in the U. S.
Stedman & Smith, 1983	Journal Article	Provided a review of school reform efforts to 1983.
Superfine, 2005	Journal Article	Provided a history of the federal role in education.
U. S. Department of Education, 2012	U. S. Government Report	Provided a history of the role of the federal government in education.

Historical Perspective

After World War II, it was recognized that the nation had entered a new era, one which required more knowledgeable citizens in order to remain a world superpower (Johanningmeier, 2010). Education began being viewed as essential to the nation's welfare, particularly in regards to military defense and economic strength. As a result, the federal government's role in education began to grow. Mathematics, science, engineering, and foreign language instruction were deemed more important as the nation engaged in the Cold War (Johanningmeir, 2010). With the launch of *Sputnik* by the Russians in October 1957 came a concern that American students were academically lagging behind students in other industrialized nations. In response, Congress passed the National Education Defense Act (NEDA) in 1958. The NEDA was the first comprehensive education legislation passed by the federal government and included better instruction of science, mathematics, and foreign languages at the elementary and secondary school levels (U.S. Department of Education, 2012).

In 1981, due to the public's perception that the nation's educational system was grossly inadequate when compared to the systems of other nations, the National Commission of Excellence in Education was created to study the quality of education in the United States (Gardner, Larsen, & Baker, 1983). In 1983, the commission published its findings in a report titled *A Nation at Risk—The Imperative for Educational Reform*. This report is widely considered to be the catalyst for recent waves of academic reform (Miller, 2000) and the great national debate on education (Stedman & Smith, 1983).

Based on the commission's findings, the report contained recommendations for reform including: strengthening high school graduation requirements, adopting more rigorous academic standards, expanding learning time, improving teacher preparation programs, and adopting accountability measures for educators and school leaders (National Commission of Excellence in

Education, 1983). This period of reform, known as the Excellence Movement, did not produce any new ideas; it simply called for increased efforts using existing practices (DuFour & Eaker, 1998).

The Charlottesville Education Summit of 1989 was a pivotal event in the history of the federal government's involvement in education policy (Superfine, 2005). The summit was a convention of the nation's governors for the purpose of discussing the state of education in America. The result of this summit was the adoption of six National Education Goals. These six goals became part of the Goals 2000: Educate America Act, which eventually was expanded to include the following eight goals to be reached by the year 2000.

1. All children in America will start school ready to learn;
2. The high school graduation rate will increase to at least 90%;
3. American students will leave grades 4, 8, and 12 having demonstrated competency in challenging subject matter—including English, mathematics, science, foreign languages, civics and government, economics, arts, history, and geography—and leave school prepared for responsible citizenship, further learning, and productive employment;
4. The nation's teaching force will have access to programs for continued improvement of their professional skills and the opportunity to acquire the knowledge and skills needed to instruct and prepare all American students for the next century;
5. U.S. students will be the first in the world in science and mathematics achievement;
6. Every adult American will be literate and will possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship;
7. Every school in America will be free of drugs, violence, and the unauthorized presence of firearms and alcohol and will offer a disciplined environment conducive to learning; and
8. Every school will promote partnerships that will increase parental involvement and participation in promoting the social, emotional and academic growth of children. (National Association of State Directors of Special Education, 1994, p. 6)

As a result of Goals 2000, the Improving America's Schools Act (IASA) of 1994 encouraged states to create standards, assessments, and accountability systems by requiring these as a condition for obtaining Title I funds.

Federal involvement in education and efforts to create educational accountability continued into the new millennium. *A Nation at Risk* was a general effort to call educators to action and left implementation of the suggested remedies to the education community; in comparison, the implementation of the No Child Left Behind Act (NCLB) was very targeted and specific (Hunt, 2008). At the heart of NCLB was an attempt to incentivize schools with the objective that all students meet a proficiency standard (Hanushek & Rivkin, 2010). Superfine (2005) stated:

> NCLB required states to use assessments for a variety of purposes that have never before been written into federal legislation. As a condition of receiving Title I funds under NCLB, states must hold schools and district accountable for their performance on the assessments. If schools and districts fail to make "adequate yearly progress" against performance goals they have set pursuant to NCLB requirements, administrative sanctions such as the institution of public school choice, the institution of supplemental services, and school restructuring are prescribed. So while some of the basic policy logic of NCLB is grounded in Goals 2000 and the IASA, NCLB appears to have a greater potential to restructure the U.S. education system. (p. 29)

NCLB required test data be reported by subpopulations, that all students be held to the same standards of performance, and that teachers be highly qualified. An assumption of NCLB is the way to improve student achievement is to improve the quality of teachers and their work (Cochran-Smith & Lytle, 2006). In general, teachers support the underlying principles of NCLB but express concerns that an unintended consequence of the law will be diminished quality of education (Murnane & Papay, 2010). Most educators considered getting 100% of students achieving at proficient levels by 2014 an impossible goal, with only two states on target to meet the goal of NCLB (Caillier, 2007). Educators are concerned that this goal includes students that have been identified as having a disability or that do not speak English; it is unfair to those students. Though reducing or eliminating achievement disparities between poor, minority students, and majority students is generally considered desirable, NCLB has been highly

criticized, with some complaining it minimizes local control of schools and will result in nationalized education (Kantor & Lowe, 2006).

It appears little has improved since the release of *A Nation at Risk* or even the *Sputnik* launch. In his first campaign for the presidency, Barack Obama called for dramatic education reform and noted the academic performance gap between students in the United States and students in other industrialized nations had widened (Darling-Hammond, 2009). Some attribute this lack of progress to the fact many reform initiatives do not address the critical need of building organizational capacity in low performing schools (King & Bouchard, 2011). It has been argued these reforms have had a negative impact on the teaching profession. As teachers have been subjected to increased scrutiny by administrators and awarded less autonomy, the level of teacher professionalism has declined (Grady, Helbling, & Lubeck, 2008). In recent years, policymakers, reformers, and researchers have begun to give attention to the organizational capacity of schools, particularly those with wide achievement gaps between diverse student groups (King & Bouchard, 2011).

Despite the lack of success, the federal government continues to attempt to initiate education reform. Race to the Top (RTT), the education initiative of the Obama administration, "plunges the federal government even further into the thicket of education reform and policy" (Manna, 2010, p. 113). RTT is a competitive grant program administered by the U.S. Department of Education. Prior to RTT, most federal education aid was distributed to states and districts using formulas. In order to be eligible for the RTT funds, states have to adopt rigorous standards and assessments, develop data systems, turn around the lowest performing schools, and improve the work of teachers and principals (Manna, 2010). The most controversial aspect of this initiative is the use of student test scores as a component of teacher evaluations.

The trend in recent history has been for increased federal involvement in education. Whether the cause is rooted in the economy, national defense, or politics, we have reached the highest peak of federal involvement in education policy in the last decade (Good, 2010). There is no evidence this trend will be reversed in the near future. Table 2.2 lists the literature reviewed to define professional learning communities.

Table 2.2

Definitions of Professional Learning Communities

Author	Research	Description
DuFour, DuFour, Eaker, & Many, 2006	Book	Provided information about PLCs and PLC implementation.
DuFour, DuFour, Eaker, & Many, 2010	Book	Provided a clearer definition of PLCs and their characteristics.
Feger & Arruda, 2008	Research Report	Provided a review of PLC-related literature.
Hord, 1997	Research Report	Described and defined PLCs.
McRel, 2003	Journal Article	Described key elements of PLCs and how to implement them.
Morrisey, 2000	Research Report	A review of PLC-related literature and lessons learned about the process.
Reichstetter, 2006	Journal Article	Defined and described characteristics of PLCs.
Protheroe, 2008	Journal Article	Described the PLC process and how to implement it in schools.
Stoll et al., 2005	Journal Article	Provided an overview of PLC

Definitions of Professional Learning Communities

The term *professional learning community* has been used to describe various educational groups and has become generic, leaving confusion among educators as to what a professional learning community really is. The confusion is not new. As far back as 1997, Hord stated the term *learning community* had different connotations and suggested the term *communities of continuous inquiry and improvement* to describe groups of school professionals engaged in the work of increasing their effectiveness in order to improve instructional benefits for students. Not everyone believes that the term needs clarification. Morrisey (2000) suggested the term is self-explanatory (p. 3).

Some definitions of professional learning communities focus on the people that comprise the group. McRel (2003) defined a professional learning community as a group of people who share and critically question their professional practice in a collaborative, reflective way that is focused on learning and growth. Team members that regularly collaborate and are focused on continuously improving the way in which they meet learner needs are a professional learning community (Reichstetter, 2006). Stoll et al. (2005) defined a professional learning community as a group of people who support one another and learn together new ways to improve their practice and enhance student learning. Educators that are committed to collaborating with one another and engage in an ongoing process of collective inquiry and action research in order to achieve better results for the students they serve is also defined as a professional learning community (DuFour, DuFour, Eaker, & Many, 2006).

Other definitions identify professional learning communities as a process, a strategy, or a type of school culture. Feger and Arruda (2008) defined professional learning communities as a strategy for improving student achievement that focuses on creating a collaborative school culture that is focused on student learning. A professional learning community is an ongoing

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collaborative process by which educators seek and share learning with the goal of enhancing their professional practice for the benefit of the students (Hord, 1997). Protheroe (2008) defined a professional learning community as a school culture that values and maximizes the collective strengths of educators. DuFour, DuFour, Eaker, and Many (2010) offered a more concrete definition of the term: "We argue that it is an ongoing process in which educators work collaboratively in recurring cycles of collective inquiry and action research to achieve better results for the students they serve" (p. 11).

There is no universal definition of professional learning community. Definitions of a professional learning community vary to a degree in the literature. Is it a process, or is it the members of the group? The common thread among all of these definitions is a focus on collaboration. The question still remains, what is a professional learning community? Tables 2.3 and 2.4 depict the literature used to review characteristics of professional learning communities.

Table 2.3

Characteristics of Professional Learning Communities

Author	Research	Description
Bostic, 2013	Dissertation	An evaluation of the implementation of PLCs in a large school district.
Calhoun, 2002	Journal Article	Described action research and its potential to transform professional development.
Cook & Faulkner, 2010	Journal Article	A case study of two schools and how they use common planning time.
Darling-Hammond & McLaughlin, 1995	Journal Article	Suggested policy changes to support effective professional development.
DuFour, 2004a	Journal Article	Described effective professional development.
DuFour, 2004b	Journal Article	Explores three ideas that support PLCs.
DuFour, 2012	Journal Article	Described effective implementation of the PLC process.
DuFour, DuFour, Eaker, & Many, 2010	Book	Described characteristics of PLCs.
DuFour & Eaker, 1998	Book	Described characteristics of PLCs.
DuFour & Mattos, 2013	Journal Article	A review of research that supports PLC process and culture.
Ediger, 1997	Journal Article	Describes a school culture that supports teacher and student learning.
Evans, 2012	Dissertation	Described and investigated teacher interpretations of PLCs.

Table 2.3

Characteristics of Professional Learning Communities (cont.)

Author	Research	Description
Guskey, 2003	Journal Article	Review of effective professional development characteristics.
Hord, 1997	Research Report	Described and defined PLCs.
Kohm & Nance, 2009	Journal Article	Presented strategies for a collaborative culture in schools.
Morrisey, 2000	Research Report	A review of PLC-related literature and lessons learned about the process.
Rentfro, 2007	Journal Article	A case study of an elementary school that utilized PLCs.
Sanders, Goldenburg, & Gallimore, 2009	Journal Article	A study of grade level teams in Title I schools and their impact on instruction.
Schmoker, 2004	Journal Article	Explained that PLCs are the best method for improving instruction.
Schmoker, 2006	Book	Outlined a plan for improving student achievement which included PLCs.
Seed, 2008	Journal Article	Suggested five conditions for improving the teaching profession.
Stoll et al, 2006	Journal Article	A review of PLC-related literature.
Thompson, Gregg, & Niska, 2004	Journal Article	A case study of six schools that utilize PLCs.
Vandweghe & Varney, 2006	Journal Article	Described the evolution of a PLC in a middle school.
Welch, 2011	Dissertation	Examined perceptions of PLCs and their effect on student achievement.

Characteristics of Professional Learning Communities

In absence of a universal definition of professional learning community, researchers have identified characteristics of professional learning communities. Hord (1997) identified five dimensions of professional learning communities: (a) supportive and shared leadership, (b) shared values and vision, (c) collective creativity, (d) supportive conditions, and (e) shared personal practice. The collective creativity dimension was later renamed the collective learning and application dimension. These are very similar to the characteristics later introduced by DuFour and Eaker (1998).

DuFour and Eaker (1998) identified six characteristics of professional learning communities: (a) shared mission, vision, and values; (b) collective inquiry; (c) collaborative teams; (d) action orientation and experimentation; (e) continuous improvement; and (f) results orientation. Due to the commercial success of *Professional Learning Communities at Work: Best Practices for Enhancing Student Achievement* (DuFour & Eaker, 1998), these six characteristics were introduced to and embraced by the mainstream education community. Later work expanded on those characteristics and provided more detail. In 2010, DuFour et al. listed the following six essential professional learning community characteristics: (a) a focus on learning, (b) a collaborative culture with a focus on learning for all, (c) collective inquiry into best practice and current reality, (d) action orientation: learning by doing, (e) a commitment to continuous improvement, and (f) results orientation. In an attempt to understand what these characteristics mean and how they may appear in a school setting, the researcher reviewed literature related to each individual characteristic.

A focus on student learning. The common mission of educational institutions and their members is to improve student achievement. In the best school systems, all activity is focused on student learning through the professional learning community process (DuFour, 2012).

Professional learning communities provide a framework for building high-functioning, collaborative teams of teachers focused on improving teaching and student learning (Rentfro, 2007). Educational leaders must identify ways to increase the collective capacity of the teachers under their leadership and, in turn, improve student outcomes. The professional learning community model has been touted as a way to meet this goal, but simply providing teachers with common planning time is not enough to improve schools. This common time must be focused on the academic needs of students (Cook & Faulkner, 2010). Professional learning community meetings will not help increase teacher effectiveness and improve student outcomes if the focus is on non-academic activities, such as duty schedules, teacher complaints, or a myriad of other topics a group of educators may want to discuss. Principals and teachers must focus on student learning if they want to improve student achievement in their school (DuFour & Mattos, 2013).

Collaborative culture with a focus on learning for all. Creating professional learning communities within a collaborative culture is the most effective strategy for improving teaching and learning in schools (DuFour & Mattos, 2013). Though a collaborative culture is important, isolation has been the tradition of the teaching profession. Traditionally, teachers have had the autonomy to teach what they want, when they want, and how they want behind the classroom door with little interference from school leaders and little, if any, sharing of professional knowledge among colleagues. Often individual teachers cannot change the culture of their workplace or greatly impact the quality of instruction in a school because the traditional structure of schools fosters isolationism (Darling-Hammond & McLaughlin, 1995). One teacher can only teach so many students. Teachers need to share their knowledge with one another and build the collective knowledge of the entire staff in order improve the teaching and learning in a school as

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a whole. Table 2.4 compares a collaborative culture with the isolationist, top-down culture

traditionally found in schools.

Table 2.4

Collaborative vs. Top-Down Cultures

	Culture	
	Collaborative	Top-Down
Characteristic		
Support	Teachers support one another's efforts to improve instruction.	Teachers discourage challenges to the status quo.
Problem Solving	Teachers take responsibility for solving problems and accept the consequences of their decisions.	Teachers depend on principals to solve problems, blame others for difficulties, and complain about the consequences of decisions.
Sharing of Ideas	Teachers share ideas. As one person builds on another's ideas, a new synergy develops.	Ideas and pet projects belong to individual teachers; as a result, development is limited.
Risk Taking	Educators evaluate new ideas in light of shared goals that focus on student learning.	Ideas are limited to the "tried and true"—what has been done in the past.

Note. Adapted from "Creating Collaborative Cultures" by B. Kohm and B. Nance, 2009, *Educational Leadership, 67*(2), p. 68. Permission for use granted by ASCD.

According to Kohm and Nance (2009):

> Teachers who work in schools with strong collaborative cultures behave differently from those who depend on administrators to create the conditions of their work. In collaborative cultures, teachers exercise creative leadership together and take responsibility for helping all students learn. (para. 2)

In a collaborative culture teachers take on more leadership and responsibility for their own professional learning and the learning of their students. It is through collaboration that teachers criticize practice in a constructive manner, reflect, and learn from one another (Seed, 2008). As teachers increase their professional knowledge and hone their craft, students benefit from better classroom instruction.

