

ABSTRACT

Title of Dissertation: AN ANALYSIS OF ONE SCHOOL DISTRICT'S
IMPLEMENTATION OF PROFESSIONAL
LEARNING COMMUNITIES IN ITS ELEMENTARY
SCHOOLS

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This mixed method study was designed to investigate the extent to which the professional learning community (PLC) program has been fully implemented in two groups of elementary schools in one county school district and whether that implementation has sustained a culture of a PLC in two groups of elementary schools. One group of elementary schools achieved Adequate Yearly Progress (AYP) and the other group of schools achieved AYP through the provisions of safe harbor and/or the confidence interval. The study sought to assess the perceptions of elementary school principals, staff development teachers, and 5th grade team leaders from the two groups of schools regarding the five domains of the PLC: shared and supportive leadership, shared values and vision, collective learning and application, shared personal practice, and supportive conditions—relationships and structures (Huffman & Hipp, 2003). According to Hord (2004), the PLC domains are not isolated, but are intertwined as each dimension affects the other in practice.

These data were gathered through the use of a survey to answer questions 1 through 3 and individual key informant interviews to answer the fourth research question. A survey instrument was sent to principals, staff development teachers and 5th grade team leaders from the two groups of elementary schools. The survey was designed to solicit their perception of the PLC implementation in their schools. The individual interviews were held with key district leaders. There was a statistically significant difference that favored principals and staff development teachers in the schools that achieved AYP and no statistical difference for 5th grade team leaders with respect to the five PLC domains. The researcher conducted a one-way analysis of variance of differences between principals, staff development teachers, and 5th grade team leaders' judgments of these leaders' perceptions of the five PLC leadership domains for both groups of schools.

This study has implications for training, policy, and practice for elementary school principals and other leaders in the school. Hord (2004) suggested the principal is the key to the creation and existence of a PLC. This study provides a shared leadership model for principals and other leaders operating schools as high-performing professional learning communities. It is expected that this research will assist school districts in their efforts for district-wide reform.

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ELEMENTARY SCHOOLS

by

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DEDICATION

I extend my heartfelt thanks, love, appreciation, and warmest regards to my dearest friend in life, my husband, Mitchell Smith, who supported me both spiritually and emotionally. I sincerely appreciate your unwavering support, commitment, and patience as I pursued my goal. Without your love, smiles, encouragement, and continued push "to go ahead" and "go for it," I would not have completed this monumental task. I am so grateful God gave you to me. My deepest gratitude is extended to you forever and always!

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CHAPTER I

INTRODUCTION TO THE STUDY

In today's school environment of high accountability under the "No Child Left Behind" (NCLB) Act of 2001 (January 8, 2002), principals cannot do the work of school improvement alone. The accountability demands instituted by the federal legislation of NCLB are causing administrators and teachers to change practice (National Director's Conference, 2003). No Child Left Behind has significantly increased the pressure to improve student achievement and close the achievement gap. Today, schools are faced with meeting the needs of all students and in the mid-Atlantic State where this study was conducted, the state assessment program required schools to have students achieve proficiency in reading and mathematics by 2014 as measured by state tests. Therefore, the behavior of the principal and teachers in shared decision making is vital for improved educational outcomes (Huffman & Hipp, 2003).

With the ever-changing demands on schools for closing the "achievement gap" (Education Trust, 2004), it is believed that principals operating schools as professional learning communities (PLCs) were the best hope for school reform (Darling-Hammond & McLaughlin, 1995; Fullan, 1993; Lieberman, 1995a; McLaughlin & Talbert, 2006). Principals should build collaborative relationships with teachers as the basic ingredient for the success of the school (DuFour, 1998; Louise, Kruse, & Marks, 1996). Lieberman (1995) suggested the changing image of the principal as "the 1990s view of leadership called for principals to act as partners with teachers, involved in a collaborative quest to examine practices and improve schools" (p. 9) in order to sustain a culture of professional collaboration. Research on effective schools concluded that principals lead from the center (through shared leadership) rather than the top (Lezotte, 1997).

Challenges of Elementary School Leadership

School leaders face increasingly high demands to reach higher standards and raise student achievement. The task of operating a school is very complex and one person can no longer accomplish this alone (Jackson & Davis, 2000). The professional learning community (PLC) concept garners the support of all stakeholders through shared vision, shared and supportive leadership, collective learning, shared practice, and supportive conditions. Hord and Sommers (2008) suggested principals were often seen as the "catalyst for launching" the PLC (p.20). Schools are usually organized as beehives with teachers in their own rooms having little or no interaction with their colleagues (Barth 2006). These authors indicated another road block is the staff saying, "We've always done it this way" (p.24). How then can the principal break these barriers and foster a PLC? Moving principals and teachers who have historically worked singly into a PLC is a challenge (Hord & Sommers, 2008). Machiavelli noted in the 1500s that it was a challenge to move adults from their comfortable behaviors and actions.

Leonard and Leonard (2005) concluded that, despite concerted collaborative efforts and literature attesting the merits of professional learning communities (PLCs), the creation and successful implementation of PLCs has experienced limited success, and the idea remains difficult and doubtful in some schools. Successful creation and implementation of PLCs stems from collaboration problems from an underutilized micropolitical perspective which examined the way power operated within and among groups to undermine consensus and collective action (Achinstein, 2002). In order to lead PLCs, principals should share authority, guide the work of teacher leaders, and allow teachers the opportunity to actively participate in the PLC without controlling, manipulating or dominating them (Merziow, 2003; Prestine, 1993; Savage, 2008). When professional collaboration does not exist, principals and teacher leaders do not work together, knowledge is not shared, there is not the contribution of ideas, and plans are not developed together for the purpose of achieving school improvement goals (Leonard &

Leonard, 2001). Savage (2008) identified time, resources for collaboration, fear, individual quests for power and insecurities as barriers which were often overlooked in fostering change. In a professional learning community, principals and teacher leaders should "come together on a regular basis" (p.10) through shared vision and practice. These challenges described presented a thorny path to change for principals and teachers. One way to smooth the path for overcoming these challenges could be to focus teachers on improved student achievement.

In response to these challenges, Hall and Hord (2006) identified six strategies that principals could be introduced to for successful PLC implementation in elementary schools:

1. Articulate a shared vision – the principal invited teachers to talk about the PLC and why it could benefit the school.
2. Use the vision of change to craft a plan that would engage the teachers in understanding the vision.
3. Provision for professional development (collective learning) to build the capacity of teacher leaders and teachers who could help do the work as the school moves toward developing its PLC.
4. Check the progress – was necessary to determine if teachers and the principal are moving toward the vision, creating a PLC and applying the PLC attributes.
5. Provided assistance (supportive conditions) to continue building the capacity of teachers and all involved in the PLC.
6. The overarching and sixth strategy was the culture of change. This strategy could be necessary for supporting teacher leaders in the change process and the shift from the old way schools have operated in the past. Taking a risk and building trust were also important elements.

DuFour (1998), Huffman and Hipp (2003), Hord (2004) and Hord and Sommers (2008) confirmed in their work similar essential dimensions or characteristics: supportive and shared leadership, shared values and vision, collective learning and application, supportive conditions, and shared personal practice of schools with successful PLCs.

Since designing and implementing the PLC program was a proposed solution to meeting the demands of changing demographics and improving student achievement, examining one county school district's experiences with the PLC program could provide important information for other school districts. Joyce and Showers (1995; 2002) suggested that if a PLC existed and if there was analysis of student performance, student achievement could be positively affected.

Teacher Quality and Professional Learning Communities

Hanushek (2004) defined teacher quality as good teachers who yielded large gains in student achievement for their class and said that teachers near the top of the quality distribution can help students achieve high results. Teacher quality and expertise could be a reason for the difference in learning opportunities across schools (Hanushek, 2004). Ronald Ferguson's (2007) large-scale study of more than one thousand school districts indicated that an important determinant of student achievement was teacher expertise that teacher quality matters and that effort should focus on upgrading high quality schools. The National Commission on Teaching and America's Future (2003) acknowledged that every student deserves great teachers in schools that are organized for success, that teachers of quality were attracted to and thrived in good schools, and that these schools were places where teaching and learning prospered as the schools were structured as professional learning communities. The National Commission of Teaching and America's Future (2003) invited state leaders, superintendents, school boards, principals and teachers to join in a national effort that reallocated and appropriated funds to provide teachers with time, flexibility, and resources needed to create and sustain focused PLCs,

and provided resources to reduce teacher isolation to support smaller grade-level learning communities. Additionally, the National Commission (2003) suggested that teachers are provided flexible job-embedded professional development, needed mentoring and peer assistance programs. High teacher turnover had high costs, particularly in urban schools and schools populated with high-poverty students (National Governor's Association, 2006). The National Commission of Teaching and America's Future (2003) further noted that although some turnover was expected, excessive high turnover eroded teaching quality and student achievement, and diminished the sense of community and coherence which could undermine the ability to build and sustain PLCs in schools.

Strategy one in *No dream denied: A pledge to America's children* (2003) of the National Commission of Teaching and America's Future made similar claims by noting that schools should become PLCs for student and teacher success. Additionally, the National Commission of Teaching and America's Future (2003) reported that schools could restructure time and staffing for teachers to have time for job-embedded professional development, for opportunities to work together and for shared responsibility for groups of students. In *What matters most: Teaching for America's future* (1996), the National Commission of Teaching and America's Future suggested school systems should prepare, select, and retain principals who understood teaching and learning and who could lead schools as high-performing learning communities. This recommendation, directed at schools organized as PLCs, has been the most difficult to implement (*No dream denied: A pledge to America's children*, 2003). The nation's governors' meeting in 2001 noted these common characteristics of schools that have been successful at closing the achievement gap:

- A focus on student learning.
- A shared sense among faculty and staff for all student learning.
- Principals were instructional leaders who collaborated with teacher leaders.

The National Center for Educational Accountability (2001) in Austin, Texas studied more than 100 high performing school systems and the findings suggested that successful schools embraced the attributes of PLCs. Schools should support quality teachers and the National Commission on Teaching and America's Future (2003) indicated until every school becomes a strong learning community, teacher quality will decline, teacher retention will increase, student performance will suffer, and the achievement gaps across racial, ethnic and economic groups will persist. In schools where there were PLCs, there was a beacon of light as these schools have attracted and retained quality teachers who received support for teaching and learning through resources and support they needed in their schools (Hord & Sommers, 2008).

The Achievement Gap

The Northwest Evaluation Association (2006, p. 2) defined the "achievement gap as the difference between the academic performance of poor students and their wealthier students and between minority students and their non-minority peers." According to the National Governor's Association (2006), the "achievement gap" persists in schools in the United States (p. 1). African American and Hispanic elementary school student performance improved during the 1970s and 1980s; however, the gaps widened in reading and mathematics during the 1990s (Education Trust, 2004; Haycock, 2001; National Center for Education Statistics, 2001). The National Center for Education Statistics (*Nation's Report Card Reading*, 2007) reported African American and Hispanic grade 4 students' reading performance improved in 2007 as measured by the National Assessment of Education Progress (NAEP). African American and Hispanic 4th grade students showed slightly higher reading scores when comparing reading results from 2002 to 2007 (*Nation's Report Card Reading*, 2007). However, reading improvements for non-White 4th grade students did not result in closing the reading achievement gap. Similarly in mathematics, the National Center for Education Statistics (*Nation's Report*

Card Mathematics, 2005) reported slight gains for non-White 4th grade students when comparing data from 2000 to 2005. White 4th grade students scored higher than African American and Hispanic 4th grade students. The White-African American score gap was narrowed in 2005 while the Hispanic score gap did not change in mathematics (*Nation's Report Card Mathematics*, 2005).

The No Child Left Behind (NCLB, 2001) Act had specific goals and timelines for students to achieve predefined proficiency levels. According to the Northwest Evaluation Association (2006, p. 4), "school districts scrambled" to meet the provisions of NCLB; however, NCLB provisions have "yet to narrow the achievement gap" (Lee, 2006). Amour (2004, p. 5) suggested that NCLB is trying to "reduce the achievement gap without proven methods of reaching poor and minority students" and while NCLB is a federal mandate, there are no "delineated solutions" for closing the achievement gap (Northwest Evaluation Association, 2006, p. 5). These authors, DuFour (1998) and Kannapel, Clements, Taylor and Hibsphman (2005), suggested that in high-performing elementary schools there are promising programs for closing the achievement gap. These PLC authors (DuFour, 1998; Hord, 2004; Huffman & Hipp, 2003) believed if low-performing, high-poverty schools used the attributes of the PLC—shared vision, shared and supportive leadership, collective learning, shared practice, and supportive conditions—the staff together could work to close the achievement gap. Although eliminating the achievement gap may sound like a daunting task, the behavior of the principal and teachers in the PLC fostered by shared decision making is vital for closing the achievement gap (Hord, 2004).

Significance of the Study

Public elementary schools, as they are currently constituted, should be led in ways to enable principals to respond to the increasing demands of closing the achievement gap. Therefore, Waters, Marzano, and MacNulty (2003) reported that increased school

leadership substantially boosted student achievement. In this age of accountability, veteran educators and school leadership experts still insist that the principal is the key to school reform, but must listen to all constituents in the school in order to lead effectively. The leadership of the principal is the most important determinant of an effective PLC (Hord, 2004). Block (2003) stated effective leaders created social space that enhanced the organization. The idea of social space is one conducive to solving even the most perplexing organizational problems. Spillane and others (Halverson & Diamond, 2001, 2003; Spillane & Sherer, 2004) focused on the concept of distributed leadership. Spillane stated, "in a distributed perspective, leadership practice is stretched over multiple leaders" (2006, p. 15). Twenty years of school reform has placed a full plate of tasks and changed the assumption about the nature of school leadership (*Harvard Educational Press*, 2003). Principals must understand structures and processes that create conditions necessary for organizational improvement (Lambert, 2003).

Fullan (2002) and other educational leaders concluded that the one-person leader in the school house is obsolete as the task of transforming a school is too complex for one person to accomplish. Lambert stated in her book, *Building Leadership Capacity in Schools* (1998), "this hard work required that principals and teachers alike serve as reflective, inquiring practitioners who can sustain real dialogue" (p. 24). Creating and sustaining a culture of professional collaboration required an understanding of effective schools research, professional learning communities, distributed leadership and principals who understood the actions and behaviors of transformational leadership for effective practice that should enhance the achievement of students (DuFour, 1998; Marzano, 2003; Spillane & Sherer, 2004).

A national study of the principalship, entitled *Making Sense of Leading Schools* (Portin et al., 2003) stated, "the principal is a key factor in building a school community that functions as a professional learning community where improvement is likely to

occur" (p. 25). Effective leaders should have a shared vision for their school and recognize the importance of teachers working together to achieve the vision (Harris et al., 2002; Lambert, 1998). Hord (1997b) observed that as an "organizational arrangement, the professional learning community could be a powerful staff development approach and a potent strategy for school change and improvement" (p. 1). This can not be achieved by principals working in isolation, but depended on the principal building a school community that included all stakeholders. Halverson (2002) stated, "that professional learning communities are a form of social capital, that results from the work of school leaders to design and implement leadership systems and structures among teachers in a given school context" (p. 3). In order to accomplish this, Hord (2004) suggested, "the principal must be willing to establish a context that nurtures the development of the PLC" (p. 39).

Conceptual Framework

In 1999, the superintendent of schools in the county school district in which this study was conducted embarked on a program to transform all elementary schools into PLCs. The professional learning community program was designed to encourage collaborative decision making among principals, teachers, staff development teachers, other school personnel, and parents as they worked to build a learning community for their school. The school district used Richard DuFour's (1998) PLC model as the framework for training principals and teachers. DuFour (1998) suggested PLCs are characterized as having these key dimensions: shared mission, vision and values, collective inquiry, collaborative teams, action orientation and experimentation, continuous improvement, and results orientation. A description of each dimension and examples in practice are summarized below.

Shared Mission, Vision and Values

What separates an ordinary school from a PLC is the school's "collective commitment to the principles that articulate what people in the school believe and what they seek to create" (DuFour, 1998, p. 25) for their school. Similarly to DuFour, authors Senge (1990) and Hord (2004) indicated that with a shared vision, there was a strong focus and commitment from the staff toward school improvement efforts. Vision can not be imposed or declared by the principal, yet the actions of the principal should guide the staff to develop a shared vision (DuFour, 1998). Professional learning communities in this model were described "as the conduct and habits of minds of the people who work within it" (p. 25) and this was evidenced in the day-to-day functioning of the school. Principals in PLCs engaged staff in co-creation of the vision, facilitated consensus building, conflict resolution and demonstrated a sincere interest in finding common ground with teachers (DuFour, 1998). Principals of PLCs led through a sense of shared vision and values rather than by rules and DuFour (1998) suggested these principals perceived that identifying, promoting and protecting the shared vision and values in the PLC was one of their most important duties as the leader.

Collective Inquiry

Collective inquiry was viewed as the driving force for improvement, growth, and renewal in a PLC (DuFour, 1998). Principals and teachers were described in this dimension of the PLC as collectively seeking answers to problems, testing new methods, reflecting on the results and their sense of curiosity made them open to new ideas (DuFour, 1998). Ross, Smith, & Roberts (1994) referred to collective inquiry as the "team learning wheel" (p. 26). This means teachers do not hoard materials and were not reluctant to enter into any kind of collaboration (Huffman & Hipp, 2003). Accordingly, principals and teacher leaders were proactive in modeling collective inquiry behaviors

with norms embedded for this to occur within the school (DuFour, 1998; Hord, 2004; Huffman & Hipp, 2003).

Collaborative Teams

A structure included in DuFour's PLC (1998) model is collaborative teams, which means grade-level teams shared a common purpose. Building the school's capacity to learn is not individual; rather, it was a collaborative task. Schools that functioned as PLCs were mostly characterized as having a collaborative culture in which teacher isolation was replaced with collaborative structures focused on teaching and learning and where teachers were encouraged to think and act as its leaders. When collaborative teams were fostered, adult learning focused on the renewal of the school and promoted a willingness to work together for continuous school improvement efforts (DuFour, 1998). Similar to DuFour's (1998) model, Prestine (1993) agreed that principals leading PLCs demonstrated these skills: the ability to share authority, the ability to facilitate the work of staff, and the ability to participate without dominating. A school whose staff learned together and participated in shared decisions about its operations required a principal who could let go of power for shared leadership.

Action Orientation and Experimentation

Principals and teachers in PLCs should be action oriented according to DuFour (1998). "Staff should turn aspirations into actions and visions into realities. Not only do they act; they are unwilling to tolerate inaction" (p. 27). Principals led their staff and created a comfort level for reflection about what happened, why it happened and then developed new theories. Traditional schools tended to blame when there were failures and in PLC schools, DuFour (1998) indicated failed experiments were opportunities for growth. This PLC model called for the principal to engage teachers in shared decision making.

Continuous Improvement

DuFour stated that in his PLC model "a persistent discomfort with the status quo and a constant search for a better way characterize the heart of a professional learning community" (p.28); that was evidenced in schools that operated as PLCs. There was a commitment to continuous improvement; members of the PLC recognized and celebrated the fact that the mission and vision were a way of life for the school. For continuous improvement efforts, PLC schools shared data and talked about how to respond to the results. This helped staff own and take responsibility for the schools' results (Hord & Sommer, 2008). In order to continue learning, the principal should create structures and processes to keep conversations going, increased trust for teachers to feel comfortable having this discourse and dedicated time for meetings.

Results Orientation

Those involved in a PLC realized their efforts to "develop shared vision, mission and values; engage in collective inquiry; build collaborative teams; take action; and focus on continuous improvement must be assessed on the basis of results rather than intentions" (DuFour, 1998, p. 29). Developing a culture focused on results was an important component of the PLC. Being result oriented was a significant vehicle for driving toward continuous improvement. These authors (DuFour, 1998; Hord, 1997b; 2004; Hord & Sommers, 2008; Spillane, 2006) believed what gets measured, monitored and given attention by the principal and other leaders in the school will be focused on by the remainder of the organization. When principals in PLCs consistently check on implementation and give support where needed, "then high quality development of the PLC flourishes" (Hord & Sommers, 2008).

The Professional Learning Community Assessment (PLCA) survey instrument used for this study was designed by Huffman and Hipp (2003). A description of the

PLCA is found in Chapter 3. Below is a description of Huffman and Hipp's conceptual framework.

Huffman and Hipp's Conceptual Framework

Huffman and Hipp's (2003) model of PLCs recommended the leadership of the principal was key and the work of schools creating and sustaining PLCs required principals to address all PLC attributes: supportive and shared leadership, shared values and vision, collective learning, supportive conditions and shared personal practice. Huffman and Hipp (2003) found the development of shared values could serve to help staff identify the necessary work. Data from the study, *How leadership is shared and visions emerge in the creation of learning communities* (Hipp and Huffman, 2000), noted it was difficult to separate the dimensions of collective learning, application and shared personal practice. Collective learning allowed the opportunity for teachers to collaborate, apply new knowledge, skills and strategies. Shared personal practice involved not only observing peers and providing feedback, it included sharing the results of new practices in formal and informal settings. The study (Hipp & Huffman, 2000) also suggested schools that institutionalized PLCs, the attribute of shared practice included teachers meeting to analyze student work and the revision of instructional strategies. This resulted in collective learning that could open the door for continuous learning through shared personal practice. These researchers (Hipp and Huffman, 2000) stated supportive conditions were the glue that could hold the other dimensions: supportive and shared leadership, shared values and vision, collective learning, and shared personal practice together. Additionally, within PLCs, Huffman and Hipp (2002) stated staff who "intentionally and collectively engaged in learning and work in matters directly related to classroom practice benefitted student learning" (p.42).

Walker and Sackney (1999) viewed "mature learning communities as having social cohesion, which included trust, hope and reciprocity" (p.24) and these authors

suggested without creating a culture of trust, respect, and inclusiveness with focused efforts on relationships, funds, time, and resources would have little effect on creating a PLC. Huffman and Hipp (2003) believed the entire school community—teachers, parents, and central office staff—should be involved in collaborative efforts to achieve the goals of the school and to sustain efforts.

An evaluation study in 2002 conducted by the school district staff where the study was conducted included focus groups of elementary staff and surveys of a representative sample of school system teachers and administrators from elementary and secondary schools. The findings suggested that all principals surveyed and two-thirds of teachers reported that a PLC was evolving in the schools and teachers and administrators wanted more time for planning, collaboration and more training. Little research has been conducted on the results of the implementation of the PLC in elementary schools, the role of the principal, and the effects on student achievement since the inception of the PLC program in the school district being studied.

Statement of the Problem

The School System

The county school district in which the study was conducted is a large suburban district adjacent to one large urban and two large suburban school systems. The school district is located in a middle Atlantic state and has the largest and most diverse school enrollment in the state (State Department Education, 2006). **Thirty-three** of the 199 schools in the system have been selected as blue ribbon schools from 1983 through 2008 and the school district had a **long history of being a leader** as measured by the state assessment program (State Department of Education, 2000; School Performance Assessment Program, 2003; State Assessment, 2004). **It** has consistently maintained a high rate of graduation along with a low dropout rate for students. The average student performance on the Scholastic Achievement Test (SAT)

was 1616 with an 87% senior participation rate. According to Newsweek Education (2006), the district had 17 schools listed in the nation's top 1,000 high schools; 5 high schools were in the top 100 with rankings of eleventh and seventeenth.

Demographic Changes

The demographics of the county school system changed a great deal since 1983. In the last 25 years, student enrollment grew from 91,030 in 1983 to 137, 798 in 2006 – 2007, a 51% increase (Strategic Plan for the School System, 2007). Over this period, enrollment gains had largely been among African American and Hispanic groups. Between 1983 and 2006, African American enrollment increased by 18,906 or 22.9% and Hispanic enrollment increased by 24,194 or 20.7%. The district reported in its annual strategic plan (2006) that it enrolled nearly half of the state's English language learners and more than one-fifth of all students received federal meal assistance. The highest poverty group grew at twice the rate of the total enrollment in the school system and student backgrounds included 138 foreign countries and 119 different languages. Schools in the district's more urbanized area served a high percentage of lower socio-economic students.

The disparity in student achievement formed the basis for the county school district to develop a plan to address the need for elementary schools in particular to respond to these changing demographics. Consequently, the school district introduced the concept of PLCs in all elementary schools to meet these and other demands in 2001. Over the five years of introduction and implementation of the professional learning community concept, there has been no systemic study to analyze the extent to which the program implementation in elementary schools as perceived by the principal and teacher leaders has sustained a culture of PLC as was intended by the school system. This study should determine if there are differences in the perceptions of principals, staff development teachers, and 5th grade team leaders regarding PLC implementation based on the five

PLC attributes—shared vision, shared and supportive leadership, collective learning, shared practice, and supportive conditions between elementary schools that have achieved AYP and elementary schools that have achieved AYP with the provisions of safe harbor and/or inclusion of confidence intervals.

State Assessment Program and Adequate Yearly Progress

The state assessment program in reading and mathematics met the testing requirements of the federal NCLB. The state assessment program was a tool for school improvement and an overall measure of students' knowledge accumulated over several years of school. Under the federal NCLB act, the state assessment measured and reported student and school performance. The assessment was administered to students in grades 3 and 5 beginning in school year 2002 through 2003 and grade 4 students in 2004. The NCLB required all schools to demonstrate that students are achieving AYP in reading and mathematics. Meeting Adequate Yearly Progress (AYP) targets was an important school improvement goal for all schools, especially the performance of minority student groups. The purpose of this study was to determine whether the PLC program had been fully implemented during the seven years it has been in place between two groups of schools. Group one of the schools selected for the study achieved AYP. Group two of the schools achieved AYP through the provisions of safe harbor and or the confidence interval. Adequate Yearly Progress and how it was determined is discussed below.

Adequate Yearly Progress

Education Week (2004) described AYP as the measure by which schools, districts, and states are held accountable for student achievement under the Title I of the No Child Left Behind Act of 2001. Adequate Yearly Progress was introduced into federal law in the 1994 reauthorization of the Elementary and Secondary Education Act. Used to determine if schools are successfully educating students, AYP was designed to ensure

that each year schools and school systems demonstrated continuous improvement toward the goal of 100% proficiency in reading and mathematics by 2014 as measured by NCLB. The reading standards are required to be tested annually in grades 3 through grade 5 for elementary school students. The results are compared to prior years, and based on state AYP standards, states then determined if the school had achieved AYP toward the proficiency goals. The federal law gave states the flexibility for defining yearly progress; however, states must include the following elements.

- States must set a baseline for measuring students' performance toward the goal of 100 percent proficiency by the spring of 2014.
- Benchmarks must be created by states for how students will progress each year to meet the 100 percent proficiency by the spring of 2014
- A state's AYP must include separate measures for reading and mathematics and must apply to all subgroups (American Indian, Asian, African American, Hispanic, White, Free and Reduce Meals students (FARMS), special education, and Limited English Proficient (LEP) students are represented in the school.

How AYP is Measured

Schools must achieve thirty-seven (37) targets annually in order to achieve AYP. If a school does not achieve any one of these targets, the school will not meet AYP. The targets included nine for reading proficiency, nine targets for participation in reading testing, nine targets for proficiency in mathematics, nine targets for participation in mathematics testing, and one target for an additional academic indicator—attendance rate for elementary schools. Adequate yearly progress can be achieved with at least 95% of students in each of the subgroups. Each subgroup of students must meet or exceed the annual measurable objectives (AMOs) established by the state each year (Education Week, 2004). The AMOs are "state established performance targets" that assessed the

progress of student subgroups, schools, school districts, and states annually (State Department Education, 2008).

Schools must meet the reading and mathematics targets for their entire student population and for the eight student subgroups—American Indian, Asian, African American, Hispanic, and White students, special education, LEP, and students receiving free and reduced-priced meals (FARMS) as presented in Table 1. Each subgroup had the same target and the target increased each year in order to bring schools closer to the 100% federal goal of students at or above proficiency in reading and mathematics. The state target for participation in testing was 95% of students participating in testing. Students who were absent or did not participate in the test were given a basic score.

How Schools Achieve Adequate Yearly Progress

In this example as illustrated in Table 1, the school did not achieve AYP in one cell, the FARMS subgroup for the reading. A school must have at least five students in each subgroup to be accountable for that subgroup's proficiency. If there were less than five students in a subgroup, the school was then not accountable for the performance of the given subgroup. In order for a school to be held accountable for participation, there must be at least 30 students tested for one grade level or 60 students tested for two or more grade levels. If fewer than these students were assessed, then an "NA" appeared in the cell.

Why Some Schools Achieve AYP without Required Performance of Proficiency

This study sought to assess the extent to which the PLC program has been fully implemented in two groups of elementary schools. Group one of the schools achieved AYP by meeting or exceeding the AMO and schools in group two achieved AYP by

using the provisions of the confidence interval and or safe harbor. The provisions of confidence interval and safe harbor will be explained below.

Table 1

AYP Table

	Reading AMO	Reading Participation	Math AMO	Math Participation	Attendance
All students	Met	Met	Met	Met	Met
American Indian	NA	NA	NA	NA	
Asian	Met	Met	Met	Met	
African American	Met	Met	Met	Met	
Hispanic	Met	Met	Met	Met	
White	Met	Met	Met	Met	
FARMS	Not Met	Met	Met	Met	
Special Education	Met	Met	Met	Met	
LEP	Met	Met	Met	Met	

Confidence Intervals

Confidence interval is a statistical tool that was used in this state's AYP determinations to ensure accurate and reliable accountability decisions. The accuracy of scores depended on the number of students in each group. The state used confidence interval to help ensure fair and valid AYP decisions were made for each group with different number of students (State Department of Education, 2008). As presented in Figure 1, confidence interval for AYP purposes is a percentage range with the AMO in

the middle of the range. Percentages that fell within the confidence interval are considered statistically the same as the AMO. In order for a school to achieve AYP, all subgroups had a proficiency rate greater than or equal to the lower end of the confidence interval. The graph below presented in Figure 1 shows the Reading 2007 AMO with confidence intervals for grades 3 through 5. The black horizontal lines on the graph represent the 2007 annual measurable objective (AMO) for a school that has grades 3, 4, and 5. In compliance with NCLB, the AMO target increased each year toward the goal of 100% in 2014. Confidence intervals are also different whenever the AMO is different and the higher the AMO, the smaller the confidence intervals. Since the accuracy of measures of student performance depended on the number of students participating in the assessments (the more students; the more accurate), the state used a statistical test to take into account the number of students who participated in the assessment.

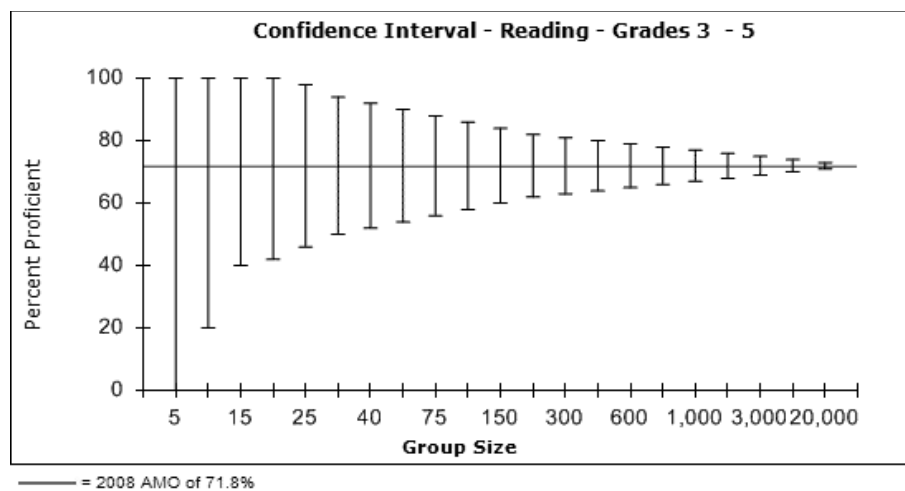


Figure 1. Confidence interval reading grades 3 -5

The graph shown in Figure 2 illustrates the percent of [AYP eligible](#) students who performed at the proficient level on the state assessment. Each bar represents the percentage of either all students or one of the eight subgroups who performed at the proficient level. The color of the bars indicates whether the school met the AMO target:

black bars represent "met" and white bars represent "not met". The black horizontal line at the 69.1 % is the 2008 annual measurable objective (the AYP target) for mathematics for schools with grades three through five. Adequate Yearly Progress targets were set by the state in accordance with the requirements of NCLB and varied depending on the number of tested grades in each school. The black lines perpendicular to the black line are called confidence intervals. The confidence intervals were based on a statistical test used to answer the question, "Is the school's performance significantly below the AYP target?" In this instance, as represented in Figure 2, the school did achieve AYP by meeting or exceeding the AMO in mathematics for each subgroup. However, through the provision of confidence interval for three subgroups (Hispanic, special education and LEP) the schools met the target for mathematics.

