

Professional Learning Committees: Characteristics, Principals, and Teachers

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Abstract

Professional learning communities (PLCs) have moved toward the forefront as a viable process for consideration in addressing school improvement needs. This literature review addresses three basic research questions: (a) What are the characteristics of PLCs?, (b) What role do principals have in the PLCs?, and (c) What roles do teachers have in the PLCs? The literature review offers an extensive examination of contemporary studies and theoretical frameworks involving professional learning communities. The researcher offers a proposed conceptual framework for each of the research questions. Characteristics of PLCs include shared vision, shared leadership, collective learning, capacity building, and accountability. The principal's roles are communicator, collaborator, coach, change agent, capacity builder, and coordinator. The teacher's roles are divided into practitioner and leader.

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Topic, Overview and Purpose

The purpose of this literature review is to provide a literary description of three major theoretical constructs associated with the implementation of a school site-based managed professional learning community (PLC). The three targeted conceptual frames for the purpose of this paper are identified as the characteristics of an established professional learning community, the roles of the school principal, and the roles of the school's teachers. It is the intent of the researcher to provide a suggested construct of descriptors for each of the three conceptual frames through the review and synthesis of applicable research literature.

Accountability and Reform

The No Child Left Behind Act of 2001 (NCLB) addressed in its legislation the principle issues of student achievement, school accountability, and school reform (Hanson, Burton, & Guam, 2006). Title I, Part F, Sections 1606 and 1608 of the No Child Left Behind Act includes a component which requires school system grantees receiving federal funding to provide support for school activities that foster comprehensive school reform. Specifically, it addresses the improvement of student achievement through quality initiatives such as (a) developing school reform models, (b) engaging teachers and school leaders in the reform effort, and (c) promoting capacity building through on-going professional development (No Child Left Behind Act, 2002).

Professional Learning Communities

In response to NCLB's demand for school reform, a movement towards the development of site-based professional learning communities (PLC) has offered school leaders one of the more commonly accepted reform approaches (Schmoker, 2006). Professional learning communities are anticipated to provide substantial benefits as a school improvement approach (Fullan, 2001; Hord, 1997; Senge et al., 2000). The premise of this school reform effort is for the

purpose of building professional capacity as to address the dynamic challenges regarding student learning through ongoing collective professional learning (Eaker, DuFour, & DuFour, 2002).

The desired effect of building capacity in the school setting is that the learning community can collectively address existing changes and demands regarding student achievement, teacher performance, and accountability (Hord, 1997). One of the major tenets of a learning community in a school setting involves the collaboration among professional educators willing to share responsibilities in an effort to address challenges targeting student learning (DuFour & Eaker, 1998). Schmoker (2006) would add that this collective effort would eventually transform into a cultural characteristic of the school.

According to DuFour and Eaker (1998), the variables that often derail a school's attempt to implement reform inclusive of learning communities are the complexities of reform, failure to maintain focus on the mission, and the inability to articulate the function and characteristics of the reform effort among its membership. Usually a core deficiency is the lack of leadership coordination to develop the necessary human and resource capacities. Many schools are currently operating on the false premise that their reform efforts are professional learning communities (Eaker, DuFour, DuFour, 2002). Hord (1997, 2004) identifies five core dimensions associated with a comprehensive professional learning community including (a) supportive and shared leadership, (b) shared values and vision, (c) collective learning and application, (d) supportive conditions, and (e) shared practice.

Stakeholders

A critical component in the level of success a school achieves in implementing and sustaining an effective professional learning community is dependent upon the engagement of its stakeholders in the context of systemic collaboration (Pankake & Moller, 2003). DuFour and

Eaker (1998) emphasized that the term *community* requires a collaborative effort. The roles of the school's principal and its teachers in a PLC are distinctive, but also require shared responsibilities and interest with collaboration as a central theme.

References to stakeholders in the context of professional learning communities are inclusive of principals, members of the faculty and staff, students, parents, the school district, and the respective public community (DuFour, DuFour, & Eaker, 2008; Giles & Hargreaves, 2006; Huffman & Hipp, 2003). Contemporary research literature offers limited empirical studies regarding the impact non-certificated stakeholders have had on the school site-based professional learning community. For the purpose of this literature review, the references to stakeholders will address the roles and influences of the school principal and the school's teachers on the professional learning community.

Purpose

The purpose of this paper is to describe the characteristics of an established professional learning community, the leadership roles of the principal and the roles of teachers in a school's professional learning community. It is the researcher's intent to offer a conceptual framework featuring the core characteristics of a professional learning community and the roles of the principal and teachers reflective of the current research literature.

Organization of the Review, Scope, and Library Research

The examination of professional learning communities in this research paper is guided by three research questions.

1. What are the characteristics of a professional learning community?
2. What are the roles of a principal in a school's professional learning community?
3. What are the roles of teachers in a school's professional learning community?

The responses to the research questions will initially be conceptually framed on the works of two noted researchers. The initial framework addressing the characteristics of a professional learning community will be inclusive of Hord's (1997, 2004) five dimensions of a successful learning community. The roles and responsibilities of the principal and teachers will be framed by descriptors provided through the combine works of DuFour, DuFour and Eaker (1998, 2005, 2008). The review of literature will reflect the examination of additional research findings and theoretical frameworks contributed by other noted educational researchers and scholars.

The researcher will provide discussion and analysis regarding the scholarly contributions that are pertinent to describing school site-based professional learning communities and the roles assumed by a principal and teachers. A conceptual framework will be offered identifying key thematic descriptors regarding the characteristics of a professional learning community, the roles of principals as well as the roles of teachers in relationship to the implementation and sustainability of a professional learning community. The researcher's proposed framework of descriptors is intended to identify the commonalties among the various theoretical frameworks and research studies.

Characteristics of a PLC

The central framework for the characteristics of a professional learning community is the five dimensions identified by Hord (1997, 2004). The major themes identified by Hord are (a) supportive and shared leadership, (b) shared values and vision, (c) collective learning, (d) supportive conditions, and (e) shared practice. In addition to identifying central themes, it is the intent of this review to provide traits and attributes associated with each dimension. The understanding of each dimension's attributes provides an insight as to the specific roles the

principal and teacher must perform in the context of the PLC. Additional characteristics as described by other researchers will be examined and compared to Hord's recommendations. The researcher will provide a proposed conceptual framework featuring the most referenced themes of a professional learning community.

Roles of the Principal and Teachers

The roles of the school principal and teachers as professional stakeholders in the professional learning community will initially be described through responsibilities identified in the combined works of DuFour, DuFour, and Eaker (1998, 2005, 2008). The roles of the principal and teachers within the context of a school's learning community will be examined through the descriptions and recommendations of various educational researchers. A summary of the roles most often recommended will be synthesized by the researcher and proposed as a possible theoretical framework for future reference or research.

Research

It was the intent of the researcher to construct a conceptual framework describing the characteristics of a professional learning community and the roles principals and teachers have in its implementation and sustainability as a school improvement vehicle. The literature review includes theoretical descriptions, research findings, and scholarly recommendations based on grounded theory and research findings. The primary and secondary sources of literature are inclusive, but not limited to theoretical explanations in books authored by leaders in the field as well as research findings presented in scholarly journals, papers, and dissertations. The researcher has documented all journals referenced in an APA format. In addition, this paper features a bibliography documenting the relevant resources reviewed but not cited in this qualifying paper.

Interest, Significance, and Rationale for the Critical Analysis

Professional Learning Communities

In light of federal and state accountability policies, professional learning communities (PLCs) have been ushered to the forefront of educational reform efforts as an enabler for schools to address the challenges of increasing student achievement (Fullan, 2001; Hord, 1997; McLaughlin & Talbert, 2001; Senge et al., 2000). Many schools are citing professional learning communities as the basis of their school improvement efforts, which raises two pertinent questions (Schmoker, 2006). What is a professional learning community? Is your school really a professional learning community? Hord and Sommers (2008) offered the following explanation, “While there has been much talk about the importance of PLCs, little attention has been given to the research studies that have investigated what it is and what outcomes it can produce” (p. 8).

When examining the various descriptions of a professional learning community, the terms shared, collaborative, and collective are normally associated with leadership and learning (Eaker, DuFour, DuFour, 2002; Hord, 2004). Eaker, DuFour, and DuFour (2002) offered the following description of leadership in a PLC by stating, “Administrators hold important leadership positions, but in a professional learning community the view of leadership is extended to include teachers” (p. 23). What are the specific roles of the principal and teachers within a professional learning community?

School Community.

The findings from this literature analysis may provide two benefits for the educational community. The first benefactor are the leaders of individual schools as well as school districts in regards to describing characteristics associated with successful professional learning communities. The results of literature reviews and the implications recognized may offer an

opportunity to raise awareness of PLCs among school leaders either as validation or comparison of existing efforts in their school or district setting.

Research Community.

The second potential benefactor is the research community. The modest contribution of this literature analysis to the research community is the prospect for motivating further research. A continued dialogue and synthesis of a conceptual framework for professional learning communities adds to understanding and further description. The attempt to develop a conceptual framework as a synthesis of existing scholarly constructs will eventually create a standard view of professional learning communities that may provide a comprehensive description and understanding.