DuFour (2004a) contended a collaborative culture does not happen unintentionally or by encouraging or inviting participation. It is necessary for school leaders to create the structures and conditions that require teachers to work together. Seed (2008) noted, in order to improve teaching, teachers need time during the school day to collaborate. School leaders must build this time into school schedules and set expectations for participation in collaborative activities. The school's culture should communicate the message that collaboration among colleagues is required and expected of all (DuFour, 2004a). In order to reap the intended benefits, collaboration time should be structured and focused (Guskey, 2003). Structured collaboration, which employs the use of protocols, is critical to the effectiveness of teacher teams (Saunders, Goldenberg, & Gallimore, 2009). In order for professional learning communities to be effective, teachers have to be provided with necessary resources and trained how to collaborate in an effective manner. In dissertations by Welch (2011) and Bostic (2013), it was noted that professional learning community training for leaders and teachers would be beneficial for successful implementation of the model.

Collective inquiry into best practice and current reality. Schmoker (2004) asserts the best way to improve instruction in the classroom is to develop professional learning communities of educators who collaboratively examine and adjust their practices. If students are not performing well, the teacher needs to examine his or her practices and beliefs about students and

how students learn (Ediger, 1997). It is not enough to simply identify deficiencies in

instructional practice or student performance; educators in professional learning communities

take steps to improve their classroom instruction for the benefit of the students. Professional

educators are compelled to change when they examine data and student work and then critically

reflect on their instructional practices (Vandeweghe & Varney, 2006). Teachers view student

performance as a reflection of their teaching. If the students do not perform well on an

assignment or assessment, the teacher has the obligation to look at his or her own practice and

find ways to improve it. Colleagues within a professional learning community look for and

suggest strategies to help each other improve classroom instruction and student outcomes.

       Action orientation: learning by doing. In order to help students achieve at optimal

levels, calculated risk taking is needed in schools (Ediger, 1997). Educators must to be willing

to try new strategies if they want to get different results. Today, many K-12 schools are working

to become professional learning communities in which teachers collaborate and reflect on

teaching and learning and then take action to elevate student learning and achievement

(Thompson et al., 2004). This experimentation is purposeful calculated, and strategic. Action

research asks teachers to compare their current practices to the best research-based practices.

Teachers then take an educated risk, try a new strategy, and study the impact of the new strategy

on themselves and their students (Calhoun, 2002).

       A commitment to continuous improvement. Sparks (1994) asserted sustained effort

over a three- to five-year period, in which the entire school staff focuses on making small annual

improvements related to a school goal, is the key to school improvement (as cited in DuFour,

2004a). Meaningful change requires time, focus, and commitment from teachers and leaders.

Sweeping improvement in classroom instruction and student learning will not happen overnight, and it is important that schools celebrate small successes.

The professional learning community model is a promising strategy for building the capacity needed for continuous improvement (Stoll et al., 2006, p. 108). The progress of educational reform depends on the individual and collective capacity of teachers to improve student learning. Therefore increasing capacity is crucial to continued, sustainable school improvement.

Results orientation. Teachers can produce high levels of achievement for all students when working as part of a professional learning community focused on student results and continuous improvement (Morrissey, 2000). It is not enough for teachers to meet and casually discuss a wide array of topics. True teamwork requires teachers to meet formally on a regular basis and focus on instruction and adjust instruction based on assessment results (Schmoker, 2006). Using data to make instructional decisions is an important aspect of professional learning communities. Evans (2012) surmised that analyzing data, reviewing student work and then using that information to guide instruction contributes to student academic achievement.

Despite the attempts to define professional learning communities by essential characteristics, it is still unclear among educators what a professional learning community is and what it looks like in a school setting. Leading researchers on the topic acknowledge uncertainty among educators related to professional learning communities. According to DuFour (2004b), "The professional learning community model has now reached a critical juncture…initial enthusiasm gives way to confusion about the fundamental concepts, followed by inevitable implementation problems and the conclusion that the reform has failed to bring about desired

results…" (p. 1). Educators are unclear what a professional learning community is and are

unsure how to implement the model in schools.

Table 2.5

Theoretical Framework

Author	Research	Description
Bretz, 2012	Dissertation	Examined perceptions of advantages and disadvantages of PLCs.
Cordingley, Bell, Rundell, &	Journal Article	A review of the effects of collaborative professional development on teaching and learning.
Darling-Hammond & McLaughlin,	Journal Article	Suggested policy changes to support effective professional development.
DuFour, 2004a	Journal Article	Described effective professional development.
Fogarty & Pete, 2010	Journal Article	Described the seven protocols for effective professional development.
Guskey, 2003	Journal Article	Review of effective professional development characteristics.
Harada, 2001	Journal Article	Described effective professional development as collective inquiry.
Haycock, 1998	Journal Article	Examined teacher effects on student achievement.
Marzano, 2003	Book	Identified factors that influence student academic achievement.
Royce, 2010	Journal Article	Proposed changes in educator professional development.

Table 2.5

Theoretical Framework (cont.)

Author	Research	Description
Schmoker, 2006	Book	Outlined a plan for improving student achievement which included PLCs.
Strong, Ward, & Grant	Journal Article	Study of classroom differences between effective and less effective teachers.
Vescio, Ross, & Adams, 2008	Journal Article	A review of PLC-related literature.
Wright, Horn, & Sanders, 1997	Journal Article	Examined teacher effects on student achievement.

Theoretical Framework

It is the ongoing, job-embedded professional development teachers get from their professional learning community that is the key to improving classroom instruction. This professional development makes teachers more effective. Effective teachers have a significant impact on student learning and academic achievement.

Teacher professional development. Traditionally, the model for teacher professional development included every teacher, regardless of grade level and content area, participating in a one-time event where an outside expert disseminated information. In past decades, teacher training sessions have been unrelated to the individual needs of teachers (Royce, 2010). It has been a one-size-fits-all approach. In recent years the trend has changed. DuFour (2004a) declared the traditional concept of professional development as a single event that took place offsite has gradually evolved into the idea that the best professional development happens in the

workplace. The best professional development is job-embedded and specifically designed to give the teacher the knowledge and skills he or she needs to be a more effective instructor. In order to support new forms of professional development, schools must be restructured to foster active learning and collaboration among educators (Darling-Hammond & McLaughlin, 1995). Professional learning communities are structured in a way that supports this type of professional development. Bretz (2012) noted that participants perceived that the professional development they gained through their engagement in professional learning communities had a positive impact on their classroom instruction and student learning.

Effective professional development supports professional learning communities by building the capacity of the teaching staff to achieve the school's vision and goals, challenging them to act in new ways, focusing on results, and demonstrating a sustained commitment to continuous improvement (DuFour, 2004a). This leads the reader to query what constitutes effective professional development. After comparing 13 different lists of characteristics of effective professional development, Guskey (2003) noted building teachers' content knowledge and helping them understand how students learn content, as well as promoting collaboration and collegiality among teachers, are essential components of effective professional development. Teachers learn by collaborating with other teachers, examining student work, and reflecting on what they see. This enables teachers to improve their instructional practice and is, therefore, effective professional development (Darling-Hammond & McLaughlin, 1995). Teacher collaboration is at the heart of the professional learning community model. Cordingley, Bell, Rundell, and Evans (2003) found collaborative ongoing professional development had positive impacts on students and teachers.

Fogarty and Pete (2010) identified seven components or protocols of effective professional learning: collegial, sustained, job-embedded, interactive, integrative, practical, and results-oriented. Effective professional development challenges teachers to examine and reflect on their beliefs and practices and how those beliefs and practices impact student learning (Harada, 2001). In addition to being collaborative, effective professional development is focused on results and inquiry into best practices. These are also characteristics of professional learning communities.

Teacher effect on student achievement. It is not unheard of to attribute a student's lack of academic success to a student's demographics. Student factors such as poverty, race, gender, or being from a single-parent household have very little, if anything, to do with a child's ability to be successful in school. According to Wright, Horn, and Sanders (1997), "differences in teacher effectiveness were found to be the dominant factor affecting student academic gain" (p. 66).

Teachers and what they do in the classroom matters. Teachers are the common denominator in student success and school improvement (Stronge, Ward, & Grant, 2011). The quality of instruction that a student receives is the most important factor in student achievement (Schmoker, 2006). Effective teachers can accelerate student learning, whereas ineffective teachers can impede student learning. Typical achievement gain on standardized tests in one school year is 34 percentile points; the most effective teachers showed average gains of 53 percentage points in one school year, and the least effective teachers showed average gains of 14 percentage points in one school year (Haycock, 1998; Marzano, 2003). The cumulative effect of instruction from ineffective teachers can be devastating to students and their futures. If we, educational leaders, are committed to improving student outcomes, we must be committed to

helping teachers improve classroom instruction. Based on their review of literature, Vescio, Ross, and Adams (2008) noted a need for future research on the influence of professional learning communities on instructional practice and student achievement.

Summary of Review of Literature

Chapter 2 began with a background of professional learning communities and an overview of the literature search strategy. It also included a historical perspective relevant to school reform. The researcher believes this section provides important context for the reader and an understanding of how the education community arrived to where it is today. Since the end of World War II, the federal government has become increasingly involved in education policy, and public schools are experiencing an erosion of local control. Schools, feeling the pressure of accountability measures, are searching for ways to increase teacher effectiveness and improve student achievement.

In general, educators are uncertain what a professional learning community is or how it works in a school setting. This review of literature sought to define professional learning community. In absence of a universal definition of professional learning communities, researchers have identified characteristics of them. This literature review explored the characteristics of professional learning communities as identified by DuFour et al. (2010).

As the theoretical framework, the topics of teacher professional development and teacher effectiveness were examined. Traditionally, the model for teacher professional development included every teacher, regardless of grade level and content area, participating in a one-time event where an outside expert disseminated information. Effective professional development is collaborative, job-embedded, and ongoing; the professional learning community structure supports this form of teacher professional development. Teachers and the quality of instruction

they provide in the classroom have great influence on student outcomes. Helping teachers improve their professional practice is the key to improving student outcomes.

The literature is inconclusive and further research on the topic is needed. Dissertations by Aylworth (2012), Cassity (2012), and Jacobs (2010) recommended further research of professional learning communities. In particular, a qualitative study that includes interviews and observations is needed to better understand what a professional learning community is and how it functions in a school setting. Welch (2011) recommended further research on the influence of professional learning communities on teaching practice and student achievement. DuFour (2004b) states that there is confusion surrounding the key concepts of professional learning communities and the implementation of the professional learning community process in schools. This study is designed to answer the question, what does a professional learning community look like in a school setting?   The next chapter, Chapter 3, outlines the research methodology for this qualitative study.

Chapter 3:

Methodology

Organization of the Chapter

Chapter 3 outlines the research methodology for this qualitative study designed to determine what a professional learning community looks like in a school setting and whether there is a perceived influence of the professional learning community structure on classroom instruction. Chapter 3 provides an introduction of the topic, explains the focus of the study, and states the research questions. It also includes a description of the research design, participants, and data collection process. The process for conducting interviews, observations, and document collection is explained, as well how the site and sample were selected. Depth versus breadth of the study, the researcher's role management, and data management are examined. The following methods described by Lincoln and Guba (2005) to ensure the trustworthiness of a qualitative study were also described: prolonged engagement, persistent observation, triangulation, peer debriefing, member checks, and audit trail. This chapter will also include a summary of the qualitative methodology used to conduct this study of professional learning communities.

Introduction

The common mission of educational institutions and their members is to improve student achievement. Creating high functioning professional learning communities in schools is widely accepted as a necessary step to accomplishing that mission. But what does a professional learning community look like in a school setting? Principals and other school leaders must identify the characteristics of professional learning communities that improve student achievement.

Focus of the Study

The focus of this qualitative study was to identify and describe the design of a professional learning community in a school setting and describe the perceived influence professional learning communities have on classroom instruction. This qualitative study was designed to determine whether the teachers, instructional facilitator, and principal in a south Arkansas middle school could identify the presence of characteristics of professional learning communities in their school and the perceived effect of professional learning communities on classroom instruction.

This study was conducted in a middle school in south Arkansas that experienced notable gains in student achievement after reorganizing as a professional learning community. Study participants were teachers, the principal, and the instructional facilitator in the identified middle school. Data were collected via in-depth interviews with individual participants and observations of professional learning community meetings. Documents related to professional learning communities were collected and analyzed. Educational leaders may use the findings of this research to serve as a model for implementing professional learning communities in their schools.

Research Question

How does the design of a professional learning community impact teacher instruction?

Research Design and Timeline

This qualitative study examines the design of a professional learning community in a school setting and the perceived influence of professional learning communities on classroom instruction. "Qualitative research is a form of social inquiry" (Cohen & Crabtree, 2006c, para. 1) and is commonly used in applied fields, including education (Marshall & Rossman, 2006). Though approaches to qualitative research vary, qualitative research is generally interpretive and

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naturalistic (Cohen & Crabtree, 2006; Creswell, 2007). Qualitative methods allow the researcher to "build a complex, holistic picture" of the selected research topic (Creswell, 2007, p. 15). The researcher chose a qualitative research design for this study after considering these characteristics.

The established timeline for this study allowed the researcher ample time in the field to systematically collect data. The researcher spent approximately four weeks collecting data in the field by conducting observations and interviews; during this same period the researcher reviewed documents related to this study. The study was completed within a twelve-month period of time.

Participants

Ten participants were interviewed in-depth and one-on-one using a predetermined set of interview questions that were approved by the researchers' dissertation committee. The participants gave consent to participate in the study and were informed their participation was part of University of Arkansas doctoral research project. All IRB guidelines were met and followed throughout the research process.

Information rich participants were identified. Each teacher participant currently teaches mathematics or literacy in a public school setting, regularly participates in professional learning community activities, and is responsible for preparing students for state standardized tests. Each administrator participant, including an instructional facilitator, is responsible for leading and facilitating professional learning communities on the middle school campus. The intent of the study is to determine how the design of a professional learning community impacts classroom instruction in a public middle school setting.

Data Collection

Creswell (2007) stated, "There are four basic types of information to collect: observations, interviews, documents, and audio-visual materials" (p. 120). Data collection for

this qualitative study consists primarily of observations of professional learning community meetings and in-depth individual interviews with teachers and administrators at a middle school in south Arkansas. In-depth interviews were conducted with middle school teachers who teach mathematics or literacy who regularly engage in professional learning community activities, the principal, and the instructional facilitator that lead and facilitate those activities. Interviews were conducted to investigate the effect of professional learning community design on classroom instruction from the participants' perspectives and to gather data for open coding and theme identification. Each participant was observed while participating in a professional learning community activity and notes were scripted. In-house documents related to professional learning communities were also gathered and examined.

Interviews

Marshall and Rossman (2006) stated that conducting interviews requires that interviewers possess excellent listening skills and strong interpersonal skills. The interviewer must also be skillful at framing questions and gently probing the participant for elaboration. The researcher's prior training as a school counselor reflects these skills. School counselors are trained to be active, attentive listeners that also listen for what is not being said and to ask probing questions for greater understanding. The ability to make personal connections with others by being trustworthy and inspiring confidence is also a skill of a trained counselor.

The purpose of the questioning was to determine participants' perceptions of professional learning communities and their perceived impact on classroom instruction and student achievement. The aspects of professional learning communities discussed in the interviews were identified in the research analyzed for the review of literature on professional learning communities.

Each participant was a willing volunteer and signed an informed consent form prior to the observations and interviews. The purpose of the study was reiterated after each interview and observation, and confidentiality was maintained throughout the research process. Participants were informed of their right to withdraw their consent to participate at any time during the study.

Participants were first asked a question related to demographics. They were asked a question about each of the following six characteristics of professional learning communities as related to their school: shared vision, mission, and values; collective inquiry; collaborative teams; action orientation and experimentation; continuous improvement; and results orientation. Other questions were designed to elicit data about the perceived influence of professional learning communities on classroom instruction and overall impressions of the structure.