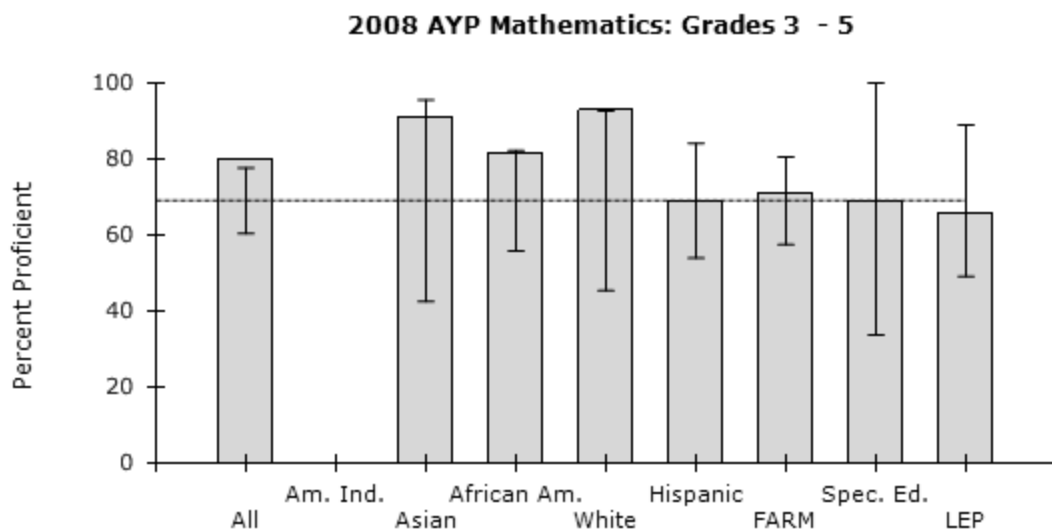


Figure 2. AYP achieved through confidence interval

Safe Harbor Provision

Another way schools can achieve AYP is through the provision of safe harbor. This provision outlined in No Child Left Behind legislation was applied only when the following conditions were met: 1) the aggregate or all students met the AMO for the

reading and mathematics indicators, 2) all students and each subgroup met the required participation rate of at least ninety-five percent (95%) and 3) the school reduced by ten percent (10%) the number of students performing below proficient in that subgroup from the previous year. Safe Harbor was calculated using the last two years of test administration data (State Department of Education, 2008). As illustrated in Figure 3, this graph shows the percent of [AYP eligible](#) students who performed at the proficient level on the state assessment. Each bar represents the percent of either all students or one of the eight subgroups who performed at the proficient level. The color of the bars indicated whether the school met the AMO target: black bars represent "met" and the bars with horizontal lines represent the school achieving the AMO through the safe harbor provision. The AMO for reading 2008 was 71.8%. The horizontal line at the 71.8 % was the 2008 AMO (the AYP target) for reading for schools with tested grade levels. The school's AMO target was an aggregate of the state AMOs for each grade level assessed in the school. In compliance with NCLB guidelines, the AMO will increase each year toward the ultimate goal of 100% in 2014. For the elementary school represented in Figure 3, the schools achieved AYP through the provision of safe harbor for the Limited English Proficient subgroup and the confidence interval was used for the special education subgroup.

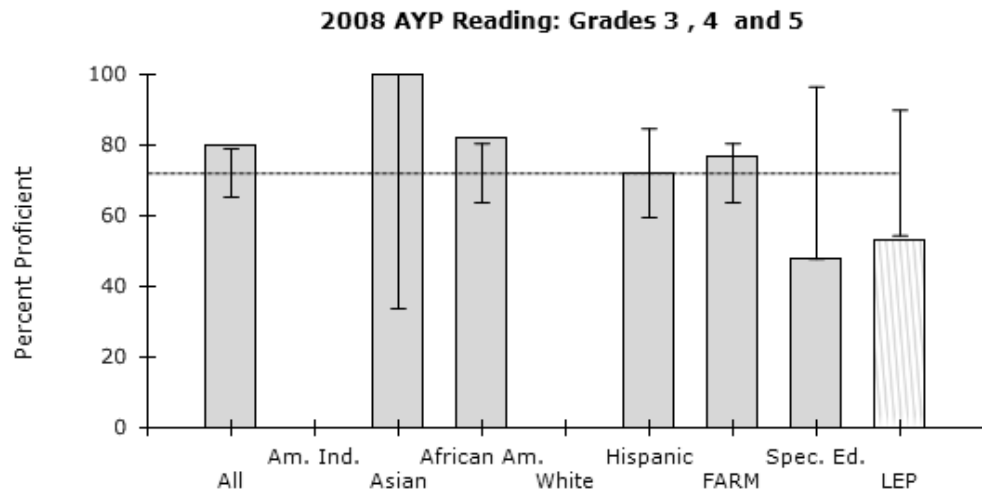


Figure 3. AYP achieved through safe harbor

The PLC program was implemented in all elementary schools in this county school district in 2001 in response to improved student achievement particularly related to schools achieving AYP as measured by the state assessment program. The need for schools to achieve AYP has caused great urgency among principals, teachers and districts. Therefore, the county school district identified the PLC strategy as a means for improving teaching and learning. It was important to note that the central administration of this county school district committed new resources to each elementary school in the form of a staff development teacher to assist the principal and teachers with the implementation of the PLC program. All elementary schools implemented the PLC program. The research for this study began with an extensive literature review of the most current information related to PLCs, principal leadership, teacher leaders, and the change process. Barth (2006) suggested that schools and districts that responded to the accountability pressures were not the norm. Schools have not typically been designed to engage people in collaborative work for sustained achievement of students or where they subjected their practice to the critical lens of their peers based on teaching and learning.

Schools having to achieve AYP have caused the need for all to work together in PLCs to meet this goal.

Purpose of the Study

The purpose of the study was to assess the extent to which the PLC program has been fully implemented in two groups of elementary schools in one county school district and whether that implementation has sustained a culture of a professional learning community. The results of this study will be used to inform district leaders of the progress the two groups of schools have made in implementing the PLC program since 2001. There are 130 elementary schools in the county school system and 80 elementary schools were selected for the study. The selection of the schools is discussed more fully in the section on Procedures.

Research Questions

Four research questions framed the study of the county school district's efforts to implement the PLC Program. The questions are stated so as to examine the efforts that were made to implement the PLC Program in two groups of elementary schools. The questions sought information from the perspective of elementary principals, staff development teachers and 5th grade team leaders regarding the success elementary schools had in implementing the five dimensions of a professional learning community. The study is formative in nature and is designed to inform district leaders, principals, and principal trainers of areas that warrant changes for continued effectiveness of school leaders operating schools as PLCs and importance of the PLC domains to successful implementation. The four questions are as follows:

1. From the perspective of elementary school principals, are there differences in the mean perceptions of principals regarding the five leadership domains of a professional learning community: shared and supportive leadership, shared values and

vision, collective learning and application, shared personal practice, and supportive conditions—relationships and structures, between elementary schools that have achieved AYP and elementary schools that have achieved AYP with the provisions of safe harbor and/or inclusion of confidence intervals?

2. From the perspective of the staff development teachers, are there differences in the mean perceptions of staff development teachers regarding the five leadership domains of a professional learning community: shared and supportive leadership, shared values and vision, collective learning and application, shared personal practice, and supportive conditions—relationships and structures, between elementary schools that have achieved AYP and elementary schools that have achieved AYP with the provisions of safe harbor and/or inclusion of confidence intervals?

3. From the perspective of the school's 5th grade team leaders, are there differences in the mean perceptions of 5th grade team leaders regarding the five leadership domains of a professional learning community: shared and supportive leadership, shared values and vision, collective learning and application, shared personal practice, and supportive conditions—relationships and structures, between elementary schools that have achieved AYP and elementary schools that have achieved AYP with the provisions of safe harbor and/or inclusion of confidence intervals?

4. What external and internal factors impacted district leaders in implementing the program design to move elementary schools in the direction of becoming a professional learning community?

Definitions

Adequate Yearly Progress (AYP) - is the gain that schools must make each year in the proportion of students achieving proficiency in reading and mathematics. To achieve AYP, schools must meet the annual measurable objective in reading and

mathematics for students in the aggregate and for each student subgroup, and meet the testing participation requirement of 95%.

Collective learning and application - the principal and teachers share information and work collaboratively to plan, solve problems, and improve learning opportunities. Together they seek knowledge, skills and strategies applying the new knowledge to practice.

Confidence Interval - is a statistical procedure used in all tests of Adequate Yearly Progress (AYP) determinations to ensure accurate and reliable accountability decisions. Because the accuracy of scores depends on the number of students in each group, the state uses a statistical test to help ensure fair and valid decisions for groups with different student numbers. Schools can use the provision of confidence interval to meet the Annual Measurable Objectives (AMO) requirements for subgroups in reading or mathematics.

Distributed Leadership - decision making is shared among other leaders in the school including teachers and is not solely the responsibility of the principal.

District Leader - area superintendent, chief lead area superintendent, deputy superintendent, associate superintendent, and director of school performance. These leaders are responsible for the continuous improvement of student performance. The area superintendent and directors of school performance supervise schools.

Leadership system - the school (principal, leadership team, teacher grade level representatives, and professional support staff) has processes in place for monitoring and communicating the mission, goals, and action plans. The leadership system is designed to create the mission to support a high-performing organization focused on continuous improvement.

Leadership Team- is comprised of the principal, assistant principal, grade level teacher representatives, and professional support staff and teacher leaders. This group is

the school's governance council that participates in shared decision making and as an approach used for distributed leadership roles among others.

Principal - is responsible for administering and supervising the school program and providing educational leadership for students and staff. The principal should foster a collaborative environment through shared vision and shared decision making and lead school improvement initiatives.

Professional learning community - organizations that exhibit shared mission, vision, and values and goals through collective inquiry, collaborative teams, action orientation and experimentation, continuous improvement, and results orientation.

Safe Harbor - this provision allows a school to achieve AYP if the school meets all performance targets in the aggregate and the subgroup meets the other academic indicators, and the percentage of students achieving below the proficient level in that subgroup decreases by ten percent. Safe Harbor is calculated using the last two years of test administration data.

School Improvement Team - is comprised of teacher leaders, grade level team leaders, and parents who meet periodically to review the school improvement goals and objectives.

Shared practice - peer visits with other teachers and observing other teachers to offer encouragement, to learn and provide feedback on instructional practices to increase organizational and individual capacity for the enhancement of teaching and learning.

Shared values and vision - staff shares the vision for school improvement that has a strong focus on teaching and learning. Shared values support norms of behavior that guide decisions about teaching and learning.

Staff development teacher (SDT) - is an experienced teacher who works with the principal to provide job-embedded professional development to build teacher capacity in knowledge and their repertoire of teaching skills. The SDT ensures training initiatives are

related and in support of school improvement for the purpose of closing the achievement gap. Each elementary school has one staff development teacher.

Stakeholders - the principal, assistant principal, teacher leaders, teachers, parents and students.

Supportive Conditions - collegial relationships which include respect, trust, norms of critical inquiry and improvement, and positive, caring relationships among teachers and administrators. Structures include a variety of conditions such as size of the school, proximity of staff to one another, communication systems, and the time and space for teachers to meet and examine practice.

Supportive and shared leadership - the principal participates democratically with teachers by sharing power, authority, and decision making and by promoting and nurturing leadership among staff for instructional improvement and other aspects of the school.

Team leaders- grade level representatives selected by teachers and professional support staff who serve as members on the school's leadership and/or school improvement teams. These teachers lead discussions at their levels and have active input in the decision-making process.

Delimitations

1. It should be noted that the area superintendents selected elementary schools in the area supervised for the schools who achieved AYP and those that achieved AYP with the provisions of Safe Harbor or the confidence interval.

2. The researcher has established positive relationships with principals. There is a high level of trust and value of principals' honest and open feedback. Data collection will be anonymous to deal with this delimitation.

3. The elementary schools selected to participate in the study required the principal's tenure at the school to be at least for three years.

Limitations

1. This study is limited to one county school district's efforts to develop and implement PLCs in its elementary schools. The concept of PLCs for this study is in the context of elementary schools in a single school system. It is also designed to meet the needs of a single school system and may not be generalized to school systems whose needs vary from the school system in which the program was designed.

2. The study is restrictive in nature as the findings represent one county school district in which the study will be conducted. The study will be limited to elementary schools only and does not include middle or high schools which were included in the countywide plan for implementation of PLCs.

Assumptions

The researcher assumes that the program participants will be candid in their responses. Furthermore, through these interactions, the value of and barriers to program implementation will be revealed as a result of the study. Program participants will respond in a fair and honest manner.

Organization of the Study

The study of PLCs in one county school district's elementary schools consists of five chapters. Chapter I presents an overview outlining the significance of the study as well as the conceptual framework the school system used to create the PLC program, and the purpose of the research.

Chapter II is a review of the achievement gap as a need for the role of the principal in the PLC, the change process and the concept of PLC. The literature highlights the complex nature of schools in response to closing the achievement gap, the use of distributed leadership in the PLC, the role of the principal and teachers in the PLC,

issues surrounding principals who cannot share leadership, and the benefits of shared practice.

Chapter III restates the problem in terms of what the literature reveals about PLCs and the role of the principal. This section focuses on the population under study while providing support for limiting the study to one school district. This chapter identifies the sources of information used in the study (survey) as well as a specific section about data collection and analysis procedures.

Chapter IV includes a restatement of the problem and the findings of the study. The research questions are restated in addition to a summary of the data collection. An organized presentation of the findings focused on the research questions were provided in the chapter.

In Chapter V, includes a research summary, findings of the study, conclusions of the study are discussed based on the results of the study. Implications for practices are suggested as well as recommendations for further research.

CHAPTER II

REVIEW OF LITERATURE

The literature on professional learning communities (PLCs), the attributes of professional learning communities, the role of the principal, and other leaders in the school are all receiving increasing attention. There are elementary schools that have used the educational reform strategy, PLCs, to redesign the school community around teaching and learning. According to Huffman and Hipp (2003), the term professional learning community (PLC) emerged from organizational theory and the idea of PLC is defined as a means for promoting school capacity building for sustainable improvement and student learning. The Southwest Educational Development Laboratory (1997) reported PLCs as an organizational arrangement that is seen as a powerful staff development approach and a potent strategy for school change and improvement.

This review of research is designed to report the literature related to professional learning communities with a focus on the role of the principal and other leaders in the school. The policy and professional environment of schools has shifted a great deal in the last few decades in response to attempts at closing the achievement gap between Black, Latino, and lower economic students and their White counterparts (Education Trust, 2004). Several authors (Education Trust, 2006; Northwest Evaluation Association, 2006) have suggested that the standards movement and high stakes testing have contributed to matters of teaching and learning in the debate of school improvement and the role of the principal.

The Achievement Gap

The publication of *A Nation at Risk* (April, 1983) called into question the quality of American public schools and laid the groundwork for educational reform. Various authors defined the achievement gap as the difference between the academic performance

of Black and Latino students, students receiving free and reduced price meals, and their White peers (Education Trust, 2004; 2006; Northwest Evaluation Association, 2006). The Northwest Evaluation Association (2006), suggested "the gap is not only a product of having high proportions of poor and minority students with low skills; it also reflects the low proportion of students at the top" (p.5). In 2001, the federal legislation *No Child Left Behind* (NCLB) was authorized as the United States' "national commitment to raising the achievement for all students and closing the achievement gap" (Education Trust, 2006, p. 1) between all low income students and their peers. Bartlett (1994) identified the segregation of lower economic populations by poverty and the immigration of Latino and other ethnic groups as a macro social force that would greatly impact schools. According to the National Center for Education Statistics (2006), between 1979 and 2005 there was a significant increase in the number of non-English speaking, poor school-age children from 3.8 million to 10.6 million. Legislative mandates have made progress in achieving school integration; however, "resegregation" within integrated schools is rampant, greatly contributing to the achievement gap (Association for Supervision and Curriculum Development, 1996, p. 14). For example, in 1968, 76% of Black and 55% of Latino students attended predominately minority schools. In 1991, these statistics improved slightly for Black students but were worse for Latino students (National Center for Education Statistics, 2006). Similarly today, a large percentage of Black (70%), Latino (73%) and American Indian (65%) students attended high poverty schools. Most Black (51%) and Latino (56%) students attended schools in which 75% or more of the student population are minorities (National Center for Education Statistic, 2006).

According to the Education Trust (2003), reading achievement for Black and Latino students significantly increased throughout the 1970s and 1980s and the achievement gap narrowed more than half between Black and White students. Several research studies (Education Trust, 2005; National Center for Education Statistics, 2006)

indicated that during the 1990s, in the area of reading, the achievement gap increased between Black students and their White peers and between 1990 and 2005 the differences between White, Black, and Hispanic students' achievement in reading and mathematics increased and decreased for 4th grade students. The Education Trust (2003) suggested progress stopped for Latino children during the next decade and that nationally, "too few" (p. 1) Black and Latino children read or performed mathematics at proficient levels.

Achievement levels which outlined what students should know and be able to do provide another measure of student performance relative to the achievement gap. The National Assessment of Educational Progress (NAEP) assessed the performance of 4th grade students in reading and mathematics in 2003. The findings revealed that 4th grade students in large public school districts with a minority enrollment of 75% or higher performed at "low average" in reading and mathematics. The Education Trust (2004) examined student performance from 2003 to 2005 on state assessments and the findings suggested progress in raising achievement with the most improvement at the elementary level. However, the Education Trust (2004) suggested the "pace of improvement is too slow to ensure all students" (p. 1) will be proficient in reading and mathematics by 2014.

Several federal and state commission reports (Educating America, 1990; National Commission on Excellence in Education; National Education Goals, 1999; National Governor's Association Time for Results, 1986; National Governor's Report, 1989; The Presidential Commission Report; A Nation Prepared: Teachers for the 21st Century, 1986) proposed fundamental restructuring of schools, a need for important changes in the organizational structure of schools, extending teachers a role in school governance, changes in the role of the principal, the autonomy of schools, and the educational goals of the American education system to address the issue of the achievement gap (Conley, 1996). Researchers have underscored the need for schools to function as communities

and reformers suggested transforming schools' structural and normative aspects for the purpose of improving "teacher's knowledge and skills so that learning increases" for all students (Southwest Education Development Laboratory, 1997, p. 1). Cohen (1988) suggested education and business leaders recognized that the traditional structure and organization of schools were not well-suited for closing the achievement gap, the main challenge facing schools today.

Armor (2004) suggested NCLB attempted to close the achievement gap without identified proven methods or strategies for poor or minority students. Thernstrom and Thernstrom (2003) suggested promising practices and programs have been inspired by NCLB, but many have not been replicated or successful on a wide scale. According to Linn (2003) no large or diverse school system has achieved the NCLB goals and suggested the likelihood of meeting the 100% goal in 2014 is extremely low. Kannapel, Clements, Taylor & Hibpshman (2005) suggested that high-performing schools serving mostly Black, Latino and high poverty students shared common characteristics of high expectations, shared vision, collective inquiry, and a nurturing school environment. Education Trust (2004) has identified successful schools using PLCs as a strategy for the closing the achievement gap for Black and Latino students. Although the leadership of the principal is an essential element of the success of the school, research indicated that the complexities of schools required a new focus on collaborative leadership, a move away from a hierarchical model of leadership and the creation of a sense of community in which leadership is shared (Pounder, 1998; Retallick & Fink, 2002). The Maryland State Department of Education (MSDE, 2006) acknowledged one effective way to help "students achieve and make progress in closing the gap" (p.9) is by building a successful school community of shared vision, understanding of the work, communication, problem solving and professional development.

Characteristics of Professional Learning Communities

A number of authors have listed what they believe are essential characteristics of PLCs (Boyd & Hord, 1994; DuFour, 1998; Hord, 2004; Huffman & Hipp 2003). For instance, DuFour (1998), Hord (2004), and Hord and Sommers (2008) all delineated the following characteristics as important to PLCs: shared mission, vision and values, collective inquiry, collaborative teams, supportive leadership, shared practice, action orientation, experimentation, and results oriented. Kenneth Leithwood and Carolyn Riehl suggested in an article entitled, "What We Know About Successful School Leadership" (National College for School Leadership, 2003), and Linda Lambert in her book, *Building Leadership Capacity in Schools* (1998) concluded that successful school leaders identified and articulated a vision, created shared meaning, empowered others to share in the decision-making, engaged others in strategic planning, created high performance expectations, fostered the acceptance of group work, communicated effectively and developed people and the organization. Lambert (1998) concluded the "habits and conditions" (p.11) that allowed a staff to work well as a unit contributed to a "professional learning community" (p.11) and in PLCs teachers who participated in decision-making, had a shared sense of purpose, engaged in collaborative work, and accepted joint responsibility for the outcomes of their work.

Leaders of successful organizations created a climate so that people can work together. This theme is espoused in the quantitative study *Perceptions of Professional Learning Communities*, conducted by Huffman and Jacobson (2003). Eighty-three educators completed the questionnaire and the findings revealed 43% of the participants believed the core component processes of a PLC: (a) provided a safe environment for diverse ideas, beliefs, and strategies; (b) being a democratic organization guided by positive principles, ethics, values and (c) exhibited a collaborative style of leadership by the principal were reflected in their schools. Less than 20% believed their schools rarely exhibited these characteristics. Findings further indicated participants believed principals

who exhibited characteristics of collaborative leadership or a transformational style have a higher chance for success in the creation of a PLC. Louis and Kruse (1995) identified six important dimensions of campus leadership: leadership at the center, support for classroom teachers, a vision of PLC, a culture of high intellectual quality, management of conflict, and a community that is inclusive.

Several studies of individual schools that successfully improved the achievement of students were viewed as having PLCs that developed these five dimensions or characteristics of PLCs (Hord, 1994, 1997, 2000, 2001; Huffman & Hipp, 2003; Hord & Sommers, 2008; Morrissey, 2000). The case studies from individual schools (Hord 2000, 2004) revealed important "foundational factors" when present in the culture of the school was perceived as having contributed to the success of the PLC. Hord (2004) also indicated the absence of these foundational factors caused failure or a struggle to create and sustain a PLC. The foundational factors included trust, teachers' voices being heard, the staff focused on teaching and learning and structures established for consistent discourse regarding school programs (Hord, 2000, 2004). Southwest Educational Development Laboratory's research with underperforming schools indicated important parallels between issues with low-performing schools struggle and the five dimensions that support PLCs in high performing schools (Morrissey, 2000). There is evidence from the research conducted (Newmann & Wehlage, 1995; Morrissey, 2000; Hord 2004) that showed when principals and teachers engaged in shared decision-making, teachers worked together, examined practice, discussed teaching and learning in an established PLC, student learning could improve. The PLC operated differently in each of these schools, yet Hord's (1997) five dimensions or characteristics existed in practice at each school studied: shared values and vision, collective learning, supportive and shared leadership, supportive conditions and shared personal practice (Hord, 1997; 2000; 2004; Huffman and Hipp, 2003). Each dimension will be described fully below.

Supportive and Shared Leadership – Dimension 1

Various studies have shown that principals do not have a monopoly on leading in the school (Camburn, Rowan, & Taylor, 2004; Heller & Firestone, 1995; Spillane, 2006). A study of more than one hundred elementary schools in the United States estimated leadership responsibility was usually distributed across three to seven formally designated leaders in the school (Camburn, Rowan, & Taylor, 2004). Hord (2004) suggested that transforming a school into a PLC can only be accomplished with the "principals' sanction and active nurturing of the staff's development as a community" (p.8). The National Association of Elementary School Principals (2008) and these authors (DuFour, 1998; Huffman & Hipp, 2003; McLaughlin & Talbert, 2006) described this PLC dimension as principals having participated democratically with teacher leaders, sharing power, authority, making decisions together and nurturing teachers to own leadership in the PLC. Eaker, DuFour, and Burnette (2002) described this view of the principal leading schools as a PLC:

One of the most fundamental cultural shifts that takes place as schools become PLCs involves how teachers are viewed. In traditional schools, administrators are viewed as being in leadership positions, while teachers are "implementors or followers." In professional learning communities, administrators are viewed as leaders of leaders. (p. 22)

Schools operating as successful PLCs could be viewed as having continuous adult learning, strong collaborative cultures, democratic participation among staff and consensus about the culture of the school (Hord & Sommers, 2008). Hargreaves and Fink (2006) indicated, "The principal is not made irrelevant by the positively distributed leadership that PLCs represent" (p. 127) in schools. Likewise, Klein-Kracht (1993) suggested there should be the need for all –the principal and teacher leaders to "contribute" rather than teachers teach, students learn and administrators manage" (p.

393). This means the principal should work with teacher leaders to develop a culture of collegiality. Barth (2006) described a collegial culture as follows:

- Talking with each other about practice.
- Teachers sharing knowledge about their craft.
- Teachers observing each other while engaged in their practice and
- All staff celebrating each other's successes.

Shared and supportive leaders could promote interactions and relationships that build the capacity for change (Fullan, 2002). The role of the principal in the context of a PLC should "cause greater capacity in the organization" (p. 65) to achieve improved results for students. A teacher at Green Valley Elementary School (Hord, 2004) perceived shared decision making resulted in a feeling among her colleagues that they "no longer work *for* someone, but rather *with everyone*" (p. 49).

Spillane (2006) explored the extent to which leadership responsibility was distributed to teachers in Cloverville schools in a mid-sized urban school district in the Southeastern United States. The findings revealed leadership is stretched over "multiple actors" and classroom teachers were prominently leading and sharing decisions in Cloverville Schools.

Shared Values and Vision – Dimension 2

Huffman and Hipp (2002, p.6) described this dimension as "Staff shares vision for school improvement that have an undeviating focus on student learning. Shared values support norms of behavior that guide decisions about teaching and learning." This fundamental characteristic of a PLC is its strong and unwavering focus on student achievement (Hord, 1997; 2004). Hord (2004) indicated a shared vision is a "particular mental image of what is important" (p. 8) to the school as an organization. Schools that do not have a vision usually find it difficult to develop effective procedures, policies and strategies for school improvement initiatives (Eaker, DuFour, & Burnette, 2002). Senge

(1990) suggested, "You can not have a learning organization without a shared vision" (p.209). Professional learning communities in schools with a well-crafted vision illustrated a clear picture that motivated the staff to reach its goals. According to Hord (1997b), shared values and vision should guide the principal to work with teachers to craft the "binding norms of behavior expected" (p.3) in the school. Simply drafting and imposing a vision upon teachers will not generate collective energy to advance or sustain the vision. The principal's main task as the leader should be facilitating the involvement of others in creating a shared vision for the school. Building a shared vision could be an ongoing challenge confronting all who hoped to create a PLC (DuFour, & Eaker, 1998). After the vision is agreed upon, the principal should keep reminding stakeholders of the vision (Hord, 2004). Brandt indicated (1995), when a school created such a powerful community, individual talent and commitment were harnessed into a group effort that could produce high levels of learning for students.

At each of the five PLC schools studied by Southwest Educational Development Laboratory (Hord, 2004), the principal emphasized "to do what is best" (p.45) for students. Processes varied at each school for development of the vision, however, the principal supported teacher involvement in crafting the school's vision and mission statements.

Collective Learning and Application - Dimension 3

In schools that are PLCs, staff engaged in collaborative processes to obtain new knowledge, to continually learn and work together. According to Hord (2004), this collaborative work is "grounded in reflective dialogue and inquiry" (p. 9), where staff have active discourse about teaching and learning, discussed related concerns and problems. In these conversations, staff is able to resolve teaching and learning concerns by applying new ideas and information to solve the problem.

Huffman and Hipp (2003) described this dimension as "staff at all levels of the school share information and work collaboratively to plan, solve problems, and improve learning opportunities. Together they seek knowledge, skills, and strategies and apply what they learn to their work"(p.45). Principals leading learning communities should provide opportunities for teachers to work collaboratively, learn together and apply what they have learned to teaching and learning in their classrooms. Principles of collective learning emphasized learning together rather than seeking to find out information alone (Hord & Sommers, 2008). However, the entire staff in the PLC should be involved in learning and these professional development opportunities should lead to improved student achievement and teacher development. As a result of teachers learning together, they should be comfortable identifying a solution to meet the needs of students and to develop their repertoire of skills (Morrissey, 2000). Teacher leaders in PLCs should lead professional development for their colleagues, should recognize the value of their craft, share knowledge, focus on instructional strategies and use data to make informed decisions about instruction (Moore & Shaw, 2000).

When principals or teachers lead professional development in schools, this is called job-embedded, just-in-time training or information for their colleagues (Wood & Killian, 1998). Wood and Killian (1998) asserted that job-embedded professional development should not be regarded as a workshop, nor the traditional "sit and get" staff development conducted by experts coming in and out of the school. Rather, job-embedded professional development should be strategic staff decisions about their professional needs which could enrich collective learning. When professional development is collective, job-embedded training, the learning could become "an indispensable part of all forms of leadership and collegial sharing" (Guskey, 2000, p. 38). An important outcome for collective learning in the PLC could be the emergence of teacher leadership (Huffman & Hipp, 2003; Spillane, 2006). Once teachers experience

the benefit of learning from others in the PLC, they should recognize the importance of shared vision with a focus on teaching and learning (Foster & Suddards, 1999). These authors suggested the benefits of teacher leadership could be improved teaching and learning (Ovando, 1994); teacher efficacy (Hipp, 1997; Short, 1994); retention of outstanding teachers (Gordon, 1991; Hart & Murphy, 1990); commitment to change (Hord & Sommer, 2008); enhanced teaching careers (Fullan, 2001); and a high level of accountability for student achievement (Darling-Hammond, 1990).

Principals in these studies (Huffman & Hipp, 2003; Hord, 2004) provided time and support for collaboration. Within a PLC, teacher leadership and strategic principal leadership have complemented each other within the school (Andrews & Lewis, 2002). Findings stated by teachers from schools studied by Andrews and Lewis (2002), that after learning how to become a PLC, "collective inquiry changed my practice" (p. 245). This indicated practice was changed due to shared "ownership and understanding and these concepts under girded practice" (p. 245).

Supportive Conditions – Dimension 4

Huffman and Hipp (2003) asserted that supportive conditions existed when: Collegial relationships include respect, trust, norms of critical inquiry and improvement, and positive and caring relationships among students, teachers, and administrators. Structures include a variety of conditions such as the size of the school, proximity of staff to one another, communication systems, and the time and space for staff to meet and examine current practice. (p.6)

Morrissey (2000) argued that supportive conditions were the single most important factor for successful PLC implementation and were the "first order of business" for principals who desired to create a PLC (p.8). This dimension is credited with outlining the conditions and capacities that supported the school's arrangement as a PLC. More

specifically the logistics—when, where, what, and how the teachers consistently and frequently met as a group for reflection, inquiry, learning, problem-solving and decision-making for the work that characterized the purpose of the PLC (Hord & Sommers, 2008). Researchers (Boyd, 1992; Hord, 2004; Huffman & Hipp, 2003; Morrissey, 2000) described two kinds of supportive conditions that were necessary to create effective PLCs: (1) the logistical conditions and (2) the human capacities and relational factors developed among and across teachers and the principal to accomplish the work productively and in a cordial, professional manner with each other.

Examples of logistical conditions included time to meet and talk, methods of communication, proximity of teachers to their grade level colleagues, common planning time, collaborative roles, teacher leadership, teacher empowerment, and the design of professional development in PLCs (Hord, 2004; Hord & Sommers, 2008; Louis & Kruse, 1995). These structural elements are important and should be known by teachers and designed together in the PLC. These national reports suggested the school day should be restructured to provide teachers time to discuss practice, student data, and the demands placed upon them (National Education Commission on Time and Learning, 1994; National Education Association Special Commission on Time Resources, 1994).

An example of human capacities and relational factors included facilitating bringing teachers together who do not trust and respect each other. This could pose a problem in the PLC for the principal. Bryk and Schneider (2002) reported the importance of relational trust was for schools. They studied more than 250 elementary schools in the Chicago public schools. The study found a 1 in 2 chance that trust positively affected student achievement. Principals could bridge the distrust if they have the capacity themselves to nurture the human capacities demanded by PLC work. Research by Bryk and Schneider (2002) and Tschannen-Moran (2004) maintained that trust among adults working in schools is a critical element to increase student achievement. Developing trust

will pay huge dividends. Tschannen-Moran (2004) declared, "Without the confidence that a person's words can be relied upon and can accurately predict the future actions, trust is unlikely to develop" (p. 22). Therefore, without trust, schools could flounder in their attempts to become PLCs. As effective leaders, principals should provide logistical and relational elements for the PLC to develop in the school. These elements under this dimension are similar to the elements identified by Louis and Kruse (1995).