Rationale

Studies on professional learning communities have illustrated successful results in affecting student learning (Belenardo, 2001; DuFour & Eaker, 1998). The literature suggests that current perceptions and applications of professional learning communities in the K-12 school setting are varied and often misunderstood (Hord and Sommers, 2008; Scribner, Cockrell, & Valentine, 1999). However, the misuse or misconceptions regarding the commitment and investment of educational leaders in PLCs may yield an unsuccessful effort for implementation, sustainability, and the desired outcome (Datnow, 2005; Tarnoczi, 2006; Timperly & Robinson, 2000). This failed effort might prove to be both costly and may deter future efforts for innovative school reform. The literature also suggest that high schools have not been as successful in establishing professional learning communities creating a subgroup deserving further study within the PLC research domain (Fullan, M., Bertani, A. & Quinn, J., 2004).

The purpose of this literature review and analysis is an attempt to synthesize a conceptual framework that describes key characteristics of a successful professional learning community in a school setting. The literature suggests that the school administration and the teachers serve specific and shared responsibilities in the initiation and maintenance of a site-based professional learning community (Chrispeels, 2002; Coleman, 2005; Darling-Hammond et al., 2006; DuFour, 1999, Printy, 2008). The results of this qualifying paper will provide a basic framework featuring research-based recommendations for roles to be served by these key stakeholders.

Review of the Literature about Professional Learning Communities

Reform and Accountability

Public schools are not monopolies in the business of education and are being held to higher accountability standards with little guidance from policymakers (Fawcett, 2008). The reauthorization of the Title I Elementary and Secondary Education Act in 2002 referred to as No Child Left Behind has brought the term accountability to the forefront of educational reform (Hord & Sommers, 2008). The term accountability carries with it specifications for student achievement and consequences for schools not meeting predetermined expectations (Coleman, 2001). Wells and Feun (2007) suggested that in the midst of accountability struggling schools should feel a sense of urgency to reprioritize and reform their current efforts and practices.

Reform has been a constant theme in contemporary education dating back to the mid-1960s. An international movement that ran its course in the United States began with the *School Effects Research* which examined educational efforts on students (Reynolds, Teddlie, Creemers, Scheerens, Townsend, 2000). A second research phase with emphasis on effective schools followed in the 1970s focusing on the processes of effective schooling (Reynolds et al.). As a result of the 1983 report *A Nation at Risk* which indicated American public schools were failing,

the latter phase of the effective school movement began to target school improvement through change models (DuFour & Eaker, 1998). Reynolds et al. summarized that the various research studies conducted in association with the effective school movement acknowledged the existence of a theoretical framework that establishes the existence of “close links between school effectiveness and school improvement”(p. 24).

DuFour and Eaker (1998) identified five major reasons the school effectiveness reform effort fell short of its ambitious goals. The reasons included (a) the complexity of the reform task, (b) the focus of the reform efforts were often misguided, (c) reform emphasis was on improvement, but lacked a vision of a measurable outcome, (d) a general lack of perseverance and commitment, and (e) the inability to address the change process. DuFour and Eaker suggest that these issues still exist in current attempts at school reform.

The research on effective schools and its association with school improvement fostered the contemporary school reform movements (Hord, 1997). Unfortunately, schools' improvement designs are often faulty due impart to a lack of understanding the basic concepts and the lack of commitment to a meaningful embedded change in the culture of the school (DuFour, 2004). Hord (1997) acknowledges that too often school leaders are searching for short cuts with disappointing results. Therefore, it is necessary to understand that relevant school reform must be comprehensive in design and inclusive of commitment from local stakeholders.

The accountability measures dictated in No Child Left Behind are accompanied by the general endorsement of higher accountability in exchange for more local flexibility. The premise of this exchange is an incentive for local schools to devise and implement local initiatives that meet the perimeters set by the federal legislation (Cummings, 2006). In many cases, local school

authorities took the cue to implement the practice of site-based management and professional learning communities as a format for initiating school reform (Wood, 2006).

Traits of Successful Schools

Site-based. The site-based management school concept of the 1980s has been rekindled through NLCB and provided a justification for the demand of shifting authority and responsibility of decision-making to local school leaders (Wood, 2006). A site-based managed school was generally described as a school in which the decisions regarding management and instruction were determined by the school administration and its faculty (Heck, Brandon, & Wang, 2001). The motivational attribute regarding the concept of site-base is that school personnel would have more direct participation and utilize their expertise in decision making which would ultimately benefit the students (Smylie, Lazarus, & Brownlee-Conyers, 1996). Studies have indicated that through teacher empowerment with a commitment toward a shared vision, site-based managed schools can be successful (Fullan, 1991; Louis, Toole, & Hargreaves, 1999; McLaughlin, 1990).

Challenges with site-based. Although many local policies foster and support the formation of site-based management schools as a means of reform, this self-guided change in schools has proven difficult, but not unexpected (Heck, et al., 2001). Barriers are traditionally embedded in the professional norms of the school (Timperley & Robinson, 2000). The barriers are often perpetuated by an inept reform design and a gross misunderstanding of what a site-based managed school really entails (Tranoczi, 2006). In general, site-based schools desire to nurture autonomy as a self-managed entity, but too often lack the capacity to overcome embedded individual professional autonomy among its teachers and administration, especially in high schools (Sisken, 1997; Timperly & Robinson, 2000).

One counterproductive byproduct of the transference of authority featured in site-based schools was work overload. According to Timperly and Robinson (2000), a common occurrence in site-based schools is empowering teachers with additional responsibilities without the necessary training. The additional tasks often attribute to increased levels of stress, burnout, and low job satisfaction among teachers. Fullan (1996) attributed this phenomenon to fragmented leadership and over-saturation of teacher empowerment. Fullan recommended a more comprehensive networking and shared leadership approach.

In regards to school leadership, Hord (2004) referenced that it was ironic that shared leadership often rested solely on the wishes of an individual principal as to what degree of leadership would be distributed. Tarnoczi (2006) used that argument in a critical analyzes of site-based schools as well as professional learning communities. A point of contention argued by Tarnoczi was that the democratization of the school was at the discretion of either an individual school leader or a principal-produced school vision. Fullan (1994) would agree that too often top-down approaches are for management restructuring, but not learning. Fullan further suggested that not involving teachers in collaborative discussions in developing the school's vision and defining teacher roles is not conducive to the learning climate.

Core traits. A basic conceptual framework highlighting traits of successful schools operate on several organized themes centered on a shared vision for learning (Elmore & Burney, 1999). The process of learning should serve as the core theme in shaping the long term commitment for instructional improvement. Elmore and Burney indicated that successful school improvement efforts required the implementation of a multi-stage reform process inclusive of awareness, planning, implementation, and reflection of instructional initiatives. A caveat to consider in developing a blueprint for a successful school is establishing a balance of developing

a systemic commitment to the reform effort, while implementing a calculated decentralizing process (Darling-Hammond, Hightower, Husbands, LaFors, Young & Christopher, 2006).

Another critical theme associated with successful schools involved the premise of fostering teacher empowerment as to build professional capacity. Elmore and Burney (1999) stated, “Good ideas come from talented people working together . . .” (p. 272). The theme concludes in that “shared expertise is the driver of instructional change . . .” (p. 272) which is articulated through a collegiality school culture.

Transformation. As a result of the school improvement movement of the 1980s, Rosenholtz (1989) concluded from a study that commitment to instructional innovations increased among teachers having received support and relevant professional development. Rosenholtz identified among the support mechanisms were professional networking, collaboration, and expanded roles in decision-making. Fullan (1991) suggested that a transition should allow for the phasing in of support and collaboration into the professional culture of the school.

McLaughlin and Talbert (2001) suggested that schools have not been as successful in establishing professional learning communities because it requires “reculturing the profession” (p. 125). The transference to a learning community within the existing school culture as suggested by McLaughlin and Talbert would required second order change. Second order change would require the paradigm shift in philosophy causing a major change in shaping norms as well as altering practices (Marzano, Waters, and McNulty, 2005). Most site-based managed schools are micro-centralized institutions and are not organized to capitalize on the diverse talents of individuals in a collective manner (Marks & Louis, 1999).

Therefore, the first and most critical step in initiating change for any organization is recognizing a need. The second order of business in invoking change is to address the identified needs, followed by establishing the respective goals (Fullan, 2001; Marzano, Waters, & McNulty, 2005). Fullan (2007) states that “change in practice” is the core to educational reform (p. 30). However, Fullan contends change may require innovation and innovation is multidimensional. Fullan further theorizes that since change is multidimensional, the development of meaningful school reform and innovation should be addressed in phases.

Fullan’s (1990) construct reflecting three phases of change anticipates a successful transition is most likely to occur over a three to six year period. Phase I constitutes the *initiation* stage requiring a process enabling shared decision-making and mobilization of a reform approach or model. The second phase, referred to as *implementation*, is the two to three year acclimation of the stakeholders to the model. The sustainability of the reform effort is based on the level of continued support, prioritizing, and innovations that develop as an *institutionalization* of the model within the school culture. Fullan (2007) has proposed the phases are applicable for initiating a school site-based professional learning community.