For this study, interviews were designed to be conversational and informal in nature, one hour or less in duration, and were conducted at a mutually agreed upon site. The purpose of this design was to create a setting where the participant felt comfortable speaking openly and honestly about their perceptions of professional learning communities in their school. The interviews were recorded using a digital recording device and transcribed at a later date.

Observations

According to Marshall and Rossman (2006), observation is an important qualitative data collection method and is useful "to discover complex interactions in natural social settings" (p. 99). Observations should be systematic and the researcher's role should by clearly defined, ranging from nonparticipation to complete participation (Spradley, 1980). My role was that of a complete observer or passive participant.

The data collection process began with interviewing the principal and instructional facilitator of the site school in order to gain their perception of professional learning communities and their influence on classroom instruction. Then participants were observed

while engaging in professional learning community activities during a regularly scheduled meeting. The purpose of the observations was to gather data about the interaction between participants in relation to the identified characteristics of professional learning communities. The researcher scripted field notes by typing data into a personal tablet and conducted the observation as a complete observer (Baker, 2006; Gold 1958). A complete observer is passive, unobtrusive, and does not participate with the subject to a great extent (Gorman & Clayton, 2005; Spradley, 1980). The third step of the data collection process was conducting in-depth interviews with teacher participants. Data collected through observations were used for triangulation and additional evidence to support the answer to the research question.

Document Collection

In-house documents related to professional learning communities were also gathered and examined. Collecting and analyzing the documents used in the course of everyday activities supplements the data gathered through interviews and observations (Marshall & Rossman, 2006). The documents gathered include:

- Meeting schedules

- Agendas

- Lesson Plans

- Sign-in sheets

- PLC handouts

- PLC products

- School test data

Site and Sample Selection

  The site for this study is a middle school in south Arkansas. The site school serves a diverse body of approximately 450 students in grades 6 through 8 and employs approximately 38 certified teachers and 2 administrators. This site was selected because the school was removed from the state's school improvement list after implementing professional learning communities and it is accessible for the researcher. The teachers, principal, instructional facilitator, and superintendent of the participants' school district were asked for consent to participate in the study. Participants were observed while engaging in professional learning community meetings at the site school.

  Ten information-rich participants were selected, including 8 teachers, a principal, and an instructional facilitator. Each teacher participant teaches mathematics or literacy, regularly participates in professional learning community activities, and is responsible for preparing students for state standardized tests. Of the eligible participants, the researcher chose a diverse sampling of teachers who were willing to participate with consideration to race, gender, content area, grade level and years of experience. Table 3.1 provides a description of the sample.

Table 3.1

Participant Characteristics

Characteristic	Number of Participants (n = 10)
Gender	
Male	2
Female	8
Race	
African American	1
Caucasian	9
Experience	
0-10 years	1
10-20 years	6
20 + years	3
Content Area	
Mathematics	4
Literacy	4
N/A	2
Grade Level	
6	3
7	2
8	3
N/A	2

Note. N/A refers to the principal and the instructional facilitator of the site school. They do not have any teaching duties and are not assigned to a grade level.

Depth vs. Breadth

The concept of depth was inherent to the design of this study. According to Tewksbury (2009), "Qualitative methods provide a depth of understanding of issues that is not possible through the use of quantitative, statistically-based investigations" (p. 39). In-depth interviews, observations, and a review of documents allowed the researcher to gather a full range of information and data relevant to the study of professional learning communities and their impact on classroom instruction and student achievement. The informal, open-ended interview protocol

allowed participants to expand their thoughts and allowed the researcher to achieve the desired depth of information.

Researcher's Role Management

A qualitative researcher collaborates and interacts with the study's participants and is, in fact, an instrument of the research. According to Marshall and Rossman (2006), "The qualitative researcher's challenge is to demonstrate that this personal interest—increasingly referred to as the researcher's positionality—will not bias the study" (p. 30). The researcher engaged in the research process and with participants as a professional interested in professional learning communities and their perceived influence on classroom instruction maintained an unbiased approach throughout the study.

The researcher conducted observations as a passive participant (Spradley, 1980), acting as only a bystander to the meetings that were observed. The researcher negotiated entry to the site and participants first by gaining permission from the district superintendent to conduct the study; permission was then granted by the principal to conduct the study on the middle school campus. Participation was strictly voluntary; consent was granted on an individual basis and could be revoked at any point by the participant. A level of trust had previously been established as the researcher is known to the participants.

The researcher recognized that the participants gave up their time in order to be interviewed and otherwise help the researcher understand the data. In turn, the researcher sought to be as unobtrusive as possible during observations and scheduled interviews at times and locations that met the needs of the participants. Interviews were conducted in a focused manner with respect to the participants' time.

The study was conducted in accordance with the University of Arkansas Institutional Review Board (IRB) guidelines. Participants were provided an informed consent form to

participate in the study as part of the letter to participants. A signed consent form was required for study participation. Participants were provided another copy of the informed consent at the time of the interviews and were reminded they could withdraw consent to participate at any time. No identifying information of individual participants or site school was disclosed in reports. At no time during the study were participants exposed to risks.

Managing and Recording Data

A digital recording was created for each interview; a transcript was created for each digital recording and was labeled appropriately. Each participant was given the opportunity to review the transcript for accuracy and provide any clarification. During the research process, data were kept confidential and the identities of the participants were protected. Participants were assigned a letter name; participants were identified by that letter name in the transcripts instead of their given name. No identifying information of the individual participants or the school site was used in any of the reporting.

Trustworthiness

Lincoln and Guba (2005) asserted that trustworthiness of a research project is important to its value and describes techniques that can be used to bolster trustworthiness in qualitative research. In this study, the following techniques were employed to insure the trustworthiness of the research: prolonged engagement, persistent observation, triangulation, peer debriefing, member checking, and the establishment of an audit trail. The research was conducted by a credible researcher; findings were based on reliable information gathered from credible participants.

Prolonged engagement. Prolonged engagement requires the researcher to "spend adequate time observing various aspects of the setting, speaking with a range of people, and developing relationships and rapport with members of the culture" (Cohen & Crabtree, 2006a,

para. 2) and provides scope to qualitative research. Data collection for this study was conducted over a four-week period. Prior knowledge on professional learning communities was developed through professional experiences and the review of literature for this study.

Persistent observation. Persistent observation provides depth to a qualitative study by requiring the researcher to identify the most relevant characteristics of the topic and focus on them in detail (Lincoln & Guba, 1985). In order to determine what is relevant, the researcher must be aware of and remain open to a variety of factors. All collected data were analyzed for inconsistencies; no data were eliminated based on any preconceptions of the researcher. Additional interviews and member checks were used to verify and review any data inconsistencies.

Triangulation. According to Cohen and Crabtree (2006b), "triangulation involves using multiple data sources in an investigation to produce understanding" and account that is "rich, robust, comprehensive, and well-developed" (para. 1). The primary data sources used in this study were in-depth participant interviews, observations, and documents. Observations of professional learning community meetings were conducted in their natural setting, while interviews were conducted at a mutually agreed upon location. In-house documents related to professional learning communities were collected and reviewed. The researcher completed the triangulation process using these multiple sources of data, increasing the trustworthiness of this study and its results.

Peer debriefing. Peer debriefing is a "process of exposing oneself to a disinterested peer in a manner paralleling an analytical sessions and for the purpose of exploring aspects of the inquiry that might otherwise remain only implicit within the inquirer's mind" (Lincoln & Guba, 1985, p. 308). As a technique for reducing researcher error, peer debriefing was used to uncover

any biases and assumptions on the part of the researcher. The process also helped identify errors in the data. The researcher frequently collaborated with other educational leaders concerning the research process, progress, and data.

Member checks. Member checking is a process of seeking feedback from participants, and it "involves taking data, analyses, interpretations, and conclusions back to the participants so that they can judge the accuracy and credibility of the account" (Creswell, 1998, p. 203). Interview transcripts and other qualitative data were shared with participants. These participants were given the opportunity to correct any errors, volunteer additional information, and clarify their responses.

Audit trail. An audit trail was established as a record of what was done in the investigation and as a process to verify the data (Cohen & Crabtree, 2006). Data were secured electronically on a designated data storage device owned by the researcher. Secured data include:

- Recordings of interviews
- Transcripts of interviews
- Observation field notes
- Collected documents
- Results of data and document analysis

Summary

Chapter 3 provides an overview of the research methodology for the qualitative study designed to determine what a professional learning community looks like in a school setting and the perceived influence of professional learning communities on classroom instruction in a middle school setting.

This descriptive case study closely examined a professional learning community in an Arkansas middle school. The purpose of the study was to determine how the design of a professional learning community impacts teacher instruction in a middle school setting. This study identified the characteristics and processes of the professional learning community and determined their perceived effect on classroom instruction.

Data were collected using three methods. Participants were observed during a professional learning community meeting on their campus. In-depth, individual interviews were conducted with the 10 willing participants. Lastly, relevant in-house documents related to professional learning communities were collected and analyzed to add depth of knowledge and triangulate the data.

The following techniques were employed to ensure the trustworthiness of the research: prolonged engagement, persistent observation, triangulation, peer debriefing, member checking, and the establishment of an audit trail. The research was conducted by a credible researcher; findings were based on reliable information gathered from credible participants.

The next chapter, Chapter 4, will include a presentation of the data and data analysis. Chapter 5 will summarize the entire study. Conclusions and recommendations for further study will also be presented in Chapter 5.

Chapter 4:

Presentation of the Data

Introduction

The purpose of the study was to determine how the design of a professional learning community impacts teacher instruction in a middle school setting. As a descriptive case study, it closely examined a professional learning community in an Arkansas middle school. This study identified the characteristics and processes of the professional learning community and determined their perceived influence on classroom instruction.

The site chosen for this study was a middle school in south Arkansas. The site school serves a diverse body of approximately 450 students in grades 6 through 8 and employs approximately 38 certified teachers and 2 administrators. Data were collected through observations of professional learning community meetings and individual in-depth interviews of 8 teachers of mathematics or literacy, the school's instructional facilitator, and the school's principal. Documents were collected as an additional source of data.

This chapter includes an analysis of the data and discussion of the key findings and major themes. Data collected from observations, interviews, and documents were used to answer the following research question: How does the design of a professional learning community impact teacher instruction?

Audience

The intended audience for this study included educators, educational leaders, and policy makers. As a doctoral student of educational leadership and a school district leader, it was important to the researcher to study a topic relevant to current education practices. Policy makers, educational leaders, and educators may draw conclusions about how professional learning communities impact teacher classroom instruction. This study also has implications for

educational leaders as they make decisions about how to structure professional learning communities for maximum impact and benefit.

Transcribed Interviews

Data collection for this study included in-depth interviews of 10 information-rich participants. The participants were interviewed individually using a predetermined set of interview questions that were approved by the researchers' dissertation committee. The purpose of the questioning was to determine participants' perceptions of professional learning communities and their perceived impact on classroom instruction. The characteristics of professional learning communities discussed in the interviews were identified in the research analyzed for the review of literature on professional learning communities.

For this study, interviews were designed to be conversational and informal in nature, one hour or less in duration, and were conducted at a mutually agreed upon site. The purpose of this design was to create a setting where the participants felt comfortable speaking openly and honestly about their perceptions of professional learning communities in their school. The interviews were recorded using a smartphone with digital recording capabilities and transcribed at a later date.

A digital recording was created of each interview. From the recordings, a verbatim transcript was created and labeled appropriately. Member checks were conducted; each participant was given the opportunity to review the transcript and add or delete information for the purpose of correcting or clarifying the record. All data were kept confidential throughout the research process, and identities of participants were protected throughout the study.

In presenting the data and results of this study, parentheses ( ) were used in place of identifying information of participants, locations, schools, school districts, and other individuals named in the interviews. Brackets [ ] were used to clarify common educational jargon and

provide context of the interview to the reader. None of the information presented in these brackets or parentheses altered the meaning of the information presented by participants during interviews.

Audit Trail Notations

Once data were collected, they were analyzed and classified into themes through a manual process of open coding which included a comprehensive review of the interview transcripts and observation field notes. Hand coding was used to analyze the data and identify primary topics and concepts or open codes relevant to the study. Open codes were grouped into like categories, leading to the identification of six axial codes. Collected documents related to the study were also examined. The axial codes were analyzed and categorized based on their connections to one another; this process led to the identification of three selective codes.

Participants were recorded and identified by the coding system. Audit trail notations were used for participants. Teachers were identified as T, followed by letters A through H. The instructional facilitator was identified as IF, and the principal was identified as P. In this chapter, information supplied by participants, including direct quotes, are identified by the participant notation and page number. For example, (TA/2) means that the information can be found on page 2 of Teacher A's interview transcript. Observations are identified as OBS, followed by a number. Documents are identified as DOC, followed by a number. Tables 4.1 provides a list of audit trail notations for participants, observations, and documents.

Table 4.1

Audit Trail Notations

Notation	Participant or Artifact
Interviews	
TA - TH	Classroom Teacher
IF	Instructional Facilitator
P	Principal
Observations	
OBS1	7th Grade Literacy Team Meeting - 10/08/2014
OBS2	6th Grade Literacy Team Meeting - 10/08/2014
OBS3	8th Grade Literacy Team Meeting - 10/08/2014
OBS4	6th Grade Math Team Meeting - 10/09/2014
OBS5	8th Grade Math Team Meeting - 10/09/2014
OBS6	Book Study Session – 10/15/2014
OBS7	7th Grade Math Team Meeting - 10/09/2014
OBS8	6th Grade Math Team Meeting - 10/21/2014
Documents	
DOC1	Meeting Schedules
DOC2	Meeting Agenda and Sign-In Sheets
DOC3	Student Experience Article
DOC4	Instructional Analysis
DOC5	Curriculum Maps
DOC6	Instructional Facilitator's Meeting Notes
DOC7	Lesson Plans

Presentation of Axial Codes

Axial codes began to emerge from the data collected from observations, interviews, and documents. These original axial codes were further analyzed, reclassified, and combined into six major themes that will serve as the axial codes for this study. Figure 4.1 illustrates the axial codes and open codes that were identified in a review of the collected data.