Principals had developed supportive conditions in schools studied by Hord (2004) for staff to learn together. In schools that were studied, the structures varied from school to school. However, teachers indicated they used the time "productively to improve their instructional practice and increase student learning" (p. 39).

Shared Personal Practice – Dimension 5

Huffman and Hipp (2003) described this dimension as, "Peers visit with and observe one another to offer encouragement and to provide feedback on instructional practices to assist in student achievement and increase individual and organizational capacity" (p.6). These authors (Barth, 2006; Hord, 2004; Midgley & Wood, 1993) indicated teachers should work in a school that valued and supported hard work, accepted challenging tasks, took risks, and promoted teacher learning. According to Hord (1997b), the capacity of teachers and the organization could increase through peer visits and reflection about instruction. These researchers (Hord & Sommers, 2008; Louise & Kruse, 1995) indicated this was the "deprivatization of practice" and suggested that teachers' non-evaluative review of each other's practice is the norm in a PLC. This dimension was a critical aspect of the PLC according to Morrissey (2000) and yet it was the last dimension that is usually developed in the PLC. Joyce and Showers (2002) suggested, without shared practice and conversations about teaching, the knowledge may increase, but the skills and transfer to learning will be very low. When there was ongoing, shared practice in the PLC, Joyce and Showers (2002) indicated more than 90% of the teacher

knowledge will be transferred to learning. In this era of high accountability, a shared vision in schools is to improve teaching and learning for the purpose of achieving Adequate Yearly Progress (AYP).

There were a number of characteristics and definitions outlined by researchers, and converging themes of professional learning community that emerged in the literature. In all cases the emphasis was on vision, shared leadership, cooperation, trust, relationships, collaboration, and collective action.

Professional Learning Communities

A body of research on the PLC strategy used for closing the achievement gap has evolved since 1990 (National College of Education, 2005). According to Hord (2004) professional learning communities are characterized by six themes or dimensions. These themes include: supportive leadership, shared values and vision, collective learning, application of learning, supportive conditions, and shared practice. Hord (2000 & 2004) suggested that these dimensions are not isolated but intertwined in order for the professional learning community to be operational so that the principal and teachers continuously seek and share learning to increase their effectiveness of shared decision-making for students and act on shared information. Other authors suggested a professional learning community can be viewed as an infrastructure for professional development, school improvement, and change (Cowan, Lee, & Olivier in Olivier, 2001), "serving as a new way to organize and arrange staff" (Olivier, 2001, p. 5). Toole and Lewis (2002) reported a broad national and international consensus that suggested a PLC is a group of people sharing and critically asking questions about their practice in an ongoing, reflective, collaborative, inclusive, learning-oriented, growth promoting manner. In 1992, Judith Little argued that PLCs are built when teachers:

- Engage in concrete talk about teaching with one another
- Observe one another and provide feedback about teaching

- Collaborate around planning for instruction.

Little (1992) concluded that joint work (team teaching, collaborative planning, peer observation, action research, sustained peer coaching and mentoring) facilitated the most sustained changes in teaching and learning practices in schools. McLaughlin and Talbert (1993) suggested and confirmed Rosenholtz's (1989) findings that when teachers experienced collaborative inquiry and the professional training to accompany this opportunity, teachers developed and shared a body of "wisdom gleaned from their experiences" (p. 1, cited in Southwest Educational Development Laboratory, 1997). MacMullen (1996), in a review and analysis of factors influencing the Coalition of Essential Schools reform, concluded that a significant requirement for impact is the inclusion of the "whole" faculty in developing the vision, understanding the mission and purpose for which they are engaged and making a decision as to how to implement plans for reform.

Several large-scale studies including *The Teacher Quality of Working Life Study in the USA* (Rosenblum et al., 1994), *Successful School Restructuring: A Report to the Public and Educators from the Center on Organization and Restructuring of Schools* (Newman & Wehlage, 1995), a four-year longitudinal case study and Richard Halverson's paper, *Systems of Practice and Professional Community* (2005) all suggested that PLCs fostered a positive relationship to teacher work-life balance, professional morale and student achievement and that "professional community provided a model for creating the conditions for teachers to hear, share and experiment with new ideas about practice" (p. 5). These studies revealed that comprehensive redesign of schools included decentralization, shared decision-making, teachers teaming, and that a professional community could improve student learning. Other researchers (Louis, Kruse & Bryk, 1995; Louis & Marks, 1996; Louis, Marks, Kruse, 1996; Newmann & Wehlage, 1995; Supovitz & Poglinco, 2000; Youngs & King, 2000), the University of Bristol, the

University of Bath and the London Leadership Center's qualitative study beginning in 2001, entitled, *Creating and Sustaining Effective Professional Learning Communities*, concluded these were characteristics of schools with strong PLCs:

A clear sense of shared purpose and collective responsibility for student learning and professional inquiry among staff to achieve purpose including opportunities for sustained collaboration and reflection of practice:

- Deprivatization of teaching practice and norms of collegiality among teachers and principals
- Opportunities for staff to influence school activities and policies.

The researchers also reported a cultural climate that promoted professional inquiry, risk taking among teachers, and rethinking leadership which provided fertile ground for PLC development.

According to the National College of Education (2005) and the National College for School Leadership (NCSL, 2006), the PLC concept has evolved theoretically and practically over the last decade beginning with eclectic roots from the literature on organizational learning of Peter Senge in 1990. According to Senge (1990), learning organizations allowed people to continually expand their capacity to create the desired results. In the organization, new and expansive patterns of thinking are nurtured; collective aspiration is set free and people learn together to enhance their capacity to create. Senge (1990) stated that the leader of the organization must create shared vision that galvanizes the organization in order to unearth shared pictures about the future. Team learning is essential to the work of learning organizations as this is the process of aligning and developing the capacities of the team to create and get the results they truly desire.

DuFour (1998) characterized PLCs "as the conduct and habits of minds of the people who work within it" (p. 25) and because of the day-to-day functioning there was evidence of the PLC. Schools that functioned as PLCs are mostly characterized by a

collaborative culture in which teacher isolation is replaced with collaborative processes that are deeply embedded in the daily life of the school. Michael Fullan (2002) stated as one of life's greatest ironies, "schools are in the business of teaching and learning, yet they are terrible at learning from each other. If they discover how to do this, their future is assured" (p. 15). An increasing number of schools that have made the discovery and are using the PLC strategy as a method of school reform are getting results.

According to Eaker, DuFour, and DuFour (2002), the "principal and teachers of the PLC are not "invited" to work with colleagues: they are called upon to be contributing members of a collective effort to improve the school's capacity to help all students learn at a high level" (p. 5). These authors stated that in a professional learning community, "administrators are viewed as leaders of leaders" (p. 22) as the view of leadership is extended to include teachers who hold key leadership positions.

Transforming a school into a PLC only occurred with the sanction of the principal and through active nurturing of the staff (Hord, 2004). Hord conducted a mixed method study investigating five schools that were either elementary or middle schools. The research findings from the five schools suggested evidence to support that the principal is the key to the existence of the PLC; principals led teachers to work and learn with a common purpose, developed an organizational structure for staff involvement in shared-decision making, and there was a structure at each school for group learning. Findings from three schools revealed principals were continuous learners and transferred their learning practices to the staff in order to create a community of professional learners. Additionally, principals at three of the schools used similar strategies: developed collegial relationships with staff, focused on student achievement, provided opportunities for teachers to learn and invited teachers into decision-making and implementation. Hord (2004) reported these efforts were in different forms at each of the five schools, yet the intent was the same. Therefore, it is essential to uncover how principals operated in their

roles to develop settings where all teachers take responsibility for the highest quality learning possible at the school. Hord (2004) asserted there continues to be questions about the principals' leadership and implementation, which therefore deserve further attention. The most successful PLC schools examined in her body of research changed their practice by external crisis or opportunity led by a powerful principal who transformed the school into a PLC. Yet, the question remains, "How does a principal create and sustain a collaborative, democratic, and challenging environment of a PLC without relying upon external factors or resorting to autocratic impositions of change?" (p. 4). Hord's research verified that there are successful schools using democratic leadership and ongoing professional development in schools that are referred to as PLCs. Schmoker, in an article entitled, "Tipping Point: From Feckless Reform to Substantive Instructional Improvement" (2004), noted that developing the capacity of educators to function as members of a PLC is the "best known means by which we might achieve truly historic, wide-scale improvement in teaching and learning" (p. 432).

A study conducted by Newmann, King and Youngs (2000) concluded that school capacity consisted of (1) teachers' knowledge, skills and dispositions; (2) professional community; (3) program coherence; and (4) principal leadership as the key to success. Newmann et al. (2000) suggested that the knowledge, skills and dispositions of teachers are not sufficient and that schools must focus on creating professional learning communities. Professional community is not sufficient unless it is channeled in a way that combats fragmentation of multiple innovations and the authors suggested there must be "program coherence" to the extent the schools' program for student and staff learning are coordinated and focused on clear learning goals (2005, p. 5). Fullan (2001) suggested the school developing as a learning community would be seriously undermined if there was not "quality leadership" (p. 65) as the role of the principal was to "cause greater capacity" (p. 65) in order to get better results. Elmore (2000, p. 15) suggested, "[T]he job

of administrative leaders was primarily about enhancing the skills and knowledge of people in the organization, creating a common culture of expectations around the use of those skills and knowledge, holding the various pieces of the organization together in a productive relationship with each other, and holding individuals accountable for their contributions to the collective result."

Association Endorsements for Professional Learning Communities

A wide variety of educational associations have endorsed the concept of PLCs. The National Commission on Teaching and America's Future (2003) concluded that quality teaching required strong professional learning communities. One of its propositions is that teachers must be members of learning communities who contributed to the effectiveness of their schools by working collaboratively with other professionals. According to the National Association of Elementary School Principals (2002), the job of the elementary principal is defined as "leading learning communities" and called upon its members to develop PLCs as one of the three strategies to improve the learning experience of every student. One of the five core propositions that guided the National Board of Professional Teaching Standards (2004) asserted that teachers must be members of professional learning communities who contributed to the effectiveness of their schools by working collaboratively. Similarly, the American Federation of Teachers (2004) suggested that teachers should be engaged in the "continuous process of individual and collective examination and improvement of practice" and that staff development should be "job-embedded and school specific in the PLC concept" (p.1).

The Role of the Principal in the Professional Learning Community

Today, principals are responsible for all aspects of the school and must take the lead for educational reform activities if they want their schools to succeed. The *Sage Handbook of Educational Leadership Advances in Theory, Research, and Practice*

(2005) charted the shift from demands for management and control with focused compliance to shared decision making and decentralized site-based management. Principals emerged as the primary players of the reform stage in the 1980s and the restructuring stage of the 1990s. Kathleen Brown in an article, *Pivotal Points History, Development and Promise of the Principalship*, published in the *Sage Handbook* (2005, p.129), suggested the role of the principal in the 1980s was to "coordinate and control curriculum and instruction." In contrast, the transformational role of the 1990s focused the diffused notion of school leadership and the role of principals as "leaders of leaders" (p. 129).

The restructuring of the 1990s brought the knowledge needed for school improvement back to the school. Due to changing demographics, conflicting societal values and shifting expectations, the role of the principal is ever evolving. The high stakes accountability movement of the 1990s influenced the values of society, reshaped the purpose of schooling, and increased the demands of the principalship. During this time period, the image of the principal was that of "leader, servant, organizational architect, social architect, educator, moral agent, and person in the community" (p.129). During this phase, principals were responsible for leading the transition from bureaucratic to a postindustrial model of schooling. According to Bredesen (1993), the pressure to restructure schools during the 1990s enhanced the role overload and ambiguity while increasing the complexity of school management tasks. Compounding the decision making arena was the phenomenon that Murphy (1994) referred to as principals "leading from the center," and the necessity of input obtained from many different groups prior to decisions being final; thus, added complexity to the principals' job.

The Northwest Regional Education Laboratory (2005) suggested in an article entitled, "Principal Leadership for Accountability: Optimizing the Use of Title II Resources," that public educators were now held "accountable" (p.1) for student

achievement. When schools do not achieve Adequate Yearly Progress (AYP) requirements in the march toward the goal of 100% student proficiency by the year 2014, principals and schools would face strict sanctions. The authors suggested instructional leadership could be a "primary lever to school wide reform" (p.1). Principals must attend to the political, managerial, and instructional components of the job, but instructional leadership has taken the lead. No Child Left Behind (2001) draws a clear and insistent link between instructional leadership and academic achievement to meeting AYP. Specifically, NCLB federal legislation (2001) called for principals to have the "instructional leadership skills to help teachers teach and students learn" (p. 2). While NCLB (2001) pushed the necessity of instructional leadership for principals, it is not a new concept. The Northwest Regional Education Laboratory (2005) suggested skills principals need included the "ability to manage data, lead school improvement efforts, be knowledgeable about curriculum and instruction and have the expertise to shepherd teachers out of isolation into PLCs" (p. 4). The article indicated the principal assumed a new role of facilitator and leader of structural change, and would be "collaborative leaders," "distributive leaders," "visionary leaders," and "site-based leaders" (p. 2).

The Interstate School Leaders Licensure Consortium (ISLLC, 1996) articulated national standards for school principals and provided specific statements of knowledge, dispositions, and actions of the principal that were consistent with the principles of a PLC. However, these researchers argued that these standards were overwhelming for leaders and offered no concrete guidance on specific responsibilities and practices that should take precedence over others or which standards were essential for principal leadership (Waters & Grubb, 2004). According to Boyd and Shouse (1997), the principal served as a facilitative leader of the educational community, empowered all members, and became a personal conduit for communication, information, professional development, and resources. Principals as transformational leaders recognized and fully

understood the relationships between their roles and the resulting impact on the school environment and the ability to create and sustain a learning community (Ellis, 1998). Fullan (2005) suggested the existing principal standards were biased towards individualism, hence implied that school leadership was the sole responsibility of the principal. Fullan (2005) indicated the next iteration of principal standards be developed as standards for school level leaders with a focus on responsibilities rather than on position.

Roland Barth (1990) in his book, *Improving Schools From Within*, suggested there were many important relationships within a school and he found no "characteristics of a good school more pervasive than a healthy teacher-principal relationship and no characteristic of a troubled school more common than a troubled, embattled administrator-teacher relationship" (p. 19). Barth suggested "things between teachers and principals these days have become increasingly strained with growing emphasis on teacher empowerment, pupil minimum competency, collective bargaining, and accountability" (p. 20). Therefore, Barth suggested it is important to bring teachers and principals together to "enrich rather than diminish each other's lives and work" (p. 28); they must "become colleagues, grown-ups and professionals" (p. 36). He suggested the key to improving schools from within lies among the interactions between teachers and principals.

A principal's leadership approach influenced the extent to which PLCs were created and sustained (DuFour, 1998; Hord, 2004). The Institute for Educational Leadership (IEL, 2000) suggested in a report entitled, "Leadership for Student Learning: Reinventing the Principalship," that being an effective manager was not good enough, as the role has changed. The researchers indicated it is clear that principals today must serve as "leaders for student learning" (p.1). The findings of the task force reported the demands placed on principals have changed, but the profession has not changed to meet

the demands. Schools in the 21st century will require a principal whose role will be defined as an instructional, community, and visionary leader. The researchers suggested "everything principals do—establishing a vision, setting goals, managing staff, rallying the community, creating effective learning environments, building support systems for students, guiding instruction and so on—must be in service of student learning" (p.4). Getting all of this done will be a lot to expect of one person. It is important for the principal to provide leadership and the Institute for Educational Leadership (2000) suggested the responsibilities for getting the work accomplished should be "distributed among a leadership team" (p.4). The role of the principal was central and the leadership was a matter of effectively leading a community of teachers (IEL, 2000).

A national study of the principalship, *Making Sense of the Leading Schools* (2003), conducted by The College of Education and the Center on Reinventing Public Education at the University of Washington, revealed the leadership challenge of directing a school can not be reduced to a single formula, that every school does not need the same kind of leadership, and that the rules under which principals act matter a great deal. The report was based on interviews with principals, teachers, and assistant principals in 21 schools across four states. The authors of the study suggested one challenge for principals was to understand what the school needs and then delivering what is required as the core job. Today's principal is a "master diagnostician" demonstrating skills to dissect the complex system in which they work (p. 13). The best principals considered the long-term interests of the school, continuously touching on the vision, mission, and motivation as they proceeded to a decision. The interviews suggested the challenges of finding ways to share leadership tasks and principals were responsible for ensuring that leadership happened in schools. When principals have the freedom to act in the area of human resources, principals constructed new opportunities for "differentiated leadership that marshals joint efforts among all adults in the building" (p. 42). However, when principals

have little say as to who works in their school, the training received by staff, how to spend allocated funds, and when content is taught, moving a school forward can be very difficult.

Kowalski and Reitzug (1993) suggested schools are organizations bound by constraints, often hesitant to take risks, alter traditional roles or adapted to the evolving needs of the school. Throughout the history of public schools, principals were expected to preserve the status quo and to do their work in an efficient manner (Knezvich, 1984). The authors suggested in the last half of the twentieth century, societal conditions coupled with increased knowledge about organizational behavior modified the expectation about the role of the principal.

Waters and Grubb (2004), in an article entitled, "Leading Schools: Distinguishing the Essential from the Important," indicated there were increasing complex demands and challenges facing principals. In light of the reality of the urgency of school improvement, other authors suggested one approach to doing this is distributing leadership responsibilities to others (Copland, 2001; Elmore, 2000; Spillane, Halverson & Diamond, 2001; Whitaker, 2002). The Distributed Leadership Project (Spillane & Sherer, 2004), a 5-year longitudinal qualitative study of elementary school leadership, was conducted beginning in 1999 in eight elementary schools in the Chicago Public School District. The research explored distributed leadership and how it is stretched over multiple leaders and followers in the school. The findings identified leadership as collaborative, collective and coordinated among multiple leaders in the school. These researchers suggested that principals cannot operate solo in fulfilling the responsibilities necessary for running a school. Cambren-McCabe and McCarthy (2003) called for "restructuring roles and relationships at the school level around vibrant core purpose" (p.18) of teaching and learning. The authors indicated getting to this "vibrant core" required the thoughtful distribution of leadership responsibilities to others in the school.

The rapidly changing and increasingly complexity in which schools operated will continue to present new challenges for principals. Fullan (2005) suggested working toward effective school leadership was accomplished by developing other leaders, specifically teacher leaders. In order to share leadership effectively, principals should develop a cadre of potential future school leaders and promote and support the development of other leaders.

Other research has focused on the analysis of behaviors and traits the principal employed as the leader of leaders to bring about change in the school. The shift toward a new role of leadership for the principal is transformed as "a facilitator, moral architect, coach, steward, relationship builder, designer, creator, and sustainer of community, enabler, change agent, nurturer, servant, translator, visionary, democratic teacher, and/or paradox" (Olivier, 2001, p. 84). The role of the principal leader has become a new image of leadership, one who leads change (Olivier, 2001).

Sergiovanni (2001) suggested, "In creating community, what matters most is what the community shared together and accomplishes together. It was this shared idea structure, this community of mind, which became the primary source of authority for what people do in schools. Together, principals and teachers became "followers of the dream and are committed to making it real" (p. 145).

Teacher Leaders in the Professional Learning Community

The complex nature of schools today required principals to share leadership and the work by inspiring, embracing, and creating a culture of empowerment for teacher leaders (Slater, 2008). Blasé and Blasé (2000) suggested with the growing emphasis on closing the achievement gap, school leadership has expanded to include all stakeholders, particularly teachers in shared decision-making in a professional learning community. Phelps (2008) suggested more teachers should function as teacher leaders to improve the achievement of students. For the principal, the trend has shifted from "relying on the

power of the system" to seeking to empower others" to "letting go of control" and building a professional learning community (Caine & Caine, 2008, p. 8) These authors (Buchen, 2000; Danielson, 2006; Slater, 2008) suggested teacher leaders made a difference and complemented the principal when they worked together in a professional learning community. Buchen (2000), Danielson (2006), and Slater (2008) also indicated when teacher leaders understood the vision, knew how to work to achieve the vision and were viewed as a source of expertise in the PLC rather than implementers for others' ideas or plans for improvement, teacher leaders are positioned to greatly influence practice. A qualitative study, *Pathways to Building Leadership Capacity*, (Slater, 2008) revealed that working collaboratively within the context of a shared vision and mission entailed a changed leadership role for the principal. The results indicated principals employed various communication skills and strategies to build trusting relationships that promoted leadership opportunities and increased the capacity of teachers. Participants in this study identified listening, verbal and non-verbal behavior, openness and empathy as essential dimensions and strategies for effective communication skills when building teacher leaders. Slater (2008) suggested "building leadership capacity or eliciting ideas from others required effort, unique insight, and explicit skills on the part of leaders" (p 67). These authors (Lambert, 1998; Lambert; Welch, 1998) suggested communication strategies were important in the creation and sustainment of a PLC and should be embedded within decision-making, consensus, and the resolution of conflict as the prerequisite of effective and basic communication skills. Working collaboratively has involved a redesign of the work not only for the principal but for teachers and parents (Slater, 2008). Barth (2003, p. 62) suggested "building the capacity involved tapping into the reservoir of "underutilized talent within the organization" allowing them to showcase their talents contributing to the work of the school. Barth suggested (2003) principals who intentionally built and supported teacher leaders promoted leadership in others.

Teacher leadership in professional learning communities involved a variety of roles and actions. Lambert (2003) suggested roles of teacher leaders included serving as grade level team leaders, representatives on the school improvement team and or the school's leadership team. In these roles, teacher leaders represented other teachers at school improvement team meetings, convened and lead conversations at grade level team meetings, worked with grade team members to plan instruction, represented teacher's views on the school improvement team, took information back to grade level team meetings and guided teachers in connecting the thinking, planning, and implementation of school improvement activities relevant to the school's shared vision (Hord, 2004; Lambert, 2003; DuFour, 1998; Eaker & DuFour, 2003). In the PLC, the actions of teacher leaders included convening regular grade team meetings, facilitating discourse about collective inquiry of student data and implications for instruction, and teacher leaders acted as coaches and mentors (Weller, 2001). Hord (2004) suggested PLCs should have an infrastructure to support teacher leadership as supportive conditions were a key factor for encouraging shared leadership. Hord (2004) suggested principals in professional learning communities should create a sense of urgency to build teacher leadership using data-driven decisions to keep the school working on the shared vision.

The Staff Development Teacher in the County School District

Killion (2002) suggested for schools to achieve greater results for students, reform should advocate for a PLC and that professional development should be job-embedded for teachers. The National Council for Staff Development (NSCD, 2004) suggested a staff development teacher is another term for a coach and that coaching was the act of helping someone through expanded awareness and shared experience; leverage their talents to do, be and have something faster than they could do alone. Support has multiplied for teacher coaches, according to the National Staff Development Council (2004). For the implementation of the PLC policy in the county school district being

studied, a full-time staff development teacher (SDT) position was allocated to each elementary school. The SDT position was a non-classroom teacher who worked with the principal and established a professional development plan aligned with school improvement goals. Under the direction of the principal, the role of the staff development teacher in elementary schools in the county school district was to spend time with teachers to improve practice. Elmore suggested (2000) that the knowledge building capacity of elementary schools was dependent upon the ability of teacher leaders to encourage teachers to become collaborative learners who should participate in onsite professional development. The National Staff Development Council (2001) suggested that every school should become a PLC, that teachers should work collaboratively and shared common goals for improving student achievement. The role of the staff development teachers (SDTs) in the county school district's elementary schools included helping teachers strengthen their knowledge base, planned and scheduled team meetings, facilitated staff training and expanded teachers' repertoire of teaching skills consistent with the school improvement plan and the teacher's professional development (County Public Schools, 2001). In this role, the SDT reflected a balance of teacher leadership, staff development, and instructional expertise and was an essential component for the effective implementation and sustainment of the PLC in the county school district's elementary schools. Staff development teachers promoted and facilitated job-embedded professional development under the direction of the principal and ensured that training activities related and supported improved student performance. The county school district outlined these duties and responsibilities for SDTs working along side the principal

- Reviewed and interpreted student performance
- Consulted with teachers to assist them with building individual performance plans

- Ensured synergy among school improvement goals
- Participated in personal system training and development activities to remain current with best practices in teaching and learning
- Developed a clear, consistent process for planning and evaluating training based on student performance
- Coordinated professional development with the work of school teacher leaders and provided support to classroom teachers
- Served as a member of the school improvement and leadership teams.

Relationship of Literature Review to the Study

The review of literature established PLCs as a substantive strategy in response to the achievement gap and established the role of the principal in embracing teacher leaders as key to the process. The review provided a historical context by discussing the emergence of the achievement gap and successful leadership practices within the educational arena were examined. The role of the principal has changed from a managerial and autocratic style to an instructional leader who should use the capital resources (teacher leaders) within the school to improve teaching and learning for students. The concepts of learning organizations were defined and professional learning communities were defined as well as a delineation of the characteristics of professional learning communities. Studies suggested that principals should be collaborative and visionary leaders who can engage teachers in collective inquiry and shared decision making in order to facilitate value-added leadership for a successful school.

The NCLB law suggested if principals are instructional leaders, it is logical for school leaders to attend to aspects of the school's organization with consideration for design and implementation of leadership systems. If the school functions as a professional learning community, key stakeholders—the principal, teacher leaders, and staff—worked to support and sustain the norms of practice.

Purpose of the Study

The purpose of the study was to assess the extent to which the PLC program has been fully implemented in two groups of elementary schools in one county school district and whether that implementation has sustained a culture of a professional learning community. The questions sought information on the success schools have had in implementing the five dimensions of a professional learning community. The study was formative in nature and was designed to inform district leaders, principals, and principal trainers of areas that warrant changes for continued effectiveness of school leaders operating in the PLC. The four questions were as follows:

1. From the perspective of elementary school principals, are there differences in the mean perceptions of principals regarding the five leadership domains of a professional learning community: shared and supportive leadership, shared values and vision, collective learning and application, shared personal practice, and supportive conditions—relationships and structures, between elementary schools that have achieved AYP and elementary schools that have achieved AYP with the provisions of safe harbor and/or inclusion of confidence intervals?

2. From the perspective of the staff development teachers, are there differences in the mean perceptions of staff development teachers regarding the five leadership domains of a professional learning community: shared and supportive leadership, shared values and vision, collective learning and application, shared personal practice, and supportive conditions—relationships and structures, between elementary schools that have achieved AYP and elementary schools that have achieved AYP with the provisions of safe harbor and/or inclusion of confidence intervals?

3. From the perspective of the school's 5th grade team leaders, are there differences in the mean perceptions of 5th grade team leaders regarding the five leadership domains of a professional learning community: shared and supportive leadership, shared values and vision, collective learning and application, shared personal

practice, and supportive conditions—relationships and structures, between elementary schools that have achieved AYP and elementary schools that have achieved AYP with the provisions of safe harbor and/or inclusion of confidence intervals?

4. What external and internal factors impacted district leaders in implementing the program design to move elementary schools in the direction of becoming a professional learning community?

Summary

There is a vast amount of research and literature about professional learning communities. Qualitative and quantitative literature concluded that an effective PLC is led by the principal and teacher leaders are encouraged and supported to participate in leadership. There has been considerable research on the attributes and effects of PLC. Researchers and authors have delineated these attributes—shared values and vision, collective learning, application of learning, supportive conditions, and shared practice—as essential to creating and sustaining a PLC. Some of the literature is based on authors' opinions due to their experience as field practitioners. These authors reported schools with an environment where structures included the principal and teacher leaders working collaboratively toward a shared vision that a PLC could be created and sustained. Researchers' and authors' opinions suggested in schools that promoted a PLC there have been higher levels of student achievement because of collective responsibility for student learning and norms of collegiality (Hord, 2004; Hord & Sommers, 2008; Lee & Smith, 1996; Little, 1992; Louis, Marks, & Kruse, 1996; Newmann & Wehlage, 1995).

CHAPTER III

RESEARCH DESIGN AND METHODOLOGY

Introduction

A strategy that has gained momentum as a school improvement initiative is the creation of professional learning communities (PLCs) (Andrews & Lewis, 2002, p. 238; DuFour, 1998; DuFour, Eaker, DuFour et al., 2005; Hord, 1998, 2004; Newmann & Wehlage, 1995, p. 37). Educational policy makers have called for schools to restructure into PLCs, shifting from top down decision making to principals embracing teachers for a high level of involvement in school decisions (Hoerr, 1996, Louis & Kruse, 1995; Prestine, 1993). The county school district in which the study was conducted implemented the professional learning community (PLC) program in its elementary schools in 2001 based on research that suggests that the PLC could be a strategy for closing the achievement gap. However, a better understanding of how the PLC attributes have been implemented in the county school district is needed.

Purpose of the Study

The purpose of the study was to assess the extent to which the PLC program has been fully implemented in two groups of elementary schools in one county school district and whether that implementation has sustained a culture of a professional learning community. The results of this study will be used to inform district leaders of the progress the two groups of schools have made in implementing the PLC program since 2001. There are 130 elementary schools in the county school district and 80 elementary schools were selected for the study. The selection of the schools is discussed more fully in the section on Procedures.

Research Methodology

For this research study, the data were collected using a mixed-method approach that included both quantitative and qualitative methods. The method chosen to evaluate the implementation of PLCs in the elementary schools of a mid-Atlantic school district was the static-group comparison described by Campbell and Stanley (1965). The data were gathered through the use of a survey and individual interviews of district leaders (lead area superintendent, associate superintendent for staff development, and association leaders for teachers and principals) to answer the research questions.

Phase one of the research focused on quantitative data collection methods. Gall, Gall, and Borg (2003) suggested a "survey is useful when a researcher wants to collect data from a sample that has been selected to represent a population to which the data can be generalized" (p. 223). For this study, a survey (See Appendix A) was used to measure behaviors and actions of principals, staff development teachers, and team leaders in elementary schools to evaluate successful implementation of the PLC and not so successful implementation of PLC.

The second phase of the research study focused on qualitative data collection methods. A source of data collection included individual interviews to measure internal and external factors district leaders perceived as impacting principals and teachers from implementing the PLC. The interviews were held with the chief financial officer, lead area superintendent, the leader of the principals' association, and the leader of the teachers' association. According to Gall, Gall, and Borg (2003), an interview involves addressing questions to individuals for a specific purpose. "These individuals were selected because they are well informed about the research topic" (p. 238).

Research Design

The conceptual framework of Richard DuFour (1998) guided this research project. DuFour (1998) identified five leadership domains of PLCs. According to DuFour

(1998), these domains—shared vision, shared and supportive leadership, collective learning, shared practice, and supportive conditions—are important to the creation and sustainment of the PLC and DuFour suggested the principal is the key to creating and sustaining the PLC. The survey information and interview protocols for the study are discussed in detail in the instrumentation section of this chapter.

This mixed-method study was designed to investigate the extent to which PLCs were implemented successfully and not so successfully in elementary schools. The researcher used the static-group comparison strategy, one of the most common mixed method designs that utilizes "two different groups in an attempt to confirm, cross validate, or corroborate findings within a single study" (Creswell, 2003). Accordingly, data analysis was quantitative and qualitative in nature. Quantitative data analysis will be descriptive in nature. According to Gall, Gall, and Borg (2003), qualitative research traditions can be used to investigate the themes, patterns, and relationships in sample populations. Qualitative data analysis employed a logical inductive approach. McMillan (2004, p. 258) suggested in qualitative studies the "researcher obtains information directly from the source" and guiding principles of qualitative research center on purposeful selection of informants, participants and documents (McMillan, 2004).

Location of the Study

The study was conducted in a county school district within a mid-Atlantic state. The county school district ranks number one in the state's school jurisdictions in terms of population and per pupil expenditures. The county school district has rural and suburban characteristics. The majority of increase in minority enrollment is centered in the southern section of the county school district. There are currently 199 schools in the county school district and a new elementary school opened in the fall of 2007. The school district has a student population projected for the 2008 school year of 145, 622 with a

racial composition of 23% African Americans, .3% American Indian, 15% Asian, 20% Hispanic, and 42% White.