In the context of the school setting, the needs and goals of the professional learning community are focused on student learning (Hord, 2004). The basic framework for initiating the process of changing the school organization into a learning community would include (a) engaging in inquiry and analysis of student and instructional needs, (b) breaking patterns of teacher isolation, (c) embedding collaboration in the work culture, (d) examining and reflecting the effects of instructional strategies and interventions to improve student learning (Senge, Cambron-McCabe, Lucas, Smith, Dulton, & Kleiner, 2000; Wells & Feun, 2007). Wells & Feun (2007) also recommended that the reform effort requires a change in content approach as well

understanding best practices, quality classroom assessments, and the characteristics of a professional learning community.

Evidence of success. Reform is difficult. However, the best approach may well be a well-crafted bottom-up approach with principals and teachers strengthening their professional capacity as to assume ownership and expertise control of the reform effort (Marks & Louis, 1997). A case study involving eleven diverse North Carolina high schools yielding high student proficiency scores on state assessments identified common existing patterns associated with their high achievement (Cooper, J.E., Ponder, G., Merritt, S., & Matthews, C., 2005). Each school fostered a collective effort to personalize the school experience by concentrating on relationships among professionals and students as well as making relevant connections to instruction. The second pattern observed was the sense of trust and support nurtured among all stakeholders with emphasis on student success. Each stakeholder invested in the shared vision of being an advocate for student learning and success.

Findings from the North Carolina high school case study identified patterns of collaborative instruction and leadership (Cooper, Ponder, Merritt, and Matthews, 2005). A driving mechanism for professional collaboration in the North Carolina schools was the interpretation of student data and its application in developing the school's improvement plan. According to Cooper, et al., each school relied on the expertise of their teachers per departments to serve as curricula and instructional leaders. The pattern was twofold with the initial emphasis on addressing departmental proficiency which eventually contributed to the capacity of the whole faculty. The final pattern referenced in the study was that collaborative leadership served as the thread binding the identified patterns together. Each stakeholder inclusive of parents, students, and district personnel all assumed responsibility including leadership roles. The

commitment to the continuum of learning was identified by Cooper et al. as the catalyst for reform sustainability.

District involvement. For the purposes of this review, the district's involvement in the school-based PLC is not addressed. However, it would be remiss of the researcher not to acknowledge the potential importance a school system plays in the initiation and sustainability of a school's PLC. In regards to systemic engagement, Fullan (2003) proposed that the success of implementation and sustainability of site-based professional learning communities were dependent on the guidance and support it received from its district. This collaboration among the tiers of the organizational hierarchy is referred to as a *tri-level reform* model connecting the school to the district and state levels (Fullan, 2007). Fullan indicated that selected shared responsibilities provide a basic guide for districts and their schools to address collaboratively.

The involvement of the school district translates into a systemic culture that fosters the development of new skills, resources, and motivation for individual site-based efforts (Levin and Fullan, 2008). Although a school may initiate the implementation of a collaborative learning community, sustainability will be difficult to maintain without district support (Fullan, 2003). Despite this knowledge, Fullan (2006a) indicated that district involvement and investment in the development of school site-based professional learning communities still remains minimal.

Professional Learning Communities

Schmoker (2006) stated, "Professional learning communities have emerged as arguably the best, most agreed-upon means by which to continuously improve instruction and student performance" (p. 106). The organizational preface of the professional learning community (PLC) is a continuum of learning (Hord, 2004). Hord contends principals and teachers should be active learners in an ongoing collaborative effort to assess organizational needs and striving to address

them. Collective learning and shared leadership in the context of a shared vision form a basic conceptual framework for professional learning communities, according to Hord.

Defining a learning community. The coining of a single definition for a professional learning community is difficult. The difficulty in finding a universal definition for the term of professional learning communities is reflective of the various perceptions school leaders hold regarding their schools' reform efforts to establish a learning community. Schmoker (2006) indicated that PLCs have been labeled everything from "communities of practice" to "self-managing teams" (p. 106).

However, Senge (1990) borrowing from the business world described a core tenet of a learning community as "people continually expand their capacity to create desired results" (p. 3). Senge's perspective was applied to education with the caveat that the organization's focus should be on learning as opposed to simply improving the efficiency of an organization's infrastructure. Reichstetter (2006) offered the following comprehensive definition, "A professional learning community is made up of team members who regularly collaborate toward continued improvement in meeting learner needs through a shared curricular-focused vision (p. 1)."

The effort to sustain the functionality of an effective professional learning community requires a continuum with fidelity in applying the model (DuFour, 2005). According to DuFour, the reform effort must center on three major ideas. One major idea requires the stakeholders in the PLC to ensure that students learn. The shift in pedagogy places an emphasis on proactive intervention and student learning as an outcome. The second major idea is nurturing a collaborative professional culture for the benefit of student learning and school improvement. Teachers align their personal goals in the context of the school's vision in removing barriers.

DuFour indicated that the third idea is for the PLC to focus on results to assure that all stakeholders remain committed to the shared vision and values of student learning.

Challenges. DuFour, Eaker, and DuFour (2005) stated “Many schools and districts that proudly proclaim they are professional learning communities have shown little evidence of either understanding the core concepts or implementing the practices of PLCs” (p. 9). Schools attempting to establish a PLC at their site will most likely experience three major challenges according to DuFour, Eaker, and DuFour. One major challenge is orchestrating the development and application of a uniformed shared knowledge. The second major challenge is sustaining the effort and function of the PLC beyond the initiation stage. The most daunting of the tasks is the attempt to transform a school culture from an autonomous mindset to one of shared values and collaboration.

Wells and Feun (2007) indicated that the common pattern in recent educational reform movements have often failed when schools attempt to exceed beyond the initiation stage of establishing a professional learning community. According to Wells and Feun, school leaders either don’t understand the characteristics of PLCs or the investment needed to sustain its function. As a result of a two year case study of three rural schools, the findings indicated that too often schools use a “metaphor” of a PLC to guide professional practice meaning that it’s a learning community in language only (Scribner, Cockrell, Cockrell, & Valentine, 199, p. 130).

In a study of sixteen high schools in Michigan and California claiming to have established professional learning communities, the findings indicated only three of the sixteen schools met the study’s criteria of having a true professional learning community (McLaughlin & Talbert, 2001). In a separate study of six high schools having initiated learning communities, Wells and Feun’s (2007) findings indicated the schools struggled when critical issues such as

best practices and learning results were not the priority of the learning community. The findings drew a conclusion that schools are willing to commit to establishing the mechanics and framework for the implementation of the professional learning community, but admitted to having less commitment to sustaining or expanding its capacity due to both internal and external conflicts.

Core Traits of Professional Learning Communities

School leaders must understand that in addition to experiencing a transition in work focus, a school must experience a workplace transformation in developing a professional learning community (DuFour, 2007; Fullan, 2006b). Fullan (2006b) identified ten elements he deemed necessary for addressing turnaround change in transitioning toward a learning community. The ten elements for enacting change are:

1. Define closing the achievement gap as the overarching goal.
2. Attend initially to literacy, data, and student well-being.
3. Emphasis placed on the dignity and respect of stakeholders.
4. Address problems with the best talent.
5. Recognize that successful strategies are socially-based and action oriented.
6. Assume lack of capacity is the initial obstacle, then design professional development.
7. Stay on track through leveraging leadership
8. Link internal and external accountability.
9. Nurture vehicles for positive pressure.
10. Foster an ongoing effort to build confidence internally and public. (pp. 44 – 67)

DuFour and Eaker (1998) stated, “A clear vision of what a learning community looks like and how people operate within it will offer insight into the steps that must be taken to transform

a school into a learning community” (p. 25). The modeled characteristics referred to by DuFour and Eaker include (a) a shared mission, vision, and values, (b) collective inquiry by stakeholders, (c) the application of collaborative teams, (d) a systemic process of action orientation and experimentation and (e) the commitment to continuous improvement towards results. It is critical that school leadership and the teachers as role players understand the breath and depth of these characteristics at the PLC’s initiation phase and throughout the development process.

Reichstetter (2006) identified three critical components necessary for facilitating and sustaining a PLC including (a) supportive leadership, (b) collective learning, and (c) collaborative team work and decision-making. The critical components identified by Reichstetter reflect the core tenets of five dimensions of professional learning communities described by Hord (1997). Hord is credited for synthesizing a contemporary categorical framework for identifying the basic traits necessary for implementing and sustaining a professional learning community in a site-based school setting (Huffman & Hipp, 2003).

The five dimensions identified by Hord (1997) were developed through research performed in association with the *Creating Communities of Continuous Inquiry and Improvement Project* conducted by the Southwest Educational Developmental Laboratory in Austin, Texas. Hord credited previous researchers and their studies as a basis for the infusion of learning communities into the educational arena including McLaughlin & Talbert, Rosenholtz, and Senge, (as cited in Hord, 1997).

Hord (1997) offered a basic conceptual definition of a professional learning community as a school staff investing its time and effort with student learning as the major goal. The five dimensions described by Hord offered organizational tenets of a professional learning

community that have served as the classic framework for schools to model their efforts (Huffman & Hipp, 2003). Hord identified the five dimensions as (a) shared beliefs, values, and visions; (b) shared and supportive leadership; (c) collective learning and its application; (d) supportive conditions; and (e) shared personal practice. The collective five dimensions should be viewed as interdependent of each other providing a dynamic infrastructure for a school's professional learning community (Hord, 2004).