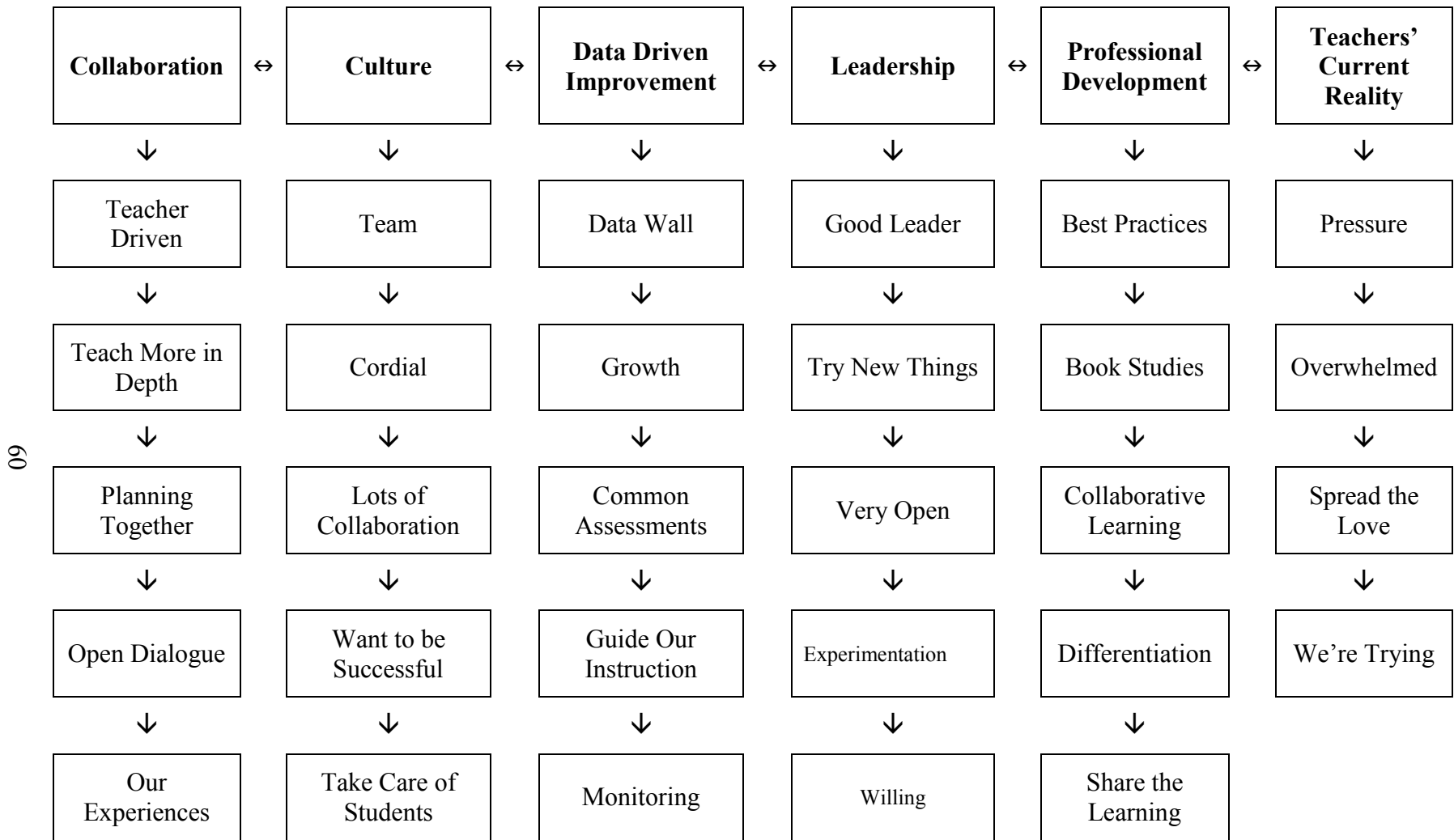| Collaboration	↔	Culture	↔	Data Driven Improvement	↔	Leadership	↔	Professional Development	↔	Teachers' Current Reality
↓		↓		↓		↓		↓		↓
Teacher Driven		Team		Data Wall		Good Leader		Best Practices		Pressure
↓		↓		↓		↓		↓		↓
Teach More in Depth		Cordial		Growth		Try New Things		Book Studies		Overwhelmed
↓		↓		↓		↓		↓		↓
Planning Together		Lots of Collaboration		Common Assessments		Very Open		Collaborative Learning		Spread the Love
↓		↓		↓		↓		↓		↓
Open Dialogue		Want to be Successful		Guide Our Instruction		Experimentation		Differentiation		We're Trying
↓		↓		↓		↓		↓		
Our Experiences		Take Care of Students		Monitoring		Willing		Share the Learning		

Figure 4.1. Axial Codes and Sample of Open Codes of Participants

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Descriptive Matrix

Table 4.4, a conceptually clustered matrix, is a presentation of the axial codes or major

themes by participant. Data collected from interviews, in the form of direct quotations, are

displayed in the table and support the axial codes.

Table 4.4

Descriptive Matrix: Axial Codes (Major Themes)

Participant	Collaboration	Culture	Data-Driven Improvement	Leadership
P	When looking at any kind of collaboration, the core is always student success, these kids, and what we're doing right and what we're doing wrong.	So I began to change that culture [of a traditional junior high school], because I wanted my faculty to have that thought [mindset of] "let's get out of the box, let's do what's best for kids, let's be a risk taker."	Data wall, data wall, data wall [laughs]. It's all data driven. As an administrator, I look at data, as far as this particular past school year, in the spring. I was studying my data, and I made some huge changes. I took some risks and I changed some teachers from grade level to grade level. I moved some teachers from a social studies class to a math class.	I'm sold on PLCs. I think the key, as an administrator, is [that] I've made it happen. We've been able to make it happen through my administration. My superintendent, my curriculum superintendent…I mean those folks have supported me. If I had not had the support of my administrators, it wouldn't have happened.
TB	Well, I like them [PLCs] because we're not meeting with the whole group of teachers anymore. We pretty much just meet with the literacy teachers, and we get right down to it.	So, there's constantly this culture of "let's make it better."	We usually hash out test scores. You saw some of that. We discuss which kids need more monitoring and maybe some re-teaching.	Sometimes you just have to go for what you believe in. I think our leadership here is willing to do that. She always stands up for her teachers.

Table 4.4

Descriptive Matrix: Axial Codes (Major Themes) - Cont.

Participant	Collaboration	Culture	Data-Driven Improvement	Leadership
TC	With a PLC, I feel like we're all free to, kind of, bring up our own thoughts and ideas, and we discuss those and we don't shut each other down.	They [colleagues] give me strength sometimes to get through my day, knowing that they've got my back, that they're there to help me. I guess, just being able to walk in the door, I feel more confident maybe, because I know that we all are there for each other.	I think, kind of, going back to the way we look at the data, and we discuss what's working and what's not working. I think that we're always looking for ways to do things better and improve things.	We have a leader that is forward thinking, and she does what she thinks is best for kids, even if she knows that sometimes she's going to catch some flak from the community or other leaders. And because she is so willing to step out on faith and to do what she thinks is right, I think, she's got our trust, so we're willing to follow.

Table 4.4

Descriptive Matrix: Axial Codes (Major Themes) - Cont.

Participant	Professional Development	Teachers' Current Reality
P	We studied Carol Ann Tomlinson's [book] on differentiated instruction. We did that study through our professional learning communities, through our leadership teams. We worked with our co-op [Educational Service Co-operative] in our district. We had the GT lady come and give us lots of good stuff on differentiated instruction.	If they [teachers] need to collaborate and make changes, they do. And it's been a little bit comical to me; they're a lot harder on themselves than I could ever be on them. They're critical, but teachers want to make 100%. They want that "A".

Table 4.4

Descriptive Matrix: Axial Codes (Major Themes) - Cont.

Participant	Professional Development	Teachers' Current Reality
TC	We got some really good ideas [from professional development sessions] that we're trying to incorporate this year…we as teachers are trying to improve. And if you have a culture where all of your teachers are trying to improve daily then your school's naturally going to improve…	It's kind of hard to look at Benchmark data and go "they're kind of weak on this [skill] when they're not necessarily the skills they're going to be tested on with PARCC" [new state assessment]. So, it's a little more challenging, I think, this year.

Note. Examples of quotations collected during interviews by axial code.

Findings and Major Themes

Findings are presented in this chapter as six major themes. Each theme emerged through systematic analysis of data collected for the study. The data included observations, in-depth interviews, and documents collected by the researcher throughout the study. This qualitative study focused on the impact of professional learning community design on instruction. The major themes that emerged from this study were collaboration, culture, data-driven improvement, leadership, professional development, and teachers' current reality.

Collaboration. The first theme that emerged from the data analysis was collaboration among colleagues. The collaboration was both formal and informal in nature and ongoing to the point that it was considered business as usual at this south Arkansas middle school.

Professional learning community meetings were scheduled in advance and during the school day (DOC1) and included a preset agenda and sign-in sheets (DOC2). The meetings were organized and facilitated by an instructional facilitator (OBS1). Formal professional learning community meetings were held in a room that had been dedicated for that purpose. It was a comfortable adult workspace with no distractions (OBS3). To guide the work, a variation of the four essential questions of a professional learning community was posted: What is it that we want our students to know? How will we know if they are learning? How do we respond if individual students do not learn? How will we enrich and extend the learning for students who are proficient (OBS1)? This sets the tone and purpose for the professional learning community meetings. Teacher F stated:

> You're having a professional meeting. There are standards for that. I think ( ) and also ( ) set those standards and I feel like we have a sense of professionalism, more so than we do just sitting around the lunch table, and different conversations can be had with that. (TF/4)

Teacher G referred to this process by stating:

> We meet at least once a month, sometimes more often, especially after we take a chunk test or a TLI [interim assessment created by The Learning Institute]. Then just our literacy teams will meet or the math teams, just whoever has finished TLI, and we go over the scores, see who's low, who's on grade level, who's on the right track. We also do our AIPs [academic improvement plans]. We talk about those--who needs one, who has one, you know, what we need to work on during those PLCs. (TG/2)

Professional learning communities provide a built-in system of accountability. According to Teacher C, "And I feel like with your PLCs, we all make each other more accountable" (TC/5). The design of professional learning communities on this campus was purposeful and has evolved over the years. The principal described how it began:

> So, I was given the opportunity to receive the DuFour training on professional learning communities. Again, that was a big plus for me, because I went and thought this is what we need to do at ( ). So I bought into professional learning communities, and we began at ( ), at the time with a leadership team. Let me kind of explain how that works. We did the leadership team meeting once a month instead of the faculty meeting, and I picked a person from each period of the day...the period that person had conference...and those people became my leadership team. We rotate this every year. They meet once a month after school. The next day--I love acronyms--we had our G.L.U. meetings. Now G.L.U. Stands for ( ) Leadership Updates. And what this leadership team does is they take my agenda, they take my information and they meet with those particular teachers on that particular conference period. No one has to stay after school. The teachers are fresh. And it has been a win-win situation for me at ( ). At this time is also when we've added a book study, so we try to collaborate and grow professionally during this hour a month, and it's been very successful. In 2001, if that rings a bell, that was No Child Left Behind. To be perfectly honest, we jumped right in year 1 as our alert year, and we got up to about year 4, and we changed our culture again with professional learning communities for grade level teachers, for different core teachers. We'd have math meetings, literacy meetings. I was able to do this by being able to move a teacher from a classroom into my facilitator's position. We grew together. From that change, we also birthed our first data wall. We've come miles and miles since that first data wall. And it was actually a data wall only for literacy, because at that time that is what we had not met. On the No Child Left Behind, you had to meet both the math and the literacy. So, we continued to grow on our school improvement numbers. It was terrible for me. I didn't like that. So we began meeting and charting kids on cards, colorful cards, and following student achievement. And if I had not been given the opportunity to have the PLC training and the knowledge that I did, this would have never happened. (P/2)

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Participants perceived that the professional learning community meetings were more focused on their professional needs as opposed to traditional faculty meetings. Teachers perceived the professional learning community meetings as beneficial. Teacher A stated:

> Yeah, it's been targeted to what we're doing. I mean, I don't think I've ever left a meeting thinking, "Well, that was a waste of time." You know, there has always been at least one thing that I felt was beneficial. (TA/5)

Teacher H asserted, "We discuss teaching strategies, teaching techniques. We discuss more, more along the lines of helping the teacher, not so much just building or district issues. We discuss more along the lines of professionalism and teaching" (TH/1). A teacher described the difference by stating:

> Well, in my experience, they're [PLCs] more teacher-driven. We come in and have a conversation really based on our experiences with whatever skill we're working on at that time. The faculty meetings are more principal or administration-led. We're just gathering information or being told new responsibilities, like, what we're having to take care of. This [PLCs] is more about what were experiencing in our classroom presently and, kind of, really just comparing what we're experiencing compared to what our partner teachers are experiencing, trying to see if there is any common denominator or if there's something we recognize as maybe an issue that we can maybe approach in a different way just based on each other's own experiences. (TA/1)

Other teachers perceived the PLCs as more intimate than traditional faculty meetings. This small group intimacy lends itself to more sharing among teachers. Teacher A stated, "I think we're more open to suggestions and criticisms. I wouldn't say criticism. I've never felt criticized by anybody" (TA/5). Teacher F goes on to say:

> They're more personal. I like it because we can talk about within our group; we can talk about what's necessary, what's important. They, uh, so I feel like more people actually have a voice, where traditional faculty meetings I felt like were kind of punishment. We were just sitting there, and it was always after school, and then the bus drivers don't have to stay. I felt like we were just going through a routine, getting information just because it had to be done. But the last several years we've done the PLCs, I feel like, it was, I don't know, more centered around us and our needs, and let's get the information out that we need and then let's talk as colleagues and collaborate at a different level. (TF/1)

Teacher C echoed these thoughts by stating:

I just feel like you get, that you're more productive, honestly. You do get to sit down and actually talk. There's...it's just more intimate. That is the word I'm looking for, because we you go to a grade level or faculty meeting you do just feel like you're being talked at or to and told what to do. And these PLCs, our principal comes to us and she says, "What would you do about this? Or what do you think about this? How do you think we should approach this?" We all discuss what we think the best thing for the kids would be. And I like that better than just being talked to all the time. (TC/1)

In addition to the formal, structured collaboration of professional learning community

meetings, teachers regularly participated in informal collaboration with one another, including

cross-curricular planning and discussions. Teacher E described this by saying:

The literacy department works together very closely. We have our different styles of teaching, but we work to meet the Common Core Standards. So, we collaborate a lot to make sure that what we're doing is right on track and see if each other has something the other could use to help. Our science and history and math, all of us, at some point in time try to make our lessons coordinate together. So, if history is working on a particular age, a particular decade or something, we will try to find literature. We will see what is connected with math or see what is connected with science and math. We work together in that way. (TE/2)

Teacher B confirmed this by stating:

But, ( ) and I, who teaches across the hall, we might as well say we're co-teachers because we meet every single day and talk about, "What points are you going to make today? Well, I'm going to do this. Well, how are you going to do that"? And it makes it so much better. I think we feed off each other which makes us stronger…. It's a hard thing to do if you don't get along with somebody, if your personalities...we do get along, and it just makes life so much easier. Some days I can't think of anything new, a new way to approach it, and she does. Or she'll come to me. "I don't know what to do today." I'll go, "I've got today." You know, so I think we work really well together, same thing with math. Oh, my gosh, ( ), last year we had...how could we tie science into this? She came up with this project and we tied it in. We did the research paper on it, and she had the project. I mean, we work really well together. Um, ( ) last year, a social studies teacher, she would do the Civil War then we would read The Red Badge of Courage. I think we work really well together. (TB/2)

Teacher D supported these statements but raised a concern that not all teachers get the

opportunity to collaborate in this manner. She stated:

And so, I meet with my grade level through our PLCs once a month. We're also, right here, the math and literacy teachers are all centered on this hallway, and we have the same schedules. So we collaborate quite a bit, just on our own. So, within that, math and

literacy are brought together a lot. I think that science and social studies teachers tend to feel a little bit neglected – especially the social studies teachers, and then our "specialists" I guess they call them at the lower grades….career orientation, art, music, PE. I feel like they….I know…I know some of them tend to feel like they're not quite as….viewed quite as important in our school. Which I think is a big downfall that we need to fix. (TD/3)

All this collaboration had a single purpose—to improve student learning outcomes. The instructional facilitator asserted:

We focus on data. We focus on collaboration. We focus on strategies that they can use with their students.   So, sometimes we make announcements and give school news or information kind of like a faculty meeting, but it's mostly focused on student achievement. (IF/1)

Collaboration was ongoing and present in different forms. Some collaboration was formal and structured with an agenda and facilitated by the instructional facilitator. Other collaboration was informal and unstructured, such as hallway discussions among teachers. Teachers enjoyed the intimacy that small group meetings provided and felt that it allowed everyone the opportunity to share thoughts, ideas, and concerns in a safe setting.

Culture. Culture was the second theme that emerged from the data analysis. Culture can be defined as the attitudes, beliefs, and customs of a group of people, in this case, a middle school in south Arkansas. The principal described the school culture prior to professional learning communities:

It was just a collection of independent contractors. We all followed the same bell schedule. We had the same parking lot. We didn't share. We didn't talk about students. So I didn't like that because middle school teachers are sharing. They're more open. So as I became principal I knew I needed to make a culture change at ( ). (P/1)

A quote attributed to Michael Fullan was posted in the professional learning community meeting room and related to the importance of a culture of collaboration in this middle school:

Effective leaders with moral purpose don't do it alone. And they don't do it by hiring and supporting "individuals." Instead they develop and employ the collaborative… The collaborative, sometimes know as professional learning communities (PLCs), gets these

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amazing results because not only are leaders being influential, but peers are supporting and pressuring one another to do better. (OBS1)

The culture was this school is marked by supportive relationships among colleagues.

According to Teacher E, "I think they're [PLCs] necessary, and I feel like I am more connected with my fellow teachers in my grade by having them" (TE/4). The instructional facilitator supported teachers by offering her assistance (OBS2). Teacher C stated:

It's not that, "It's just your problem and you shut your door and, you know, you deal with it." We all discuss kids, the problems that we're having. I think if there is an issue that comes up we all kind of brainstorm and talk about it and I just... We feel like a family honestly. I mean, I think that we're...I'm fortunate because I don't think that all schools and all districts have that feeling, but I think that if it's a problem one of us have [is having], we're all having it. (TC/2)

Mutual respect among colleagues and between the faculty and administration is also present.