In the county school district, the Board of Education is responsible for establishing policy that governs the school district and is the official educational policy-making body. There are nine elected members of the Board of Education who serve a four-year term and a high school student member elected by students for a one-year term. The Board of Education manages the operations of the county school district and monitors the funds from federal, state, and local agencies that support educational programs.

The county school district provides educational programs to a very diverse student population and has crafted its budget to boost the achievement for all students. More than 26% of the students participated in the free and reduced price meals (FARMs) program and 14,718 (65%) students are supported by the English speakers for other languages (ESOL) programs. In 2006, the county school system reported 88% of kindergarten students read simple text and the achievement gap did not exist in reading between White and African American kindergarten students. Forty-six percent of 5th grade students in 2006 were enrolled in 6th grade mathematics and 79% of high school seniors in the county school system take the Scholastic Achievement Test (SAT) with an average score of 1616. Sixty percent of seniors take an Advanced Placement exam which is twice the national average.

The county school district has 199 schools including 130 elementary schools, 38 middle schools, 25 high schools, 1 career and technology school, and 5 special or alternative schools. There are six geographic areas—three suburban, one urban, and two rural areas within the county school district. Each area is comprised of at least four high schools, middle and elementary schools.

Sampling Using Adequate Yearly Progress

Elementary schools in this county school district were selected for this study. Adequate yearly progress (AYP) determinations were used to select the elementary schools. Under the guidelines of No Child Left Behind, schools were expected to achieve defined goals for all students in the areas of reading and mathematics (Education Trust, 2004). States must measure the performance of students annually by assessing students' reading and mathematics skills in grade 3 through 5 in elementary school.

Regular Adequate Yearly Progress (AYP)

Annually, under NCLB, a decision was made every year about whether or not a school was meeting the state determined achievement targets described in Chapter 1. This determination was made when the state compared the percentage of students in each school who met proficiency standards as well as the percentage of students in each subgroup (African American, American Indian, Asian, Hispanic, Special Education, Free and Reduced Priced Meals (FARMS) Limited English Proficient (LEP) and White) who met standards for the statewide goals. At least 95% of the aggregate (all students) and all subgroups must participate in the assessment. Attendance as a quality indicator was measured to determine whether the school met this statewide goal. Additionally, the school's attendance rate was not significantly less than 94% (Education Trust, 2004; State Department of Education, 2009).

Achieving AYP Using the Confidence Interval Provision

Confidence interval is a statistical tool this state used for AYP determinations to ensure accurate and reliable accountability decisions, particularly for smaller subgroups. The accuracy of scores depended on the number of students in each group. Confidence interval was also used to ensure fair and valid AYP decisions were made for each subgroup with different number of students (State Department of Education, 2009). As

presented in Chapter 1, confidence interval for AYP purposes was a percentage range with the Annual Measurable Objectives (AMO) in the middle of the range. Percentages that fell within the confidence interval were considered statistically the same as the AMO. In order for a school to achieve AYP, all subgroups had a proficiency rate greater than or equal to the lower end of the confidence interval (State Department of Education, 2009).

Safe Harbor: Flexibility in Meeting AYP

If a school did not meet the statewide goal in a specific year, the school could achieve AYP if there was a reduction in the percentage of students who were not proficient by 10% from the previous school year and progress was also made on the other academic indicators (Education Trust, 2004; State Department of Education, 2009). Safe harbor flexibility can be applied to the aggregate or any subgroup of students who did not achieve the statewide goals (Education Trust, 2004; State Department of Education, 2009).

In this county school district, all elementary schools achieved AYP as measured by the state school assessment for the 2007 school year. Some schools selected achieved AYP by all subgroups meeting or exceeding the AMO and other elementary schools used the provisions of confidence interval and or safe harbor to achieve AYP. This will be explained further in Chapter 4.

Procedures

After the approval of the dissertation proposal by the research committee and the University's Human Subjects Review Board (See Appendix B), the researcher requested permission from the county school district's research division to conduct the study (see Appendix C). There are 130 elementary schools in the county school district. The district is divided into six geographic areas and an area superintendent is assigned to each

geographic region. In each of these areas, the researcher, in cooperation with the six area superintendents, selected 14 elementary schools for inclusion in the study. These 80 elementary schools were divided into two groups. Group one of the elementary schools for the study achieved Adequate Yearly Progress (AYP) as measured by the state assessment program. Group two of the elementary schools were selected for having achieved AYP with the provisions of Safe Harbor and/or inclusion of confidence interval.

Quantitative methods for the study centered on the use of a survey of program participants. According to Gall, Gall, and Borg (2003), survey instruments can measure attitudes and behaviors. According to Fitzpatrick, Sanders, and Worthen (2004, p. 341), surveys "constitute one of the most important data collection tools available in evaluation." Survey results assessed the perception of the principals, staff development teachers, and team leaders for the implementation of the PLC in elementary schools. Additionally, the survey determined the areas of successful and not successful implementation of PLCs.

For the purpose of the study, the researcher used The Professional Learning Community Assessment (PLCA) developed by Jane Huffman and Kristine Hipp (2003) to assess perceptions based on the five domains of a professional learning community that coincided with the proposed research questions (see Appendix A). The questionnaire addressed the perceptions of the principals, staff development teachers and 5th grade team leaders about their reactions to the implementation of PLCs in the school. A Likert scale was used and scored based on computing the numerical values for rating from number "4" (strongly agree) to number "1" (strongly disagree).

Data Collection Techniques

Four research questions were used to frame the study for the evaluation of the efforts of the implementation of PLC Program and required both quantitative and qualitative data to answer.

1. From the perspective of elementary school principals, are there differences in the mean perceptions of principals regarding the five leadership domains of a professional learning community: shared and supportive leadership, shared values and vision, collective learning and application, shared personal practice, and supportive conditions—relationships and structures, between elementary schools that have achieved AYP and elementary schools that have achieved AYP with the provisions of safe harbor and/or inclusion of confidence intervals?

2. From the perspective of the staff development teachers, are there differences in the mean perceptions of staff development teachers regarding the five leadership domains of a professional learning community: shared and supportive leadership, shared values and vision, collective learning and application, shared personal practice, and supportive conditions—relationships and structures, between elementary schools that have achieved AYP and elementary schools that have achieved AYP with the provisions of safe harbor and/or inclusion of confidence intervals?

3. From the perspective of the school's 5th grade team leaders, are there differences in the mean perceptions of 5th grade team leaders regarding the five leadership domains of a professional learning community: shared and supportive leadership, shared values and vision, collective learning and application, shared personal practice, and supportive conditions—relationships and structures, between elementary schools that have achieved AYP and elementary schools that have achieved AYP with the provisions of safe harbor and/or inclusion of confidence intervals?

4. What external and internal factors impacted district leaders in implementing the program design to move elementary schools in the direction of becoming a professional learning community?

Primary data sources for this question were key Central Office personnel, such as the lead area superintendent, chief financial officer, and the leaders of the teachers' and

principals' associations who will be referred to as key informants for the purpose of this study. The qualitative data for the study were obtained through individual interviews. Interview questions (see Appendix D) were developed based on the external and internal factors of the PLC implementation in this county school district. An interview protocol was developed for the study. The researcher obtained permission from the university (see Appendix B) and school district before conducting the interviews (see Appendix C). The questions (see Appendix D) and order they were asked were determined in advance of the interview. However, the researcher did pursue clarifying questions based on key informants' answers. McMillan (2004, p. 268) suggested that "documents provide first-hand information and are primary sources." Documents can verify and support data obtained from interviews. Gall, Gall and Borg (2003, p. 282) emphasize that documents are "written communications that have an official purpose." Since the documents were produced in the context of the program implementation, the documents can give meaning. Documents released for the study, particularly for Question 4, included "The Call to Action" which outlined recommendations for the PLC program, and "The Framework for Teaching and Learning," which outlined expectations for the PLC program. Internal memorandums detailing the purpose for formation of the program were reviewed for the study. After determining the relevance of the documents, they were coded and categorized to assess information and assisted in analysis and interpretation. Table 2 provides an overview of data sources, methods of collection, nature of data, and data analysis procedures for each question.

Instrumentation

The instrument for the study was the "Professional Learning Community Assessment" (PLCA) developed by Jane Huffman and Kristine Hipp in 2003 (see Appendix A). The PLCA is a descriptive instrument measuring the practices at the school. Factor analysis was the method used by the authors of the survey to provide

Table 2

Data Collection and Analysis Chart

Table 2 (continued)

Data Collection and Analysis Chart

Research Questions	Data Source	Method of Collection	Nature of Data	Data Analysis Procedure(s)
4. What external and internal factors impacted district leaders in implementing the program design to move schools in the direction of becoming a professional learning community?	Lead area superintendent Associate superintendent-staff development Lead academic officer Teachers' Association president Principal's Association president	Focus group interviews Document and artifact review	Qualitative • Opinion • Belief • Factual	Qualitative • Organize by themes • Look for patterns • Draw conclusions • Verbal response • Cluster topics
and vision, collective learning and application, shared personal practice, and supportive conditions—relationships and structures, between elementary schools	Board minutes County school system documents leaders to be surveyed) (N=60)	Scale Survey)		Deviations • Inferential Statistics

evidence of construct validity for the PLCA instrument. The sample included 240 educators. Factor identification consisted of the five domains of a professional learning community. Cronbach's Alpha internal consistency reliability coefficients were computed for the factored subscales of the measure. In the five factored subscales, the Alpha coefficients ranged from a low of .83 (Collective Learning and Application and Supportive Conditions-Relationships and Structures) to a high of .93 (Shared Values and Vision). Thus, the PLCA instrument yielded satisfactory internal consistency (Alpha coefficient) reliability for the factored subscales. The survey was designed to measure the phases of development from initiation, implementation and institutionalization of the PLC. The survey was administered to principals, staff development teachers, and grade 5 team leaders at each elementary school in the study.

The Professional Learning Community Assessment

If educators and school districts intend to use the PLC strategy for school improvement, a clear picture of a community, the dimensions and attributes that created and sustained the PLC must be understood by all (Huffman & Hipp, 2003). The Professional Learning Community Assessment (PLCA) was used to assess perceptions of the principal, staff development teachers, and grade 5 team leaders based on the five dimensions of a PLC—shared and supportive leadership, shared values and vision, collective learning and application, shared personal practice, and supportive conditions and the critical attributes (see Appendix A). The survey contains statements about practices that occurred at the school level. The instrument is a descriptive tool of practice as it relates to shared and supportive leadership, shared values and vision, collective learning, shared practice, supportive conditions, relationships and structures within the school. The PLCA instrument uses a four-point, forced-choice Likert scale ranging from 1 = Strongly Disagree to 4 = Strongly Agree. The instrument has a total of 45 items (see Appendix A). The results of these descriptive statistics included minimum and maximum

values (1 and 4), item means, and standard deviation. According to Huffman and Hipp (2003), the instrument is a "useful measuring tool to assess perceptions" (p. 74) based on the five dimensions of PLC.

The survey was emailed (see Appendix E) to the participants from the elementary schools selected for the study. This included principals, staff development teachers, and grade 5 team leaders. In order to protect the anonymity of the respondents, questionnaires were emailed along with a tracking code. A log was maintained for the individuals to whom the questionnaires were emailed. The addresses and date mailed were noted. A follow-up letter and mailed questionnaire (see Appendix A) were sent to respondents when a reply was not received in a timely manner. Participants referenced in the study are identified by their job title or role rather than being identified by name.

The researcher convened the key informant individual interviews at the central office for the convenience of the participants and selected a trained individual to conduct the individual interviews. Additionally, the sessions were tape recorded for the interviews and then typed.

Data Analysis

Both quantitative and qualitative methods were used for the study. The data were analyzed using the appropriate procedure for each method. The qualitative data for the study were collected through individual interviews with the lead area superintendent, chief financial officer, teachers' association leader, and principals' association leader. The researcher used logical inductive reasoning to analyze the qualitative data. Logical inductive reasoning involved identifying topics, clustering topics, and finding patterns among the topics. The analysis constitutes findings from which conclusions are drawn.

Gall, Gall, and Borg (2003) suggest, for recording interview data, "note taking and tape recording are the usual methods for preserving information collected in an interview" (p. 248). The interviews were transcribed and respondents were able to review

the transcripts and make any necessary corrections or additions. This process added to the validity of the study by allowing participants to verify their words and ensure their thoughts were captured correctly.

Gall, Gall, and Borg (2003) stated the analysis of responses to interview open-forum questions "requires the development of a category system" (p. 250). These interviews were categorized through context analysis or as stated by Gibbs (2002), "the building up of contextual schema" (p. 59) by creating a list of coded categories and cutting and pasting each transcribed segment data into one of the appropriate categories (Bazeley & Richards, 2005). After a review of the interviews, the researcher recognized themes that were frequently referenced. Significant patterns and clusters emerged from which the researcher inferred conclusions.

The survey instrument was analyzed through quantitative procedures. The data were analyzed using an independent t-test. Gall, Gall, and Borg (2003) suggested when small samples are studied, "it is advisable to use the t-test to identify the difference between two sample means" (p. 304). Cronbach coefficient alpha tested score reliability (Gall, Gall, & Borg, p. 198) and analysis of variance (ANOVA) procedure was used between groups. Descriptive statistics were used to describe the demographics of the group. Table 2, shown earlier, is a summary of the analysis of data.

Summary

Both quantitative and qualitative methods were utilized to conduct the study. The study provided information about the implementation of the PLC program in elementary schools. The data collected and analyzed addressed the proposed research questions in the study for the schools that were studied. The findings for the study can assist other school systems attempting to implement a PLC program in schools. The findings from the study are presented in Chapter IV.

CHAPTER IV

FINDINGS

Introduction

As stated in Chapter 1, No Child Left Behind (NCLB, 2001) federal legislation has significantly increased the pressure for schools to improve student achievement and close the achievement gap. The accountability demands instituted by the federal legislation of NCLB are causing administrators and teachers to change practice (National Director's Conference, 2003; National Association of Elementary School Principals, 2008). Today, schools are faced with meeting the needs of all students and in the mid-Atlantic state where this study was conducted, the state assessment program required schools to have students achieve proficiency in reading and mathematics by 2014 as measured by state tests. Therefore, the behavior of the principal and teachers in shared decision-making was vital for improved educational outcomes (Huffman & Hipp, 2003). With the ever-changing demands on schools for closing the "achievement gap" (Education Trust, 2004), it is believed that principals operating schools as professional learning communities (PLCs) was the best hope for school reform (Darling-Hammond & McLaughlin, 1995; Fullan, 1995; Lieberman, 1995a; McLaughlin, 1991; National Association of Elementary School Principals, 2008). Principals should build relationships with teachers as the basic ingredient for the success of the school (DuFour, 1998; Louise, Kruse & Marks, 1996). In this age of accountability, veteran educators and school leadership experts still insisted that the principal was the key to school reform, but must listen to all constituents in the school in order to lead effectively (Slater, 2008).

School leaders face increasingly high demands to reach higher standards and raise student achievement and the task of operating a school is very complex and one person can no longer accomplish this alone (Hord, 2004; Spillane, 2007). The professional

learning community (PLC) concept garnered the support of all stakeholders through shared vision, shared and supportive leadership, collective learning, shared practice, and supportive conditions (DuFour, 1998, Fullan, 2008). Since designing and implementing the PLC program as a proposed solution to meeting the demands of changing demographics and closing the achievement gap, examining one school district's experiences with the PLC program could provide important information for other school systems.

Purpose of the Study

The purpose of the study was to assess the extent to which the PLC program has been fully implemented in two groups of elementary schools in one county school district and whether that implementation sustained a culture of a professional learning community. Chapter IV presents the results of data analysis for this study. The research designed for this study employed both quantitative and qualitative methodologies. Questions one through three were quantitative in nature and question four was qualitative. The following research questions guided this study:

1. From the perspective of elementary school principals, are there differences in the mean perceptions principals regarding the five leadership domains of a professional learning community: shared and supportive leadership, shared values and vision, collective learning and application, shared personal practice, and supportive conditions—relationships and structures, between elementary schools that have achieved AYP and elementary schools that have achieved AYP with the provisions of safe harbor and/or inclusion of confidence intervals?
2. From the perspective of the staff development teachers, are there differences in the mean perceptions of staff development teachers regarding the five leadership domains of a professional learning community: shared and supportive leadership, shared values and vision, collective learning and application, shared personal

practice, and supportive conditions—relationships and structures, between elementary schools that have achieved AYP and elementary schools that have achieved AYP with the provisions of safe harbor and/or inclusion of confidence intervals?

3. From the perspective of the school's 5th grade team leaders, are there differences in the mean perceptions of 5th grade team leaders regarding the five leadership domains of a professional learning community: shared and supportive leadership, shared values and vision, collective learning and application, shared personal practice, and supportive conditions—relationships and structures, between elementary schools that have achieved AYP and elementary schools that have achieved AYP with the provisions of safe harbor and/or inclusion of confidence intervals?

4. What external and internal factors impacted district leaders in implementing the program design to move elementary schools in the direction of becoming a professional learning community?

Procedures

The main source for the collection of quantitative data was the Professional Learning Community Assessment (Olivier, Huffman & Hipp, 2003). The Professional Learning Community Assessment (see Appendix A) was emailed to 240 participants. The survey instrument (see Appendix A) was distributed electronically using Survey Monkey (see Appendix E) to 80 elementary school principals, 80 elementary school staff development teachers and 80 5th grade team leaders. Of the principals, staff development teachers and 5th grade team leaders surveyed, 61 worked at schools that achieved Adequate Yearly Progress (AYP) and 140 worked at schools that achieved AYP with the provisions of safe harbor and/or the confidence interval. The actual survey was preceded by a descriptive cover letter (see Appendix F), consent form (see Appendix G), and some initial information about the survey that was emailed to all participants. The researcher's goal for response was 70%.

The survey was emailed using Survey Monkey (see Appendix E) to elementary principals at the end of June 2008, to elementary staff development teachers at the end of August 2008, and to elementary 5th grade team leaders the middle of September 2008. A copy of the survey is included in Appendix A.

By the third week of July 2008, the response rate for the elementary principals had reached 50%, and the decision was made to send a second request letter and the Professional Learning Community Assessment survey electronically via Survey Monkey (see Appendix E) to the non-respondents, which stated the need and appreciation for their responses. The response rate for staff development teachers by mid-September, 2008 had reached 40% and the decision was made to send a second electronic request via Survey Monkey and a paper copy in the regular mail to staff development teacher (see Appendix E) non-respondents. The response rate for 5th grade team leaders was less than 10% by the start of October 2008. As a result of the low response rate from 5th grade team leaders, a decision was made to send a second copy of the survey to 5th grade team leaders. The second copy sent to 5th grade team leaders was a paper copy of the Professional Learning Community Assessment survey (see Appendix A) via regular mail. The response rate greatly increased for staff development teachers and 5th grade team leaders as a result of this action by the researcher.

Data Collection

The study was bounded by its focus on a single county school district. In 2001, after training principals and teacher leaders in the summer, the county school district implemented the Professional Learning Community Program (PLC) in elementary schools. There are 130 elementary schools in the county school district which is divided into six geographic areas. An area superintendent is assigned to each geographic region. In cooperation with the six area superintendents, the researcher selected 14 elementary schools from each region for inclusion in the study for a total of 80 schools. The

principals' tenure at the school had to be at least three years so this was taken in consideration during the meetings with each area superintendent. These 80 elementary schools were divided into two groups. Group one of the elementary schools for the study achieved Adequate Yearly Progress (AYP) as measured by the state assessment by meeting or exceeding the annual measurable objectives for each subgroup (American Indian, African American, Hispanic, free and reduced-price meals, limited English proficient, special education and White). Group two of the elementary schools was selected for having achieved AYP with the provisions of safe harbor and/or inclusion of confidence interval for the 2007 academic year. Adequate Yearly Progress (AYP) and how it was determined is described in Chapter 1. It should be noted that all schools in the county school district achieved AYP for the 2007 school year as measured by the state assessment (Maryland State Department of Education, 2007). In order to finalize the selection of schools, the researcher along with the lead area superintendent reviewed the list of schools and the state assessment results for 2007 for each school to determine if schools should be assigned to group one (having achieved AYP by meeting or exceeding the AMO) or group two (having achieved AYP using the provisions confidence interval and/or safe harbor) as described in Chapter 1 based on their 2007 AYP results. The final list of schools was compiled for the two groups of schools in an excel spreadsheet and given a code to ensure anonymity. All data gathered were confined to this six-month period of time.

Eighty-two percent of the principals returned their survey electronically via Survey Monkey. Two principals had difficulty completing the electronic survey. The principals contacted the researcher and requested a paper copy of the survey. Each principal who completed a paper copy of the survey was asked to return the survey to a secretary in a sealed envelope. The secretary manually keyed in the data to an electronic file, placing the schools in the correct group.

Qualitative data for this study were collected from individual interviews held with key informants who are district level staff. The researcher also reviewed county school district records. The data were analyzed and sorted by themes and patterns in an effort to answer research question four which is discussed later in this chapter.

The final number of responses is displayed in Table 3. The total principal response rate was 82.5%; for staff development teachers, the response rate was 78.7%; and for 5th grade team leaders, the response rate was 90.0%. All of the response rates were well above .70, which is considered to be a good response rate for a survey.

Reliability

Cronbach alphas were used to compute reliability of the Professional Learning Community Assessment (PLCA). Cronbach alphas measure inter-item reliability and consistency of the survey instrument. They are used when no pretest-posttest reliability measures are available. Cronbach alphas were computed by this researcher on all five subscales and were checked for internal consistency. The results were compared to the results of Huffman and Hipp (2003) and are presented in Table 4. The Cronbach alphas for Huffman and Hipp were all very similar. According to Gall, Gall and Borg (1999):

If a scale has a high alpha coefficient [typically, .60 or higher, with the highest possible coefficient being 1.00], it means that individuals who respond in a certain way to one item on the scale are likely to respond in the same way to the other items on that scale. (p. 196)

Table 3

*Response Rates of Principals, Staff Development Teachers, and 5th Grade Team**Leader Teachers*

Principals	Number of Surveys Sent	Number of Surveys Received	Response Rate (%)
Schools Achieving AYP	26	22	84.6
Schools Achieving AYP with Confidence Intervals	54	44	81.5
Total	80	66	82.5
Staff Development Teachers	Number of Surveys Sent	Number of Surveys Received	Response Rate (%)
Schools Achieving AYP	26	21	80.1
Schools Achieving AYP with Confidence Intervals	54	42	77.7
Total	80	63	78.7
Team Leader Teachers	Number of Surveys Sent	Number of Surveys Received	Response Rate (%)
Schools Achieving AYP	26	18	69.2
Schools Achieving AYP with Confidence Intervals	54	54	1.00
Total	80	72	90.0

The Cronbach alphas shown in Table 4 for Huffman and Hipp only provide information on subscales 2, 3, and 5. The Cronbach alpha for subscale 2 for Huffman and Hipp is considerably higher than the one in this dissertation. The Cronbach alphas for subscales 3 and 5 are similar for both studies.

Table 4

Cronbach Alphas for Huffman and Hipp and Smith

Subscale	No. of Items	Alpha Score – Huffman & Hipp (2003)	No. of Items	Alpha Score – Smith (2009)
Subscale 1: Shared and Supportive Leadership	10		10	.91
Subscale 2: Shared Values and Vision	8	.93	8	.87
Subscale 3: Collective Learning and Application	8	.83	8	.87
Subscale 4: Shared Personal Practice	6		6	.80
Subscale 5: Supportive Conditions—Relationships and Structures	13	.83	13	.85

Correlation Coefficients

The researcher next computed Pearson Product Moment correlation coefficients to describe the magnitude of the relationship between the five different domains for both schools achieving AYP and schools achieving AYP with safe harbor and or confidence intervals. A correlation coefficient can range from -1.00 to +1.00. The results are displayed in Tables 5 and 6. In interpreting the data, the researcher used an established set of criteria to make judgments about the significance of the correlations (Gliner &

Morgan, 2000). If a correlation was between 0.0 and .30, it was considered to be weak; if it were between .31 and .70, it was considered modest; and if it were .71 or above, it was considered to be strong (Gliner & Morgan, 2000). The .05 level was used to identify those correlations that were statistically significant.

The data presented in Table 5 are for elementary schools achieving AYP; they show that most of the correlations were in the modest to strong range, .40 to .70, and all were different from 0 with statistical significance at the 0.01 level. The highest correlation in Table 5 (.73) is between subscales 1 and 2. The correlations for subscale 4 are some of the lowest in the table. It should be remembered that the higher the correlation, the stronger the relationship among the variables.

Table 5

Correlation Coefficients for Subscales 1 – 5 for Schools Achieving AYP

	Subscale 1	Subscale 2	Subscale 3	Subscale 4	Subscale 5
SUBSCALE 1	1.00 (66)	.73 (66) P=.001***	.42 (64) P=.001***	.36 (66) P=.01**	.59 (66) P=.001***
SUBSCALE 2		1.00 (66)	.68 (64) P=.001***	.48 (66) P=.001***	.60 (66) P=.001***
SUBSCALE 3			1.00 (64)	.69 (64) P=.001***	.69 (64) P=.001***
SUBSCALE 4				1.00 (66)	.60 (66) P=.001***
SUBSCALE 5					1.00 (66)

P = < .05*; < .01**; < .001***

Subscale 1 – Shared and Supportive Leadership; Subscale 2 – Shared Values and Vision;
Subscale 3 – Collective Learning and Application; Subscale 4 – Shared Personal Practice;
Subscale 5 – Supportive Conditions—Relationships and Structures

Table 6 presents the correlations for elementary schools achieving AYP with confidence intervals. In general, the correlations for these schools are no different than

for the schools achieving AYP. All but one correlation are in the modest range, .50 to .70. The correlations presented in Table 4 show similar levels of agreement about the subscales and their relationships to each other as do those presented in Table 5

Table 6

Correlation Coefficients for Subscales 1 – 5 for Schools Achieving AYP with Confidence Intervals and or Safe Harbor

	Subscale 1	Subscale 2	Subscale 3	Subscale 4	Subscale 5
SUBSCALE 1	1.00 (135)	.58 (135) P=.001***	.45 (132) P=.001***	.43 (133) P=.001***	.57 (131) P=.001***
SUBSCALE 2		1.00 (135)	.66 (132) P=.001***	.54 (133) P=.001***	.64 (131) P=.001***
SUBSCALE 3			1.00 (132)	.58 (130) P=.001***	.65 (128) P=.001***
SUBSCALE 4				1.00 (133)	.62 (131) P=.001***
SUBSCALE 5					1.00 (131)

P = < .05*; <.01**; <.001***

Subscale 1 – Shared and Supportive Leadership; Subscale 2 – Shared Values and Vision; Subscale 3 – Collective Learning and Application; Subscale 4 – Shared Personal Practice; Subscale 5 – Supportive Conditions—Relationships and Structures

Research Questions and Statistical Hypotheses

The research questions and statistical hypotheses are presented here with discussion of the findings for each question.

Research Question 1

From the perspective of elementary school principals, are there differences in the mean perceptions of principals regarding the five leadership domains of a professional learning community: shared and supportive leadership, shared values and vision,

collective learning and application, shared personal practice, and supportive conditions—relationships and structures, between elementary schools that have achieved AYP and elementary schools that have achieved AYP with the provisions of safe harbor and/or inclusion of confidence intervals?

Statistical Hypothesis 1

From the perspective of elementary school principals, there are no statistically significant differences in the mean perceptions of principals regarding the four leadership domains of a professional learning community: shared and supportive leadership, shared values and vision, collective learning and application, and supportive conditions—relationships and structures, between elementary schools that have achieved AYP and elementary schools that have achieved AYP with the provisions of safe harbor and/or inclusion of confidence intervals.

The data presented in Table 7 for the principals' perceptions indicate that the statistical hypothesis was accepted for all domains except domain 4, shared personal practice. There was a statistically significant difference that favored principals in the schools that met AYP.

Table 7

Independent t-Test of Principals' Differences in Perceptions of Five Leadership Domains Between Schools Achieving AYP and Schools Achieving AYP with Confidence Intervals and/or Safe Harbor

<u>Shared and Supportive Leadership – Domain 1</u>						
	No. of Cases	Mean	S.D.	t-Value	D.F.	2-Tail Sig.
Met AYP	22	36.00	5.12	1.02	64	.31
Met AYP with Conditions	44	34.98	3.03			
<u>Shared Values and Vision – Domain 2</u>						
	No. of Cases	Mean	S.D.	t-Value	D.F.	2-Tail Sig.
Met AYP	22	28.32	3.84	.73	64	.47
Met AYP with Conditions	44	27.68	3.06			
<u>Collective Learning and Application - Domain 3</u>						
	No. of Cases	Mean	S.D.	t-Value	D.F.	2-Tail Sig.
Met AYP	22	28.05	3.63	.34	63	.72
Met AYP with Conditions	43	27.77	2.76			
<u>Shared Personal Practice – Domain 4</u>						
	No. of Cases	Mean	S.D.	t-Value	D.F.	2-Tail Sig.
Met AYP	22	20.68	2.75	2.34	64	.01**
Met AYP with Conditions	44	19.30	2.00			
<u>Supportive Conditions—Relationships and Structures - Domain 5</u>						
	No. of Cases	Mean	S.D.	t-Value	D.F.	2-Tail Sig.
Met AYP	22	45.59	5.42	1.89	64	.63
Met AYP with Conditions	44	43.39	3.92			

P = < .05*; <.01**; <.001***

Research Question 2

From the perspective of the staff development teachers, are there differences in the mean perceptions of staff development teachers regarding the five leadership domains of a professional learning community: shared and supportive leadership, shared values and vision, collective learning and application, shared personal practice, and supportive conditions—relationships and structures, between elementary schools that have achieved AYP and elementary schools that have achieved AYP with the provisions of safe harbor and/or inclusion of confidence intervals?

Statistical Hypothesis 2

From the perspective of the staff development teachers, there are no statistically significant differences in the mean perceptions of staff development teachers regarding the four leadership domains of a professional learning community: shared and supportive leadership, shared values and vision, collective learning and application, and supportive conditions—relationships and structures, between elementary schools that have achieved AYP and elementary schools that have achieved AYP with the provisions of safe harbor and/or inclusion of confidence intervals.

The data presented in Table 8 for staff development teachers' perceptions indicated that the statistical hypothesis was accepted for all domains except shared personal practice. There the data indicate that there was a statistically significant difference that favored the staff development teachers in the schools that met AYP.

Table 8

Independent t-Test of Staff Development Teachers' Differences in Perceptions of Five Leadership Domains Between Schools Achieving AYP and Schools Achieving AYP with Confidence Intervals and/or Safe Harbor

Shared and Supportive Leadership – Domain 1

	No. of Cases	Mean	S.D.	t-Value	D.F.	2-Tail Sig.
Met AYP	22	33.41	5.31	1.52	62	.13
Met AYP with Conditions	42	31.50	4.48			

Shared Values and Vision – Domain 2

	No. of Cases	Mean	S.D.	t-Value	D.F.	2-Tail Sig.
Met AYP	22	27.00	3.92	.71	62	.48
Met AYP with Conditions	42	26.36	3.18			

Collective Learning and Application - Domain 3

	No. of Cases	Mean	S.D.	t-Value	D.F.	2-Tail Sig.
Met AYP	21	27.29	3.73	.08	61	.94
Met AYP with Conditions	42	27.21	3.06			

Shared Personal Practice – Domain 4

	No. of Cases	Mean	S.D.	t-Value	D.F.	2-Tail Sig.
Met AYP	22	20.50	2.41	2.57	62	.01**
Met AYP with Conditions	42	18.88	3.39			

Table 8 (continued)

Independent t-Test of Staff Development Teachers' Differences in Perceptions of Five Leadership Domains Between Schools Achieving AYP and Schools Achieving AYP with Confidence Intervals and/or Safe Harbor

Supportive Conditions—Relationships and Structures - Domain 5

	No. of Cases	Mean	S.D.	t-Value	D.F.	2-Tail Sig.
Met AYP	22	42.59	4.49	.90	62	.37
Met AYP with Conditions	42	41.48	4.82			
P = < .05*; <.01**; <.001***						

Research Question 3

From the perspective of the school's 5th grade team leaders, are there differences in mean perceptions of the 5th grade team leaders regarding the five leadership domains of a professional learning community: shared and supportive leadership, shared values and vision, collective learning and application, shared personal practice, and supportive conditions—relationships and structures, between elementary schools that have achieved AYP and elementary schools that have achieved AYP with the provisions of safe harbor and/or inclusion of confidence intervals?