Dimensions of Successful PLCs

A basic tenet of a professional learning community includes enabling and fostering the building of capacity through collegial purposeful professional development (Wells & Feun, 2007). In context of a professional learning community, capacity building must be inclusive of the involvement of both principals and teachers (Lambert, 2003). The intended outcome of the school-based professional learning community is to engage teachers and administrators in problem-solving and decision-making. The major targeted mission of the professional learning community is to apply the organization's capacity to further student learning (Hord, 2004).

As in any organizational model, there must be a research-based or conceptual framework that addresses goals, processes, and relationships in the context of the organization and its individual membership (InPraxis, Inc., 2006). Organizations that are successful have sound core characteristics that guide conduct of its membership, the organizational thinking, and the daily operations (DuFour & Eaker, 1998). Hord (1997) provides a basic framework for the necessary attributes in developing a professional learning community including (a) shared beliefs, vision and values, (b) supportive and shared leadership, (c) collective learning, (d) shared practices, and (e) supportive conditions.

Shared beliefs, vision and values. Hord (1997) stressed the core of the professional learning community is the process of developing and ascertaining a shared vision through a communal belief and value system centered on the premise of continued learning. The central core belief of a PLC is that all students can learn. Therefore, the PLC should foster values that motivate teachers toward a shared vision for promoting student learning (Sparks, 1999). Sparks expands that thought by recommending that within the PLC, teachers must collaborate to fulfill their individual professional vision, while supporting a value system that includes collective responsibility.

A school vision which is translated into the school's mission formulates a mental image that guides the organization's philosophy and action (Hord, 2004). Hord contends that *the vision* be reflective of the school's stakeholders for it guides decision-making, instructional and management activities, as well as professional development. A shared vision should foster genuine commitment of all professional stakeholders.

However, the process of creating a shared vision often determines the level of commitment to fulfill its expectations (DuFour, DuFour, & Eaker, 2008; Huffman, 2003). Hord (1997) suggested that the development of a shared vision is challenging because it requires a paradigm shift in not only thinking, but professional practice. Cowan (2003) contends that a school's vision and mission is a challenge because it requires high expectations of teachers and students within a set of priorities that is beneficial to the whole organization requiring a merging of personal and common ambitions. A school vision can only materialized into reality if each teacher can conceptualized and connect his or her personal interpretation and values with that of the formal vision for it to be truly a shared vision (DuFour, DuFour, & Eaker, 2008; Hord, 1997; Huffman and Hipp, 2003).

The most effective means in which to develop a shared vision is to build consensus among the staff regarding the school's common interest in establishing a unified direction to address the organizational goal of student learning (DuFour, DuFour, & Eaker, 2008). In a study of 18 schools organizing PLCs, the findings demonstrated that schools succeeding in sustaining shared visions and values had similar characteristics (Huffman, 2003). The process initiated with a leader's mental model, but the details were constructed by the respective schools' faculties. Although the visions and values varied among schools, the centerpiece was student learning.

The findings of Huffman's (2003) study indicated that the successful schools made a concerted effort to address the interpersonal skills of trust, collaboration, and communication of its respective faculties. The initial vision was supported through the evolution of values which were articulated in the daily practices of the school. Huffman concluded that the successful schools developed a shared vision through a linear approach over a course of time. The process was segmented over increments of time supported through a relevant professional development series. Huffman stated, "Changing the culture of an organization is a difficult and time consuming process that must have at its center the development and working knowledge of a vision shared by all stakeholders" (p. 22).

The level of commitment to the shared vision of a professional learning community is measured in its articulation and practice in daily work (Hord, 1997). Huffman and Hipp (2003) addressed the sustainability of a vision, by recommending that the PLC membership collectively view the vision as a living experience. The goal centering on student learning should remain the driving force, but allowing adjustments as the PLC matures and ideas evolve. According to Huffman and Hipp, the shared vision evolves and manifests itself into the school's norms, behaviors, and values guiding decisions about teaching and learning for a generation of students.

In a case study of a large high school, Timperly and Robinson (2000) found that teachers expressed a concern that their school's shared vision bounded and restricted their professional autonomy. The study revealed that the school vision was developed by an administrative committee and not the faculty. Tarnoczi (2006) extended that argument indicating even shared visions through a cooperative effort restrict teacher autonomy. Tarnoczi suggest that too often PLCs undermine creativity and innovation within the profession narrowing instructional practices down to a restricted few.

Despite Tranoczi's (2006) argument about PLC's exercising control over teachers' thinking and practice; Schmoker (2006) contends that usually PLCs are established as a means of reform as to address the needs of a struggling or failing school. DuFour & Eaker (1998) indicated the benefits of systemic change through a PLC outweigh individual professional autonomy. Furthermore, DuFour and Eaker indicate that establishing a clear shared organizational vision (a) motivates and energizes people, (b) creates a proactive orientation, (c) provides direction for organization, (d) establishes specific standards of excellence and (e) creates the basis of an action plan.

Supportive and shared leadership. The collaborative effort between school administrators and teachers to share specific duties and responsibilities fuels the leadership capacity of the professional learning community (Hord, 1997). Lambert (2003) defined leadership capacity as a "broad-based skillful participation in the work of leadership" that exists among the appropriate stakeholders of a school (p. 4). Leadership capacity in the context of a PLC would be the supportive, collegial participation of principals and teachers sharing the authority and decisions pertinent to the school pursuing its quest to fulfill its vision (Hord, 1997).

The concept of school leadership within the context of a PLC's vision and values requires a transferal from leader-centered to leadership capacity, which translates into changing the view of the principal as the sole instructional leader to leader facilitator (InPraxis Group, Inc., 2006). Louis and Kruse (1995) identify six key attributes for building leadership capacity within a professional learning community including (a) emphasis on interactive leadership, (b) teacher support and involvement, (c) modeling of the school's vision as embedded in daily activity, (d) fostering a culture of purposeful professional development, (e) conflict management, and (f) whole faculty study groups.

The preface of nurturing a common value system through effective school leadership is creating experiences and opportunities for other members of the school community to participate in leadership roles (Fullan, 2003). Fullan describes this phenomenon as "using capacity to build capacity" (p. vx). In addition to achieving specific task in the context of shared leadership, the issue of collective efficacy becomes a motivator in the shaping of a school's vision, values, and behaviors. Solansky (2008) found that teacher teams having established shared leadership responsibilities in implementing specific tasks significantly outperformed single leader teams.

The motivational factors identified by Solansky (2008) included a sense of responsibility held by each team member as well as the recognition of a greater problem-solving capacity as a team. The by-product of the shared leadership study was the increase in each team's levels of confidence, satisfaction, and ownership, which Solansky described as collective efficacy. Collective efficacy traditionally manifests from confidence in a group or team's performance and sense of achievement (Bandura, 1982).

Huffman (2003) recommended that shared leadership among the faculty is best facilitated in a natural progression including small groups, grade levels or department teams. The early

focus should center on building capacity through minor problem-solving tasks related to student learning. Often this process allows for the recognition of informal leadership through expertise. According to Huffman, the exercise of team building creates a manageable infrastructure that fosters teacher visions, voices and values through decision-making and professional reflections.

In a study involving 90 elementary and secondary schools across 45 districts in nine states, Leithwood and Mascall (2008) found collective leadership explained a significant proportion of variation in student achievement. The differences were most significant in relation to the leadership exercised by school teams. In a similar longitudinal study, Printy (2008) found shared leadership efforts within content departments had a significantly statistically higher influence on student achievement, than subject matter interventions alone.

A major variable in fostering shared leadership is dependent on the principal's willingness and desire to decentralize his or her authority (Hord, 2004). Hord and Sommers (2008) stated "One of the defining characteristics of PLCs is that power, authority, and decision making are shared and encouraged" (p. 10). Hord acknowledged that transference to shared leadership is difficult for many principals and teachers. Huffman (2003) suggested that the capacity of the faculty is elevated when teachers felt their opinions and efforts were valued. Therefore, school administrators are encouraged to participate democratically with teachers by sharing power, authority, and decision making among staff in an effort to promote and nurture leadership.

Collective learning. A major tenet of the professional learning community construct is ongoing and collective learning of the school faculty (Hord & Sommers, 2008). A collaborative professional learning culture inclusive of protocol and practices facilitates the promotion of capacity building among colleagues. According to Cowan (2003), the catalyst for school

improvement occurs when “collaboration to achieve shared goals becomes focused, intentional, and urgent” (p. 79). The key for collective learning to be a relevant attribute of a PLC is that the new knowledge gained and its application in the classroom must be affiliated with the school’s vision of targeting student learning (Hord, 1997).

DuFour and Eaker (1998) identified the five characteristics of effective collective learning teams. The first and foremost characteristic associated with successful teams is a shared belief in student learning. The expression of trust through open communication enables peer assistance and collaboration. A third favorable characteristic is that teachers accept the responsibility for decision-making. A necessary characteristic of collective learning teams is the application and adherence to an organizational protocol. The fifth characteristic which contributes to the sustainability of the collective learning process involves continuous assessment and reflection of the team’s progress.

An effective strategy for collective learning in a professional learning community is the use of a protocol or systemic model (DuFour & Eaker, 1998; Hord, 2004; Huffman & Hipp, 2003; Printy, 2008). The Southwest Educational Developmental Laboratory (SEDL) developed a systemic model referred to as the Professional Teaching Learning Model (PTLC) that provides schools with an ongoing and cyclic process for building capacity by engaging teachers in seeking new knowledge and professional reflection (2005a). The model consists of six phases performed in a cycle which are (a) study, (b) select, (c) plan, (d) implement, (e) analyze, and (f) adjust.