Teacher G stated, "She'll [the principal] discuss with us, kind of pick our brains, what we the might need to do, or do we have any new ideas about how to address a certain problem or situation." (TG/2) Teacher D went on to say:

Another example – there's an issue that some of us 7th grade teachers are having with some of our students that we've come together and discussed a few different avenues to handle it. We sought each other out privately, just some of us talking about it – not in front of the students – and then going to some other teachers and seeing if they can help with an issue that we're having. I think that there is respect among….I think we respect one another and one another's opinion. So, looking into…., we've gone so far as…., without getting into what this issue is, we've gone so far as to look into whether or not it's just a developmental issue or if it's a physical issue, and talking to the coaches about what's happening, to see if there's something medical that's going on with these children. And, I mean, we've explored different avenues together….I hadn't even considered the medical aspect until another teacher brought it up. So, that sharing and then looking into the different reasons for it, I think we do well with that. (TD/2)

The culture of this school was one of success. According to the principal, "Success is contagious. We got excited. The more we moved academically, the more we wanted to move" (P/3). This included success for students and adults alike. According to Teacher A:

Well, I think we all want to be successful. And a lot times people think that means straight A's for everybody, but that's not what we're focused on. It's not a..., and in a

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perfect world that'd be the case, but what were concerned with as a school and, I know, as a math team that I work with, we're trying to move our kids up, up the scale. We don't want to just maintain. (TA/1)

Teachers enjoyed being leaders in the field of education and actively sought ways to improve their craft and student outcomes. Per the instructional facilitator, "We are always looking for new ideas. We are always looking for improvement" (IF/3). Teacher B described this:

We like being at the forefront, and I think that is a culture in our town. It's just part of the nature of how we, kind of, function. And so it's an everyday thing. Like I said, I talk to my co-teacher everyday and we're constantly trying to think of new things to do to make us better, to make our kids better, to make our school look better, to make ( ) look better. That's just part of our culture. (TB/4)

The culture of this school was also student focused. Teacher H states:

We are all about the students. We believe that all students can learn; all students can improve. Not to be cliché but no student is left behind. I mean, we want every student to improve in their scores whether it be the Benchmark and now the PARCC. (TH/1)

This focus was not solely on academics, but on students' other needs as well. Teachers and administrators were mindful about how students experience school (DOC3). According to Teacher D, "I think there is a whole group mentality to helping the whole child" (TD/2).

According to Teacher F:

I feel like that is a big goal that we want them [the students] to feel confident, self-confident, all learners at all levels. It's not just the GT or AP kids…that all of them leave here with an acceptance, a belonging, a way, I don't know, to be resourceful. (TF/1)

Teacher C supported this belief by saying:

You have to get to know the kids, know the situation, and what can you do to help them. You know, if you've got a kid that you know doesn't have food and you can tell he hasn't eaten that morning, then get them something to eat. Just caring about the kids and not just the numbers, get to know the kids and what their circumstances are. I feel like that all leads toward improvement and striving for improvement. (TC/4)

Teachers understood the challenges that students approaching adolescence face. Teacher D asserted that teachers took these factors into consideration:

And, obviously, I think every school values improving their math and literacy scores – preparing them for the tests they are going to take, preparing them for college and beyond. But, because middle school is such an awkward age – it just is, there's no other way to say it [laughing] – I think that we also work a lot on their social and emotional well-being. And, that is something that I think all the teachers approach differently. But, I think we're very cognizant of that when we talk about things when we get together. (TD/1)

This school's culture was characterized by supportive relationships among adults and a desire to be successful and continuously improve. The adults in this school cared about students and were focused on the needs of the whole child.

Data-driven improvement. The third theme to emerge was the use of data in making instructional decisions. This included decisions made at the school level by the building leadership and at the classroom level by the teacher. The school principal stated, "We're driving the train through data. In just about everything I do, I use my data, because when you make a data-driven decision, who can argue with that" (P/6).

Teachers systematically tracked individual student progress using a data wall or assessment wall. The wall was set up at the beginning of the year based on the summative assessment data from the previous spring. The information was updated throughout the year based on interim assessment data. According to Teacher B, "We do that whole data wall. You've seen all that. Time consuming, but I think it's worth it, because once you get to see it you know what you're dealing with" (TB/4).

Teacher A stated:

I've mentioned the data, the data wall, and our team meetings. We're constantly, upgrading, updating the data for each individual student, so, again, it's not, "Hey, let's look at the whole group and see where we are." We're looking at each individual person. We're trying to identify needs in certain areas. So, academically, that's one of the main things that we're doing to try to constantly improve. We're constantly looking at that data. (TA/3)

The data wall also provided a way to track the progress of identified subpopulations. Teacher C

asserted:

> Again, I think you have to go back to the data wall and looking at the data. We look at it
> and analyze it. We don't just go, "Oh, here's a number and put it on the card." We
> actually look at the kid and talk about, "What do we know about this kid? Are they
> economically disadvantaged? Are they male--especially African-American male? Are
> we closing that gap on these particular kids? What skills, in particular, does this kid
> lack? Do we see a common theme between these kids?" And then we work, we strive to
> close that gap, to make sure those skills have been taught and, hopefully, mastered. And
> so, as long as you're looking at the data and you're working toward trying to close that
> gap and trying to touch those skills that maybe they did not get for whatever reason then
> you're working toward improvement. (TC/4)

The data wall provided a readily accessible visual representation of the current data. It was

housed in the professional learning community meeting room; it was not visible to students,

parents, or other visitors to the building. Teacher G supported this:

> I have to admit, I'm going to say the assessment wall again. We have these...each child's
> Benchmark score on there from the previous year, and that kind of let's is see where we
> need to go for the next year. We put our chunk test scores on there to gauge, to see if
> we're improving or not improving. It's just all right there on that one card. You don't
> have to go dig and try to find different information. We use that assessment wall daily,
> weekly, monthly to see where we need to go or do we need to retrack or whatever. That's
> probably our biggest tool that we use, and it's just right there in front of you anytime you
> want to go look. (TG/3)

> The interim assessment data were used by teachers to identify instructional strengths and

weaknesses. Based on the data, teachers decided what students required remediation or what

skills needed to be re-taught to the whole group in order to improve student outcomes. Teacher

E described this process:

> Well, everything that we do is driven by data. We spend a lot of time...we take TLI tests
> which are...It's a company that helps us to take interim assessments to get us ready the
> final one, in this case PARCC. And we take the information from each of those tests that
> we take throughout the year and we apply it. We look at the data see who is or where....
> Mostly the data is used for to say, well, this strategy or this skill is your lowest one and
> what can you do differently in teaching that would help improve that. (TE/3)

Teacher H supported this statement by saying:

> We are constantly looking at data, constantly looking at data. We do meetings almost once a week with our math team, and we record data, we look at the data from our TLI tests, from Benchmark testing. The other 8th grade math teacher and I look at our weekly quizzes that we give. And we are constantly analyzing the data to help is formulate future plans. You know, where do we go from here? What needs to be bolstered? Where have we succeeded? Where have we not succeeded? (TH/2)

Teacher D went on to say:

> In our meetings over the past 4 or 5 years, every time we have a TLI assessment, we come together afterwards, we go through the data, we see where our weaknesses are, we chart how the students are doing…. We are very focused on…I think we are very focused on looking at our strengths and weaknesses, and really looking more at our weaknesses, as is everybody who is trying to improve. (TD/4)

> Analyzing the interim assessment data also provided a way to monitor the curriculum.

Teachers analyzed the data using an instructional analysis tool (DOC4 & Appendix I) to determine if performance on a particular standard indicated a problem with the curriculum or the instruction. They decided whether to devote more time to teaching a particular skill, re-teach the skill using a more effective strategy, or identify instructional gaps between grade levels. The instructional facilitator described this process:

> Basically, what we do we take the teacher's...each teacher has data for each class period that they have tested with The Learning Institute test that they have made. We have several module tests we give throughout the year. The teachers arrange the standards in the order that they want them so that they have some idea of what's going to be on the test. And really the teachers are using the TLI tests, the modules tests to drive their instruction. So, after they take the test, we're able to print off the results for each teacher for each class period, and then they graph it and map it. Based on the percentage the kids scored on each standard, they can see if they need to go back and re-teach the standard. They can see if it was an issue with their textbook. Then they know when this spirals back around that maybe I need to go deeper with it. So it's just a tool they can use to help the, tweak their instruction with the students. (IF/3)

For example, as a result of the instructional analysis of a 7th grade math interim assessment (DOC4 & Appendix J), the teacher decided to continue to teach operations with integers (OBS7) to her students. The majority of students did not score well on test items related to operations with integers. She spoke to 6th grade math teachers and found out that students received little

instruction in operations with integers at the 6th grade level. The teacher also chose to continue

to work on fraction concepts with students due to a concern that students may have missed some

of these concepts due to implementation of new curriculum standards.

Teachers decided what skills would be taught, what skills would be assessed, and at what

point in the year they would create the curriculum maps each spring. The interim assessments

were created based on the information teachers supplied for the curriculum maps (DOC5).

Based on data, they decided whether or not to revise the map for the upcoming school year. The

instructional facilitator stated:

> We do track our data. We're very data driven. With TLI, with Benchmark it helps keep
> us... We're teaching what needs to be taught. We pace it. We really take time with our
> curriculum map to make sure were getting everything done that we need to. And then
> look back and see where do we need to remediate, what do we need to do. (TF/4)

It was apparent that using data to make instructional decisions is prevalent in this school.

Every participant mentioned the data wall. They perceived the data wall as an effective way to

track individual student progress to meeting proficiency goals. Analyzing data, particularly

interim assessment data, helped teachers make instructional decisions to improve teaching and

student outcomes.

Leadership. Leadership that is supportive of teachers and students emerged from the

data analysis as a major theme. This support was exhibited in a variety of ways. Teacher A

described a principal that provided the time and resources he needed to do his job well:

> We're able to teach more in depth and not as rushed, and it has not always been that way.
> And I think that, the way that is oriented, as far as scheduling [extended periods for
> literacy and math] is concerned, I think that is a big plus. Um, but, also our principal is
> very open, and if we need something, she'll find a way to get it, regardless. As long as
> she understands that it will be used to benefit our kids and the teachers too. (TA/4)

The principal was a risk-taker and willing to try new things if they were good for students.

Teacher H claimed, "Well, we have experimented with different levels of classes in the past, and

( ), our principal, is phenomenal at stepping out and trying new things" (TH/2). According to the principal:

> My faculty would buy in on that with me because they knew I was a risk taker. My superintendent knew I was a risk taker. And at times it could be scary, but we had charted these kids and know the data. Don't ask me how I know the data. When you study it and look at the cards [on the data wall], you just remember stuff like this. But you help them [the teachers] believe and understand that you're with them. You're all on the same team. I really believe it's a team effort. It's a buy-in; it's a team effort. I think they [the teachers] trust me 99% of the time. I've gotten a little crazy at times, but if it works… If it's good for all kids and it works and we show improvement, we're going to do it at ( ) until I'm told not to, then I'll stop, but I am a risk taker. (P/4)

Teacher B noted that teachers also supported the principal. She stated:

> That was a little scary, but I think we had a good leader who was ready to jump out there and try it [raise expectations for all students]. All of us supported her, and it worked. Sometimes you just have to go for what you believe in. I think our leadership here is willing to do that. She always stands up for her teachers. (TB/3)

In addition to taking risks, the principal encouraged others to experiment and try new things.

Teacher F said:

> I definitely feel like we are supported as to...yes, definitely whether it's the way we deliver the instruction, whatever we need. It's always, it's never…( ) is always..."What do you need?" She is going to find a way to help us meet our needs as far as whether it's technology, whether, you know within her powers. She definitely encourages us to think outside of the box. (TF/3)

This support also came from the instructional facilitator (DOC6). Per Teacher G:

> She's [the instructional facilitator] always coming up with new ideas, new plans. You know, "Let's try this." She's sending us websites all the time. "Try these different strategies." We get a lot of resources from our principal and our instructional facilitator. I mean, they're always pushing us to try and improve the students or just new stuff, new ideas. Trying to get us to help improve the students and academics in whatever way we can. (TG/3)

This culture of taking risks filtered down to the classroom where teachers were "trying to build culture among students that it's okay to take risks and be wrong" (OBS4). Also, "kids are starting to ask questions and take risks in class," which teachers have encouraged (OBS5).

The students and their needs were at the center of decision making. Teacher D noted, "I'm always very impressed at…I guess….my administration's way of making it work, finding a way to make it all come together, so that students get what they need" (TD/4). The principal was trusted to make decisions that were good for students even if those decisions were difficult or unpopular. Teacher C stated:

> We took a lot of flak a few years back when we went to this whole differentiation, and I feel like it was something that we did that was a good move for the kids, but we have a leader that is forward thinking and she does what she thinks is best for the kids even if she knows that sometimes she is going to catch some flak from the community or other leaders. And because she is willing to step out on faith and to do what she thinks is right, I think, she's got our trust, and so we're willing to follow. (TC/2)

Teacher D supported this statement and went on to say:

> I think that my administration has made some tough choices in rearranging some of the teachers and some of the faculty in order to improve the achievement of the students. And they haven't gotten caught up in the feelings of anybody. And it's been uncomfortable at times, and it was difficult last spring when just one particular issue happened. But I respect that it didn't matter, because we had to do it. The students' best interest needed to be what was considered, and not anything else. (TD/5)

The principal assumed the role of the instructional leader of the school. According to the instructional facilitator, "We use our math and literacy PLCs as a way to drive the instruction for the school. A lot of times ( ), our principal, is in those meetings" (IF/2). The principal made instructional decisions and chose the direction the school would take, though teachers sometimes disagreed with the decisions. Teacher E explained, "Our principal chooses them [book study topics] for us. Sometimes what the principal thinks is important is probably not what we needed the most" (TE/3). Leadership was important to the school's success. The instructional facilitator stated:

> It's the principal being the instructional leader, and then the fact that we have collaboration among the teachers where they share ideas and they go back and try those ideas and tweak their instruction, that's what makes this whole thing go. (IF/4)

The principal in this south Arkansas middle school was supportive of the faculty, acted as

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the instructional leader, and encouraged new ideas. Some of the support was tangible in the

form of providing teachers with the resources they needed to do their jobs well. Other support

was of the moral variety. Decisions were made in the best interest of the students.