Statistical Hypothesis 3

From the perspective of the school's 5th grade team leaders, there are no statistically significant differences in the mean perceptions of 5th grade team leaders regarding the five leadership domains of a professional learning community: shared and supportive leadership, shared values and vision, collective learning and application, shared personal practice, and supportive conditions—relationships and structures,

between elementary schools that have achieved AYP and elementary schools that have achieved AYP with the provisions of safe harbor and/or inclusion of confidence intervals.

The data presented in Table 9 for 5th grade team leaders' indicated that the statistical hypothesis was accepted. There were no statistically significant differences across the five domains.

Table 9

Independent t-Test of 5th Grade Team Leader Teachers' Differences in Perceptions of Five Leadership Domains Between Schools Achieving AYP and Schools Achieving AYP with Confidence Intervals and/or Safe Harbor

Shared and Supportive Leadership – Domain 1

	No. of Cases	Mean	S.D.	t-Value	D.F.	2-Tail Sig.
Met AYP	22	32.68	4.90	.82	69	.42
Met AYP with Conditions	49	31.45	6.25			

Shared Values and Vision – Domain 2

	No. of Cases	Mean	S.D.	t-Value	D.F.	2-Tail Sig.
Met AYP	22	26.41	3.76	.42	69	.68
Met AYP with Conditions	49	26.82	3.82			

Collective Learning and Application - Domain 3

	No. of Cases	Mean	S.D.	t-Value	D.F.	2-Tail Sig.
Met AYP	21	26.71	3.24	1.21	66	.23
Met AYP with Conditions	47	27.68	2.96			

Table 9 (continued)

Independent t-Test of 5th Grade Team Leader Teachers' Differences in Perceptions of Five Leadership Domains Between Schools Achieving AYP and Schools Achieving AYP with Confidence Intervals and/or Safe Harbor

Shared Personal Practice – Domain 4

	No. of Cases	Mean	S.D.	t-Value	D.F.	2-Tail Sig.
Met AYP	22	20.14	2.12	.15	67	.88
Met AYP with Conditions	47	20.04	2.63			

Supportive Conditions—Relationships and Structures - Domain 5

	No. of Cases	Mean	S.D.	t-Value	D.F.	2-Tail Sig.
Met AYP	22	42.91	4.85	.70	65	.48
Met AYP with Conditions	45	43.87	5.40			

P = < .05*; <.01**; <.001***

Additional Analyses

When the researcher finished the analyses on Research Questions 1 through 3, she observed that in most cases the principals of both groups of elementary schools had higher mean scores (although not statistically significantly different) than did the staff development teachers and the 5th grade team leader teachers. Therefore, the researcher wanted to determine whether there were statistically significant differences among the three groups of educators—principals, staff development teachers, and 5th grade team leader teachers—in each group of schools.

The results of that analysis of variance for schools that met AYP are presented in Table 10. Because the researcher wanted to be conservative, in all cases she used Scheffé's multiple range test and set the level of significance at .05. The data displayed in

Table 10 indicate that for all domains, there were no statistically significant differences among the three groups.

Table 10

One-Way Analysis of Variance of Differences Among Principals', Staff Development Teachers', and 5th Grade Team Leader Teachers' Judgments of Principals' Perceptions of Five Leadership Domains in Schools Achieving AYP

Shared and Supportive Leadership – Domain 1

	df	Sum of Squares	Mean Square	F	Sig.
Between Groups	2	133.84	66.92	2.55	.09
Within Groups	63	1,648.09	26.16		

Shared Values and Vision – Domain 2

	df	Sum of Squares	Mean Square	F	Sig.
Between Groups	2	42.03	21.02	1.42	.25
Within Groups	63	930.09	14.76		

Collective Learning and Application - Domain 3

	df	Sum of Squares	Mean Square	F	Sig.
Between Groups	2	19.21	9.60	.77	.46
Within Groups	61	765.53	12.55		

Table 10 (continued)

One-Way Analysis of Variance of Differences Among Principals', Staff Development Teachers', and 5th Grade Team Leader Teachers' Judgments of Principals' Perceptions of Five Leadership Domains in Schools Achieving AYP

<u>Shared Personal Practice – Domain 4</u>					
	df	Sum of Squares	Mean Square	F	Sig.
Between Groups	2	3.39	1.70	.28	.75
Within Groups	63	374.86	5.94		
<u>Supportive Conditions Relationships and Structures - Domain 5</u>					
	df	Sum of Squares	Mean Square	F	Sig.
Between Groups	2	119.48	59.74	2.45	.09
Within Groups	63	1,534.45	24.36		
P = < .05*; <.01**; <.001***					

Table 11 presents the results of the analysis of variance for the three groups of educators in schools that met AYP with confidence intervals and/or Safe Harbor. For Domain 1, there was a statistically significant difference at the .001 level among the three groups. The principals' mean was 34.98, while the staff development teachers' was 31.50, and the 5th grade team leader teachers' mean was 31.46. For Domain 1, the data indicated that the principal had a statistically significantly higher perception of his or her leadership than did the other two groups. For Domains 2 through 4, there were no statistically significant differences among the three groups. For Domain 5, the data suggest that there was a statistically significant difference at the .05 level. However, the application of the conservative Scheffé's multiple range test indicated that there was no statistically significant difference.

Table 11

One-Way Analysis of Variance of Differences Among Principals', Staff Development Teachers, and 5th Grade Team Leader Teachers' Judgments of Principals' Perceptions Of Five Leadership Domains in Schools Achieving AYP with Confidence Intervals and/or Safe Harbor

Shared and Supportive Leadership – Domain 1

	df	Sum of Squares	Mean Square	F	Sig.
Between Groups	2	364.37	182.19	7.78	.001***
Within Groups	132	3,081.60	23.42		

		G	G	G	Group 1 – Principals
		r	r	r	Group 2 – Staff Develop.
		p	p	p	Group 3 – 5 th Gr. Teachers
		1	2	3	
Mean	Type				
31.45	5 th Gr. Teachers				
31.50	Staff Develop.				
34.98	Principals		*	*	

Shared Values and Vision – Domain 2

	df	Sum of Squares	Mean Square	F	Sig.
Between Groups	2	39.20	19.60	1.71	.19
Within Groups	132	1,516.53	11.49		

Table 11 (continued)

One-Way Analysis of Variance of Differences Among Principals', Staff Development Teachers, and 5th Grade Team Leader Teachers' Judgments of Principals' Perceptions Of Five Leadership Domains in Schools Achieving AYP with Confidence Intervals and/or Safe Harbor

<u>Collective Learning and Application - Domain 3</u>					
	df	Sum of Squares	Mean Square	F	Sig.
Between Groups	2	7.56	3.78	.44	.64
Within Groups	129	1,106.96	8.58		
<u>Shared Personal Practice – Domain 4</u>					
	df	Sum of Squares	Mean Square	F	Sig.
Between Groups	2	31.09	15.55	2.79	.06
Within Groups	130	723.48	5.57		
<u>Supportive Conditions—Relationships and Structures - Domain 5</u>					
	df	Sum of Squares	Mean Square	F	Sig.
Between Groups	2	137.40	68.70	3.04	.05
Within Groups	128	2,894.11	20.61		
P = < .05*; <.01**; <.001***					

Qualitative Research

Following the analysis of quantitative data, a five-question protocol was developed by the researcher based on the school district's implementation of PLC to assess the perceptions of district level staff (key informants) during individual interviews for qualitative data collection. The questions were approved by an experienced

researcher. Primary data sources were interviews with key informants—district level personnel, such as the lead area superintendent, chief finance officer and the leaders of the teachers' and principals' associations. Some important county school district artifacts were reviewed for this study. The individual interviews with key informants were convened at central office and the researcher served in the role of participant observer and scribe. Qualitative data collected for this study included key informant interviews with field notes taken during the audio-taped interviews. The data were analyzed, sorted by themes, clusters, and patterns in an effort to answer research question four.

Qualitative Procedures

These authors (Gall, Gall & Borg, 2003; McMillian, 2004) described qualitative research as a social science research approach that involved interacting with people in their own language and on their own terms. A structured approach was used by the researcher to ensure the comparability of the data across the key informants interviewed and this proved helpful in the answer sought for research question four. Structured approaches in qualitative research are advantageous when the research goal is to unveil key informants' perceptions about PLC implementation processes that led to the possible intended outcome for the county schools district as indicated by Miles and Huberman (1984). There was triangulation of the data to reduce the risk of biases, to increase validity, and to gain a broad understanding about the implementation of the PLC program. Individual interviews with key informants were the primary sources of qualitative data collection for this study. The key informants selected to participate in the interviews were "well-informed people in the organization" (Marshall & Rossman, 1999, p. 113) and perceived as having a strong knowledge about the implementation of the PLC program. Each key informant has worked twenty years or more for the county school district.

The interviews were conducted between August 2008 and October 2008 to ensure the data collected represented various perspectives about the external and internal factors which impacted district leaders in implementing the program designed to move elementary schools in the direction of becoming a professional learning community. Key informants were interviewed in this order: first, the chief finance officer (August 25, 2008); next, the leader of the principals' association (September 3, 2008); followed by the leader of the teachers' association (September 11, 2008); and lastly, the lead area superintendent (October 25, 2008). The interviews were scheduled based on the availability of each key informant. Marshall and Rossman (1999) suggested interviewing was a strategy to capture the deep meaning of the person's perspective and experiences. Key informants were asked the same questions (see Appendix D) and the interviews were conducted at the school district's central office for the convenience of the participants. All of the interviews were structured in the same manner at each of the participants' offices. An approved experienced researcher asked the questions as this researcher served as observer and scribe. The researcher conducted a one-hour audio-taped interview with each key informant to gain their perspective about the internal and external factors regarding the implementation of the professional learning community program in elementary schools. The structured interviews were guided by the use of an interview protocol which is included in Appendix D. Prior to asking the questions the day of the scheduled interview, the researcher gave the key informants a copy of the questions. Data gathered from key informants during the interview were compiled on a field note capture sheet (see Appendix I). The field note capture sheet was then presented to a secretary who did not know the key informants for transcription. All names were deleted in the transcripts to provide anonymity. Secondary analysis of the interview transcripts began in early November 2008.

Review of County School District Artifacts

A review of county school district records indicated several reasons for the school district's action for implementation of the PLC in elementary schools. In an effort to improve student achievement as its number one goal, the county school district carefully considered steps to transform elementary schools into professional learning communities (County Public Schools, 2001; 2002). Record reviews revealed the county school district shared the idea about PLC in 1999, embarked upon the PLC program to have principals lead their schools as PLCs in 2001 for improved staff development that was job-embedded and promoted a culture of collaboration among teachers and principals fostering distributed leadership in schools. Review of records revealed the county school district implemented a systematic plan of action for program implementation, provided substantial funding to train principals and teacher leaders, funded staff development teachers for all elementary schools, and expected schools to operate as PLCs (see Appendix H). A document review revealed important mandated professional development for principals and staff development teachers to support the work of PLCs in elementary schools (see Appendix H). Professional development for principals and staff development teachers was provided for these leaders as the county school district believed competency-based training was a key element to improving productivity and proficiency of all staff.

The county school district expected principals and staff development teachers would return to their schools and train their staff using DuFour's (1998) model of PLC after the summer 2001 DuFour training. According to the leader of the principals' association, "Prior to the PLC program, some schools, particularly Title One schools, were in disarray. The system gave them all kinds of support. The implementation of the PLC has helped them to meet achievement goals." Another district leader interviewed concurred, stating that "funding, training and high expectations for PLCs were essential aspects for successful implementation."

Qualitative Data Analysis

Qualitative data were systematically analyzed during the study. Data collected from the key informant interviews were recorded, transcribed, charted and then entered verbatim into a database. The researcher prepared charts to post the responses from the field notes color coded by themes on chart paper. The researcher listened to the audio-tapes several times prior to transcribing the tapes for data analysis. Next, the researcher coded the interviews. Shank (2002) described coding as "thematic analysis" (p. 128) searching for patterns and themes in the data. Then themes were drawn from existing theory and inductively generated from transcribed interview data describing the internal and external factors which impacted the professional learning community in the county school district under study.

Method of Qualitative Data Analysis

The analysis of data collected from key informants occurred over a four-month period for this study from the beginning of August 2008 through the end of December 2008. The data collected from each key informant were compiled on a summary capture sheet (see Appendix I) which also had the questions listed and space available for participant responses. Qualitative data analysis was used to analyze the transcripts from the structured interview with the key informants after a secretary who did not know the participants made the typed transcriptions available to the researcher. Each key informant's interview transcript was first coded using the County School District's PLC Implementation Plan (see Appendix H) which served as a heuristic for coding. Miles and Huberman (1984) stated "Data reduction refers to the process of selecting, focusing, simplifying, abstracting, and transforming the data collected" (p.10). This process of categorizing and organizing data was used with all collected data. Each theme was given a color prior to categorizing the key informants' ideas. Themes related to the internal and external factors were written on post-it notes. The post-it notes were categorized by color

as follows: yellow post-it, internal/external factors; funding post-it notes were blue; staff development teacher/human resource post-it notes were pink; professional development post-it notes were green; principals embracing teacher leaders post-it notes were orange; and training for future administrators – lime green post-it notes. In preparation for posting the themes and patterns that emerged from participants, the researcher created five different charts with the following headings: internal factors/external factors, funding, human resources, professional development, staff development teacher input, principals embracing teacher leaders, and training so that the color coded post-it notes would be placed under the correct county school district theme during the analysis of the data. As each individual transcription was read, the researcher wrote each theme which emerged on color-coded post-it notes that corresponded with the specific theme. The color-coded post-it note was placed on the correct chart. All interview field notes and transcripts were reread specifically to ascertain that all identified codes were listed based on the county school district's action for PLC implementation and to ensure no omission of data. As the patterns or themes were identified, dimensionalization (Strauss and Corbin, 1990) was carried out by recoding for developed dimensions or properties of a given theme.

The researcher next constructed matrices from the data to obtain visualization of patterns, themes, trends, and to make comparisons between those interviewed. Periodic review of all collected data, transcriptions and matrices was followed by a summary construction of question four which needed to be answered by the researcher.

In the final phase of qualitative data analysis, each interview response was reread so that the researcher could write short summaries in a Microsoft Word (2008) document related to each theme. These summaries allowed the researcher to see patterns of ideas shared between those interviewed. These summaries taken from the interviews became the context for the quotes used later in this chapter. Using Microsoft Word (Dell, 2008), the researcher cut and pasted quotes from all the interviews creating new separate

documents for each code that emerged from the analysis of the interviews. This compilation of quotes for each code was used to appreciate trends, contrasts, and similarities. Matrices were constructed to check the validity of themes which emerged from the data.

Collecting data from a variety of sources was an aspect of triangulation (Maxwell, 2005). For the qualitative purpose of this study, a diverse group of individuals was selected as key informants to be interviewed. All of those selected for interview had different roles in the county school district. Validation of the data was achieved by triangulation of methods by comparing key informant perceptions and the review of county school district artifacts.

The responses to questions answered by key informants will be reported by themes and county school district actions related to the implementation of PLCs in elementary schools in this county school district: (1) internal and external factors, (2) value-added components: budget, human resources, professional development, (3) the staff development teacher position, (4) the principal embracing teacher leaders as was expected by the school district and (5) training for future administrators. These qualitative collected data are for this single study which sought to answer research question four.

Research Question 4

What external and internal factors impacted district leaders in implementing the program design to move elementary schools in the direction of becoming a professional learning community?

Context for the District's Implementation of Professional Learning Communities

This study assessed the extent to which the PLC program has been fully implemented in two groups of elementary schools in one county school district and

whether that implementation has sustained a culture of a professional learning community. The county school district is the 16th largest of public school districts in the United States with 139,000 students enrolled for the 2008-2009 school year; it employed 11,544 teachers. As the district continues to grow, the population is now very diverse. As in many school districts across the nation, the gap in student achievement was an issue. Not wanting to rest on its laurels, the county school district decided to take strategic action to address the concerns. The professional learning community program was viewed as a substantive strategy by the county school district to articulate a shared vision for improved student achievement and to encourage quality collaboration among principals and teachers. The county school district intended to empower the entire educational community of the school district by organizing the necessary resources, knowledge, and skills to fulfill its goal of "success for every student" (County Public School, 2001). Prior to the PLC program, only 1% of the county school district's budget was allocated for professional development. Research has shown improvements in instruction and student achievement resulted from quality job-embedded professional development (Spillane, 2006). The PLC program was a tremendous investment of \$11.1 million from the Board of Education for professional development and a staff development teacher position allocated to each elementary school in 2000. Research question four sought information about the internal and external factors relevant to the implementation of PLCs in elementary schools in one county school district to ascertain a better understanding of the perceptions district level staff had regarding the implementation of the PLC program in elementary schools.

Findings from qualitative data collected will be reported in the following manner. First, the researcher noted the theme to be discussed, followed by the question (see Appendix D) asked each key informant at the interviews. After that, the researcher presents contextual information regarding the district's actions related to each theme with

respect to the PLC implementation. Important descriptors that emerged from qualitative data collected are noted in Table 12 through Table 16 followed by structured interview comments from key informants that may be helpful in understanding their perceptions about the district's implementation of PLC in elementary schools. Lastly, the researcher summarized the findings for each theme.

Key Informants' Perceptions of PLC Implementation

Theme #1: Internal and External Factors for Professional Learning Communities

Question 1: The county school district embarked on an ambitious program to transform schools into professional learning communities in 2001. What was the impetus for schools to operate as professional learning communities? Do you perceive the professional learning community program is successful in elementary schools?

Overview

Theme one examined the impetus for the school district under study's desire for schools to become PLCs. The PLC program was designed as a component of the strategic plan for the county school district. The superintendent of the county school district stated, "We have a challenge before us. Student achievement needs to be improved for all students and the gap in student performance by race and ethnicity needs to be closed. There needs to be a coordination of teams at the school level to provide a level of consistency, focus on critical needs, ensure that data are used to inform instruction and that teachers are engaged. We are committed to using an inclusive, collaborative process to design an effective response to this challenge" (Call to Action, county school district, 1999). The county school district's *Call to Action* (2001) stated in order to reach the goal of improved achievement, particularly for minority students, the school district must "urgently challenge itself to an unprecedented mobilization for a common purpose: to

raise the bar and close the achievement gap for students" (County Public School, 2001). The PLC program was in response to significant and phenomenal changes in the county school district's demographics which experienced unprecedented growth of minority populations.

Key informants described the internal and external factors that caused the school district to implement the PLC program. All key informants described multiple factors as needed for the PLC implementation as presented in Table 12. Table 12 presents internal and external factors as described by central office key informants: the chief finance officer, lead area superintendent, leader of the teachers' association and leader of the principals' association.

Table 12

District Level Descriptors of Internal and External PLC Factors

Training was needed for principals
Training for leadership teams
Needed to help schools align their work
Increase of diverse populations
Needed to improve student achievement
Schools were bureaucratic
To improve collaboration between principals and teachers
Lots of energy around continuous improvement
A need to engage all staff in the work
Principals were trying to do the work alone
The development of the new Professional Growth System
Needed to focus work on using data to inform instruction
Needed a better structure to work

Included below are relevant excerpts from the interviews. During the key informant interviews, these comments were revealing:

Principals' association leader

“The efforts got us to focus on collaboration. We looked at performance, had the ideas and thoughts for five years. Richard DuFour's work made it doable for us. All principals and teachers were trained. This set the stage for what we needed to do. DuFour gave us [the] structure to do our work.”

Teachers' association leader

Impetus was because schools were not doing well. Instruction had not changed to meet the needs of students.needed to be ownership of all staff. Federal law says principals must own it. Teachers and principals must own it. We saw no changes in learning until there was increased ownership, this means shared leadership.

All or 100% of the key informants interviewed perceived the county school district crafted a systematic plan for program implementation as a response to changing demographics and underperforming minority students. The PLC program was necessary as indicated by key informants, "schools were bureaucratic" and the input was needed as a response to improve student achievement, to focus the work, for schools to operate collaboratively, and to train staff for the work. All of the interview participants agreed the principal could not do school improvement work alone. General concurrence was the program has been implemented as intended in most elementary schools. Historically in this county school district, the teachers' association conducted a survey of its members to assess their feelings about the culture of their school. The teachers' association leader indicated, "I have seen a shift" and "the climate surveys [2007] gave indication of collaboration as about 70% of teachers perceived they are in a collaborative culture." A small percentage indicated there was "some dictatorial approach" from principals. Other leaders agreed with this assessment of PLC in elementary schools.

Theme #2: Value-added components for PLC Implementation

Question 2: What were the most value-added components for the professional learning community program (budget, human resources, professional development)?

Overview

Improved staff development has been shown to be a key factor for improved student achievement (County Public School, 2001). In fiscal year 2001, the county school district more than doubled its investment in staff development from \$13 million to more than \$30 million. A major change in the way staff development occurred in the county school district after this tremendous investment was expected at the school level, replacing much of the former pullout training for teachers. In fiscal year 2001, staff development substitute teachers were added to give teachers time to work and plan with colleagues. The training was to be facilitated by the staff development teacher under the direction of the principal at each elementary school. This funding totaled \$1,556,846. The purpose was to have instructional staff increase their repertoire of teaching, increased content knowledge for teachers, for teachers and principals to embrace working collaboratively and to engage in reflective discourse about teaching and learning without leaving their school.

This theme examined the perceptions of key informants about the inputs of budget, the staff development teacher position, professional development and the perceived contribution of these inputs to the implementation of the PLC program. There was agreement that the funding, the staff development teacher position in elementary schools, and time for professional development were essential to the PLC program. According to the lead area superintendent, "one component would not work without the other." Key informants described these components presented in Table 13 as valuable inputs which led to the implementation of the PLC program.

Table 13

Value-added Components for PLC Implementation

Professional development
Staff development teachers
Training helped to facilitate the work of leaders in schools
Professional development for schools teams at the same time
Professional development built the capacity of teachers to be leaders
Forty million dollar budget aimed at professional development for principals, staff development teachers and teacher leaders

Included below are relevant excerpts from the interviews. During the key informant interview, the teachers' association leader stated:

My members see themselves as leaders. The union takes credit for professional development as we desired to build the capacity of teachers. Training moved away from "sit and get" to professional development that is job-embedded. They [staff development teachers] are good. This position was a good idea and worth the money.

Another key informant, the lead area superintendent, stated the importance of professional development and budget:

If you had the professional development and not the budget, would not have the extent of change.

Another key informant, the chief finance officer, shared similar ideas about professional development stating:

The work [professional development] with school teams was an important component. School teams now use data and other tools to ask the right questions. Elementary schools are much more effective using teams, getting data and answering critical questions. The professional development was important.

The training shifted the role of principal. There is more than one leader in a school. Training helped principals facilitate the work of more leaders and we expect principals to work as a team.

The data from key informants suggested there was 100% perception of more collaborative work with principals and teachers working together in most schools. It was perceived by key informants that the staff development teacher had a "major impact" on "job-embedded professional development" happening in elementary schools as the position was not evaluative. The key informants stated teacher leaders were viewed as working in schools. Additionally, the staff development teacher position and funding, according to all interviewed are believed as the cause for the desired effect in elementary schools. As stated by key informants, "training facilitated the work of more teacher leaders" and it was expected that "principals work as a team" in their schools. All participants agreed that to some extent, there are some elementary schools that are not as successful as others.

Theme # 3: Staff Development Teacher Position

Question 3: The strategic plan stated the staff development teachers were essential to the future growth of professional learning communities in elementary schools. Do you believe the staff development teacher position contributed to the implementation of the professional learning community program?

Overview

A staff development teacher position was allocated to each elementary school in 2000 for the direct responsibility of job competencies for every staff member. The SDT position focused squarely on teacher quality through high quality professional development, effective teaching and an attempt to boost the professionalism of teaching at each school. In *As What Matters Most: Teaching for America's Future*, this important

report suggested, "What teachers know and can do makes the crucial difference in what students learn" (National Commission on Teaching and America's Future, 1996).

Therefore, the county school district believed it was critical to enhance teachers' ability to be successful with students and for principals and teachers to work as a team. An essential component of improving the quality of teaching was to transform the culture of schools to PLCs so that they became places of learning for teachers and students too.

"Through collaboration and team development, the staff development teacher worked under the direction of the principal to provide a level of consistency and focus on critical school needs, to ensure data are used to inform daily instructional practices, and to engage teachers in collaborative and reflective practice," according to the superintendent as published in the strategic plan for the county school district (County Public School, 2001). The majority of the staff development teacher's time was to work directly with teachers. An artifact, titled *Framework for Teaching and Learning* (County Public School, 2002), published by the county school district identified "Professional Learning Community elements/characteristics of highly productive conversations about teaching and learning. Two questions were noted with specific "look fors" as expected actions and behaviors of principals and teachers for effective PLC implementation.

1. How does collaborative decision-making occur about teaching and learning?
 - Structures exist
 - Broad participation
 - Stakeholder involvement is evident
 - Focus on student learning, experimentation
2. What opportunities and resources are in place so that PLCs can thrive?
 - Faculty meetings, team meetings, leadership council,
 - Space provided for PLC work conducive to professional discourse

- Modeling by staff development teachers and teacher leaders
- Peer visits with reflection

Hence, the county school district published another document which clearly articulated the expectation for how principals were to act and behave in their schools with teachers for PLC implementation in elementary schools.

Theme three examined the perspective of key informants with respect to the role of the staff development teacher in the PLC. Key informants interviewed described their perceptions as how the staff development teacher contributed to the implementation of the PLC. All informants described multiple ideas as to how the staff development teacher contributed to PLC implementation in elementary schools. Their ideas are presented in Table 14.

Table 14

Staff Development Teachers Contribution to the PLC

A critical position for PLC success

The principal is key to the success of the staff development teacher's position

Successful model and use of position

Some used as an assistant principal in the beginning

Most schools used the position correctly and not as an assistant principal

Is an important leader

Perceived by teachers as a non evaluative leader in the school

Guides and facilitated the works with teachers about instruction

Works with grade level teams relevant to school improvement

Builds the capacity of teachers through job-embedded professional development

Leads professional development

Training is not "sit and get"

Helps teachers delve into the curriculum

Helps teachers analyze and use student data

Included below are relevant excerpts from the interviews. During the key informant interviews, the chief finance officer and teachers' association leader stated:

The staff development teachers view themselves as leaders and are not seen as bosses. Professional development built the capacity of teacher leaders. Teachers in some schools see themselves as leaders.

The staff development teachers advocate for teachers and can engage with folks. Institutionally, schools are at a level where teachers talk about instruction. [I have] seen a shift in elementary schools with more collaboration.

The leader of the principals' association agreed and stated:

Some schools, particularly Title One schools were in disarray. The system gave them all kinds of support. The implementation of the PLC has helped them to meet achievement goals. The staff development teacher and principal working as a team had an impact. This has been a successful group of schools. The principal can not be everywhere.

Generally, all participants believed the staff development teacher facilitated professional development in elementary schools by working with the principal for PLC implementation and viewed the position as boosting teachers' professional growth as intended toward school improvement goals. Additionally, 100% of the key informants perceived when the SDT worked alongside the principal as intended, the SDT increased teachers' capacity. Key informants perceived teachers' dedication to staff development increased, the SDT position was used as intended most of the time and positively impacted the schools' culture for job-embedded training. It was noted by 80% of key informants that at the beginning of the implementation of the PLC program, the SDT position was used as an assistant principal at some schools. This was in part because prior to 1999, most elementary schools in this county school district did not have assistant

principals assigned to elementary schools. However, 100% of key informants strongly perceived the SDT position was currently used as intended in schools. Key informants mention in some schools the position was not effective.

Theme #4: Principals Embracing Teacher Leaders

Question 4: The professional learning community program has been implemented in elementary schools since 2001. Several highly impacted schools are achieving AYP by meeting or exceeding the AMO in reading and mathematics. Do you think the principals' role of embracing teacher leaders in the professional learning community is contributing to the high level of student achievement? What suggestions would you offer to schools that are perceived as not successfully implementing the professional learning community?

Overview

The pursuit of excellence in this county school district by the Board of Education and superintendent of schools reflected a shared vision for improved student achievement, increased leadership capacity of teachers and elementary school principals leading PLCs by working collaboratively with teacher leaders. As a result of this idea of PLC implementation through increased leadership capacity for teachers, the superintendent of schools created teacher leadership positions in schools to provide support for the implementation of curriculum and instruction under the direction of the principal. Teacher leaders in various roles were expected to provide direct assistance to classroom teachers, to direct classroom content support to classroom teachers and paraeducators, to communicate and implement curricular initiatives identified by the Office of Curriculum and Instructional Programs, to collaborate with the principal and other staff to review school data, to establish professional development in alignment with school improvement goals and provide instructional support to teachers through job-

embedded professional development. Other teacher leaders (grade level team leaders) received a stipend for supporting the work of classroom teachers annually beginning in 2002. Funding was provided for curriculum roll-out training at the school as expected job-embedded training and support for teachers. It was understood the trainer of trainer model would be implemented at the school level by teacher leaders for increased content knowledge and shared effective practices related to curriculum, instruction, and assessment. Staff development teachers were expected to coordinate these efforts at each elementary school. It was expected by the Board of Education and superintendent of schools that principals would work collaboratively with teacher leaders.

Elementary school principals were charged with creating a structure for the schools' leadership to meet and discuss school improvement goals and actions through shared leadership. It was expected, as DuFour's model outlined (1998), that teacher leaders would have membership on the leadership and school improvement teams and were actively engaged in the schools' continuous improvement efforts. To achieve this goal, elementary principals were expected to provide facilitative influence and power that is manifested through other people instead of over other people (Hord, 2004; Leithwood, 1992; Spillane, 2006). Principal leadership expected by the county school district included shared leadership, shared practice, vision, teacher empowerment, and change.

Theme four examined key informants' perception about how principals embraced teacher leaders in the PLC. These participants described their perceptions about how the principal embraced teacher leaders in the PLC. The perceptions of key informants are presented in Table 15.

Table 15

Principals Embracing Teacher Leaders

Successful principals have let go of ego
Engaged, encouraged and embraced teachers
Is developing future leaders
Must set the expectations
Established, articulated norms and structure
Supported the work in the PLC
Allowed to provide training
Must have relationships with staff
Must select the right people for key leadership positions
Some are more successful than others
Grade level teams existed
Team leaders at every grade level were needed
Not working in some schools

Included below are relevant excerpts from the interviews. The leader of the teachers' association stated:

I have seen a shift in direction. Schools were on their own without a structure and it was not working. Climate surveys give an indication from union members. Thirty percent believed they are part of a culture of collaboration with the principal. Fifteen percent said there was still a dictatorial approach to leadership. In some schools, the leadership team is told what to do and they tell the grade level team what was said. People are feeling more comfortable. ...still a range of PLC implementation. This clearly happened under our superintendent.

I've met with teachers and at times they felt their knowledge was not valued. Nothing else would have resulted in data increase without teacher leaders. When teachers are not embraced, there was a decline in data.

There has been a shift. Elementary schools have PLC components: grade level teams, added positions that are not classroom based (staff development teacher, math content coach, reading specialist). The grade level teams and stipends for grade team leaders has been significant. We have examples of where this is working.

Another key informant, the lead area superintendent key informant, concurred: I believe elementary schools have operated as PLCs at a high level. All schools are not PLCs. The principal's role contributes to the PLC only if the quality of teacher leaders allows that to happen. If the principal embraces the wrong people, not quality leaders, may not get good results.

Shared leadership starts with each leader.

Overall, key informants perceived teacher leadership was embraced in most elementary schools. Stipends for grade level team leaders were seen as valuable incentives for teachers. There was the idea in some schools that teacher leaders were not valued and respected for what they know and could contribute to the PLC. The general consensus was because of the structure delineated by the county school district, most elementary schools were operating within the PLC framework. Generally, 100% of key informants stated schools perceived as not successfully implementing the PLC should embrace teacher leaders, these principals should let go of their egos, and work to build relationships with their staff.

Theme #5: Training for Future Administrators

Question 5: Do you have thoughts about future training for new administrators regarding the expectations for schools to operate as professional learning communities?

Overview

In 2001, the county school district's definition of leadership was "shifting to ensure an inclusive representation of stakeholders in decision-making, school improvement and accountability for all stakeholders" (*Our Call to Action*, 2001). Part of the implementation of the PLC program was the training component for elementary principals and members of their leadership team in 2001. Training was viewed as essential for learning how to lead and operate schools as PLCs. In 2005, the county school district designed *School Leadership Team Training* for continued enhancement of principals and teams to work collaboratively for implementation of the PLC. This is not a required training but strictly voluntary.