The professional teaching and learning cycle is intended for collective learning in the context of job-embedded professional development. The process is performed by collaborative planning teams. The specific tasks for each phase are as follows (SEDL, 2005a):

1. The collaborative planning teams *study* a problem as diagnosed through data and

- observations measured to established standards or expectations. The team determines the deficiencies and the potential existing knowledge gap. This phase is concluded with the team determining specific academic needs to be addressed.
2. The next phase engages the collaborative planning team in *selecting* instructional strategies and resources needed to address the identified deficiencies. The key considerations in the selecting phase include matching the prescribed strategies with the desired academic outcome and assessment. The strategies should be research-based and its conceptual framework understood by the teachers.
 3. The teacher team engages in collective *planning* of a formal lesson that would feature the strategy or skill outcome being addressed. A similar lesson may be taught across a grade level or as various lessons respective to the content featuring an identified cognitive skill. The planning phase requires the team to identified the specific lesson criteria, time frame, and the assessment artifact to be studied as evidence of student progress.
 4. The next phased of the PTLC involves *implementing* the planned lesson. Each participating teacher applies the prescribed lesson, denotes student performance including success and failure in the context of the lesson, and collects student work products. A critical component of this phase is teacher observations regarding student behavior and progress as an active participant in the learning experience.
 5. A critical phase requires the collaborative team to *analyze* student work products. An established protocol should be used in analyzing the student work including critique of the lesson procedure, alignment with the original academic standard and intention, and assessing student proficiency. The discussion in this phase should center on students'

strengths and weaknesses in the context of progress and proficiency of the desired standard of performance.

6. The final phase of the PTLC involves the collaboration of the teacher team to reflect and *adjust* the future course of instruction regarding the identified learning deficiency.

The adjustment phased requires the teachers to determine the effectiveness of the applied strategy, the remaining academic deficiencies, and its implication in future instructional design. Depending on the success of the intervention, the team may decide whether to continue the academic prescription or apply the PTLC cycle to another target area.

Hord's (2004) recommendations for collective learning support the procedures featured in the Professional Teaching Learning Cycle (SEDL, 2005a). According to Hord, a major contention in collective learning is creating the opportunity for purposeful dialogue and reflection on student learning between and among grade levels or departments. The professional conversations should be based on intended instructional innovation, assessment, and intervention for the purpose of addressing student needs.

Using a mixed method study of professional development practices, Schechter (2008) identified that the more effective routines for collective learning featured (a) the analysis of student achievement data, (b) the interpretation of the data to guide instructional planning, and (c) an analysis of the effectiveness of the instructional intervention. A quantitative study by Wheelan and Tilin (1999) found a high correlation between collective learning and collective efficacy. The correlation between the two variables was more statistically significant in schools experiencing higher levels of faculty participation. The study's findings provided statistical

evidence that an organized approach to collective learning affects the attitude of teachers participating in the PLC.

The collective learning process should be an ongoing process directed on student learning and embedded in the school's operation (DuFour & Eaker, 1998; Hord, 2004; Huffman & Hipp, 2003). Huffman and Hipp (2003) advocated the collective learning process should be a graduated process that involves teachers expanding their professional knowledge targeting classroom application in the context of student learning. The process of collective learning should be a featured component of the school's improvement plan and embedded in the school district's professional development scheme. The learning process should feature an organized routine and interactive.

The lack of willingness to de-privatize teaching practices presents one of the greater challenges to collective learning in the professional community (DuFour & Eaker, 1998; Timperly & Robinson, 2000). DuFour and Eaker (1998) contend that "Collaboration by invitation often does not work" (p. 118). They suggest that fostering collective learning through a team approach as a whole school practice is one of the more effective means of initiating the process. Similar to the implications presented in the PTLC model (Southwest Educational Developmental Laboratory, 2005a), DuFour and Eaker recommended four prerequisites for establishing a collective learning approach which include (a) the activity must be job-embedded, (b) an explicit purpose in the context of student learning, (c) a protocol or model accompanied by training and support, and (d) a commitment by teachers to accept responsibility and work collaboratively. The ongoing process must be accompanied by ongoing monitoring by the school and district leadership (DuFour & Eaker, 1998; Marzano, Waters, & McNulty, 2005).

Shared practice. Although the emphasis of a professional learning community is on the whole of the school in terms of group behavior, attention on individual contributions is necessary to build group capacity (Hord, 1997). Copland (2003) echoed that sentiment by offering the premise that shared practices is a key component to changing what occurs in the individual classrooms, which serves as the driving force for holistic school improvement.

Hord (2004) indicated that shared practices among teachers create learning environments conducive to building professional capacity through reciprocal peer interaction. The process of peer helping peer is more about de-privatizing practices and little about evaluation. Shared practice involves teachers acting as change agents through collegial support, peer coaching, and building trust. Hord acknowledged that in the development of a professional learning community, shared practices is traditionally the last dimension to be established as a routine.

Studies have backed Hord's (2004) observation of the slow acceptance of shared practices as a PLC dimension. Two studies examining professional collaboration among teachers were conducted in Louisiana schools by Leonard and Leonard (2001, 2003). Each study indicated that teachers were aware of the benefits and protocol required for engaging in professional sharing and collaboration and even agreed with the principles of the research-based models. According to the teachers surveyed in the schools in which professional sharing and collaboration did not occur or were not sustained, failure was attributed to one or more of the following reasons (a) logistical structure and size of school, (b) time issue, (c) uncharacteristic to school culture and no-support from administration or (d) teacher refusal.

Marks and Louis's (1999) previous study of 24 site-based managed schools attempting to implement PLCs indicated similar findings to the Leonard and Leonard studies (2001, 2003). Marks and Louis found that schools failing to establish shared professional practices identified

time and the employment of established models as the major barriers. In the teachers' comments, it was indicated that too often the modeling was limited to a demonstration of a lesson or the presentation of a strategy by an individual teacher. The element missing according to the survey was a lack of follow-up support or individualized coaching. When teachers received professional development through one-way communication channels, teachers were more likely to not implement or eventually abandoned the initiative (Lord & Miller, 2000; Marks & Louis, 1999).

Hord (1997) indicated a critical component of shared practices among colleagues is feedback and intervention. The climate of peer helping peer should be absent of judgment and conducive to risk-taking and reflective on effectiveness. Huffman and Hipp (2003) found that only through repeated trial and experience could shared practices become a norm in the school culture.

DuFour, DuFour, Eaker, and Many (2003) advised that for a concept like shared practices to become embedded in the school culture a paradigm shift in personal and professional values within the school culture must be initiated. The new line of thinking must change the privatization of classroom instruction to the open sharing of best practices. In reference to the findings of the Marks and Louis study (1999), DuFour et al, would indicate a need to shift from learning individually through formal presentations, courses and workshops to learning collectively by simply working together.

Huffman and Hipp (2003) recommended that sharing practices become an integral part of job-embedded professional development. Sharing experiences can occur through peer observations among and between grade levels. Reflection and feedback would remain focused on the effectiveness of an instructional strategy and its influence on student learning and not on

teacher evaluation. As teachers become more acquainted with strategies and initiatives, they would serve as coaches and mentors to new or struggling teachers.

Supportive conditions. Hord (1997) defined supportive conditions in the professional learning community as involving interpersonal relationships and physical resources. It is the supportive conditions in a PLC according to Hord (2004) that determine the when, where, and how a staff works. The supportive conditions are traditionally divided into human capacities and structural resources.

In a two year case study evaluating the effectiveness of professional development efforts, the findings indicated supportive conditions as a significant factor in the program's success (Gilrane, Roberts, & Russell, 2008). According to the findings, teacher reflection and changed behavior were significantly influenced by (a) the development of collegial dialogue in determining professional development needs, (b) physical structures available including materials, location, and time for collaborative planning, (c) support of peer mentors and support personnel, and (d) availability of resource materials regarding the reading initiative being addressed. The supportive conditions described in the findings would qualify as addressing both human capacity and structural resources according to Hord's description (2004).

Hord (1997, 2004) described human capacity as the ability for PLC members to engage in collective learning, shared leadership, and shared professional practices in a collegial atmosphere. This capacity is the ability to adhere to decorum and protocol, capable of accepting feedback and maneuver through conflict, and anoint one's self a contributing member of a professional learning community. According to Hord, human capacity is the ability to be an active contributor and participant in the socialization process of a professional learning community.

Cowan (2003) added that the collegial relationship in the supportive conditions dimension requires the traits of decision-making, the personalization of the school improvement plan, and contributing to a positive student-teacher-principal relationship in the context of the professional learning community. Huffman and Hipp (2003) would add collegial relationships foster respect and trust and enables a voice among the PLC's membership which transforms into a readiness for change. The focus on people and their interaction is believed to minimize the transition shock that normally accompanies change, according to Huffman and Hipp.