Professional development. Through the data analysis process, professional

development emerged as a major theme. Professional learning communities provided a structure

for teachers to share, discuss, and plan implementation of strategies and skills learned at

professional development sessions. Teacher C stated:

> We share that stuff [knowledge gained from professional development sessions] with
> each other and talk about, "Hey, this summer I saw this. What do you think about trying
> this this year?" I know that the science teachers in this building have done some really
> cool stuff this year with the kids that they learned this summer. And I think as long as
> you are willing to kind of step out and try some of these things. If you go to all these
> professional developments and don't try to incorporate any of it, you're not, I mean,
> you're wasting your time. You're just sitting there. Yes, you're getting your hours, but
> why go and not try to use some of the information you're given? (TC/4)

The discussion and sharing of information in professional learning communities helped keep

teachers abreast of current issues in education. According to Teacher B:

> I do feel like sometimes we meet a lot, and we don't get our conference time. But it's
> good that we do meet a lot. I feel like I'm more aware than most people [teachers from
> other districts]. Even in my classes [graduate-level courses] now, I'm going, "I already
> know this stuff." And there are teachers going, "What are they talking about?" "Ha, ha,
> ha, that's old news for me." (TB/3)

This school does a book study every year and it became apparent that this book study was

an important part of teacher professional development on this campus. The book is selected by

the principal and covers a current topic of importance for that school. The principal explained:

> We studied Carol Ann Tomlinson's [book] on differentiated instruction. We did that
> study through our professional learning communities, through our leadership teams. We
> worked with our co-op in our district. We had the GT lady come and give us lots of good
> stuff on differentiated instruction. That was quite interesting because we were on the
> knowledge level. We were just all out there. But we knew what was good for the best is
> good for the rest. So we had to change our culture, and our teachers had to get out of
> their seat and get on their feet and we had to get students engaged. We've done the

Tomlinson's book study. We've done the Danielson book study--Charlotte Danielson's book with the basic introduction to the teacher [pause], TESS [Teacher Excellence and Support System]. I went blank. You know what I'm talking about. Now we're again doing another Tomlinson book. The name is <u>Assessment and Student Success in a Differentiated Classroom</u>, which links right closely with PARCC and CCSS. (P/3)

Every certified staff member participated in the book study. The structure forced teachers to

read and study current professional literature. Teacher D explained:

And I think we've evolved as we've had them [PLCs] here in terms of what we're going to work on and what we discuss. I also think that they're [PLCs] probably like anything else in life – you're going to get out of it what you put into it. I like the idea that I can learn something new. I like that it's forcing me to do some reading, and some book studying, and to think about my practices a little bit more, and to bring in some new ideas. I think it's probably most beneficial to the teachers who've been doing this for a really long time, that are kind of out of education…it's just another kind of way to refresh us and challenge us a bit. (TD/9)

Every teacher had the responsibility for sharing and discussing information learned from the

featured text (OBS6). Teacher E stated:

Well, I'm not sure, but the fact that we are doing a book study in our PLCs... From that we each are assigned a chapter of whatever book we're doing. This year we're working on one about differentiation, and I guess that would be how we're collectively researching and drawing in information that we need. Whenever we are discussing one of these chapters, everybody in my PLC adds their two cents worth and brings what they know to the table. (TE/1)

Teacher A further described the process:

So we had open dialogue about the book. Each one of us covered one chapter. So we kind of get to share the learning, and it allows us to cover a broad area but not one person be overwhelmed with all of it. One day you're explaining, the other you are getting to absorb it. (TA/4)

The book studies have proven to be a method for helping teachers further develop their

professional knowledge and improve their skills. The instructional facilitator explained:

Well, this year the book is <u>Assessment and Student Success in a Differentiated Classroom</u>. Last year, I know we did, we used Charlotte Danielson's book on teacher evaluation and the TESS stuff. We have used <u>Working Smarter, Not Harder</u> [<u>Never Work Harder than Your Students</u>]. All of those books are ways we use to help the teachers grow professionally and help them think outside the box. A lot of times, they'll

get a new strategy or a new idea from the book study. It's kind of their way to share and encourage each other professionally. It's just another way for them to develop their professional knowledge. (IF/2)

Teachers wanted to improve professionally and book studies have been helpful in achieving that goal. Teacher H stated:

> We all look at our, as a teacher, our results, want we're doing, what we can do better. We're constantly looking for professional development we can go to better ourselves. And our book study…the books that we've had the last 3, maybe 4 years, have been really helpful in that. (TH/3)

Teacher G also attested to the benefit of book studies. It this case the study helped clarify expectations for teachers. She said:

> The most beneficial [PLC strategy] would probably most definitely be the book study. Not every book has been the most exciting but definitely there have been some that helped. When we did the one on Charlotte Danielson [Enhancing Professional Practice: A Framework for Teaching] last year, it helped out with TESS [common name for new teacher evaluation system] quite a bit. I know it's just a guideline, but sometimes it explained exactly what category...3a, 3b [teacher evaluation rubric component]...exactly what that looks like. Like I said most of the time we were doing it, we just didn't know what it was. (TG/4)

Teachers have learned strategies from the book studies that they have been able to employ in the classroom. Teacher A illustrated this:

> It [the differentiated assignment] allowed for them to use their own strengths to accomplish the same goals just in a different way. But we learned that [differentiation strategies] from the book that we read last year, which comes from our PLC meetings. (TA/4)

Teacher G went on to say:

> In the PLCs we learn different strategies, more teaching, what we can do to help our kids. We do a book study. We did one a couple of yours ago dealing with differentiation, and I wasn't sure at the time what differentiation was in the classroom, and that kind of help define it more specifically for me. (TG/1)

The knowledge gained from the books studies impacted classroom instruction (DOC7).

According to Teacher F:

Definitely though the book studies…I think those...we almost kind of dread it and stuff, but in the end, they really do [shape classroom instruction]. The last…this one I'm really looking forward to. We're already into two chapters on assessment. And just the introduction...it's how I felt as far as assessment. Then the differentiation strategies… (TF/4)

Professional learning communities supported teacher professional development in a variety of ways. They provided a forum for teachers to share the information they gained from outside sources, and they helped teachers stay abreast of current topics in education. This school incorporated a book study into their professional learning communities. Teachers stated that this was beneficial to developing their professional knowledge and had an impact on classroom instruction.

Teachers' current reality. The last theme identified from the data analysis was teachers' current reality. The sense that being a teacher today is difficult and stressful was palpable. According to Teacher C, "So, it's a little more challenging, I think, this year" (TC/2). It was difficult for a variety of reasons.

Teachers were responsible for teaching new curriculum standards, Common Core State Standards, while still grasping to fully understand what those standards mean and require of teachers and students in the classroom (DOC 5, OBS4, & OBS8). They were particularly concerned about teaching skills to the necessary depth. During professional learning community meetings, teachers questioned and discussed whether they were "teaching to the depth needed for complete understanding" (OBS7 & OBS5). Teacher A stated:

It [instruction] was more of a cookie cutter, I guess. And now we're really going into it thinking, "What is a way that we can approach this that we can use a broad stroke but still get the same depth that we need of understanding, and make sure we reach as many kids as we can?" That's how we go in to it thinking now, whereas, in the past, we didn't. It was more of a "Hey, this is how I learned it, and this is how I am going to teach it and want you to do it." (TA/5)

The instructional facilitator ascertained that this was common concern for literacy and

mathematics teachers in all grade levels. She stated:

> A lot of what I heard with 6th grade, 7th grade, 8th grade, everyone that came and did
> their instructional analysis, and even with the literacy teachers is, "I did not teach this to
> the depth that it was tested, so I know that as I teach this as it comes back up in my
> curriculum, I'm going to have to go deeper." And, so, it has the teachers having to look
> for ways to go deeper with the students. (IF/4)

> Teachers were also coping with a new testing and accountability system. They were

struggling to prepare students for a test they have not seen before (OBS2, OBS3, & OBS5).

According to Teacher B:

> Oh my goodness, we do a lot of stuff. We talk about future tests, what might be on the
> test, how we're going to approach the test, all this new testing, and PARCC [Partnership
> for Assessment of Readiness for College and Careers; common name for new state
> assessments]. We talk about how we're going to practice those tests even how much
> bandwidth and technology and how that's going to work. (TB/3)

Every school in the state of Arkansas has a proficiency target or annual measurable objective

(AMO) they are expected to meet each year. There are ever-present pressures to meet these

accountability requirements. The instructional facilitator stated:

> Uh, we also, of course, what drives the data wall is our TLI module test information that
> we get from the students. I guess this is about our second or third year we've had our
> annual measurable objectives from the state. Of course, it is tailored to ( ) based on three
> years data and where they think we should be as a school district. That, of course, is our
> main goal we are striving to reach each year at the end of the year. (IF/4)

Because the accountability system focused on mathematics and literacy performance, the

school's focus was largely on mathematics and literacy. Per Teacher H, "We focus largely on

literacy and mathematics, but we also have wonderful arts programs as well" (TH/1).

Mathematics and literacy teachers felt burdened with a lot of responsibility and stress. Teacher

B suggested, "Let's all get together and make this work, and don't put all the pressure on one or

two teachers, because we [mathematics and literacy teachers] do feel a lot of pressure….So, it

does feel like you're in a pressure cooker" (TB/7). It was an ongoing challenge to meet these standards. The principal explained:

> When you're working with TLI data and Benchmark data, you're comparing apples to oranges. Every year is different so what we're trying to do is look at our data from each year to year. We get kids that some years are not as strong as the kids we just taught. I mean, as educators we know that is going to happen, but we go back to the professional learning community. (P/5)

It was an expectation that all teachers will collaborate with colleagues. According to the principal, "Number one, I have not given the teachers a choice [about participation in professional learning communities]" (P/6). Teachers spent a lot time in collaboration with same-grade, same-subject colleagues. Teacher B ascertained, "There's a lot of collaboration within our core subject" (TB/3). There was not a lot of opportunity for interaction and collaboration with other teachers on campus. Teacher H stated, "It would also be nice to meet with the entire faculty or different groups of the faculty instead if just the one group every time" (TH/3). Teacher F concurred, noting that "each month, you see the same people and they are typically the people you eat lunch with, so I don't get a lot of input from the other grade levels because it's just our grade level" (TF/5).

Teachers had many responsibilities and tasks competing for their time. Though teachers believed that devoting time to professional learning communities was beneficial, it was still difficult for them to give up time during the day. The instructional facilitator explained:

> I think one of the struggles is just the fact that we have to have it during their conference period, because they think it is their time, and they don't like having to give up their time. That was in the beginning, you know. Of course, we've done it so long now they just know it's an expectation and they don't complain about it. (IF/5)

Teacher G supported this statement by saying, "there's so many things we feel like are more important to do during the day, and that [filling out cards for the data wall] is important, but it's also time consuming" (TG/4). Teacher E went on to say:

It's [PLC meeting] during our conference period time, and with everything were having to do these days, it's...you just get frustrated sometimes because you either need to be grading something or turning in your communication log and getting it together. There are just so many things that take up that much time… (TE/4)

Teachers did not always enjoy analyzing their assessment data. According to the instructional facilitator, "They're not crazy about always looking at their numbers and looking at their data, you know, because sometimes it's uncomfortable. Sometimes it's ugly" (IF/5). That can be demoralizing. Teacher B explained by saying, "and I know when we go in there that we have to look at the negative because that's what we have to work on, but we don't ever celebrate the positive and that gets you down" (TB/8). The work of a classroom teacher is difficult, and some felt underappreciated. Teacher B stated:

And sometimes as administrators, they're not in there every day grinding with those kids. They just see the number, and they forget behind those numbers are people, people who are working really hard to make you happy, to get those kids happy. (TB/8)

Teachers are expected to incorporate more technology into their teaching. According to Teacher A:

One thing we're trying to do is bring in more technology into the classroom. For example, we don't have the ability to set up a lab to do dissections and things, but we use our COWS [computers on wheels], our laptops, and we do virtual labs for virtual dissections and things like that. (TA/2)

This could be a learning opportunity for teachers and students alike. Teacher E explained:

That's what I'm doing this year with going paperless and with the Chromebooks. It's a big risk because I'm learning as I'm teaching them. So, they're seeing me sometimes go down the wrong trail with whatever we're doing and have to come back and start over. They're learning that it's ok, that making mistakes is how we actually learn. (TE/2)

It was no longer enough to deliver a single lesson to an entire class and hope they learn. Teachers were expected to differentiate their instruction in order to accommodate a wide range of student needs, learning styles, and abilities. Teacher E supported this by saying, "but this year we're working on differentiation, and I'm trying to make sure that I offer as many ways to learn

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in the classroom as I can" (TE/3). Teacher A agreed, stating: "You know, we have to be able to do that as far as to differentiate the instruction so our kids can learn in their own way" (TA/4). Teacher B went on to say:

> If I don't try new things, I'm going to lose them, and it's a struggle everyday 'cause I might get one half of the class and the other half is like "I'm not into that." That's where that differentiation comes in. I'm constantly having to reinvent the wheel. Ok, that didn't work today. They didn't get it. Tomorrow let's try this. I'm always trying to think of new ways to get their attention. (TB/4)

The job of a teacher today is difficult as they struggle to meet the ever-increasing demands of new expectations and tasks. They are attempting to implement new, more rigorous Common Core State Standards with fidelity. This year, their success will be measured using a new assessment that they have not yet seen. There is constant pressure for schools to meet the mathematics and literacy performance goals set forth in the accountability system, and teachers of these subject areas feel especially pressured. Teachers are expected to incorporate technology into their teaching and differentiate instruction to in order to meet the variety of student learning styles and needs.

Summary

In Chapter 4, the researcher presented the themes and major findings that were identified through the data analysis process. The major themes that emerged from this study were collaboration, culture, data-driven improvement, leadership, professional development, and teachers' current reality. These axial codes were presented and supported with data from the study. The data included information collected from in-depth participant interviews, observational field notes, and related documents. Axial codes and sample of open codes of participants were presented in Figure 4.1. A descriptive matrix, Table 4.4, presented examples

of quotations collected during interviews by axial code. Data collected from interviews, in the form of direct quotations, were displayed in the table and support the axial codes.

Chapter 5 discusses grounded theory and includes an interpretation of the data. The chapter also provides a conclusion to the research question, recommendations to the field of education, and recommendations for further study.

Chapter 5:

Conclusions and Recommendations

Introduction

The purpose of the study was to determine how the design of a professional learning community impacts teacher instruction in a middle school setting. This descriptive case study closely examined a professional learning community in an Arkansas middle school. This site was chosen because it was removed from the state's school improvement list after implementing professional learning communities. This study identified the characteristics and processes of the professional learning community and determined their perceived influence on classroom instruction.

The participants for this study were eight teachers, the principal, and the instructional facilitator of a middle school in south Arkansas that serves students in grades 6 through 8. The teachers represented mathematics and literacy teachers (3 sixth grade teachers, 3 seventh grade teachers, and 2 eighth grade teachers) currently teaching at the site school. Open, axial, and selective coding were used to analyze the collected data.

Chapter 5 outlines the grounded theory that emerged from this study, explains the findings, and compares them to the findings in the review of literature. This chapter also provides a summary of the findings, an interpretation of the data, and answers the research question that guided this study. Recommendations to the field of educational leadership and recommendations for further research are also presented.

Grounded Theory

Grounded theory was used as the method for analyzing the collected data. According to Creswell (2007), "The centerpiece of grounded theory research is the development or generation of a theory closely related to the context of the phenomenon being studied," (p. 76). The

developed theory or theories evolve during research (Strauss & Corbin, 1990) and are grounded in the data, so to speak. This study sought to generate theory about the impact that professional learning community design has on teacher instruction.

Prior to conducting the research, the researcher reviewed literature related to professional learning communities. The researcher collected and analyzed data from in-depth participant interviews, observations, and study-related documents. All of the collected data were reviewed and analyzed; open codes or initial categories were manually identified. The identified open codes were analyzed and categorized into six major themes, or axial codes, that emerged from the data. The six identified axial codes were: collaboration, culture, data-driven improvement, leadership, professional development, and teachers' current reality. These six axial codes were further analyzed to and re-categorized into three selective codes. These three selective codes that emerged from the data were culture of collaboration, data-driven decisions, and supportive leadership. Together these form the theory and provide an answer to the research question that guided this study.

Theory One: Culture of Collaboration

The first selective code that the data revealed was culture of collaboration. Culture of collaboration was supported by two of the six axial codes or major themes. The axial codes included in culture of collaboration were collaboration and culture. Figure 5.1 illustrates the relationship between these axial codes to the selective code, culture of collaboration.

Collaboration

Culture

Culture of Collaboration
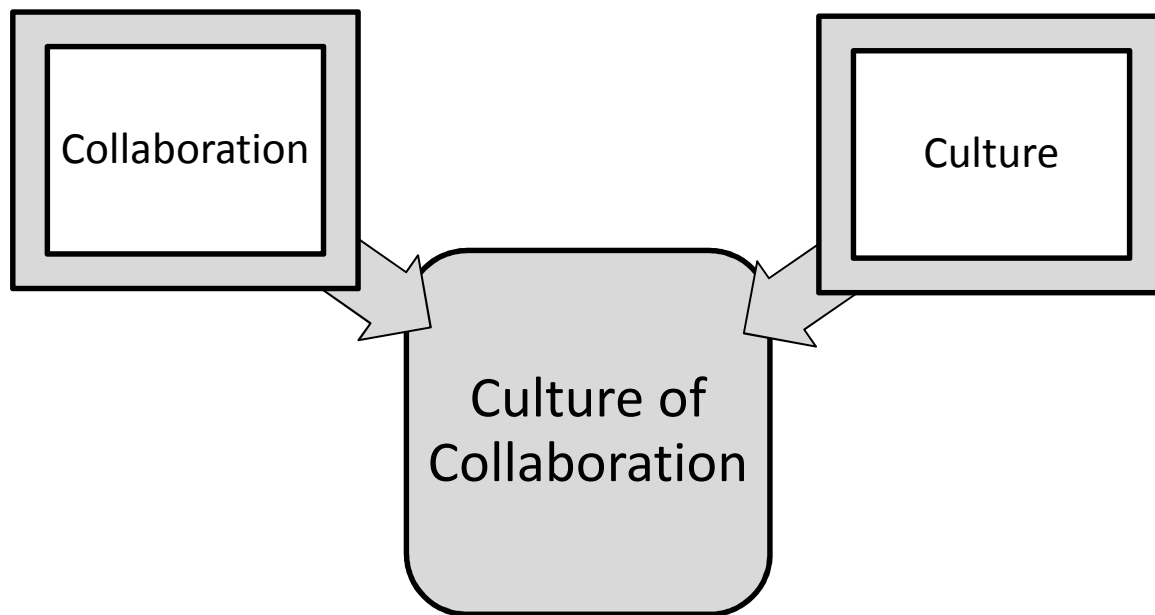
Figure 5.1. Relationship between axial codes and selective code – culture of collaboration.