Although the county school district articulated a commitment for building staff competencies in the 1999 *Call to Action*, there is an expectation when assistant principals and new principals are appointed to schools, they would lead from the "center and not the top" (Lezotte, 1997; Spillane, 2006). This means through the lens of shared leadership. Future administrators were or were not included in either of these trainings depending on their appointment by the Board of Education as most are appointed from classroom teacher positions after three to five years of teaching experience. Required workshops are designed by the county school district's Office of Staff Development for all future administrators. However, this researcher is unfamiliar with the content and duration of these workshops. The National Association of Elementary School Principals (NAESP, 2008) believed preparation for future principals was essential and should be guided by "leading learning community standards:

- lead schools in a way that places student and adult learning at the center
- set high expectations for academic, social, emotional and physical development of students
- demand content and instruction that ensures student achievement

- create a culture of continuous learning for adults tied to student learning and other school goals
- manage data and knowledge to inform decisions and measure progress of student, adult and school performance
- actively engage the community to create shared responsibility for student performance and development. (National Association of Elementary School Principals, 2008, p. 13)

Future principals need training programs that focus on instructional leadership, understanding collaborative learning environments, collaborative and distributed leadership skills according to the National Association of Elementary School Principals (NAESP, 2008). The county school district believed principals should have these skills in order to lead professional learning communities.

Theme five examined the perspective of key informants with respect to training for future administrators. The participants interviewed described their perceptions about training for future principals. All participants described multiple ideas for professional development needs for future administrators as presented in Table 16.

Table 16

Training for Future Administrators

Is a must for future leaders and new administrators
Should emphasize professional learning communities in training modules
Must be institutionalized
Should focus on helping to become better leaders
Add PLC modules
Must learn how to let go of their ego and work with other leaders

Included below are relevant excerpts from the interviews. During an interview, the teachers' association leader stated:

New leaders and future principals must be comfortable sharing power and not be swayed by nay sayers. They must take ownership and bring those people along. Teach new leaders how to smile and feel comfortable sharing power.

The leader of the principals' association corroborated the perception about training for future principals.

Train assistant principals how to be principals and work in the professional learning community. Some are perceived as heavy handed.

Generally, 100% of key informants felt training for future principals was critical. One informant stated, "Although some new principals have great potential, they struggle with sharing power and are defensive". One participant interviewed felt the training should be "reintroduced for future leaders because what they are getting in those sessions are not enough." This informant went on to say, we must "train future leaders and assistant principals as 25% of leaders are perceived as heavy handed." This was corroborated by another participant saying, "prior to promotion, training should occur for these folks."

Summary

This chapter presented the findings associated with this study. Quantitative and qualitative methods were used to address the fourth research question raised in Chapter I. A number of recommendations for practice and further research were drawn from these findings and will be presented in Chapter V. The following chapter also presents conclusions reached as a result of this study.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter consists of four sections: research summary, findings of the study, conclusions, and recommendations. The research summary frames the major issues that led to this research endeavor. It includes the purpose of the study, problem statement, research questions, and methodology. An analysis of the data is found in the findings section. Based on these findings, the researcher included recommendations for practice and extended research.

Purpose of the Study

The purpose of the study was to assess the extent to which the professional learning community (PLC) program has been fully implemented in two groups of elementary schools in one county school district and whether that implementation sustained a culture of a professional learning community. Chapter IV presented the results of data analysis and the questions which guided the study. The research designed for this study employed both quantitative and qualitative methodologies. The researcher used Huffman and Hipp's (2003) conceptual framework of a professional learning community: shared and supportive leadership, shared values and vision, collective learning and application, shared personal practice, and supportive conditions—relationships and structures, between elementary schools that have achieved AYP and elementary schools that have achieved AYP with the provisions of safe harbor and/or inclusion of confidence intervals as a lens to view the principals', staff development teachers' and 5th grade team leaders' perception of PLC implementation in their schools.

The study also used qualitative methods (individual interviews) with key central office personnel as a method to obtain information about external and internal factors that impacted district leaders in implementing the program designed to move elementary

schools in the direction of becoming a PLC. Using an interview protocol, the researcher prepared a series of questions to guide the interview.

Statement of the Problem

Schools nationwide face numerous challenges today including budget cuts, a diverse student population, a shortage of teachers, high-stakes testing, and the need for principals who can embrace teacher leaders (National Center for Education Statistics, 2006; Perlstein, 2007; Spillane, 2007). In response to these and other forces, collegial interchange and not isolation should become the norm in schools. Professional learning communities (PLCs) could become the building blocks that establish a new foundation for America's schools (National Commission on Teaching and America's Future, 2003). A study of the restructuring movement in education suggested two important conclusions: first, an effective PLC could be critical to increase student achievement, and second, principals who lead PLCs were committed to empowering teachers (DuFour, DuFour, Eaker, Karhanek, 2004; Spillane, 2008). These authors suggested, "Leaders in schools with strong professional communities delegated authority, developed collaborative decision-making processes, and stepped back from being the central problem solver" (Kruse & Marks, 1996, p. 193). Principals instead should work with teacher leaders in the PLC for critical shared decision-making (Slater, 2008; Spillane, 2007).

The No Child Left Behind legislation (2001) has increased standards-based reform, shifting the responsibility for student achievement to the school level and consequently to principals (Education Trust, 2004). Since educational accountability has increased the responsibilities of the principal, principals should foster the PLC domains of shared and supportive leadership, shared values and vision, collective learning and application, shared personal practice and supportive conditions—relationships and structures, rather than hoard power (Huffman & Hipp, 2003). Shared leadership could

bring the PLC together with common goals, commitment and shared responsibility for sustained implementation (National Commission on Teaching and America's Future, 2003). Teachers in the PLC should feel they have a voice in the school and that their collective work is viewed as something that is completed by them and not done to them (Slater, 2008; Spillane, 2007). Some schools as organizations are not designed to respond to the pressures of accountability (NAESP, 2008) and principals should move away from the traditional structures and practices in schools and build structures that support a PLC (Hord & Sommers, 2008).

Research Questions

Prior to beginning the research, the following research questions provided the structure for data collection and analysis.

1. From the perspective of elementary school principals, are there differences in the mean perceptions of principals regarding the five leadership domains of a professional learning community: shared and supportive leadership, shared values and vision, collective learning and application, shared personal practice, and supportive conditions—relationships and structures, between elementary schools that have achieved AYP and elementary schools that have achieved AYP with the provisions of safe harbor and/or inclusion of confidence intervals?

2. From the perspective of the staff development teachers, are there differences in the mean perceptions of staff development teachers regarding the five leadership domains of a professional learning community: shared and supportive leadership, shared values and vision, collective learning and application, shared personal practice, and supportive conditions—relationships and structures, between elementary schools that have achieved AYP and elementary schools that have achieved AYP with the provisions of safe harbor and/or inclusion of confidence intervals?

3. From the perspective of the school's 5th grade team leaders, are there differences in the mean perceptions of 5th grade team leaders regarding the five leadership domains of a professional learning community: shared and supportive leadership, shared values and vision, collective learning and application, shared personal practice, and supportive conditions—relationships and structures, between elementary schools that have achieved AYP and elementary schools that have achieved AYP with the provisions of safe harbor and/or inclusion of confidence intervals?
4. What external and internal factors impacted district leaders in implementing the program design to move elementary schools in the direction of becoming a professional learning community?

Methodology

The research design employed both quantitative and qualitative methodologies to investigate the extent to which PLCs are being implemented in two groups of elementary schools. The researcher used the static-group comparison strategy, one of the most common mixed method designs that utilizes "two different groups in an attempt to confirm, cross validate, or corroborate findings within a single study" (Creswell, 2003). Questions one through three were quantitative in nature and question four was qualitative. The main source for the collection of quantitative data was the Professional Learning Community Assessment (Huffman & Hipp, 2003) survey instrument (see Appendix A). Qualitative data were collected for question four through key informant interviews.

For the qualitative design, the individual interviews with key central office personnel were utilized. Research participants for the individual interviews were convened with the chief finance officer, lead area superintendent, leader of the teachers' association and leader of the principals' association. Interview sessions were audio-taped and an interview protocol facilitated the discussion of the research questions. The data

were transcribed and the transcripts were shared with the participants to allow them to check for accuracy and verification. In an effort to maintain the anonymity of the individual interview participants, the material does not identify their names, position, or office location.

Summary of Quantitative Findings

This study revealed a wide array of information about the implementation of PLCs between elementary schools that achieved Adequate Yearly Progress (AYP) and elementary schools that achieved AYP through provisions of safe harbor and/or the confidence interval in one county school district.

Finding #1: The Professional Learning Community Assessment instrument (see Appendix A) had a high degree of inter-item reliability.

Finding #2: The Cronbach alphas for subscales 3 (Collective Learning and Application, .83) and 5 (Supportive Conditions – Relationships and Structures, .87) are similar for this study and Huffman and Hipp (2003).

Finding #3: For elementary schools that achieved AYP, correlation coefficients were in the modest range and all were statistically significant at the .01 level or above. The highest correlation is between subscales 1 (Shared and Supportive Leadership) and 2 (Shared Values and Vision), .73. Subscale 4 (Shared Personal Practice) had the lowest, .36.

Finding #4: For elementary schools achieving AYP with the provisions of safe harbor and/or confidence intervals, the correlations for these schools are not different from elementary schools that achieved AYP without the provisions of safe harbor and/or the confidence interval. All of the correlations were statistically significant at the .001 level.

Finding #5: From the perspective of elementary school principals, there were no statistically significant differences in the perceptions of principals regarding the PLC

implementation in schools that achieved AYP and those whose schools achieved AYP through the provisions of safe harbor and/or the confidence interval for domains 1, 2, 3, and 5. The data presented for principals' perceptions in both groups of schools indicated the statistical hypothesis was not accepted for domain 4, shared personal practice. There was a statistically significant difference that favored principals in the schools that met AYP.

Finding #6: From the perspective of staff development teachers (SDTs), there were no statistically significant differences in their perceptions of PLC implementation between elementary schools that achieved AYP and elementary schools that achieved AYP with the provisions of safe harbor and/or confidence intervals for domains 1, 2, 3, and 5. The statistical hypothesis for domain 4, shared personal practice was not accepted. There was a statistically significant difference that favored the staff development teachers in the schools that met AYP.

Finding #7: From the perspective of 5th grade team leaders, there were no statistically significant differences in the mean perceptions of their peers between the two groups of schools regarding the implementation of the five leadership domains of a professional learning community: shared and supportive leadership, shared values and vision, collective learning and application, shared personal practice, and supportive conditions.

Additional Analyses

The researcher observed principals from both groups of schools had higher mean scores, although not statistically significantly different than the elementary staff development teachers and 5th grade team leaders. So the researcher desired to determine if there were statistically significant differences among these three groups of educators—principals, staff development teachers and 5th grade team leaders.

Finding #8: For schools that achieved AYP, the analysis of variance indicated that for all domains, there were no statistically significant differences among principals, staff development teachers, and 5th grade team leaders.

Finding #9: Principals from schools that achieved AYP had a statistically significantly higher perception of their leadership than principals of schools that achieved AYP through the provisions of safe harbor and/or the confidence interval.

Finding #10: For schools that achieved AYP with the provisions of safe harbor and/or the confidence interval, the analysis of variance for principals, staff development teachers, and 5th grade team leaders resulted in a statistically significant difference at the .001 level for domain 1, shared and supportive leadership. For domain 1, the principals in schools that achieved AYP had a statistically higher perception of their leadership than the staff development teachers and 5th grade team leaders.

Finding #11: There were no statistically significant differences among principals, staff development teachers and 5th grade team leaders for domains 2 through 5 for schools that achieved AYP with safe harbor and/or confidence intervals.

Conclusions Based on Quantitative Results

The researcher in collaboration with the area superintendents and lead area superintendent identified 80 schools to study the implementation of PLC using the lens of the principals, staff development teachers and 5th grade team leaders. Twenty-six schools achieved AYP by meeting or exceeding the annual measurable objectives and 54 elementary schools achieved AYP through the provisions of safe harbor and/or the confidence intervals. The response rate for principals was 82.5%, for staff development teachers, it was 78.7%, and for 5th grade team leaders, 90%. All of the response rates were above .70 and this is considered to be a good response rate for a survey.

The content validity of the instrument was documented by Huffman and Hipp (2003) and redocumented by this researcher as a result of the responses from principals,

staff development teachers and 5th grade team leaders in this county school district. Cronbach alphas were computed by this researcher to establish the inter-item reliability of all five subscales of the survey. The researcher concluded that the survey had high inter-item reliability. The highest was .91 for subscale 1 (shared and supportive leadership). Subscale 4 (shared personal practice) was the lowest .80. Both subscale 2 (shared values and vision) and subscale 3 (collective learning and application) were .87.

Correlation coefficients were computed by the researcher for both groups of schools. For schools that achieved AYP by meeting or exceeding the AMO, most of the correlations were in the modest range, .40 to .70. The highest correlation was between subscales 1 (shared and supportive leadership) and 2 (shared values and vision). Subscale 4 (shared personal practice) had the lowest correlation. The relationships were strongest for these subscales: 1 (shared and supportive leadership), subscale 2 (shared values and vision), subscale 3 (collective learning and application) and subscale 5 (supportive conditions –relationships and structures). Correlations for elementary schools achieving AYP with the provisions of safe harbor and or confidence intervals are very similar to schools that achieved AYP without these provisions. All but one correlation was in the modest range, .50 to .70. The researcher concluded that the correlations were similar for both groups of schools.

Independent t-tests were used next by the researcher to look for statistical differences in research questions 1 through 3. A conclusion was reached on research question 1, which compared the differences of principals' perceptions about the implementation of PLC between the two groups of elementary schools. There was no statistically significant difference for domains 1(shared and supportive leadership), domain 2 (shared values and vision), domain 3, (collective learning and application) and domain 5 (supportive conditions-relationships and structures). The independent t-test showed there was a statistically significant difference for domain 4 (shared personal

practice). There was a statistically significant difference that favored principals in schools that achieved AYP. The researcher concluded principals in AYP schools are implementing a PLC; however, shared personal practice is an area of need for principals in schools that achieved AYP with the provisions of safe harbor and the confidence interval.

For research question 2, which examined the differences in the perception of staff development teachers about the implementation of PLC for the two groups of schools, the researcher concluded there were no statistically significant differences for domains 1 (shared and supportive leadership), domain 2 (shared values and vision), domain 3 (collective learning and application), and domain 5 (supportive conditions-relationships and structures). Data revealed domain 4 (shared personal practice) favored staff development teachers in schools that met AYP. The researcher concluded the SDTs and principals in schools that achieved AYP had similar perceptions of PLC implementation. In AYP schools, the data suggests SDTs are valued to coach, for the examination of data with teachers, to mentor, arrange peer observations and collegial sharing. In schools that achieved AYP with the provisions of safe harbor and/or the confidence interval, the researcher concluded domain 4 (shared personal practice) was not as strongly implemented in this group of schools, which could impact the results of student data as teachers could benefit from more collegial sharing of their work.

Research question 3 examined the perceptions of 5th grade team leaders for PLC implementation in both groups of schools. There were no statistically significant differences for domains 1 through 5. The researcher concluded 5th grade team leaders have similar perceptions about PLC implementation.

Based on these findings, the researcher concluded that the Professional Learning Community Assessment instrument detected some differences in the perceptions of the groups of educators (principals, staff development teachers, and 5th grade team leaders)

regarding the implementation of the PLC program. Findings allowed the researcher to conclude that the PLC domains are working well for all educators in schools that achieved AYP. Staff development teachers and principals questioned shared personal practice (domain 4). The researcher concluded this suggests shared personal practice is an area that could need attention in this group of schools for PLC implementation.

The researcher conducted additional analyses of variance using the Scheffé multiple range test and the significance level was set at .05. The researcher was looking for differences between the three groups—principals, staff development teachers, and 5th grade team leaders with schools that achieved AYP. From the data analysis for schools that achieved AYP as presented in Table 10, the researcher found for domains 1 through 5, there were no statistically significant differences between principals, staff development teachers and 5th grade team leaders. The principals, SDTs, and 5th team leaders from schools that achieved AYP perceived these domains: domain 1 (shared and supportive leadership), domain 2 (shared values and vision), domain 3 (collective learning and application), domain 4 (shared personal practice), and domain 5 (supportive conditions) were effectively implemented in the PLC. The researcher concluded these educators perceived strong PLC implementation was instituted which could be the reason the schools achieved AYP without the provisions of safe harbor and the confidence interval. As stated by Hord and Sommers (2008), PLC attributes should be intertwined, do not work in isolation and cause a focus on student achievement. In schools that achieved AYP, the researcher concludes these domains are intertwined and working for PLC implementation.

The same analyses was conducted for schools that achieved AYP with the confidence intervals and/or safe harbor; analyses indicated statistically significant differences existed for domain 1 (shared and supportive leadership). The data indicated the principal had a higher opinion of his or her ability to implement domain 1 (shared and

supportive leadership) than did the staff development teachers and 5th grade team leaders. The researcher concluded there is an important discrepancy (lack of agreement on shared and supportive leadership); it could suggest that principals in these schools need to examine how power is shared and how to acculturate teachers to this shift. While there was a discrepancy in perceptions for domain 1 (shared and supportive leadership), domain 2 (shared values and vision), domain 3 (collective learning and application), domain 4 (shared personal practice) and domain 5 (supportive conditions-relationships and structures) reported no statistically significant differences. These findings suggest that these attributes were present and functioning in the PLC. The researcher concluded that when there is an important difference in the perception of PLC implementation for one of the domains, the school may continue to be placed at risk for having to use the confidence interval and/or safe harbor provisions to achieve AYP. The researcher concluded teacher leaders may not feel they are valued contributing PLC members.

Summary of Qualitative Findings

Key informants were interviewed to determine their perceptions of external and internal factors which impacted district leaders in the implementation of PLC in elementary schools. Based on the individual interviews, the following findings are noted below.

Finding #1: The data indicated a number of forces prompted the county school district to design and implement the professional learning communities program in elementary schools. The internal factors included: increased student enrollment (particularly African American and Hispanic students) and a gap in student performance between White and Asian students and African American and Hispanic students.

Finding #2: The data indicated there was a need for shared leadership as key informants perceived there was a lack of collaboration between principals and teachers prior to the implementation of the PLC program. There was a need for principals to

embrace teacher leaders and include teachers in shared decision-making. This was not happening in some elementary schools, according to key informants.

Finding #3: Three important elements emerged from the data as necessary inputs for the successful implementation of the PLC program. Key informants stated professional development, funding of the staff development teacher (SDT) position for each elementary school, and full training of each school's leadership team as valuable elements for implementation of the PLC program. School district leaders expressed these program components were necessary for implementation and were equally important.

Finding #4: Based on the findings from key informants for this study, the SDT position was an important input for the success of the program. Key informants perceived the SDTs are viewed as non-evaluative leaders and not bosses.

Finding #5: Key informants perceived the SDTs and principals working as a team had an impact on the implementation of the PLC in most elementary schools.

Finding #6: Data emerged from key informants that most elementary schools have operated as PLCs at a high level and that the shift is due to elementary schools having these key components, teacher leaders involved in making decisions, SDTs, and principals who embraced the five PLC domains.

Finding #7: Three expressed needs regarding training were to teach new and future principals to feel comfortable sharing power, train assistant principals prior to appointment to principal, and include PLC training in the professional development modules for assistant principals.

Finding #8: Key informants perceived it was necessary to provide training for current principals how to work in a PLC.

Conclusions Based on Qualitative Results

Based on key informants' individual interviews, the researcher arrived at the following conclusions. Internal factors impacting PLC implementation were an increase

in student diversity, a perceived lack of collaboration among principals and teacher leaders in elementary schools, and to respond to gaps in student performance between White and Asian and African American and Hispanic students. The external factor included the high-stakes testing requirements of NCLB (Education Trust, 2006). From the comments made during the individual interviews, it appears the DuFour model for PLC implementation, expectation and vision setting from the superintendent, funding for training and the staff development teacher position in each elementary school have supported successful implementation of the PLC program in most elementary schools. As the program was created, key informants perceived the school system's vision for PLC was infused in all aspects of its implementation indoctrinating principals and teacher leaders of the standards expected of them at the initial training for principals, staff development teachers and 5th grade team leaders. The researcher concluded that PLC implementation was influenced by several internal and external factors and the PLC program is being implemented in most elementary schools as the county school district envisioned seven years ago. The Board of Education has invested money and training to help principals share leadership.

From the individual interviews with key informants, there has been a shift in the culture of most elementary schools from the principal hoarding leadership to the principal embracing teacher leaders in order to implement the PLC program. There is a perception from key informants that change would not have happened without the SDTs. Without the SDTs working together with the principal, there would not have been the shift for increased ownership from the teacher level resulting in the principal sharing leadership. The researcher concluded the staff development teacher position has been beneficial to principals and teachers for the implementation of PLCs in most elementary schools.

In the area of training for future administrators, key informants indicated that training is warranted for all future principals. Additionally, key informants perceived

training was necessary for current principals perceived as not successfully implementing a PLC due to a lack of shared and supportive leadership or who are perceived as "heavy handed." The researcher concluded from the data that training is necessary for all future principals and for principals who were not sharing leaderships in their schools.

Recommendations for Practice

The research results document several areas for program improvement for the designated county school district. Other school districts considering implementing professional learning communities could benefit from this research. The following implications for practice for this study include:

Recommendation #1

Based on individual interview data, a recommendation for policy to the county school district is to fund training for new and future principals. The expectations and attributes of professional learning communities should be strongly communicated to new and future leaders. The Board of Education should approve policy for funding professional development for elementary school principals and future leaders to build their capacity for shared personal practice.

Recommendation #2

Examine the need for additional shared personal practice in elementary schools that achieved AYP through the provisions of the confidence interval and safe harbor. Identify successful models of shared personal practice in similar schools and share these best practices with principals, staff development teachers and team leaders.

Recommendation #3

As the professional learning community program continues to be implemented in elementary schools, an annual evaluation should be conducted at the elementary school

level to monitor the progress of the program for continued enhancement of program implementation. There was a significant difference in schools that achieved AYP with the confidence interval and or safe harbor provisions. Principals should probe their staff to determine how best to implement supportive and shared leadership. This discrepancy may have impacted various stakeholders who perceive distributed leadership is not part of the culture. As a result, additional training might be warranted for elementary principals who are perceived as not sharing leadership and not implementing the PLC program particularly for schools meeting AYP using the provisions of safe harbor and or the confidence interval.

Suggestions for Further Research

This study provided rich and detailed descriptions of the perceptions of principals, staff development teachers, and 5th grade team leaders in elementary schools about the implementation of PLCs. The data provided insight, details and answers regarding the perceptions of principals, staff development teachers and 5th grade team leaders, it raised additional questions for further research. Questions for further study are recommended as follows:

Recommendation #1

Examine the forces that have led other school districts to implement professional learning community programs across the state and nation.

Recommendation #2

Examine principal readiness for operating schools as professional learning communities to assess their overall perception of preparedness for this changed role.

Recommendation #3

The county school district should conduct a case study of the newly designated state blue ribbon elementary school within the county school district to assess the actions of the principal in the PLC, particularly shared and supportive leadership conditions to identify the specific roles of teacher leaders and how principals perceived as effective acculturate staff to this shift in practice.

Recommendation #4

It is recommended that a case study be conducted with an elementary school that has achieved AYP by meeting or exceeding the AMO over a three year period. This qualitative research endeavor would provide a rich and detailed understanding of the leadership behaviors of the principal and teacher leaders with respect to Huffman and Hipp's (2003) five PLC domains.

Appendix A
Professional Learning Community Assessment Instrument
Permission from Authors to Use Survey Instrument
Professional Learning Community Assessment Survey Monkey Document

Professional Learning Communities Assessment

Directions:

This questionnaire assesses your perceptions about your principal, staff, and stakeholders based on the five dimensions of a professional learning community (PLC) and related attributes. There are no right or wrong responses. This questionnaire contains a number of statements about practices which occur in some schools. Read each statement and then use the scale below to select the scale point that best reflects your personal degree of agreement with the statement. Shade the appropriate oval provided to the right of each statement. Be certain to select only one response for each statement.

Key Terms:

Principal = Principal, not Associate or Assistant Principal

Staff = All adult staff directly associated with curriculum, instruction, and assessment of students

Stakeholders = Parents and community members

Scale: 1 = Strongly Disagree (SD)

2 = Disagree (D)

3 = Agree (A)

4 = Strongly Agree (SA)

STATEMENTS		SCALE			
	Shared and Supportive Leadership	SD	D	A	SA
1.	The staff is consistently involved in discussing and making decisions about most school issues.	0	0	0	0
2.	The principal incorporates advice from staff to make decisions.	0	0	0	0
3.	The staff have accessibility to key information.	0	0	0	0
4.	The principal is proactive and addresses areas where support is needed.	0	0	0	0
5.	Opportunities are provided for staff to initiate change.	0	0	0	0
6.	The principal shares responsibility and rewards for innovative actions.	0	0	0	0
7.	The principal participates democratically with staff sharing power and authority.	0	0	0	0
8.	Leadership is promoted and nurtured among staff.	0	0	0	0
9.	Decision-making takes place through committees and communication across grade and subject areas.	0	0	0	0
10.	Stakeholders assume shared responsibility and accountability for student learning without evidence of imposed power and authority.	0	0	0	0

	STATEMENTS	SCALE			
	Shared Values and Vision	SD	D	A	SA
11.	A collaborative process exists for developing a shared sense of values among staff.	0	0	0	0
12.	Shared values support norms of behavior that guide decisions about teaching and learning.	0	0	0	0
13.	The staff share visions for school improvement that have an undeviating focus on student learning.	0	0	0	0
14.	Decisions are made in alignment with the school=s values and vision.	0	0	0	0
15.	A collaborative process exists for developing a shared vision among staff.	0	0	0	0
16.	School goals focus on student learning beyond test scores and grades.	0	0	0	0
17.	Policies and programs are aligned to the school=s vision.	0	0	0	0
18.	Stakeholders are actively involved in creating high expectations that serve to increase student achievement.	0	0	0	0
	Collective Learning and Application	SD	D	A	SA
19.	The staff work together to seek knowledge, skills and strategies and apply this new learning to their work.	0	0	0	0
20.	Collegial relationships exist among staff that reflect commitment to school improvement efforts.	0	0	0	0
21.	The staff plan and work together to search for solutions to address diverse student needs.	0	0	0	0
22.	A variety of opportunities and structures exist for collective learning through open dialogue.	0	0	0	0
23.	The staff engage in dialogue that reflects a respect for diverse ideas that lead to continued inquiry.	0	0	0	0
24.	Professional development focuses on teaching and learning.	0	0	0	0
25.	School staff and stakeholders learn together and apply new knowledge to solve problems.	0	0	0	0
26.	School staff is committed to programs that enhance learning.	0	0	0	0

	STATEMENTS	SCALE			
	Shared Personal Practice	SD	D	A	SA
27.	Opportunities exist for staff to observe peers and offer encouragement.	0	0	0	0
28.	The staff provide feedback to peers related to instructional practices.	0	0	0	0
29.	The staff informally share ideas and suggestions for improving student learning.	0	0	0	0
30.	The staff collaboratively review student work to share and improve instructional practices.	0	0	0	0
31.	Opportunities exist for coaching and mentoring.	0	0	0	0
32.	Individuals and teams have the opportunity to apply learning and share the results of their practices.	0	0	0	0
	Supportive Conditions – Relationships	SD	D	A	SA
33.	Caring relationships exist among staff and students that are built on trust and respect.	0	0	0	0
34.	A culture of trust and respect exists for taking risks.	0	0	0	0
35.	Outstanding achievement is recognized and celebrated regularly in our school.	0	0	0	0
36.	School staff and stakeholders exhibit a sustained and unified effort to embed change into the culture of the school.	0	0	0	0
	Supportive Conditions – Structures	SD	D	A	SA
37.	Time is provided to facilitate collaborative work.	0	0	0	0
38.	The school schedule promotes collective learning and shared practice.	0	0	0	0
39.	Fiscal resources are available for professional development.	0	0	0	0
40.	Appropriate technology and instructional materials are available to staff.	0	0	0	0
41.	Resource people provide expertise and support for continuous learning.	0	0	0	0
42.	The school facility is clean, attractive and inviting.	0	0	0	0

	STATEMENTS	SCALE			
43.	The proximity of grade level and department personnel allows for ease in collaborating with colleagues.	0	0	0	0
44.	Communication systems promote a flow of information among staff.	0	0	0	0
45.	Communication systems promote a flow of information across the entire school community including: central office personnel, parents, and community members.	0	0	0	0

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Source: Olivier, D. F., Hipp, K. K., & Huffman, J. B. (2003). Professional learning community assessment. In J. B. Huffman & K. K. Hipp (Eds.). *Reculturing schools as professional learning communities*. Lanham, MD: Scarecrow Press.

Permission from Authors to Use Professional Learning Community Assessment Instrument

From: Dianne Oliver
To: Myra Smith
Date: April 3, 2007
Re: Professional Learning Community Assessment Instrument
Myra,

I'm glad to hear that you are interested in utilizing the PLCA measure for your research.

You have permission to use the PLCA measure for your research.

Although we do not assess any fee in using the measure, I am requesting that upon the completion of the administration of the PLCA that you share your information with our research team. I would appreciate receiving a file of your raw data that would merely include the responses for each of the items for each participant. Any demographics that you have would also be appreciated such as type of school (elementary, secondary) and any demographics on the respondents. This will allow us to add to our data base on the utilization of the PLCA. We would not at any time use any identifying information from your study. I would also be interested in receiving the final results of your study, which I'm sure that you will be excited to share with other researchers.

I am attaching 2 files. The 1st is an electronic version of the PLCA measure. An online version can be used through our distributor's website at www.schoolperceptions.com
The 2nd file provides information on the validity and reliability of the measure. If you have not had an opportunity to review our book, I would invite you to do so. I believe that our research could indeed add to your ongoing study.

Should you require any additional information, please feel free to drop me a note.

Best wishes in your continued studies.

Dianne F. Olivier, Ph. D.
Educational Specialist, LLC
225 Ogden Street
Breaux Bridge, LA 70517
(337) 332-3914 (Home/Office)
(337) 303-0451 (Cell)
From: Myra Smith [mailto:mfs90@verizon.net]
Sent: Tuesday, April 03, 2007 5:30 PM
To: Dianne Olivier
Cc: Janie Huffman
Subject: Professional learning Community Assessment

Greetings Dianne,

Dr. Jane Huffman directed me to contact you as a member of the research team regarding obtaining permission to use the Professional Learning Community Assessment instrument for my dissertation. Please share the specific procedures and information with me. Thank you

Myra Smith

Appendix B
Institutional Review Board Application
Institutional Review Board Application Approval Notification

UNIVERSITY OF MARYLAND, COLLEGE PARK

Institutional Review Board

Initial Application for Research Involving Human Subjects

Please complete this cover page AND provide all information requested in the attached instructions.

Name of Principal Investigator (PI) or Project Faculty Advisor Dr. James Dudley Tel. No. 410-535-3845
(NOT a student or fellow; must be UMD employee)

Name of Co-Investigator (Co-PI) Dr. Carol Parham Tel. No. 301-405-3580

Department or Unit Administering the Project Education Leadership, Higher Education and International Education

E-Mail Address Dr. Dudley (none) E-Mail Address of Co-PI carham@umd.edu

Where should the IRB send the approval letter? Dr. Carol Parham Benjamin Building Second floor

Name of Student Investigator Myra J. Smith Tel. 240-832-4354

E-Mail Address of Student Investigator Myra.J.Smith@mcpsmd.org Mfs90@verizon.net

Check here if this is a student master's thesis ☐ or a dissertation research project ☒ X

Project Duration (mo/yr – mo/yr) 03/2008 08/2008

Project Title An Analysis of One School District's Implementation of Professional Learning Communities in its Elementary Schools

Sponsored Project Data	Funding Agency	ORAA Proposal
	<u>N/A</u>	<u>N/A</u>

(PLEASE NOTE: Failure to include data above may result in delay of processing sponsored research award at ORAA.)