The attention on people and their capacity translates into a greater degree of acceptance of professional feedback and willingness to contribute toward improvement (Louis & Kruse, 1995). Traditionally, principals capable of facilitating a collegial climate are not only approachable to their teachers, but routinely are viewed as interactive and proactive contributors in the PLC (Huffman & Hipp, 2003). Hord (1997) stressed it was important to have supportive leadership at the school and district levels in order to create the desired intensive socialization process.

The structural conditions described by Hord (1997) included a variety of conditions such as "size of the school, proximity of staff to one another, communication systems, and the time and space for staff to meet and examine current practices" (p. 57). Issues such as meeting time can be removed as a barrier through district and school collaboration for creating scheduling adjustments such as job-embedded professional development (Hord, 2004; Louis & Kruse, 1995). Cowan (2003) suggested that when crafted well, supportive conditions in the form of structural needs can foster interdependent responsibilities among the PLC membership by simply creating a framed time for collaborative learning. The experiences and capacity gained through

an organized logistical structure enables the opportunity for teacher empowerment and collegial behavior to evolve.

Summary. Cowan (2003) stated, “Substantial and continuous improvement of schools requires a context that is conducive to change – one that supports both individuals and the organization as a whole – like in a PLC” (p. 75). There is such “overwhelming evidence and professional consensus on the effectiveness of PLCs, it is unconscionable for educators to disregard these facts and continue to implement ineffective, outdated teaching practices” (Buffum, Mattos, & Weber, 2009, p. 49). However, despite the knowledge educators have gained in the last decade about PLCs a gap still exist between perception and reality in many schools (DuFour, DuFour, and Eaker, 2008).

The five characteristics suggested by Hord (1997) provide a conceptual framework for school leadership to measure and assess their status. DuFour, DuFour, and Eaker (2008) have recommended a model which reflects the core dimensions offered by Hord (1997). DuFour et al.’s framework for a PLC is inclusive of (a) a shared mission, vision, and goals targeting student learning, (b) a collaborative culture with a focus on learning, (c) collective inquiry into best practice and current reality, (d) action orientation: learn by doing, (e) a commitment to continuous improvement, and (f) results orientation assessment.

The literature indicates that the implementation of a PLC is a complex process and requires a natural progression into the school’s culture (Huffman, 2003). It has been suggested that schools model their attempt to establish a PLC by using an established conceptual framework (DuFour, DuFour, & Eaker, 2008; Hord & Sommers, 2008). School leaders may wish to consider Fullan’s (1990) phases of a change process including initiating, implementation, and institutionalized when planning the short and long term goals of establishing a PLC.

Roles of Stakeholders

Hord (1997) indicated that although much emphasis is placed on whole school reform and changing faculty behavior, the reform effort must take in account the individual stakeholder. Hall and Hord (as cited in Hord, 1997) reiterated “organizations do not change, individuals do” (p. 11). The literature has repeatedly indicated that the shared vision and values of a professional learning community should be dedicated to student learning (DuFour, DuFour, & Eaker, 2008, Hord 1997). Therefore, the roles of its stakeholders must attain to the issue of learning.

Two fundamental assumptions underlie the shared vision targeting student learning in a professional learning community. The assumptions are (a) educators believe that all students are capable of learning, and (b) educators accept responsibility for making this outcome a reality for every child (Buffman, Mattos, & Weber, 2009). DuFour (2004) advised that as education trustees on behalf of students, principals and teachers cannot afford to mismanage the opportunities and responsibilities afforded in a professional learning community.

Schmoker (2006) described the basic fundamental responsibilities afforded educators in a PLC. The first responsibility of educators is to establish a concise and viable curriculum and bring fidelity to it by enabling students to perform those skills at a level of proficiency. The second responsibility entrusted to educators is to collectively and accurately assess the performance of both teachers and students. According to Schmoker, it is critical to speak a common language and articulated those expectations through explicit instructional experiences. The capacity to address student achievement within a professional learning community requires the practice of shared leadership and responsibility (DuFour, 2004).

Leithwood and Mascal (2008) conducted a quantitative study involving 96 schools. Their study involved the collection of teacher perceptions and student achievement data across

forty-five school districts to examine which variables within the context of a school setting influenced student achievement. The findings indicated that categorically collective leadership practices consistently explained a significant proportion of variation in student achievement.

Fleming (2004) suggested that student achievement is influenced more when leadership is shared between the school principal and teachers. The characteristics Fleming identified to be beneficial to the learning climate were the continuum involving the gathering of information, the collective application of the new knowledge, and the collaborative reflections regarding the learning process. Moller's (2004) qualitative study comparing the leadership of characteristics of high and low-level readiness schools found a stark difference in the perceptions and application of shared leadership. The high-level readiness schools possessed an organizational structure for shared decision-making. As teachers gained more experiences and more teachers assumed leadership roles. The decision-making capacity of addressing challenges was less traumatic and more efficient.

The Roles of the School Principal

The catalyst for motivation in a professional learning community is that responsibility and authority are distributed and shared between the principal and the teachers (Hord & Sommers, 2008). According to Schmoker (1999), the efforts and success achieved by individual teachers are limited in scope unless there is systemic coordination and implementation from the school administration. Copland (2003) would add that a principal's organizational role in a professional learning community is to foster personnel efforts among its stakeholders to protect the shared vision and its implementation for the benefit of student learning.

Eaker, DuFour, DuFour (2002) offered a basic framework describing a principal's role in a school-based professional learning community. The four basic roles and responsibilities

included (a) focus on students and teacher learning, (b) foster the development of a collaborative culture, (c) concentrate monitoring and assessments on intended results, and (d) provide and allow for timely and relevant collaboration among the PLC membership regarding student learning and progress towards supporting the vision. Considering the themes identified, the principal plays a critical role in the development and sustainability of the school's professional learning community (Copland, 2003; Hord & Sommers, 2008; Schmoker, 1999).

The influence of a principal as an effective facilitator and transformational leader can maximize the effectiveness of a school community (Birky, Shelton, & Headley, 2006). However, it is often a principal's lack of attention and interaction in collaboration efforts with the school's membership that stifles the evolution and sustainability of a professional learning community (Scribner, Sawyer, Watson, & Myers, 2007). In an earlier qualitative study conducted by Birky (2002), the findings indicated that teacher efficacy was a major motivational factor and was directly influenced by the school principal. Efficacy increased when principals collaborated with teachers. The variables affected included trust, values, risk-taking, and purpose. The negative effect is that the opposite occurred when principals were less attentive.

In a quantitative study involving 1,762 teachers and student achievement data in a large school district, Leithwood and Jantzi (1999) described a phenomenon they referred to as the "romance of leadership" (p. 679). The reference was made to explain the misperception held by faculty members that an initiative they perceived helpful to teachers was also helpful to students. The school initiative was erroneously referenced as shared leadership in an attempt to open communication between principal and teachers. The practice was limited to using department heads as a liaison between the principals and the teachers. Although the principal's role was limited, teachers perceived that the increase dialogue between the office and classroom was a

shared leadership practice. The results of the initiative had no bearing on improving student achievement according to the empirical data. The misperception between shared leadership and student benefits held by the faculty was attributed to enthusiastic advocacy according to Leithwood and Jantzi.

According to a multiyear qualitative study of urban elementary schools, engaged principals are more likely to foster higher levels of capacity among teachers by creating teacher leader opportunities (Youngs & King, 2002). The study indicated that the foundation for fostering leadership capacity among teachers was design on the building blocks of collegial trust, ongoing professional learning, reflection and internalization, and aspiring to become experts in the field. The effective principal as an efficient manager adopts the strategy of using capacity to build capacity (Fullan 2003).

In a quantitative study involving nine middle schools, Belenardo (2001) investigated the situational relationship affecting the sense of school community. The findings indicated structural leadership had a strong correlation ($r=.90$) with sense of community when combining the variables of supportive conditions, shared vision, and shared leadership. The identified variables are heavily influenced by the school principal. Therefore, the principal can foster these three dimensions of the PLC with confidence that it would maximize the effectiveness of the school's improvement effort (Fullan, 2003).

One additional statistical argument for the influence of the school principal on the professional learning community was illustrated in a qualitative study conducted by Perez (2006). The study involved interviews at three public elementary schools having experienced an increase in student achievement. Perez examined the effects of shared norms and values, collective learning, and professional collaboration. The findings indicated the principals were

influential as change agents in all three PLC dimensions. The common themes included principal involvement as a facilitator enabling teacher involvement, the use of job-embedded opportunities for collaboration, and graduated phasing of distributive leadership.

Five dimensions have been identified by Hord (1997) as a conceptual framework for professional learning communities. The aforementioned research studies have indicated the influence principals have on implementing all five dimensions. Fullan (2005) suggested that a key component in a change process is having the right personnel in leadership positions to facilitate school-site PLCs. Fullan used the metaphoric expression of having “The right person on the right bus in the right seat” (p. 68).

DuFour and Eaker (1998) suggested school principals should possess or work to develop the following behavioral characteristics in coordinating a professional learning community on their campuses.

1. The principal should be able to model the shared vision and values rather than through simply referencing rules and procedures.
2. The principal should be able to involve faculty members in meaningful decision-making processes associated to student learning and instruction as well as empower the individuals to act upon those decisions.
3. The principal should be able to communicate effectively with the PLC membership by providing the staff with information, training, and parameters they need to make decisions that will benefit student learning.
4. The principal should be able to establish credibility by modeling behavior that is congruent with the vision and values of their school.
5. The principal should be results-oriented in monitoring and delivering feedback

regarding the PLCs progress (pp 181-187).