Data from participant interviews described a strong culture of collaboration at the site

school. This culture promoted trust, respect, and open dialogue among teachers. Bryk and

Schneider (2003) said, "Social trust among teachers, parents, and school leaders improves much

of the routine work of schools and is a key resource for reform" (p. 41). The participants

frequently spoke about discussing common problems and concerns with one another and the

sharing of ideas and information with colleagues. In a collaborative culture, teachers share ideas

and assume the responsibility for solving problems (Kohm & Nance, 2009). The principal also

sought input from teachers when appropriate and spoke of the importance of having team effort

and buy in. From the interviews and observations, the researcher got the sense that this is all

commonplace on this campus and business as usual.

Teachers in this school were supportive of one another and wanted to succeed. The

researcher got the sense that the participants genuinely like and respected their colleagues, so the

support was of a personal and professional nature. They strived to continuously improve their

ability to reach and teach students and to improve student outcomes. In 2009, Kohm and Nance said, "The ultimate success of any improvement depends on the behavior of teachers, and when good teachers work together, they support one another's journey toward better instruction," (p. 67).

The data revealed that the culture in this school was also characterized by supportive adult-to-student relationships. Teachers wanted their students to be successful; teachers worked with students to help them be successful not only academically but also in life in general. In addition to meeting their academic needs, teachers were cognizant of the social, emotional, and physical needs of middle school students and addressed those when necessary.

The data from this study revealed that this culture of collaboration did not happen on its own. It was purposely designed and nurtured with student achievement in mind. The principal stated that she began to change the culture of the school after finding her school in year 4 school improvement and after participation in a DuFour professional learning communities training. The literature identified intentional culture change as a necessity for creating successful professional learning communities. According to DuFour, DuFour, and Eaker (2008), "Educators who cultivate PLCs must engage in an intentional process to impact the culture of their schools and districts. When they are successful, their organizations will undergo profound cultural shifts" (p. 21). The professional learning communities evolved to their present structure over time.

Theory Two: Data-Driven Decisions

The second selective code to emerge from the data was data-driven decisions. Data-driven decisions were supported by one of the six axial codes, data-driven improvement. Figure 5.2 diagrams the relationship between the axial code and the selective code, data-driven decisions.
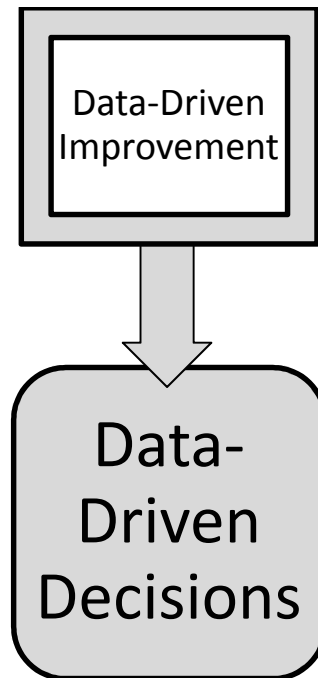
Figure 5.2. Relationship between axial code and selective code – data-driven decisions.

The data revealed that using data to make instructional decisions was prevalent in this

school. This included decisions made by the principal as well as the classroom teacher. Many

described this school as data-driven, and every participant made reference the data wall. The

data wall was a visual tool that helped teachers and administrators track the progress of

individual students toward the goal of proficiency on the state assessment. The goal was for

students to improve or grow academically. At the beginning of the school year, students were

classified as advanced, proficient, basic, or below basic based on their mathematics and literacy

performance on the previous spring's state assessment. This information, along with pertinent

demographic information, was written on a color-coded index card and placed on the wall. After

each interim assessment, data were analyzed and students were placed on the continuum between

below basic and advanced depending on their performance. Schools that attained high levels of

student achievement despite having large numbers of students from at-risk populations "embrace

data" and "use data to focus on individual students, not just groups of students," (Chenoweth,

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2010, p. 217). The data wall also allowed teachers and administrators to track the progress of at-risk subpopulations of students for which they were accountable on state assessments.

According to Schmoker (2006), "Instruction itself has the largest influence on achievement," (p. 10). Teachers regularly used interim assessment data to evaluate their effectiveness. After each interim assessment, teachers conducted an instructional analysis. In a professional learning community, "data is analyzed and used for reflection and improvement," (Stoll, et al., 2005, p. 1). This data analysis informs decisions about classroom instruction and gives teachers and administrators insight into whether they need to spend more time teaching a specific skill, need to re-teach the skill using a different strategy, need to remediate with a handful of students, need to re-teach the skill to the entire class, or need to make adjustments to the curriculum mapping and pacing. Teachers wanted to improve their instruction and help their students learn. The data revealed that teachers were sometimes uncomfortable confronting their weaknesses but understood it was necessary for improvement. According to Collins (2001), organizations must confront "brutal facts" in order to make good decisions that lead to improvement.

Data were used in making other instruction-related decisions as well. The research data revealed that data were the impetus for making changes to the course offerings and recent personnel changes at the school. These decisions were made in hopes they would increase student learning and yield better results on the state testing.

Theory Three: Supportive Leadership

The last selective code to be revealed by the data was supportive leadership. Supportive leadership was based on three of the six axial codes or major themes. Axial codes included were leadership, professional development, and teachers' current reality. Figure 5.3 illustrates the relationship between the axial codes and the selective code, supportive leadership.

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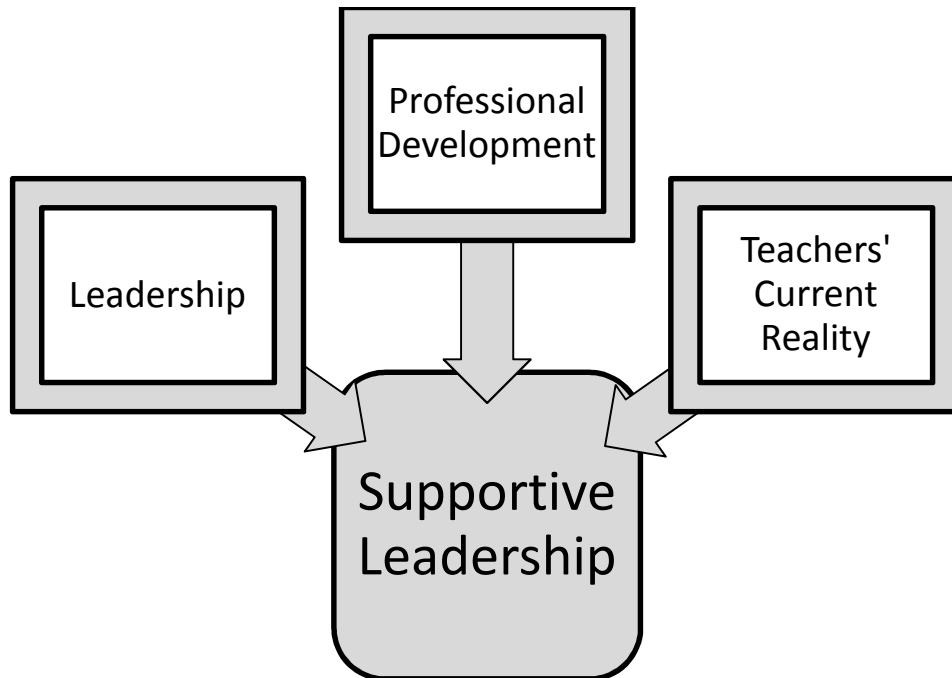
Figure 5.3. Relationship between axial codes and selective code – supportive leadership.

       The data revealed that it is stressful and difficult to be a teacher in this age of accountability. Mathematics and literacy teachers felt the pressure to get their students to perform at the levels prescribed by the state on state assessments. Teachers are in the early stages of implementing new, more rigorous Common Core State Standards; they are still debating the interpretation of these standards and trying to fully understand what they require of teachers and students in the classroom. Teachers are facing a new state assessment this year and are trying to learn as much as they can about it in order to help their students prepare for it. Schools and teachers will be held accountable for performance on a test that in most cases they have never seen. In addition to these curriculum and assessment changes, there were several other lesser changes impacting teachers, such as the implementation of a new teacher evaluation management system and a new online student information system.

       The leadership was sensitive to this current reality of the teaching profession and aimed to provide support to teachers. The data revealed that the principal did all she could to remove

barriers to success and provide needed resources for the teachers within the parameters of helping the teachers do their jobs and focus on teaching and learning. The principal was recognized as the instructional leader of the school and often participated in professional learning community meetings alongside her teachers. She was also a risk taker that encouraged others to take risks. Schools that experience gains in student achievement are "places of action, experimentation, and a willingness to test ideas that seem to hold potential for improving student achievement," (DuFour, DuFour, Eaker, & Karhanek, 2010, p. 183). She was willing to make decisions that she felt were in the best interest of the students even if it meant upsetting adults. According to Chenoweth (2010), "They [successful schools] make decisions on what is good for kids, not what is good for adults," (p. 219).

In addition to the principal, the instructional facilitator was a source of leadership and support for teachers. The instructional facilitator was observed providing resources and information to teachers as well as following up on teacher requests for support. An important aspect of this position is to organize and guide the work of professional learning communities. According to DuFour, DuFour, and Eaker (2008), someone must guide the work of collaborative teams because "simply providing educators with the time to collaborate will do nothing to improve a school if they spend that time focusing on issues that do not impact student learning," (p. 28).

Providing meaningful professional development was another way the leadership supported teachers and helped them manage the current realities of the job. Reeves (2009) stated, "Leaders set the direction for the professional development agenda," (p. 63). The data revealed the book study was an important part of professional learning communities at this school, as every participant mentioned the study. The book study provided professional

development that was collegial, sustained, job-embedded, interactive, integrative, practical, and results-oriented; it met the criteria for effective professional development according to Fogarty and Pete (2010). Each year, the featured book was hand selected by the principal to address a current area of concern for the campus and its teachers. Past topics have included differentiation, teacher evaluation, creating a culture of achievement, and assessment. Professional learning communities and the school's collaborative culture also promoted professional development by encouraging teachers to share the knowledge they gained from outside professional development activities and helping them stay abreast of current education trends and upcoming changes.

Summary of Findings

The purpose of this study was to determine how the design of a professional learning community impacts teacher instruction. Data show that professional learning communities impact teacher instruction when behaviors and actions from three categories are evident in the school. These three categories are: culture of collaboration, data-driven decisions, and supportive leadership. Each of these categories is supported by the open and axial codes that emerged during the data analysis process and data triangulation.

Interpretation of the Data

Six major themes were identified through a process of open, axial, and selective coding. From these six axial codes, three selective codes or major trends emerged that provided answers to the research question. These six axial codes were collaboration, culture, data-driven improvement, leadership, professional development, and teachers' current reality. The three major trends that emerged from the data were culture of collaboration, data-driven decisions, and supportive leadership. The following section will present the answers to the research question.

Research Question

How does the design of a professional learning community impact teacher instruction?

The data suggested the professional learning community design features that impact teacher instruction were culture of collaboration, data-driven decisions, and supportive leadership. These three features emerged from the data based on ground theory.

Culture of collaboration included several aspects of professional learning communities including the sharing of ideas and professional knowledge, regular meetings focused on teaching and student learning, supportive relationships among colleagues, and a focus on continuous improvement. The data often referred to the perception that educators in this school work well together and support one another. This created a safe environment in which educators felt free to share ideas and were open to suggestions for improving teaching and increasing student learning. Teachers were learning from one another and holding each other accountable for providing quality instruction.

Data-driven decisions encompassed using data to monitor the progress of individual students, using data to inform instruction, and focusing on results. The collected data frequently made mention of the data wall and its role in tracking the progress of individual students. The data wall also provided an ever-changing snapshot for teachers and administrators to monitor the school's progress toward meeting state accountability goals. Interim assessment data were also regularly analyzed to inform instructional decisions and monitor the curriculum. All of these had a significant impact teacher instruction.

Supportive leadership included responding to the teachers' current reality by providing support in the form of professional development, resources, information, and moral support. It also encompassed a willingness to take risks and make decisions in the best interest of students. The data often cited the notion that the principal and instructional facilitator provided teachers with the resources and materials they needed to be successful. The sense was that if teachers

could demonstrate an instructional need for something then the principal did everything in her power to secure it. The principal was willing to take risks and supported experimentation among teachers if there was a reasonable belief that the change would be good for students; the principal stood by her decisions and her teachers. Relevant, ongoing, job-embedded professional development in the form of a book study was part of professional learning communities; there was an effort to keep teachers informed of current topics and trends in education.

As a practicing educational leader, the researcher found that a culture of collaboration, data-driven decisions, and supportive leadership impacted teacher instruction. Combined, these three factors created the conditions for teachers to build their capacity and provide better instruction to students. Teachers analyzed data to identify instructional needs of students and weaknesses in instruction. They collaborated with colleagues to solve problems and gather new instructional ideas. The leadership helped teachers improve their instruction by providing the information, resources, and professional development they needed to reach their goals. These findings were important to the work of educational leaders and were supported by previous research in the field educational leadership.

Recommendations to the Field

Based on the results of this study, the researcher developed two recommendations to the field of educational leadership. The primary recommendation is for educational leaders to find ways to devote more time to collaborative professional learning community activities that impact teacher instruction. Often professional development topics and activities, although important and necessary, are not directly related to improving teacher capacity to deliver quality instruction. This can be achieved any number of ways. It would be an administrative decision to determine how best to meet this goal in any given school or district.

The second recommendation is for educational leaders to consider utilizing book studies for teachers and administrators as a form of professional development. According to the data, teachers found the book studies to be beneficial and useful in helping develop specific instructional strategies. Book studies help educators stay abreast of current educational topics and learn from the works of leading experts in the field. These can be incorporated into professional learning communities.

Recommendations for Further Research

Based on the findings of this study, the researcher developed four recommendations for further research. A single middle school in south Arkansas served as the study site for this research. The first recommendation is to replicate the study at other middle schools in other regions of the state. A second recommendation is to replicate the study at the elementary and secondary levels.

The participants in this study included eight teachers, a principal, and an instructional facilitator. It would be interesting to compare the perceptions of the teachers to the perceptions of the leadership.

The fourth recommendation is to conduct a study on the use of book studies as professional development in schools. It was apparent from the data the book study is an important aspect of professional learning communities and professional development on this campus.

Conclusion

I am an educational leader, and professional learning communities have been an interest of mine for about 15 years as a vehicle for improving teacher instruction and in turn student achievement. This study sought to determine what impact professional learning community design has on teacher instruction.

It takes time to implement professional learning communities and build a collaborative culture. I have seen professional learning communities evolve in our organization from a poorly implemented model on a couple of campuses to a systematic, district-wide process that included frequent formative assessment and data analysis, collaborative learning and planning among teachers, risk taking, and rich discussions about teaching and learning. The first year, we built collaboration time into the schedule and waited for the magic to happen…to no avail. We quickly realized that someone must organize the time in some way. That is when our district began employing instructional facilitators. The district has since provided professional learning community training to building principals and instructional facilitators, which seems to have been most helpful. Collaborative professional learning communities are non-negotiable in our district. Though there are still pockets of resistance, for the most part a culture of collaboration is prevalent throughout the district. I am affirmed in my belief that creating a collaborative culture benefits teachers, students, and schools but that it only happens by intentional decisions and actions of the leadership.

I was surprised to learn that book studies were such an important aspect of the professional learning communities and professional development at this school. The literature related to professional learning communities does not mention book studies. Again, the book study was mentioned by every participant, and most participants commented favorably about book studies. Some felt it was the most beneficial and impactful professional learning community strategy.