Vulnerable Populations: The proposed research will involve the following (Check all that apply): pregnant women ☐, human fetuses ☐, neonates ☐, minors/children ☐, prisoners ☐, students ☐, individuals with mental disabilities ☐, individuals with physical disabilities ☐

Exempt or Nonexempt (Optional): You may recommend your research for exemption or nonexemption by completing the appropriate box below. For exempt recommendation, list the numbers for the exempt category(s)

☒ Exempt—List Exemption Category 1 and 4 Or ☐ Non-Exempt

If exempt, briefly describe the reason(s) for exemption. Your notation is a suggestion to the IRB Manager and IRB Co-Chairs.

The research will be conducted in an established educational setting involving normal educational practices, research will involve the collection and study of existing data and will be recorded so that participants are not identified.

Date 4/14/08 Signature of Principal Investigator or Faculty Advisor (PLEASE NOTE: Person signing above accepts responsibility for the research even when data collection is performed by other)

Date 4/14/08 Signature of Co-Principal Investigator

Date 4/16/08 Signature of Student Investigator

Date _____ REQUIRED Departmental Signature
Name _____, Title _____
(Please also print name of person signing above)

(PLEASE NOTE: The Departmental signature block should not be signed by the investigator or the student investigator's advisor.)

*PLEASE ATTACH THIS COVER PAGE TO EACH SET OF COPIES

Unanticipated Problems Involving Risks: You must promptly report any unanticipated problems involving risks to subjects or others to the IRB Manager at 301-405-0678 or redson@umresearch.umd.edu.

Student Researchers: Unless otherwise requested, this IRB approval document was sent to the Principal Investigator (PI). The PI should pass on the approval document or a copy to the student researchers. This IRB approval document may be a requirement for student researchers applying for graduation. The IRB may not be able to provide copies of the approval documents if several years have passed since the date of the original approval.

Additional Information: Please contact the IRB Office at 301-405-4212 if you have any IRB-related questions or concerns.



UNIVERSITY OF MARYLAND

INSTITUTIONAL REVIEW BOARD

2100 Lee Building
College Park, Maryland 20742-5121
301.405.4212 TEL 301.314.1475 FAX
irb@deans.umd.edu
www.umresearch.umd.edu/IRB

June 18, 2008

MEMORANDUM

Application Approval Notification

To: Dr. James Dudley
Dr. Carol Parham
Myra J. Smith
EDIII

From: Roslyn Edson, M.S., CIP *RE*
IRB Manager
University of Maryland, College Park

Re: IRB Application Number: # 08-0343
Project Title: "An Analysis of One School District's Implementation of Professional Learning Communities in its Elementary Schools"

Approval Date: June 18, 2008

Expiration Date: June 18, 2009

Type of Application: Initial

Type of Research: Non-Exempt

Type of Review
For Application: Expedited

The University of Maryland, College Park Institutional Review Board (IRB) approved your IRB application. The research was approved in accordance with 45 CFR 46, the Federal Policy for the Protection of Human Subjects, and the University's IRB policies and procedures. Please reference the above-cited IRB application number in any future communications with our office regarding this research.

Recruitment/Consent: For research requiring written informed consent, the IRB-approved and stamped informed consent document is enclosed. The IRB approval expiration date has been stamped on the informed consent document. Please keep copies of the consent forms used for this research for three years after the completion of the research.

Continuing Review: If you intend to continue to collect data from human subjects or to analyze private, identifiable data collected from human subjects, after the expiration date for this approval (indicated above), you must submit a renewal application to the IRB Office at least 30 days before the approval expiration date.

Modifications: Any changes to the approved protocol must be approved by the IRB before the change is implemented, except when a change is necessary to eliminate apparent immediate hazards to the subjects. If you would like to modify the approved protocol, please submit an addendum request to the IRB Office. The instructions for submitting a request are posted on the IRB web site at:
http://www.umresearch.umd.edu/IRB/IRB_Addendum%20Protocol.htm.

Appendix C
Letter of Consent to Superintendent of Schools
Correction on Notification of Request to Conduct Research
Approval to Conduct Research from County School District

Letter of Informed Consent

Dear Dr. Weast:

I am requesting permission for elementary principals, staff development teachers, and 5th grade team leaders at selected elementary schools to participate in the study. I am a doctoral candidate in the Department of Education, Higher Education and International Studies Program at the University of Maryland. The purpose of the study is to assess the extent to which the professional learning community program has been fully implemented in elementary schools in one county school district and whether that implementation has sustained a culture of professional learning community. This will be accomplished by assessing the perceptions of elementary principals, staff development teachers, and 5th grade team leaders in selected elementary schools.

The publication of *A Nation at Risk* (April, 1983) called into question the quality of American public schools and laid the groundwork for educational reform. Several federal and state commission reports (Educating America, 1990; National Commission on Excellence in Education; National Education Goals, 1999; National Governor's Association Time for Results, 1986; National Governor's Report, 1989; The Presidential Commission Report; A Nation Prepared: Teachers for the 21st Century, 1986) proposed fundamental restructuring of schools, a need for important changes in the organizational structure of schools, extending teachers a role in school governance, changes in the role of the principal, the autonomy of schools, and the educational goals of the American education system to address the issue of the achievement gap (Conley, 1996). A principal's leadership approach influences the extent to which professional learning communities are created and sustained (DuFour, 1998; Hord, 2004). This study will assess if professional learning communities have been fully implemented in selected elementary schools and if there is a secondary impact on the achievement of students.

The Professional Learning Communities Assessment will be administered to selected elementary principals, staff development teachers, and 5th grade team leaders. I will also conduct individual interviews with key central office personnel to gain knowledge of the external and internal factors that impacted district leaders in implementing the program design to move elementary schools in the direction of becoming a professional learning community.

I am requesting to survey 60 selected elementary school principal, 60 staff development teachers, and 60 5th grade team leaders. I will work with the chief school performance officer and community superintendents in order to select the schools. Each participant will receive the survey via www.SurveyMonkey.com. After tabulating the results, data for specific groups and individuals will be treated with confidentiality. Results of the study will be available to those requesting them.

A copy of the survey and its cover letter are enclosed for your review. Your permission to request participation from Montgomery County Public Schools principals, staff development teachers, central office staff and participants would be greatly appreciated. If you have questions regarding the study or the survey, please call me at 410-461-9181 (home) or at work 240-832-4354 (cell).

Sincerely,

Myra J. Smith

Enclosures

Office of Shared Accountability
MONTGOMERY COUNTY PUBLIC SCHOOLS
Rockville, Maryland

July 14, 2008

MEMORANDUM

To: Dr. Frieda K. Lacey, Deputy Superintendent of Schools

From: Stacy L. Scott, Associate Superintendent, Office of Shared Accountability *SL*

Subject: Approval of Request to Conduct Research

Mrs. Myra Smith, doctoral candidate and director, Office of School Performance (OSP), Montgomery County Public Schools (MCPS), requests permission to conduct a research study that examines the implementation of the Professional Learning Communities Institute (PLCI) in MCPS elementary schools. The research is part of the requirements for completing a doctoral degree in the Department of Educational Leadership, Higher and International Education, University of Maryland, College Park. The attached request to conduct the study is approved.

The purpose of the study is to assess the extent to which the PLCI has been implemented in approximately 60 elementary schools and to determine the effects on student achievement. Thirty of the sixty elementary schools were selected based on criteria for meeting Adequate Yearly Progress (AYP) in reading and mathematics on the Maryland State Department of Education assessments. The remaining 30 elementary schools were selected based on achieving AYP using the provisions of safe harbor and/or confidence interval for the same assessments. The information collected through the study will assist school leadership teams and administrative staff to identify the external and internal factors that may impact schools' abilities to become professional learning communities.

Data collection activities will occur between July and December 2008 and include surveys and focus group interviews. Selected elementary school principals, staff development teachers, and Grade 5 team leaders will be asked to complete a password-protected online survey estimated to take approximately 30 minutes to complete. Focus group interviews lasting approximately one hour, will be conducted with key central office staff and employee association leaders who are familiar with the PLCI. Participation in the study is voluntary. Choosing not to participate will have no impact on participants' employment in MCPS.

Selected participants will receive a letter that explains the study, the confidentiality of collected information, and a consent form. Only those participants who sign the consent form agreeing to their participation will be asked to complete a survey or participate in a focus group.

With the consent of focus group members, discussions will be tape-recorded. To address any concerns participants may have regarding personally identifiable information collected during the focus group discussions, the researcher will use a code number on data collected through focus group discussions.

The University of Maryland Institutional Review Board (IRB) approved the research in accordance with the Federal Policy for the Protection of Human Subjects on June 18, 2008, with expiration on June 18, 2009, unless a renewal application is submitted to the IRB. The MCPS OSP supports the study.

All data will be reported in summary format. Names of participants, schools, and the school district will not be used in the summary of results. Mrs. Smith agrees to provide the Office of Shared Accountability (OSA), and OSP with a report of the findings.

If you have questions regarding this request, please contact Mrs. Cynthia Loeb, logistics support specialist, Applied Research Unit, OSA, at 301-279-3848.

SLS:cjl

Attachment

Copy to:

Mr. Bedford

Community Superintendents

Selected principals

Mrs. Loeb

✓ Mrs. Smith

Dr. Von Secker

Approved:


Frieda K. Lacey, Deputy Superintendent of Schools

Office of Shared Accountability
MONTGOMERY COUNTY PUBLIC SCHOOLS
Rockville, Maryland

July 25, 2008

MEMORANDUM

To: Dr. Frieda K. Lacey, Deputy Superintendent of Schools
From: Stacy L. Scott, Associate Superintendent, Office of Shared Accountability
Subject: Correction on a Notification of Request to Conduct Research

In a memorandum dated July 14, 2008, you received a notification about a research request submitted to the Office of Shared Accountability (OSA) from Mrs. Myra Smith, doctoral candidate and director, Office of School Performance, Montgomery County Public Schools (MCPS). Due to an editing error, we referred to Mrs. Smith's study as an investigation of the "Professional Learning Communities Institute (PLCI)" in MCPS elementary schools. Rather, the study is an analysis of the implementation of "Professional Learning Communities" in elementary schools. We apologize for the error and any confusion this may have caused.

Mrs. Smith's research request is approved. If you have questions, please contact Mrs. Cynthia Loeb, logistics support specialist, Applied Research Unit, OSA, at 301-279-3848.

SLS:cll

Copy to:
Mr. Bedford
Community Superintendents
Selected principals
Mrs. Amani-Dove
Mrs. Loeb
Mrs. Smith
Dr. Von Secker

The sampling schema should be discussed fully in this chapter. If the plan includes the sampling of students, teachers, parents, etc., the methodology for accomplishing this should be clearly presented in this chapter; and the number of respondents for each type should be specified.

Office of Shared Accountability MONTGOMERY COUNTY PUBLIC SCHOOLS Rockville, Maryland 20850	DATA ACQUISITION CLEARANCE REQUEST
INSTRUCTIONS: This form must accompany all requests for data collection activities requiring approval under MCPS Regulation EHC-RA: <i>Clearance of Data Acquisition Activities</i> . Complete all items of information; mark "NA" in the space provided if the item is not applicable. Submit the form to the Office of Shared Accountability, Carver Educational Services Center, Room 11. If you have any questions, please call 301-279-3843.	
PART A: FORM IDENTIFICATION	
Title <u>An Analysis of One School District's Implementation of Professional Learning Communities in ES</u> Submitted <u>06 / 30 / 08</u> <div style="text-align: center; margin-top: -10px;"> <i>Data Acquisition Activity/Form</i> <i>Date</i> </div>	
Clearance Needed <u>07 / 15 / 08</u> Frequency of data collection or form(s) use: (check one) <div style="text-align: center; margin-top: -10px;"> <i>Date</i> </div> <div style="text-align: center;"> <input checked="" type="checkbox"/> One-time <input type="checkbox"/> As required <input type="checkbox"/> Monthly <input type="checkbox"/> Annually <input type="checkbox"/> Other (specify) _____ </div>	
Form(s) to be in use until <u>12 / 08</u> <div style="text-align: center; margin-top: -10px;"> <i>Mo.</i> <i>Yr.</i> </div>	
List MCPS offices/departments/schools affected by this data acquisition activity/form <u>See attached list of schools</u>	
Name(s) and telephone number(s) of person(s) who can best answer questions regarding this request:	
Name(s)	Telephone Number
<u>Mrs. Myra J. Smith</u>	<u>301 - 315 - 7374</u>
_____	<u>410 - 461 - 9181</u>

PART B: DATA ACQUISITION INFORMATION	
List all intended users of the data collected and the manner in which each intends to use the data	
INTENDED USER	PURPOSES FOR WHICH DATA WILL BE USED
Mrs. Myra Smith	to assess implementation of professional learning communities in elementary schools
Dr. Gilbert Austin, data consultant	to work with student research to assess implementation of professional learning communities in elementary schools
_____	_____
_____	_____
_____	_____
MCPS Form 226-17, Rev. 5/05	

NOTICE OF ACTION ON DATA ACQUISITION CLEARANCE REQUEST	
Title of Research Activity <u>An Analysis of one school District's Implementation of Professional Learning Communities in its ES</u>	
PART D: IMPACT SUMMARY—To be completed by the Office of Shared Accountability	
Activity/Form: <input type="checkbox"/> New <input checked="" type="checkbox"/> Revised	
Respondent Group <u>elementary principals, elementary SDTs and 5th gr. teachers</u> Data Burden <u>1/2</u> hours	
Clearance Recommendation:	
<input checked="" type="checkbox"/> Approval <input type="checkbox"/> Provisional Approval (approval contingent on acceptance of modifications indicated below) <input type="checkbox"/> Disapproval	
Remarks (include specific modifications needed or reason(s) for disapproval, as appropriate.) _____	
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;"> _____ Signature, Associate Superintendent, Office of Shared Accountability </div> <div style="text-align: center;"> <u>7/10/08</u> Date </div> </div>	
PART E: CLEARANCE ACTION—To be completed by the Office of the Deputy Superintendent of Schools	
Action: <input checked="" type="checkbox"/> Approval <input type="checkbox"/> Provisional Approval (approval contingent on acceptance of modifications indicated below) <input type="checkbox"/> Disapproval	
If approved, completion of form by respondent is: <input checked="" type="checkbox"/> Voluntary <input type="checkbox"/> Compulsory	
Remarks _____	
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;"> _____ Signature, Deputy Superintendent of Schools </div> <div style="text-align: center;"> <u>7/11/08</u> Date </div> </div>	
PART F: APPLICANT RESPONSIBILITIES REQUIRED IF APPROVAL IS GRANTED	
<ol style="list-style-type: none"> 1. The first page of the data acquisition activity form must bear one of the following statements: <div style="margin-left: 20px;"> <input checked="" type="checkbox"/> Respondents are not required to answer any questions that they believe are an infringement upon their privacy or that they do not care to answer for any other reason. </div> <div style="margin-left: 20px;"> <input type="checkbox"/> By directive of the Office of the Superintendent of Schools, completion of this form is a compulsory activity for MCPS employees who are designated as respondents. </div> 2. One copy of the final printed form, including any transmittal letter, instructions, or other document being provided to respondents is to be sent to the Office of Shared Accountability before any data collection activity is initiated. 3. At the completion of the study, one copy of the executive summary and the final report is to be sent to the Office of Shared Accountability. 	

Appendix D
Individual Interview Questions

Questions for Key Informants - District Level Staff

1. The county school district embarked on an ambitious program to transform schools into professional learning communities in 2001. What was the impetus for schools to operate as professional learning communities? Do you perceive the professional learning community program is successful in elementary schools?
2. What was the most value-added component for the professional learning community program (budget, human resources, professional development)?
3. The strategic plan (1999) stated staff development teachers were essential to the future growth of professional learning communities in elementary schools. Do you believe the staff development teacher position contributed to the success of the professional learning community program?
4. The professional learning community program has been implemented in elementary schools since 2001. Several highly impacted schools are achieving AYP by meeting or exceeding the AMO in reading and mathematics. Do you think the principals' role of embracing teacher leaders in the professional learning community is contributing to the high level of student achievement? What suggestions would you offer to schools that are perceived as not successfully implementing the professional learning community?
5. Do you have thoughts about future training of new administrators regarding the expectations for schools to operate as professional learning communities?

Appendix E
Survey Letter to Participants for Survey Monkey
Letter to Principals
Letter to Staff Development Teachers
Letter to Team Leaders

To: [Email]Principals June 20, 2008
From: mfs90@verizon.net

Subject: Professional Learning Community Assessment Survey
(from Myra Smith)

Body: Greetings principals,

I am conducting a survey to assess the extent to which professional learning communities has been fully implemented in elementary schools. Your perceptions are very important, are of interest and your responses are appreciated. The information you provide will be confidential. Please click the link below to access the Professional Learning Community Assessment survey instrument. Please call me at 301-315-7374 if you have questions.

<http://www.surveymonkey.com/s.aspx>

Thank you for your participation,

Myra Smith
Director of School Performance
Doctoral Candidate University of Maryland

Email

From: mfs90@verizon.net August 2008

Subject: Professional Learning Community Assessment Survey
(approved by MCPS)

Body: Greetings staff development teachers,
I am conducting a survey to assess your perception of professional learning community in your school. The survey has been approved by Montgomery County Public Schools. Your response would be appreciated.

Here is a link to the survey:
<http://www.surveymonkey.com/s.aspx>

This link is uniquely tied to this survey and your email address, please do not forward this message.

Thanks for your participation and if you have questions, please feel free to call me at 301-315-7374.

Myra Smith
Director of School Performance
Montgomery County Public Schools
Doctoral Candidate, University of Maryland

Please note: If you do not wish to receive further emails from us, please click the link below, and you will be automatically removed from our mailing list.
<http://www.surveymonkey.com/optout.aspx>

To: [Email]

From: Myra_J_Smith@mcpsmd.org September 2008

Subject: Professional Learning Community Assessment for MCPS

Body: Dear MCPS Team Leader,

I am conducting a survey about the perception of professional learning community in your school and your response would be appreciated. Montgomery County Public Schools has approved the survey and I do hope you will please take the time to share your perceptions. If you have questions, please feel free to contact me at 301-315-7374.

Here is a link to the survey:

<http://www.surveymonkey.com/s.aspx>

This link is uniquely tied to this survey and your email address, please do not forward this message.

Thank you for your participation!

Myra Smith
Director of School Performance, MCPS
Doctoral Candidate, University of Maryland

Please note: If you do not wish to receive further emails from us, please click the link below, and you will be automatically removed from our mailing list.
<http://www.surveymonkey.com/optout.aspx>

Appendix F
Cover Letter to Participants
Cover Letter to Individual Interview Participants

Letter of Informed Consent

Dear Participant/Teachers:

I desire to have you participate in my study. The purpose of the study is to assess the extent to which the professional learning community program has been fully implemented in elementary schools in one county school district and whether that implementation has sustained a culture of professional learning community. This will be accomplished by assessing the perceptions of elementary principals, staff development teachers, and team leaders in selected elementary schools.

If you participate in this research, you will be asked to complete the Professional Learning Community Assessment survey instrument. Your participation will take approximately fifteen (15) minutes for completion of the survey. The survey will be accessible online and will be sent to you via www.SurveyMonkey.com or via hard copy (see attached). Your participation in the survey is voluntary. You can refuse to participate in the survey, and you may also stop participation at any time, without fear, or penalty, or negative consequences.

The information you provide for the study will be treated confidentially and all raw data will be maintained in a secure file by the researcher. Results of the survey will be reported as aggregate summary data and no individually identified information will be presented.

You will have all rights to review research results, if you choose to do so. A copy of the results may be obtained by contacting the researcher at the address listed:

Mrs. Myra Smith
850 Hungerford Drive
Rockville, Maryland 20850

There will be no personal benefits from your participation in the study. However, the results of the study may provide current data that can be useful in determining the extent to which the professional learning community program has been fully implemented in elementary schools and whether or not the implementation has sustained a culture of professional learning community.

Enclosed is the consent form for participation in the study which requires your signature for participation in the study. Please sign the consent form and return to me in the enclosed envelop. Once I receive your consent form, the survey will be sent to you via www.SurveyMonkey.com for you to submit your responses or you can complete the attached hard copy. Please return the hard copy of the completed survey in the attached envelops. I sincerely thank you in advance for your participation in the study. If you have questions, do not hesitate to contact at 301-315-7374.

Sincerely yours,

Myra J. Smith
Director of School Performance/Doctoral Candidate
University of Maryland College Park

Letter of Informed Consent

Dear Participant:

The purpose of the study is to assess the extent to which the professional learning community program has been fully implemented in elementary schools in one county school district and whether that implementation has sustained a culture of professional learning community. This will be accomplished by assessing the perceptions of elementary principals, staff development teachers, and 5th grade team leaders in selected elementary schools.

If you participate in this research, I will ask you will to participate in an individual interview. Your participation will take approximately one hour or less to learn your perception of the implementation of professional learning communities in elementary schools. My data consultant Dr. Gilbert Austin will participate in the individual interview along with me. I will contact your secretary to arrange a time to meet with you in your office at a time convenient for you. Your participation in is voluntary. You can refuse to participate and you may also stop participation at any time, without fear, or penalty, or negative consequences.

The information you provide for the study will be treated confidentially and all raw data will be maintained in a secure file by the researcher. Results of the individual interview will be reported as aggregate summary data and no individually identified information will be presented.

You will have all rights to review research results, if you choose to do so. A copy of the results may be obtained by contacting the researcher at the address listed:

Mrs. Myra Smith
850 Hungerford Drive
Rockville, Maryland 20850

There will be no personal benefits from your participation in the study. However, the results of the study may provide current data that can be useful in determining the extent to which the professional learning community program has been fully implemented in elementary schools and whether or not the implementation has sustained a culture of professional learning community.

Enclosed is the consent form for participation in the study which requires your signature for participation in the study. Please sign the consent form and return to me in the enclosed envelop. Once I receive your consent form, I will arrange a time to meet with you. I sincerely thank you in advance for your participation in the study. If you have questions, do not hesitate to contact at 240-832-4354.

Sincerely yours,

Myra J. Smith
Director of School Performance
Doctoral Candidate University of Maryland College Park

Appendix G
Consent Forms for Survey Participants
Consent Form Individual Interview Participants

CONSENT FORM

Project Title	<i>An Analysis of One School District's Implementation of Professional Learning Communities in its Elementary Schools</i>
Why is this research being done?	This is a research project being conducted by Dr. James Dudley at the University of Maryland, College Park. We are inviting you to participate in this research project because you were one of the eighty schools selected by the area superintendent to participate in the study. The purpose of this research project is to assess the extent to which the PLC program has been implemented in elementary schools in one county school district and whether that implementation has sustained a culture of a professional learning community.
What will I be asked to do?	<p>The procedure involves a one time completion of the Professional Learning Community Assessment (PLCA) survey to assess your perception of the implementation of the professional learning community in your elementary school. The survey will assess your perception about the school's principal and staff based on the five PLC attributes. You will access the survey via www.SurveyMonkey.com. Our researchers are not going to utilize the Survey Monkey features that are provided for research subject management. All identifying information is being retained and secured on campus.</p> <p>The survey is a Likert scale with numerical values for rating from number "1" (strongly disagree) to number "4" (strongly agree). The completion of the survey should be a maximum of 30 minutes. After completion of the study all surveys will be destroyed by shredding the documents. The research will take place at the University of Maryland College Park. Respondents (or anyone using the respondent's password) cannot access the results of their survey once the survey has been completed.</p> <p>Once you have completed the online survey, please close the browser. Our researchers are not going to utilize the Survey Monkey features that are provided for research subject management.</p> <p>The principal investigator, Dr. Dudley, student investigator, Myra Smith and data consultant, Dr. Austin will have access to these data.</p>

Project Title	<i>An Analysis of One School District's Implementation of Professional Learning Communities in its Elementary Schools</i>
What about confidentiality?	We will do our best to keep your personal information confidential. To help protect your confidentiality, (1) your name will not be include on the surveys or other data collected; (2) a code will be placed on the survey and other data collected; (3) through the use of an identification key, the researcher will be able to link your survey to your identity; and (4) only the researcher will have access to the identification key. Once the data are returned the surveys will be maintained in a locked file cabinet. Per federal guidelines all signed consent forms will be kept for 3 years after the completion of the study. If a report or article about the research project is written, your identity will be protected to the maximum extent possible. Your information may be shared with representatives of the University of Maryland, College Park.
What are the risks of this research?	There are no known risks associated with participating in this research project.

Project Title	<i>An Analysis of One School District's Implementation of Professional Learning Communities in its Elementary Schools</i>
What are the benefits of this research?	This research is not designed to help you personally, but the results may help the investigator learn more about the implementation of professional learning communities in elementary schools and whether that implementation has sustained a culture of professional learning community. We hope that, in the future, other school districts might benefit from this study through improved understanding of professional learning communities.
Do I have to be in this research? May I stop participating at any time?	Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time.
Is any medical treatment available if I am injured?	The University of Maryland does not provide any medical, hospitalization or other insurance for participants in this research study, nor will the University of Maryland provide any medical treatment or compensation for any injury sustained as a result of participation in this research study, except as required by law.
What if I have questions?	<p>This research is being conducted by Dr. James Dudley, Educational Leadership and Practice at the University of Maryland, College Park. If you have any questions about the research study itself, please contact Dr. James Dudley at: 410-535-3845.</p> <p><i>If you have questions about your rights as a research subject or wish to report a research-related injury, please contact: Institutional Review Board Office, University of Maryland, College Park, Maryland, 20742;</i></p> <p>(e-mail) irb@deans.umd.edu; (telephone) 301-405-0678</p> <p><i>This research has been reviewed according to the University of Maryland, College Park IRB procedures for research involving human subjects.</i></p>

Project Title	<i>An Analysis of One School District's Implementation of Professional Learning Communities in its Elementary Schools</i>	
Statement of Age of Subject and Consent [Please note: Parental consent always needed for minors.]	Your signature indicates that: you are at least 18 years of age; the research has been explained to you; your questions have been fully answered; and you freely and voluntarily choose to participate in this research project.	
Signature and Date [Please add name, signature, and date lines to the final page of your consent form]	NAME OF SUBJECT	
	SIGNATURE OF SUBJECT	
	DATE	

****Please note: When the consent form requires more than one page, please include a space for the subject to initial and date at the top right-hand corner of each page. The corner should appear as: Initials _____ Date _____

Also, each page must display a page range such as: Page 1 of 2, then Page 2 of 2. This additional information would confirm that the subject agreed to the entire contents of the consent form. ****

CONSENT FORM For Individual Interviews

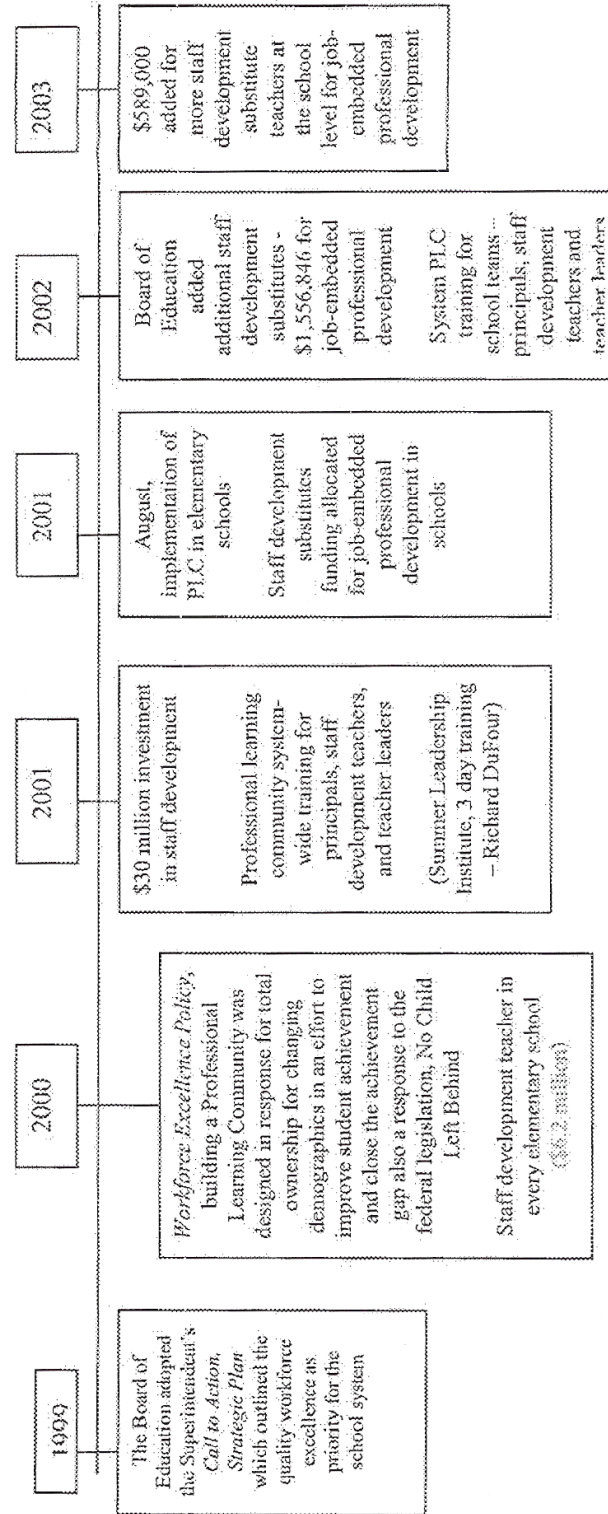
Project Title	<i>An Analysis of One School District's Implementation of Professional Learning Communities in its Elementary Schools</i>
Why is this research being done?	This is a research project being conducted by Dr. James Dudley at the University of Maryland, College Park. We are inviting you to participant as you are a key district leader. The purpose of this research project is to assess the extent to which the PLC program has been implemented in elementary schools in one county school district and whether that implementation has sustained a culture of a professional learning community.
What will I be asked to do?	<p>If you are asked to participate in the focus group interview, you will be asked a series of questions about the reason the school system decided to implement professional learning communities. This research project involves making audiotapes of your responses for the one time focus group interview. The audio tapes and notes will be maintained by the principal investigator at home in a locked file cabinet while the study is in progress. After the completion of the study, the audio tape recordings will be destroyed and discarded three years after the study has been conducted. Handwritten notes of focus interview respondents will be destroyed by shredding the documents three years of the completion of the study. The principal investigator, Dr. Dudley, student investigator, Myra Smith and data consultant, Dr. Austin will have access to these data.</p> <p>Focus Group participants only sign below.</p> <p>_____ I agree to be [videotaped/audiotaped/photographed] during my participation in this study.</p> <p>_____ I do not agree to be [videotaped/audiotaped/photographed] during my participation in this study.</p>

Project Title	<i>An Analysis of One School District's Implementation of Professional Learning Communities in its Elementary Schools</i>
What about confidentiality?	We will do our best to keep your personal information confidential. To help protect your confidentiality, (1) your name will not be include on the focus group data collected; (2) a code will be placed other data collected. If a report or article about the research project is written, your identity will be protected to the maximum extent possible. Your information may be shared with representatives of the University of Maryland, College Park.
What are the risks of this research?	There are no known risks associated with participating in this research project.