In regards to communicating clear expectations to the membership of a professional learning community, SEDL (2005b) recommended four specific leadership actions to be considered by the principal. The first expectation to be articulated is that all students will become proficient in the state standards in which they are assessed. The second expectation to be articulated is that all classroom teachers are to work collaboratively using the school's professional development model. According to SEDL's recommendations, the principal is responsible for consulting with the teachers during the planning, implementation, and reflective sessions in the professional development process. The principal is expected to actively monitor the progress of the professional development process as an active participant offering encourage and intervention as warranted.

Effective communication in collaborative relationships between the principal and teachers has been measured as a value characteristic in a PLC. According to a qualitative study conducted by Slater (2008), teachers, principal, and parents strongly agreed that clear articulation of the school's improvement plan contributed to student learning, professional growth among the faculty, and increase in cooperation between the home and school. The explanation of roles and responsibilities among the stakeholders fostered a sense of ownership and involvement. The increase involvement translated into an increase in capacity by often tapping into unused talent.

In a quantitative study involving 96 principals and 2,764 teachers, Leithwood and Jantzi (2008) found a strong correlation between a principal's sense of efficacy and the shared leadership practices being performed in the school setting. The survey results indicated variables such as setting a clear direction, a shared understanding of the school's vision, opportunities for collegial dialogue and feedback, and professional feedback aligned with the shared leadership

practices were major contributors to the use of shared leadership practices. As the principal gained confidence in their abilities, the increased incidences of shared leadership within the respective PLCs increased.

Huffman (2003) recommended that principals should foster the school's visions based on the readiness and maturity of the school's PLC experience. The less mature or experienced the faculty is with the professional learning community the more emphasis the principal needs to place on developing a driving vision through shared leadership and commitment. Distributed leadership is a collective activity which focuses on collaborative goals that spans the usual task and exceeds traditional power boundaries. Leadership capacity should be measured by the principal as expertise rather than appointed authority (Copland, 2003, Moller & Pankake, 2006).

In a qualitative study of five schools possessing characteristics of PLCs, Fleming (2004) found three of the five schools had significantly addressed the issue of shared leadership. The findings indicated that in the three successful school settings, principals functioned as continuous learners with their staff and well as served as an external monitor. The principals indicated patience was needed as to allow for teachers to examine and reflect on initiatives as the continuous learning cycle unfolded. The teachers expressed a critical component was the principal's willingness to listen to teachers and value their expertise on selected issues. Fleming identified the following themes from the qualitative data associated with actions performed by the principals including (a) developed collegial relationships, (b) focused on student success, (c) created professional learning experiences, and (d) promoted shared leadership.

Hord & Sommers (2008) identified action steps referred to as the 7C's in which principals could employ to encourage, enhance, and sustain their school's professional learning community.

1. The principal is to provide effective *communication*. This action step can be accomplished through a proactive stance to promote the school's vision. The principal should be aware as to what messages are being received as opposed to what message has been sent.
2. The principal is to foster professional *collaboration*. This action step is intended to pool the best ideas in a collegial fashion to generate the sharing information and feedback. Collaboration is further defined as negotiated meaning and shared repertoire.
3. The principal is to provide assistance through *coaching*. The action step would include modeling, feedback, and ongoing dialogue.
4. The principal would serve as a *change agent* and *conflict manager*.
5. The remaining steps would require the principal to exhibit *creativity* and *courage* in fostering innovation and sustainability within the goals and vision of the PLC.

Schmoker (1999) stated, "Changes have a much better chance of going forward when principals team up with teachers who help to translate and negotiate new practices with the faculty" (p. 116). Principals can enable teachers to assume leadership roles by (a) designating and cultivating talented teacher leaders through expertise, (b) attempting to value their time (compensation in stipend, duty relief), (c) providing them with release time for preparation and reflection, (d) including them in administrative training, and (e) involving faculty in selection or recommendations for teacher leaders.

Moller and Pankake (2006) advocated intentional leadership approaches for principals to consider in building leadership capacity among the PLCs teachers. Principals must be living examples of the shared vision in the daily work and while guiding the ongoing professional learning embedded in the school's operation. The principal must be a hands-on facilitator and active participant willing to work side by side with the teachers electing to assume leadership roles. Moller and Pankake advocate a key to a successful approach requires the principal to build positive relationships by serving as a mentor and guiding the teachers through the capacity building process.

The principal would assist the teacher leaders in gaining expertise through developmental stages. Moller and Pankake (2006) contend that as confidence builds in the teacher leaders the principal should begin to share selected responsibilities with teachers as well as provide them with the necessary authority or support to carry out the assigned tasks. The teachers would assume leadership roles in the context of an aligned professional development series. Their roles would focus on becoming experts in the initiative being pursued in the PLC. The process advocated by Moller and Pankake aligned with Fullan's (2003) philosophy of developing capacity to build capacity.

The principal's role is dynamic in an evolving PLC. In a quantitative longitudinal study of 16 schools, Copland (2003) found that as the school's learning community matured and increased in professional capacity, the principal shifted from initiator to facilitator. The principal's professional attention shifted to support of the inquiry process through the framing of questions and participation in reflective feedback. The principal was then able to offer more individual attention to those teachers struggling with specific issues within the context of the PLC.

DuFour, DuFour, & Eaker (2008) offer the guiding principles for school leaders in facilitating professional learning communities. The initial guiding principle is to offer clarity about their primary responsibility as school principal in the operation of the professional learning community. Once the principal has established his or her leadership role, the responsibilities of the membership are made clear with the invitation for assuming leadership roles in the operation of the professional learning community. According to DuFour et al., the third guiding principle is to establish coherence to the changes and complexities being experienced in the school. The principal's role is to align the structure and culture of the school with the professional learning community's core purpose of influencing student learning.

The literature has indicated that the role of the school principal is changing, especially in the context of professional learning communities (DuFour, DuFour, & Eaker, 2008). The role of the contemporary school leader has shifted toward the core technology of teaching and learning which requires appropriately aligned professional development with implications of shared leadership (King, 2002). DuFour (2002) suggested that the principal's focus has shifted from teaching to learning which has motivated some in the field to suggest that a principal is less of an instructional leader and more of a learning leader.

The Roles of the Classroom Teachers

An increased focus on professional learning communities in the school setting has resulted in a redefining of the teacher's role. "Schools that function as PLCs encourage teachers to move away from the traditional view of teachers as isolated practitioners, but rather accept the role as a participant in a collaborative, learning-central model" (InPraxis Group Inc., 2006, p. 9). Teachers become empowered as they tackle initiatives and take risks, accept leadership responsibilities, and feel confident as professionals (Slater, 2008).

Eaker, DuFour, and DuFour (2002) recommended that teachers adopt the following roles and responsibilities as active members in a professional learning community:

1. Acknowledge and embrace collaboration with colleagues.
2. Make every effort to understand and enact the school's PLC concepts.
3. Actively engage in the development of the shared vision and values.
4. Communicate the school's vision and values mission to students.
5. Strive towards a vision of excellence and choose to become an expert.
6. Merge individual professional goals with the PLCs short-term and long-term goals.
7. Engage in research-based and data-driven plans.
8. Expect and participate in a continuum of learning.

DuFour, DuFour, and Eaker (2008) suggest that all teachers should contribute to the professional learning community's vision and practices by reflecting those principles in their own classrooms. The school's shared vision and values should be articulated to students in their own daily work. The teacher should assist students in developing personalized learning goals by clearly defining the learning outcomes as well as collaboratively involve students in the assessment process (DuFour, DuFour, and Eaker, 2008; Marzano, Waters, and McNulty, 2005).

The demands of the teacher's changing role in the PLC suggest that as professionals, teachers must recognize several basic responsibilities. DuFour and Eaker (1998) recommend concentration on the following principles (a) emphasis on learning rather than teaching, (b) emphasis on active student engagement, (c) view instruction as results based, (d) use of formative assessment and feedback to measure student performance, (e) put into practice what is being articulated in the PLC. In the context of school improvement, teachers must transition from simply being instructors to becoming change agents in student learning (Cowan, 2003).

“Although performance norms that affect teacher practice are influenced by external standards . . .” a need exist for a “collaborative, learning-centered model . . .” with emphasis on teachers being able to work with the standards within the PLC (InPraxis Group Inc., 2006, p. 9). The basic model suggested in the 2006 Alberta Education report (InPraxis Group, Inc.) offered the following framework for teacher collaboration:

1. Teachers should work collaboratively on problems that focus on student learning.
2. Teachers should establish a collective responsibility for learning including collaboration with students.
3. Teachers should collaborate on creating new knowledge as a continuum of learning.
4. Teachers should structure time to observe each others work and its impact on student learning.
5. Teachers should commit to shared norms, responsibilities, and practices.

“Because no teacher can possibly possess all the knowledge, skills, time, and resources needed to ensure high levels of learning for all his or her students, educators at a PLC school work in collaborative teams” (Buffman, Mattos, & Weber, 2009, p. 51). Schmoker (2006) advocated that teachers acclimate to purposeful collaborative and collective learning experiences through small groups within a learning community. The small groups can originate among grade levels, teacher teams, or content departments. According to Schmoker, two key teacher responsibilities are advised in initiating small group meetings. The first is to meet regularly according to an agreed upon pre-determined schedule. The second key principle is to establish a series of issues and the sequence in which these issues are to be address during the school year.