I was also surprised to hear teachers say that they desire to meet with colleagues outside their grade level and/or subject area more often. With so many demands on their time, the last thing I expected to hear from teachers was that they wanted to collaborate more often. This tells

me that they find the collaboration time with their same-grade, same-subject colleagues meaningful but would like to expand on this. Perhaps this is the next stage of evolution for professional learning communities at this school.

As I conducted interviews, it was apparent to me that being a teacher is stressful and difficult and becoming more so all the time. Teachers, as a whole, work hard and are dedicated to their schools, administrators, and students. When more demands are made on administrators, they tend to push those demands onto the teachers. More and more responsibilities and demands are being made on their time with little or no increase in compensation. Personally, I need to be more cognizant of this fact as an administrator and find ways to provide encouragement and show appreciation of their efforts.

I would like to express my gratitude and appreciation to the 10 participants of this study. I was overwhelmed by their willingness to participate, their honesty, their professional insight, and their well wishes. Their care and concern for students were tangible and heartening to witness in a time when the focus appears to be on data and accountability. I am in awe of you and the difference you make daily in the lives of children. Thank you, professional educators, for all that you do!

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Appendix A

Date

Superintendent
Arkansas School District
123 ABC
Anytown, AR   12345

Dear Superintendent:

I am a doctoral student in the Educational Leadership program at the University of Arkansas. The purpose of this letter is to request your approval and assistance in a research project that is part of my program of study. The study will examine professional learning communities and their perceived impact on teacher instruction.

For the study, I have selected a middle school that has at one point been in school improvement and after implementing professional learning communities met state performance standards. The focus of this study is to determine how the design of a professional learning community impacts teacher instruction.

With your permission, I would like to contact the principal of XYZ Middle School and request their participation in this study. Upon approval, I will conduct interviews with eight teachers, the principal, and the instructional facilitator of the school. I will also seek permission to observe professional learning community meetings at the school and collect related documents.

Any data collected will be analyzed and reported in a manner that will maintain the utmost of confidentiality. There will be no attempt to identify or report the identity of the individuals or their school district information. This study has been approved by my dissertation committee at the University of Arkansas and by the Institutional Review Board (IRB) office in Fayetteville.

Attached you will find the "Consent to Participate in a Research Study" that provides additional and more in-depth information about my study. If approved, all participants will receive a copy of this consent and be asked to sign/date it before I begin working with them.

I am requesting permission to conduct this study in your district. If you consent, I will need a letter of approval from you. The protocol for this is required by the University of Arkansas is that it be on your district's letterhead with an original signature from you as the superintendent. A copy of the letter may be transmitted to me either electronically via email or regular mail.

Your prompt attention is greatly appreciated to allow me sufficient time for data collection. Thank you in advance for your consideration to participate in this study. My program advisor and dissertation chairman is Dr. Carleton Holt. If you have any questions, please contact me at   123-456-7890.

Sincerely,

Jeanette Turner
Doctoral Student
University of Arkansas

Appendix B

Dear Principal:

I am a doctoral student in the Educational Leadership program at the University of Arkansas. The purpose of this letter is to request your approval and assistance in a research project that is part of my program of study. The study will examine professional learning communities and their perceived impact on teacher instruction. Your superintendent has granted his consent for me to contact you about participation in this study.

For the study, I have selected a middle school that has at one point been in school improvement and after implementing professional learning communities met state performance standards. Because your school meets this description and I believe others can learn from its example, I have selected it as the site for this descriptive case study. Since the focus of this study is professional learning communities, I am interested in learning how the professional learning community design in your school impacts teacher instruction.

The data I wish to collect from your school site will come from individual interviews with you, the instructional facilitator, and 8 teachers. These interviews will be electronically recorded and transcribed. Each interview will be no more than one hour in duration. I will also observe professional learning community meetings at your school and collect related documents for review.

This study has been reviewed and approved by the Institutional Review Board at the University of Arkansas. Your participation is voluntary and you may withdraw from the study at any time. Your responses will be kept confidential. Neither your name nor the specific name of your school will be published. The results of all respondents will be summarized and reported in whole.

If you decide to participate in the study, please read through the information that is included on the attached document, Consent to Participate in a Research Study. This provides more details about the study. Its final page (#2 of 2) includes a line for your signature, consenting to be a part of this study. An addressed/stamped envelope is also enclosed for returning the consent to me.

If you have any questions, please do not hesitate to contact me at 123-456-7890.

Thank you in advance for your consideration to participate in this study. I hope to talk with you soon.

Sincerely,

Jeanette Turner
Doctoral Student
University of Arkansas

Appendix C

Dear Teacher:

I am a doctoral student in the Educational Leadership program at the University of Arkansas. The purpose of this letter is to request your approval and assistance in a research project that is part of my program of study. The study will examine professional learning communities and their perceived impact on teacher instruction. Your superintendent and principal have granted their consent for me to contact you about participation in this study.

For the study, I have selected a middle school that has at one point been in school improvement and after implementing professional learning communities met state performance standards. Because your school meets this description and I believe others can learn from its example, I have selected it as the site for this descriptive case study. Since the focus of this study is professional learning communities, I am interested in learning how the professional learning community design in your school impacts teacher instruction.

The data I wish to collect from your school site will come from individual interviews with you, 7 other teachers, the principal, and the instructional facilitator. These interviews will be electronically recorded and transcribed. Each interview will be no more than one hour in duration. I will also observe professional learning community meetings at your school and collect related documents for review.

This study has been reviewed and approved by the Institutional Review Board at the University of Arkansas. Your participation is voluntary and you may withdraw from the study at any time. Your responses will be kept confidential. Neither your name nor the specific name of your school will be published. The results of all respondents will be summarized and reported in whole.

If you decide to participate in the study, please read through the information that is included on the attached document, Consent to Participate in a Research Study. This provides more details about the study. Its final page (#2 of 2) includes a line for your signature, consenting to be a part of this study. An addressed/stamped envelope is also enclosed for returning the consent to me.

If you have any questions, please do not hesitate to contact me at 123-456-7890.

Thank you in advance for your consideration to participate in this study. I hope to talk with you soon.

Sincerely,

Jeanette Turner
Doctoral Student
University of Arkansas

Appendix D

Dear Instructional Facilitator:

I am a doctoral student in the Educational Leadership program at the University of Arkansas. The purpose of this letter is to request your approval and assistance in a research project that is part of my program of study. The study will examine professional learning communities and their perceived impact on teacher instruction. Your superintendent and principal have granted their consent for me to contact you about participation in this study.

For the study, I have selected a middle school that has at one point been in school improvement and after implementing professional learning communities met state performance standards. Because your school meets this description and I believe others can learn from its example, I have selected it as the site for this descriptive case study. Since the focus of this study is professional learning communities, I am interested in learning how the professional learning community design in your school impacts teacher instruction.

The data I wish to collect from your school site will come from individual interviews with you, the principal, and 8 teachers. These interviews will be electronically recorded and transcribed. Each interview will be no more than one hour in duration. I will also observe professional learning community meetings at your school and collect related documents for review.

This study has been reviewed and approved by the Institutional Review Board at the University of Arkansas. Your participation is voluntary and you may withdraw from the study at any time. Your responses will be kept confidential. Neither your name nor the specific name of your school will be published. The results of all respondents will be summarized and reported in whole.

If you decide to participate in the study, please read through the information that is included on the attached document, Consent to Participate in a Research Study. This provides more details about the study. Its final page (#2 of 2) includes a line for your signature, consenting to be a part of this study. An addressed/stamped envelope is also enclosed for returning the consent to me.

If you have any questions, please do not hesitate to contact me at 123-456-7890.

Thank you in advance for your consideration to participate in this study. I hope to talk with you soon.

Sincerely,

Jeanette Turner
Doctoral Student
University of Arkansas

Appendix E

Impact of Professional Learning Community Design on Teacher Instruction
Consent to Participate in a Research Study
Principal Researcher: Jeanette Turner
Faculty Advisor: Dr. Carleton Holt

INVITATION TO PARTICIPATE

You are invited to participate in a research study about professional learning communities and their perceived impact on teacher instruction. You are being asked to participate in this study because your school was able to meet state performance standards after implementing professional learning communities.

WHAT YOU SHOULD KNOW ABOUT THE RESEARCH STUDY

Who is the Principal Researcher?	*Who is the Faculty Advisor?*
Jeanette Turner	Dr. Carleton R. Holt
Street address	University of Arkansas
Anytown, USA	Fayetteville, AR
123-456-7890	123-456-7890
Email address	Email address

What is the purpose of this research study?
The purpose of the study is to determine how the design of a professional learning community impacts teacher instruction.

Who will participate in this study?
- Approximately 8 teachers, the principal, and the instructional facilitator of your school

What am I being asked to do?
Your participation will require the following:

> Participation in 1 interview with the researcher. Each interview will last no longer than one hour. Follow-up interviews could be requested at a later date.

What are the possible risks or discomforts?
There are no risks. It will require that you volunteer your time to complete in the interviews.

What are the possible benefits of this study?
This research will provide an understanding of the impact of professional learning community design on teacher instruction which will aid practitioners in making decisions related to the implementation of the professional learning community model.

How long will the study last?
This study will be completed in the spring of 2015.

Will I receive compensation for my time and inconvenience if I choose to participate in this study?
If you choose to participate, you will receive no compensation for your time and inconvenience.

Will I have to pay for anything?
No, there will be no cost associated with your participation.

What are the options if I do not want to be in the study?
If you do not want to be in this study, you may refuse to participate. Also, you may refuse to participate at any time during the study. Your job will not be affected in any way if you refuse to participate.

How will my confidentiality be protected?
All information will be kept confidential to the extent allowed by applicable State and Federal law. No personally identifiable information will be used in any reports or publications resulting from this research.

Will I know the results of the study?
At the conclusion of the study you will have the right to request feedback about the results. You may contact the Faculty Advisor (see contact information at the top of this document) or Principal Researcher (see contact information at the top of this document). You will receive a copy of this form for your files.

What do I do if I have questions about the research study?
You have the right to contact the Principal Researcher or Faculty Advisor as listed below for any concerns that you may have.

Principal Researcher   Faculty Advisor

Jeanette Turner   Dr. Carleton Holt
Phone: Phone:
Email: Email:

You may also contact the University of Arkansas Research Compliance office listed below if you have questions about your rights as a participant, or to discuss any concerns about, or problems with the research.

Ro Windwalker, CIP
Institutional Review Board Coordinator
Research Compliance
University of Arkansas
Fayetteville, AR 72701-1201
Phone:
Email:

I have read the above statement and have been able to ask questions and express concerns, which have been satisfactorily responded to by the investigator. I understand the purpose of the study as well as the potential benefits and risks that are involved. I understand that participation is voluntary. I understand that significant new findings developed during this research will be shared with the participant. I understand that no rights have been waived by signing the consent form. I have been given a copy of the consent form.

_____/_____/_____
Printed Name of Research Participant   Signature   Date

Appendix F

INTERVIEW QUESTIONS

1. Please describe your educational background and professional experience.
2. How are professional learning community (PLC) meetings different from traditional grade level or faculty meetings?
3. Tell me about the shared mission, vision, and values of your school.
4. Describe how teachers in your school participate in collective inquiry.
5. Tell me about the collaborative teams in your school.
6. Describe ways in which your school is oriented toward action and experimentation.
7. Tell me about the ways your school strives for continuous improvement.
8. Describe ways in which your school is oriented toward results.
9. Discuss how your PLC experiences have shaped your classroom instruction. Give examples.
10. What specific PLC practices have proven to be the most beneficial? The least?
11. What is your overall impression of PLCs?

Appendix G

From: Permissions [permissions@ascd.org]
Sent: Tuesday, February 18, 2014 5:15 PM
To: Jeanette Turner
Subject: RE: permission to use content in a dissertation (Thread:1237565)

In response to your request below, please accept this as permission to use the referenced *Educational Leadership* article for your personal research purposes. Should you include excerpts or cite content in a paper or some other report form, please credit the source accordingly. If your research results in use of our content in a product or publication for commercial release, please contact me again to secure further rights to do so.
Thank you for your interest in *Educational Leadership* and good luck with your dissertation.

Regards, Katy

KATY WOGEC · Senior Paralegal
     1703 N. Beauregard Street · Alexandria, VA 22311-1714
P 703-575-5749 · F 703-575-3926 · **www.ascd.org** · www.wholechildeducation.org

ASCD LEARN. TEACH. LEAD.

Join us:

From: Jeanette Turner [mailto:█████████████@apsdk12.org]
Sent: Saturday, February 15, 2014 11:34 AM
To: permissions@ascd.org
Subject: permission to use content in a dissertation (Thread:1237565)

To Whom It May Concern:

I am requesting permission to reuse a figure in my dissertation (printed and electronic format). The figure is titled Collaborative vs. Top-Down Cultures and is Figure 1 in the article titled, "Creating Collaborative Cultures." It is found in Educational Leadership, Vol. 67, No. 2, p. 67-68.

Thank you for your consideration.

Jeanette Turner, Ed.S.
███████████████████████
███████████████████
███████████

"Your roadmap to success begins at the ASCD's 69th Annual Conference, March 15–17, in Los Angeles, Calif. Choose from more than 350 professional development sessions, featuring the most respected education leaders and experts, including Sir Ken Robinson, Russell Quaglia, Daniel Pink, Tony Wagner, Carl Glickman, and Jane McGonigal. Register NOW at www.ascd.org/annualconference.**"**

1

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Appendix H

UNIVERSITY OF ARKANSAS

October 7, 2014

MEMORANDUM

TO: Carol Jeanette Turner
                              Carleton Holt

FROM: Ro Windwalker
                              IRB Coordinator

RE: New Protocol Approval

IRB Protocol #:   14-09-141

Protocol Title: *Impact of Professional Learning Community Design on Teacher Instruction*

Review Type: ☒ EXEMPT   ☐ EXPEDITED   ☐ FULL IRB

Approved Project Period: Start Date: 10/07/2014 Expiration Date: 10/06/2015

Your protocol has been approved by the IRB. Protocols are approved for a maximum period of one year. If you wish to continue the project past the approved project period (see above), you must submit a request, using the form *Continuing Review for IRB Approved Projects*, prior to the expiration date. This form is available from the IRB Coordinator or on the Research Compliance website (http://vpred.uark.edu/210.php). As a courtesy, you will be sent a reminder two months in advance of that date. However, failure to receive a reminder does not negate your obligation to make the request in sufficient time for review and approval. Federal regulations prohibit retroactive approval of continuation. Failure to receive approval to continue the project prior to the expiration date will result in Termination of the protocol approval. The IRB Coordinator can give you guidance on submission times.

This protocol has been approved for 10 participants. If you wish to make *any* modifications in the approved protocol, including enrolling more than this number, you must seek approval *prior to* implementing those changes. All modifications should be requested in writing (email is acceptable) and must provide sufficient detail to assess the impact of the change.

If you have questions or need any assistance from the IRB, please contact me at 210 Administration Building, 5-2208, or irb@uark.edu.

Instructional Analysis Tool (IAT)

	Percent Proficient and Advanced												
Instruction	85 - 100%: Provide aligned enrichment; extend learning.												
Instruction	70 - 84%: Spend more quality time on instructional strategies to yield greater results.												
Instruction	50 - 69%: Analyze instructional strategies to determine most effective teaching methods.												
Curriculum	35 - 49%: Coordinate curriculum objectives across grade levels, making sure all objectives are taught.												
Curriculum	Fewer than 35%: The curriculum has not been taught or does not exist.												

Instructional Analysis Tool

School: Noah Ann

Subject Area: MM period 2

Grade/Population: _____

Released Item Number	7NS1c	7NS1b(B)	8NS1(A)	8NS2(A)	7EE1	8NS2(B)	7NS1b(A)	7EE1	7NS3	7NS1b(B)	7NS1a	8NS1(B)
STUDENTS MEETING STANDARDS												
85-100% Reteach or Review (Instruction)												86.7%
70-84% Spend more quality time on instructional strategies to yield greater results (Instruction)		73.3%	66.7%				73.3			66.7%	73.3%	
50-69% Analyze instructional strategies to determine most effective teaching methods. (Instruction)	60%					40%						
35-49% Coordinate curriculum objectives across grade levels, making sure all objectives are taught (Curriculum)				27%	33%			27%				
Below 35% The curriculum has not been taught (Curriculum)									13%			