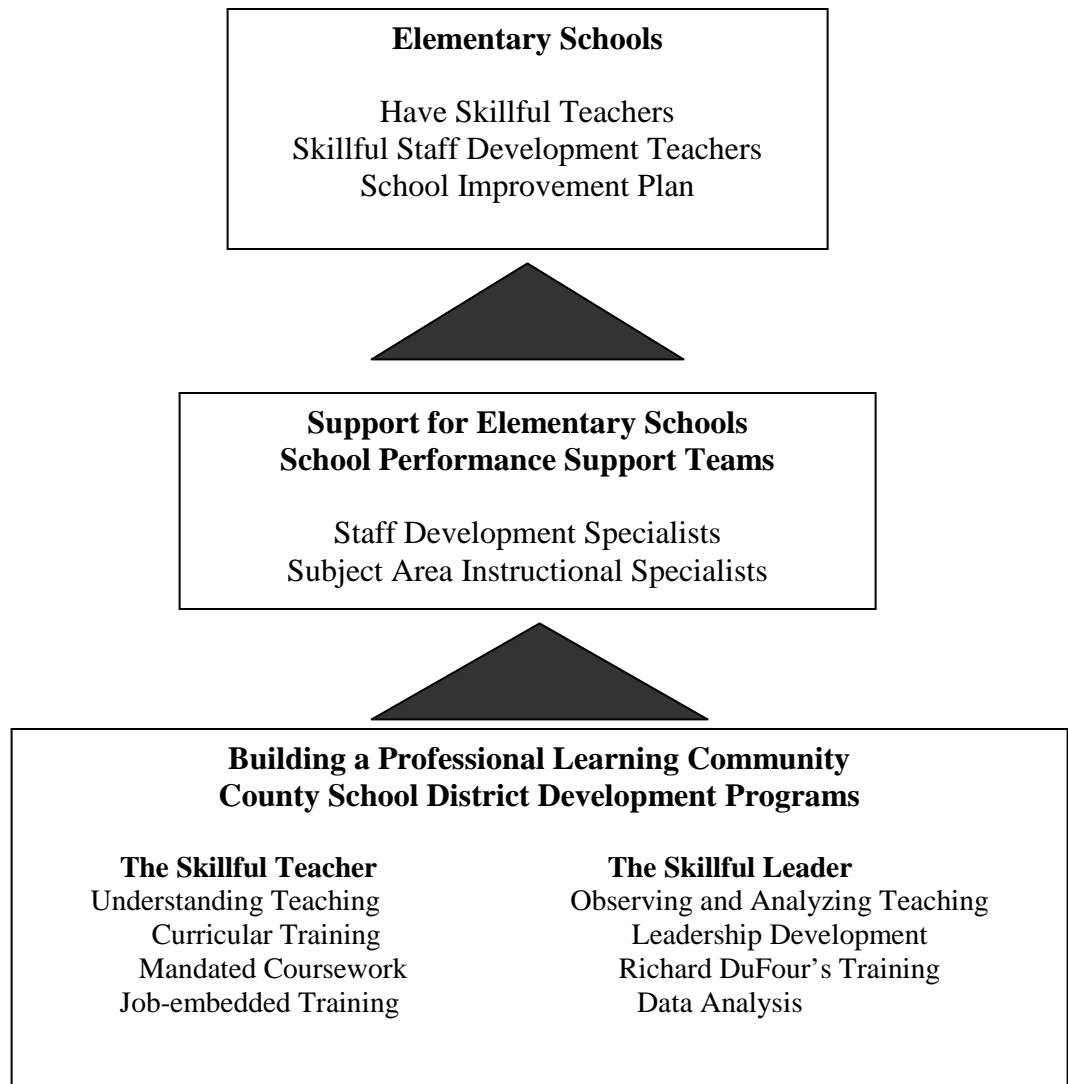
Project Title	<i>An Analysis of One School District's Implementation of Professional Learning Communities in its Elementary Schools</i>
What are the benefits of this research?	This research is not designed to help you personally, but the results may help the investigator learn more about the implementation of professional learning communities in elementary schools and whether that implementation has sustained a culture of professional learning community. We hope that, in the future, other school districts might benefit from this study through improved understanding of professional learning communities.
Do I have to be in this research? May I stop participating at any time?	Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time.
Is any medical treatment available if I am injured?	The University of Maryland does not provide any medical, hospitalization or other insurance for participants in this research study, nor will the University of Maryland provide any medical treatment or compensation for any injury sustained as a result of participation in this research study, except as required by law.
What if I have questions?	<p>This research is being conducted by Dr. James Dudley, Educational Leadership and Practice at the University of Maryland, College Park. If you have any questions about the research study itself, please contact Dr. James Dudley at: 410-535-3845.</p> <p><i>If you have questions about your rights as a research subject or wish to report a research-related injury, please contact: Institutional Review Board Office, University of Maryland, College Park, Maryland, 20742;</i></p> <p>(e-mail) irb@deans.umd.edu; (telephone) 301-405-0678</p> <p><i>This research has been reviewed according to the University of Maryland, College Park IRB procedures for research involving human subjects.</i></p>

Appendix H
Implementation Timeline
County School District Professional Development Plan

Implementation Timeline for Professional Learning Communities in One County School District's Elementary Schools



County School District Professional Development Plan



Appendix I
Field Notes Capture Sheet for Key Informants
Professional Learning Community Program Matrix for Data Collection

Field Note Capture Sheet for Key Informant Interviews

Name:

Date of Interview:

1. Internal/External Forces
2. Funding or Human Resources
3. Staff development teacher
4. Embracing teacher leaders
5. Training for future leaders

Professional Learning Community Program Matrix for District Implementation

Internal/External Forces	Valued Added components- Funding or Human Resources	Staff development teacher position	Embracing teacher leaders	Training for future leaders
Increase of diverse populations	Professional development	Critical position	No principal ego	Training is needed
Training needed for principals	Staff development teachers	Successful model	Some principals engaged	Teach about PLC
Need to improve student achievement	Teams attended training together	Most schools used the position correctly	Set norms of expectations	Institutionalize
Schools were bureaucratic	Built the capacity of teachers to be leaders	An important leader	Encouraged leadership	Principals need no ego
Principals working alone	Budget aimed at professional development	Teachers think of as a non evaluative leader	Relationships with staff	Train before principalship
Better structure to work	Training helped	Works with grade level teams	Grade level team leaders	Need to share power and be comfortable
Need to engage all staff in the work	Training moved away from sit and get	is not "sit and get"	Are supportive of other leaders in PLC work	Too heavy handed as leaders – some are
Needed a better structure to work	Position was a good idea and worth the money	Guide/facilitates the work of teachers	Some principals need to improve- not PLC	Many new struggle with the power
Title One schools doing poorly	School teams an important component	Most use as appropriate	Teachers not feel valued in some schools	
Lack of structure	Training shifted roles	Was used as an AP	Still told what to do	
	DuFours' model	Valued team member	When not embraced, poor results	

References

- Achinstein, B. (2002). Conflict amid community: The micropolitics of teacher collaboration. *Teachers College Record*, 104(3), 421-455.
- American Federation of Teachers. (2004). *Professional development for teachers*. Retrieved November 28, 2006, from <http://www.aft.org/topics/teacher-quality/prodev.htm>.
- Amour, D. J. (2004, February 12). No excuses: Simplistic solution for the achievement gap? *Teachers College Record*. <http://tcrecord.org> ID Number:112268.
- Andrews, D., & Lewis, M. (2002). The experience of a professional community: Teachers developing a new image of themselves and their workplace. *Educational Research*, 44(3), 237-254.
- Association for Supervision and Curriculum Development. (1993). *Closing the achievement gap: A vision for changing beliefs and practices*. Alexandria, VA: Author.
- Barth, R. S. (1990). *Improving schools from within: Teachers, parents, and principals can make a difference*. San Francisco, CA: Jossey-Bass.
- Barth, R. S. (2006, March). Improving relationships within the schoolhouse. *Educational Leadership*, 63(6), 8-13.
- Bartlett, D. W. (1994a). *The marcoecology of educational outcomes*. In *school-community connections: Exploring issues for research and practice*. San Francisco, CA: Jossey-Bass.
- Bazeley, P., & Richards, L. (2005). *The Nvivo qualitative project book*. Osney Mead, Oxford: Sage.
- Block, P. (2003). *The answer to how is yes: Acting on what matters*. San Francisco, CA: Berrett-Koehler.
- Boyd, V., & Hord, S. M. (1994a). *Principals and the new paradigm: Schools as learning communities*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans.
- Boyd, V., & Hord, S. M. (1994b). Schools as learning communities. *Issues... about change*, 4(1). Austin, TX: Southwest Educational Development Laboratory.
- Boyd, W., & Shouse, R. (1997). *The problems and promise of urban schools*. Philadelphia, PA: Temple University, Mid-Atlantic Regional Educational Laboratory (LSS).

- Brandt, R. (1995). On a new direction for teacher evaluation: A conversation with Tom McGreal. *Educational Leadership*, 53(6), 30-33.
- Bredeson, P. V. (1993). Letting go of outlived professional identities: A study of role transition and role strain for principals in restructured schools. *Educational Administration Quarterly*, 29(1), 34-68.
- Byrd, A. S., & Schneider, B. (2002). Trust in schools: A conversation with Fred Newmann. *Educational Leadership*, 53(3), 70-73.
- Cambron-McCabe, N., & McCarthy, M. (2003). *Challenges confronting the preparation and development of school leaders: Implications for social justice*. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.
- Cambrun, E., Rowan, B., & Taylor, J. (2004). Distinguished leadership in schools: The case of elementary schools adapting comprehensive reform models. *Educational Evaluation and Policy Analysis*, 25(4), 247-73.
- Campbell, O. T., & Stanley, J. C. (1963). *Experimental and quasi-experimental designs for research*. Boston, MA: Houghton Mifflin Co.
- Cohen, M. (1988). *Results in education. Restructuring the education system: Agenda for the 1990s*. Washington, DC: National Governors' Association Center for Policy Research.
- Conley, D. T. (1996). *Are you ready to restructure: A guidebook for educators, parents and community members*. Thousand Oaks, CA: Corwin Press, Inc.
- Copland, M. (2001). The myth of the superprincipal. *Phi Delta Kappan*, 81(2), 528-533.
- Council of Chief State School Officers. (1996). *Interstate School Leaders Licensure Consortium: Standards for school leaders*. Washington, DC.
- County Public Schools. (1999). *Our call to action: Raising the bar and closing the achievement gap because all children matter*. 1-35.
- County Public Schools. (2001). *Staff development teacher program final report* prepared by George Washington University School of Education and Human Development.
- County Public Schools. (2001). *Evaluation of the County Public Schools teacher evaluation and professional growth system: Preliminary findings based on one year of implementation*. Judith Koppich, George Washington University.
- County Public Schools. (2002). *Framework for improving teaching and learning resource guide*. Office of the Superintendent of Schools.

- County Public Schools. Our call to action: Pursuit of excellence handbook. *The Strategic Plan for MCPS 2001*. Office of the Superintendent of Schools.
- County Public Schools. (June 2003). Our call to action: Pursuit of excellence handbook. *The Strategic Plan for CPS 2003-2008*.
- Creswell, J.W. (2003). *Research design. Qualitative, quantitative and mixed methods approaches*. Thousand Oaks, CA: Sage.
- Danielson, C. (2006). *Teacher leadership that strengthens professional practice*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Darling-Hammond, L. (1990). Teacher professionalism: Why and how. In A. Lieberman (Ed.) *Schools as collaborative cultures* (pp. 25-50). Bristol, PA: Falmer Press.
- Darling-Hammond, L., & McLaughlin, M. W. (1995, April). Policies that support professional development in an era of reform. *Phi Delta Kappan*, 76(8), 597-604.
- DuFour, R., & Eaker, R. (1998). *Professional learning communities at work: Best practices for enhancing student achievement*. Bloomington, IN: National Education Service.
- DuFour, R., DuFour, R., & Eaker, R. (2002). *Getting started restructuring schools to become professional learning communities*. Bloomington, IN: National Education Service.
- DuFour, R., Eaker, R., & DuFour, R. (2005). *On common ground: The power of professional learning communities*. Bloomington, IN: National Education Service.
- Eaker, R., DuFour, R. & Burnette, R. (2002). *Getting started: Reculturing schools to become professional learning communities*. Bloomington, IN: National Educational Service.
- Education Trust (2003, Fall). *Improving your schools: A parent and community guide to No Child Left Behind*. www.edtrust.org.
- Education Trust (2004, October). *Measured progress: Achievement rises and gap narrows, but too slowly*. www.edtrust.org.
- Education Trust (2006, March). *Primary progress, secondary challenge: A state by state look at student achievement patterns*. www.edtrust.org.
- Education Week (2004). Adequate yearly progress. <http://www.edweek.org/rc/issues/adequate-yearly-progress/>

- Ellis, S. (1998). Principal leadership styles transforming presecondary schools into professional learning communities, Unpublished Doctoral Dissertation, University of Southern Illinois at Carbondale, *Proquest Digital Dissertations*, 59 (08) 2791. (UMI No. 9902719).
- Elmore, R. F. (1996). Getting to scale with good educational practice. *Harvard Educational Review*, 66, 16-29.
- Elmore, R. F. (2000). *Building a new structure for school leadership*. Albert Shanker Institute, Washington, DC.
- Elmore, R. (2003). *Knowing the right thing to do: School improvement and performance based accountability*. Washington, DC: National Governor's Association Center for Best Practices.
- Elmore, R. (2004). *School reform from the inside out: Policy, practice and performance*. Massachusetts: Harvard Education Press.
- English, F. (2005). *The Sage book of educational leadership advances in theory, research, and practice*. Thousand Oaks, CA: Sage Publications.
- Ferguson, R. F. (2007). *Toward excellence with equity: An emerging vision for closing the achievement gap*. Cambridge: Harvard Education Press.
- Fitzpatrick, J. L., Sanders, J. R., & Worthen, B. R. (2004). *Program evaluation: Alternative approaches and practical guidelines* (3rd ed.). Boston, MA: Pearson Education.
- Foster, R., & Suddards, C. (1999). *Leadership within high school communities: A multiple study perspective*. Paper presented at the annual meeting of the American Educational Research Association, Montreal, Canada.
- Fullan, M. (1993). *Change forces: Probing the depths of educational reform*. Bristol, PA: Falmer Press.
- Fullan, M. (2001). *Leading in a culture of change*. San Francisco, CA: Jossey-Bass.
- Fullan, M. (2002). *Leadership in a culture of change*. San Francisco, CA: Jossey-Bass.
- Fullan, M. (2002). The role of leadership in the promotion of knowledge management in schools. *Teachers and teaching: Theory and practice*, 8(3/4), 409-419.
- Fullan, M. (2005). *Leadership and sustainability: Systems thinking in action*. Thousand Oaks, CA: Corwin Press.

- Fullan, M. (2008). *The six secrets of change: What the best leaders do to help their organizations survive and thrive*. San Francisco, CA: Jossey-Bass.
- Gall, M. D., Gall, J. P., & Borg, W. R. (2003). *Educational research: An introduction* (7th ed). Boston: Pearson Education, Inc.
- Gibbs, G. R. (2001). *Qualitative data analysis: Explorations with Nvivo*. Philadelphia, PA: Open University Press.
- Gilner, J., & Morgan, G. (2000). *Research methods in applied settings. An integrated approach to design and analysis*. Mahwah, NJ: Lawrence Erlbaum.
- Gordon, S. (1991). *How to help beginning teachers succeed*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Guskey, T. (2000). *Evaluating professional development*. Thousand Oaks, CA: Corwin Press, Inc.
- Hall, G. E., & Hord, S. M. (2001). *Implementing change: Patterns, principles, and potholes*. Boston, MA: Allyn & Bacon.
- Halverson, R. R. (2003). *Systems of practice: How leaders use artifacts to create professional communities in schools*. Madison: University of Wisconsin.
- Hanushek, E. (2004). *The effect of school accountability systems on the level and distribution of student achievement*. Journal of the European Economic Association, 2(2)3, Papers and proceedings of the Eighteenth Annual Congress of the European Economic Association.
- Hargreaves, A., & Fink, D. (2006). *Sustainable leadership*. San Francisco: Jossey Bass.
- Harris, A. (2002). Improving schools through teacher leadership. *Education Journal*, 155(59), 22-23.
- Hart, A. W., & Murphy, M. J. (1990). New teachers react to redesigned teacher work. *American Journal of Education*, 98(3), 224-250.
- Heller, M. F., & Firestone, W. A. (1995). Who's in charge here? Sources of leadership for change in eight schools. *Elementary School Journal*, 96(1), 65-18.
- Hipp, K. A. (1997). *Documenting the effects of transformational leadership behavior on teacher efficacy*. Paper presented at the annual meeting of American Educational Research Association, Chicago.
- Hipp, K. A., & Huffman, J. B. (2000). How leadership is shared and visions emerge in the creation of learning communities. In P. Jenlink and T. Kowalski (Eds.),

- Marching into a new millennium: Challenges to educational leadership* (pp. 228-309). Lanham, MD: Scarecrow Press.
- Hipp, K. A., & Huffman, J. B. (2002). *Documenting and examining practices in creating learning communities: Exemplars and non-exemplars*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.
- Hord, S. M. (1991, Spring). Leadership: An imperative for successful change. *Issues...about change* 1(2), 1. Austin, TX: Southwest Educational Development Laboratory.
- Hord, S. M. (1997b). Professional learning communities: What they are and why they are important? *Issues...about change*, 6(1), 1-9. Austin, TX: Southwest Educational Development Laboratory, 1-8.
- Hord, S. M. (1998). *School professional staff as learning community*. Austin, TX: Southwest Educational Development Laboratory.
- Hord, S. M. (2000). Launching professional learning communities: Beginning actions. *Issues... about Change*, 8(1), 1-14.
- Hord, S. M. (2004). *Learning together, leading together: changing schools through professional learning communities*. NY: Teachers College Press.
- Hord, S. M., & Sommers, W.A. (2008). *Leading Professional learning communities: Voices from research and practice*. Thousand Oaks, CA: Corwin Press.
- Hoerr, T. R. (1996). Collegiality: A new way to define instructional leadership. *Phi Delta Kappan*, 77(5) 380-381.
- Huffman, J. B., & Jacobson, A. L. (2003). Perceptions of professional learning communities. *International Journal in Education*, 6(3), 239-250.
- Huffman, J. B., & Hipp, K. K. (2003). *Reculturing schools as professional learning communities*. Lanham, MD: Scarecrow Education.
- Institute for Educational Leadership (2000). *Leadership for student learning: Reinventing the principalship*. Washington, DC.
- Institute for Educational Leadership. (2005). *Preparing and supporting culturally competent leaders: Practice and policy considerations*. Washington, DC.
- Jackson, A. W., & Davis, G. A. (2000). *Turning Points 2000: Educating adolescents in the 21st century*. New York & Westerville, OH: Teachers College Press & National Middle School Association.

- Joyce, B., & Showers, B. (1995). *Student achievement through staff development* (2nd ed.). New York: Longman.
- Joyce, B. & Showers, B. (2002). *Student achievement through staff development* (3rd ed.). Alexandria, VA: Association for Supervision and Curriculum Development.
- Kannapel, P. J., & Clements, S. K., with Taylor, D., & Hibsphman, T. (2005). *Inside the black box of high performing high-poverty schools*. Lexington, KY: Prichard Committee for Academic Excellence. Retrieved June 11, 2007, from <http://www.prichardcommittee.org/Ford%20Study/FordReportJE/pdf>.
- Killion, J. (2002). *Assessing impact: Evaluating staff development*. Oxford, OH: National Staff Development Council.
- Kleine-Kracht, P.A., (1993). The principal in a community of learning. *Journal of School Leadership*, 3(4), 391-399.
- Kowalski, T. J., & Reitzug (1993). *Contemporary school administration*. New York: Longman Publishing Group.
- Lambert, L. (1998). *Building leadership capacity in schools*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Lambert, L. (2003). *Leadership capacity for lasting school improvement*. Alexandria, VA.: Association for Supervision and Curriculum Development.
- Lee, J. (2006). *Tracking achievement gaps and assessing the impact of NCLB on the gaps: An in-depth look into national and state reading and math outcome trends*. Cambridge, MA: The Civil Rights Project at Harvard University.
- Lee, V. E., & Smith, J. B. (1996). Collective responsibility for learning and its effects on gains in achievement for early secondary school students. *American Journal of Education* 104(2): 103-147.
- Lee, J., Grigg, W., & Donahue, P. (2007). *The Nation's report card: Reading 2007* (NCES 2007-496). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education, Washington, DC.
- Leithwood, K. A., & Riehl, C. (2003). *What do we already know about successful school leadership?* Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL.
- Leonard, L. & Leonard, P. (2005). Achieving professional community in schools: The administrator challenge. *Planning and Changing*, 36(1/2). Retrieved January 2, 2008 from Proquest Education Journals.

- Lezotte, L. W. (1997). *Learning for all*. Okemos, MI: Effective Schools Products, Ltd.
- Lieberman, A. (1995). *Restructuring schools: The dynamics of changing practice, structure, and culture*. New York: Teachers College Press.
- Little, J. W. (1997). *Teachers' professional development in a climate of educational reform*. Education Center for Teacher Development, Ontario Institute for Studies, Corwin Press.
- Linn, R. L. (2003). Accountability: Responsibility and reasonable expectations. *Educational Researcher*, 32(7), 3-13.
- Louis, K. S., Kruse, S. D., & Bryk, A. S. (1995). *Professionalism and community: What is it and why is it important in urban schools?* Thousand Oaks, CA: Sage Publications.
- Louis, K. S., & Kruse, S. (Eds.). (1995). *Professionalism and community: Perspectives on reforming urban schools*. Thousand Oaks, CA: Corwin Press.
- Louis, K. S., & Marks, H. M. (1996). School-wide professional community. In F. Newman and associates (Eds.), *American Educational Research Journal*, 33(4), 757-798
- Louis, K. S., Marks, H. M., & Kruse, S. D. (1996). Teachers' professional community in restructuring schools. *American Educational Research Journal*, 33(4), 757-798.
- Machiavelli, N. (1532/1980). *The prince* (W.K. Marriott, Trans.) Retrieved February, 25, 2009, from <http://www.gutenberg.org/files/1232/1232.txt>
- MacMullen, M. (1996). The coalition of essential schools: A national research concept. [Appendix B]. In T. Sizer, *Horace's Hope*. New York: Houghton-Mifflin.
- Marshall, C. & Rossman, G. (1999). *Designing qualitative research 3rd edition*. Thousands Oaks, CA: Sage Publications.
- Maryland State Department of Education (2005). *Consolidated state application workbook*. U.S. Department of Education. Washington, DC.
- Maryland State Department of Education (2006, January). *Helping teachers help all students: Responding to the imperative for high-quality professional development for Maryland teachers*. Annual report of the Maryland Teacher Professional Development Advisory Council. Baltimore, MD.
- Maryland State Department of Education (2009). School improvement in Maryland: What are Maryland's AYP targets for elementary schools?"

<http://mdk12.org/assessments/ayp/HowDoesMarylanddetermineIfAYPismet-Elementary.html>.

- Maryland State Teachers Association (2006). Closing the achievement gap: 4 strategies that work in Maryland schools. *Action Line*, 7(3), 8-11.
- Marzano, R., McNulty, B., & Waters, T. (2005). *School leadership that works from research to results*. Alexandria, VA: ASCD.
- McCall, M., Hauser, C., Cronin, J., Kingsbury, G., & Hauser, R. (2006). *Achievement gaps: An examination of differences in student achievement and growth*. Northwest Evaluation Association.
- McLaughlin, M. W., & Talbert, J. E. (1993). *Contexts that matter for teaching and learning*. Stanford, CA: Center for Research on the Context of Secondary School Teaching, Stanford University.
- McLaughlin, M. W., & Talbert, J. E. (2006). *Building school-based teacher learning communities: Professional strategies to improve student achievement*. New York: Teachers College Press.
- McMillan, J. H. (2004). *Educational research fundamentals for the consumer* (4th ed). Boston, MA: Pearson Education, Inc.
- Mezirow, J. (2003). Transformative learning as discourse. *Journal of Transformative Education*, 1(1), 58-63.
- Midgley, C., & Wood, S. (1993, November). Beyond site-based management: Empowering teachers to reform schools. *Phi Delta Kappan*, 75(3), 245-252.
- Miles, M. B., & Huberman, A. M. (1984). *Qualitative data analysis: A source book of new methods*. Beverly Hills, CA: Sage.
- Moore, S., & Shaw, P. (2000). The professional needs and perceptions of teachers: Implications for a professional learning community. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.
- Morrissey, M.S. (2000). *Professional learning communities: An ongoing exploration*, Austin, TX: Southwest Educational Development Laboratory.
- Murphy, J. (1992). *The landscape of leadership preparation: Pattern and possibilities*. Beverly Hills, CA: Corwin.
- National Association of Elementary School Principals. (2002). *Leading learning communities: Standards for what principals should know and be able to do*. Alexandria, VA: NAESP.

- National Association of Elementary School Principals. (2008). *Leading learning communities: Standards for what principals should know and be able to do*. Alexandria, VA: NAESP.
- National Association of Elementary School Principals. (2008). *Vision 2021: Transformations in leading, learning and community*. Alexandria, VA: NAESP.
- National Board of Professional Teaching Standards. (2004). What teachers should know and be able to do: The five core propositions. Retrieved December 28, 2006, from <http://www.nbpts.org/about/coreprops.cfm#5>.
- National Center for Educational Accountability. (2001). Just for Kids: Promising practices. Retrieved December 28, 2008, from [On line] www.just4kids.org.
- National Center for Education Statistics. (2001). *NAEP summary data tables*. Washington, DC: U.S. Department of Education.
- National Center for Education Statistics. (2003). *Overview and inventory of state education reforms: 1999 to 2000*. Author.
- National Center for Education Statistics (2005). *Creating and Sustaining Effective Professional Learning Communities* (Research Report RR637, pp. 1- 210). University of Bristol, Bath and London, Institute of Education.
- National Center for Education Statistics. The Condition of Education 2006 (NCES 2006-071). Washington, DC: Government Printing Office.
- National Commission on Excellence in Education. (1983). *A nation at risk: The imperative for educational reform*. Washington, DC: U.S. Government Printing Office.
- National Commission on Teaching and America's Future (1996). *What matters most: Teaching for America's future*. New York, NY: Teachers College.
- National Commission on Teaching and America's Future (2003). *No dream denied: A pledge to America's children. Summary report*. Washington, DC, www.nctaf.org.
- National Education Association (1993). *It's about time*. Washington, DC: Authors.
- National Education Commission on Time and Learning (1994). *Prisoners of time*. Washington, DC: U.S. Government Printing Office.
- National College for School Leadership (2001). *Think tank report to governing council*. National College for School Leadership.

- National Governor's Association (n.d.) Retrieved December 22, 2006 from [http://www.nga.org/nga.legislature/update/11169, C_ISSUE_Brief D 1401,00.html](http://www.nga.org/nga.legislature/update/11169/C_ISSUE_Brief_D_1401_00.html).
- National College School Leadership. (2001). *Creating and sustaining effective professional learning communities*. University of Bristol, Bath, and London, Institute of Education, General Teaching Council of England.
- National College School Leadership. (2005). *Professional learning communities*. Nottingham: National College for School Leadership.
- National Council of Staff Development (2001). *By your own design: A teachers professional learning guide*. http://www.eric.org/professional_guide/
- Newsweek (April, 2006). *America's best high schools, 2006*. Newsweek Association LLC. The Gales Group, Farmington Hills, MI.
- Newmann, F. M., King, B., & Youngs, P. (2000, April). *Professional development that addresses school capacity*. Paper presented at the annual meeting of the American Educational Research Association. New Orleans.
- Newmann, F. M., & Wehlage, G. G. (1995). *Successful school restructuring: A report to the public and educators*. Madison, WI: University of Wisconsin, Center on Organization and Restructuring Schools.
- Northwest Evaluation Association (2006). *Achievement gap: An examination of differences in student achievement and growth*. Lake Oswego, OR. [On line] <http://www.nwea.org/research/gap.asp>.
- Northwest Regional Education Laboratory (June, 2005). *Principal leadership for accountability: Optimizing the use of Title II resources*. [On line] <http://www.nwrel.org>.
- Olivier, D. (2001). *Teacher personal and school culture characteristics in effective schools: Towards a model of professional learning community*. Unpublished Doctoral Dissertation. Louisiana State University and Agricultural & Mechanical College, Dissertation Abstracts International. 62 (06) 2001. (UMI No. 3016566).
- Olivier, D. F., Hipp, K. K., & Huffman, J. B. (2003). Professional learning community assessment. In J. B. Huffman & K. K. Hipp (Eds.). *Reculturing schools as professional learning communities*. Lanham, MD: Scarecrow Press.
- Ovando, M.N. (1994). *Effects of teachers' leadership on their teaching practices*. Paper presented at the annual conference of the University Council of Educational Administration, Philadelphia.

- Perie, M., Grigg, W., & Dion, G. (2005). *The nation's report card: Mathematics 2005* (NCES 2006-453). U.S. Department of Education, National Center for Education Statistics. Washington, D.C.: U.S. Government Printing Office.
- Perie, M. Grigg, W. & Donahue, P. (2005). *The nation's report card: Reading 2005*. (NCES 2006-451). U.S. Department of Education, National Center for Education Statistics. Washington, D.C.: U.S. Government Printing Office.
- Perlstein, L. (2007). *Tested: One American school struggles to make the grade*. New York: Henry Holt.
- Portin, B., Schneider, P., DeArmond, M., Gundlach, L. (2003). *Making sense of the leading schools*. Seattle, WA: Center on Reinventing Public Education.
- Pounder, D. (1998). *Restructuring schools for collaboration: Promises and pitfalls*. NY: State University of New York Press.
- Prestine, N. A. (1993, July). Extending the essential schools metaphor: Principals as enabler. *Journal of School Leadership*, 3(4), 356-379.
- Retallick & Fink. (2002). Framing leadership: Contributions and impediments to educational change. *International Journal of Leadership in Education*, 5(20), 91-104.
- Rosenholtz, S. (1989). *Teachers' workplace: The social organization of schools*. White Plains, NY: Longman.
- Savage, L. (2008, Winter). *Critical and transformative practice in professional learning communities*. *Teacher Educational Quarterly*, 35(1), 63-78.
- Senge, P. (1990). *The fifth discipline: The art and practice of the learning organization*. New York: Doubleday.
- Schmoker, M. (2004). Tipping point: From feckless reform to substantive instructional improvement. *Phi Delta Kappan*, 85(6), 424-432.
- Sergiovanni, T. J. (1990). *Value-added leadership in schools: How to get extraordinary performance in schools*. Orlando, FL: Harcourt Brace Jovanovich.
- Sergiovanni, T.J. (2001). *The principalship: A reflective practice perspective*. (4th ed.). San Antonio, TX: Allyn & Bacon.
- Shank, G. (2002). *Qualitative research: A personal skills approach*. Columbus, OH: Merrill Prentice Hall.
- Short, P. M. (1994). Defining teacher empowerment. *Education*, 114(4), 488-492.

- Slater, L. (2008). Pathways to building leadership capacity. *Educational Management Administration Leadership*, 36(1), 55-69.
- Spillane, J. P. (2006). *Distributed leadership*. San Francisco, CA: Jossey-Bass.
- Spillane, J. P., & Camburn, E. (2006, April). *The practice of leading and managing: The distribution of responsibility for leadership and management in the schoolhouse*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.
- Spillane, J., Halverson, R. & Diamond J. (2001). Investigating school leadership practice: A distributed perspective. *Educational Researcher*, 23-28.
- Spillane, J. P., & Sherer, J. (2004, April). *A distributed perspective on school leadership: Leadership practice as stretched over people and place*. Paper presented at the annual meeting of the American Education Association, San Diego, CA.
- Supovitz, J. A., & Poglinco, S.M. (2001). *Instructional leadership in a standards-based reform*. Philadelphia, PA: Consortium for Policy Research in Education.
- Thernstrom, A., & Therstrom, S. (2003). *No excuses: Closing the racial gap in learning*. New York: Simon & Schuster.
- Thomas, R. M. (2003). *Blending qualitative and quantitative research methods in theses and dissertations*. Thousand Oaks, CA: Corwin Press, Inc.
- Toole, J. C., & Lewis, K. S. (2002). The role of professional learning communities in international education. In Leithwood, K, & Hallinger, P. (Eds.), *Second International Handbook of Educational Leadership Administration*. Dordrecht: Kluwer.
- Tschannen-Moran, M. (2004). *Trust matters: Leadership for successful schools*. San Francisco: Jossey-Bass.
- U.S. Department of Education, National Center for Education Statistics. (1999). *Teacher Quality: A report on the preparation of public school teachers*. NCES 1990-080, Washington, DC.
- Walker, K., & Sackney, L. (1999). *Learning communities as substitutes for school accountability*. Paper presented at the University Council for Educational Administration, Minneapolis, MN.
- Waters, T., & Grubb, S. (2004). *Leading schools: Distinguishing the essential from the important*. Aurora, CO: Mid-continent Research for Education and Learning.

- Waters, T., & Grubb, S. (2004). *The leadership we need: Using research to strengthen the use of standards for administrator preparation and licensure program*. Aurora, CO: Mid-Continent Research for Education and Learning.
- Waters, T., Marzano, R. J., & McNulty, B. (2003). *Balanced leadership: What 30 years of research tells us about the effect of leadership on student achievement*. Aurora, CO: Mid-continent Research for Education and Learning.
- Whitaker, K. S. (2002). Principal role charges and the influence on principal recruitment and selection. *Journal of Education Administration*, 41(1), 37-51.
- Williams, B. (2003). *Closing the achievement gap: A vision for changing beliefs and practices*. 2ed. Alexandria, VA: Association for Supervision and Curriculum Development.
- Wood, F. H., & Killian, J. (1998). Job-embedded learning makes the difference in school improvement. *Journal of Staff Development*, 19(1), 52-54.
- Youngs, P. & Kings, B. (2000, April). *Professional development that addresses school capacity*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.