Schmoker (2006) further suggested that teachers should take collective responsibility in establishing and adhering to a set of protocol standards. The major focus of each meeting is on

student learning and achieving proficiency in the curriculum standards. Teachers will assume shared responsibilities as the meetings progress throughout the year. The underwriting professional goal is for each teacher to elevate their expertise in the initiatives being addressed.

In the context of the PLC, the results of small group meetings provide contributions to the whole faculty's collective learning mission. According to a meta-analysis study's findings (InPraxis Group, Inc., 2006), the continuum of collective learning among teachers in small groups and in the PLC required attention to selected recurring attributes. Among those attributes are (a) shared leadership roles, (b) reinforcing the shared mission, (c) the continuous inquiry of selected initiatives, and (d) securing the necessary supportive conditions.

Professional teachers should function as classroom leaders. DuFour and Eaker (1998) suggested that the leadership traits demonstrated in the PLC among peers be applied to the classroom. Therefore, the effective teacher must be an effective communicator in establishing the PLC's instructional goals in the classroom. The teacher must have a passion and the problem-solving skills to overcome organizational setbacks. According to DuFour and Eaker, teachers must judge progress of the PLC goals based on the achievements of the students.

Leadership behavior that supports professional collaboration among peers encourages and nurtures the empowerment and capacity of other individuals in the school (Slater, 2008). Shared leadership practices enable a school's leader to use existing capacity to foster the building of professional capacity in others (Fullan, 2003). A qualitative study examining a comparison of work team models indicated that schools using shared leadership approaches had production advantages over schools using models featuring single leader teams (Solansky, 2008). Lambert (2003) suggested that collegial interdependence and teacher empowerment come from building peer to peer relationships.

The roles and responsibilities performed by individual teachers as contributors to the greater professional learning community are influential in shaping the culture of the school and the values it possesses (DuFour, DuFour, & Eaker, 2008). The process and byproducts of collective learning and collaboration establishes the professional norms of the school as related to daily practices and overall performance (Marks & Louis, 1999). This systemic binding which exists among the teachers creates a common professional language. The common language opens dialogue and de-privatizes teacher owned practices (Marzano, Waters, & McNulty, 2005). Building a professional learning community through collective learning and professional collaboration requires a long term investment of time and human capital as well as a professional commitment from individual teachers whether they served as participants or shared in the leadership responsibilities (Copland, 2003).

As teachers begin assuming leadership roles within the demands of the professional learning community, Danielson (2006) advised that teachers become aware of traits they will either need to sharpen or develop. Teacher leadership in the context of a learning community requires skills in collaboration, facilitation, planning, as well as action and evaluation. According to Danielson, these leadership skills will be necessary for (a) using data in decision-making, (b) recognizing opportunity and initiating action, (c) rallying others around an initiative, (d) securing supportive conditions, (e) soliciting collective commitment, and (f) recognizing and celebrating achievement.

The findings of a quantitative study surveying 4,165 teachers in grades K-12 indicated that as teachers assume more leadership roles the less dependent they become on centralized leadership (Wahlstrom & Louis, 2008). The study examined the relations among selected practices including shared leadership with contextual variables like trust and efficacy. In regards

to the shared leadership, instructional improvement increased as peer relations increased.

Wahlstrom and Louis (2008) indicated from the findings in their study that when teachers are involved in decision-making that affects their performance, the effectiveness of their instruction practices were elevated.

Goddard, Hoy, and Hoy (2004) found in a quantitative study that a strong relationship existed between teachers' sense of efficacy and perceived collective efficacy. The findings provided evidence that organizational socialization involves the communication of influential normative expectations for achievement. The effectiveness of teachers assuming leadership roles in instruction was further demonstrated in Moller's (2003) research which found that expertise among teacher leaders was highly respected among peers.

In Huffman's (2003) research it was concluded that as teachers gained a sense of expertise and apply their knowledge in the classroom, instruction improves. Huffman recommended the inclusion of more teachers in shared leadership roles inclusive of coaching would greatly serve the professional learning community and the classroom. Fleming (2004) indicated that through an increase in role in collaboration and inclusion of leadership, teachers develop a greater appreciation for the professional learning community.

Fleming (2004) further recommended that teachers should assume specific roles and responsibilities as members of a professional learning community. According to the themes identified in a qualitative study, active PLC members perform the following tasks: (a) actively search for ways to improve learning, (b) building collegial relations with peers, (c) engaging in PLC activities, and (d) engaging in collaborative team work. Fleming suggested that the greater number of teachers who adopt these practices will increase the proficiency of the school's PLC.

In a quantitative study using a national data bank, Lord and Miller (2000) found similar evidence prior to the findings of Huffman (2003) and Fleming (2004). The findings indicated as teachers assumed very specific leadership roles related to instruction and their responsibilities of teaching, the more collaboration took place. The findings further indicated more teacher participation occurred when professional development was comprehensive and ongoing as well as targeted individual needs through activities such as coaching.

Eaker, DuFour, & DuFour (2002) acknowledged that the roles and responsibilities of teachers have changed with the insertion of professional learning communities. DuFour, DuFour, and Eaker (2008) reiterated that PLCs are among the more effective reform approaches being enacted today. The fact is that professional learning communities are only as effective as its membership. Teachers are advised that being an effective PLC member, they must initially be good teachers and then seek shared leadership positions (Schmoker, 2006).

Summary

Morrissey (2000) offered a concise summation of four recurring themes reflecting on the theoretical construct of the professional learning community. School leaders must understand that the professional learning community is not a program for school reform rather it is a process of operating a collegial culture focused on professional and student learning. The initiation and implementation is a change process that requires phases and transitions (Fullan, 2007). Morrissey contends that the change process should be construed as a learning process. The professional learning community process should consist of a relevant and meaningful learning continuum that evolves into a professional school culture. Morrissey concludes that the professional learning community truly exists only when all five dimensions are enacted and work interdependent.

Discussion

Summary and Interpretations

Sergiovanni (2001) described the professional learning community as schools that are like “nested communities” in which collections of people are tied together by common foundational values which lead to “commitment to both individual rights and shared responsibilities” (p. 88). Sergiovanni’s description of a PLC illustrates the importance of a value system that fosters the merging of an individual’s professional goals with that of the school’s vision. Reichstetter (2006) offered a comprehensive definition for a PLC by stating, “A professional community is made up of team members who regularly collaborate toward continued improvement in meeting learner needs through a shared curricular-focused vision” (p. 1). Comprehending what these descriptions mean as applied in the context of a school presents its own set of challenges (DuFour, DuFour, & Eaker, 2008).

What are the characteristics of a professional learning community? The initial theoretical framework used to guide the research for this question was the five dimensions of a professional learning community as described by Hord (1997, 2004). The five dimensions identified by Hord included (a) shared beliefs, values, and visions; (b) shared and supportive leadership, (c) collective learning and its application, (d) supportive conditions, and (e) shared personal practice. The five dimensions were often referenced in other theoretical frameworks and research studies as an established standard for describing professional learning communities (DuFour, DuFour, & Eaker, 2008; Huffman & Hipp, 2003; Moller & Pankake, 2006).

DuFour, DuFour, and Eaker (2008) offered another comprehensive model regarding characteristics of a professional learning community. Similar to Hord’s framework, DuFour et al., included shared vision and collective learning as major characteristics. The slight differences

in categories of the DuFour et al. model were the forming of a collaborative culture, participating in action research, and targeting results. However, based on the detailed descriptions and interpretations of Hord's PLC's characteristics reflected in this literature review, DuFour et al.'s additional descriptions were extensions of the embedded attributes of Hord's original five dimension framework. The two models are complimentary of each other and do not delineate in philosophy and practice.

The researcher offers an additional conceptual framework for describing a PLC in Table 1. The proposed construct combined the dimensions and characteristics from Hord's model (1997) and the DuFour, DuFour, and Eaker (2008) model most referenced in the literature by other sources. The suggested dimensions are an attempt to present a practitioner's overview of the core pillars of the PLC framework. The literature reflected that a shared vision provided the guiding force for promoting student learning. The multidimensional construct of a PLC must not only have viable membership, but shared leadership accenting and building upon the expertise of the membership. The inclusion of collective learning and capacity building are not proposed in the construct as two separate entities, but integral parts of the learning cycle continuum. The proposed model in Table 1 is designed on the premise advocated by Fullan (2007) that capacity should be built on capacity. The final component of assessment in the proposed construct is necessary for embedding opportunities to measure progress and reflect on future directions (Eaker, DuFour, & DuFour, 2002; Marzano, Walters, & McNulty, 2005). The descriptions offered in addition to the proposed dimensions are reflective of the findings presented in the literature examined.

What are the roles of a principal in a school's professional learning community? DuFour (1999) stated, "Principals must live with a paradox: They must have a sense of urgency about

Table 1

Characteristics of an Effective Professional Learning Community

Dimensions	Description
Shared vision and commitment	<p>Emphasis on increasing student achievement and learning.</p> <p>Commit to adopting shared vision with professional goals.</p>
Supportive and shared leadership	<p>Emphasis on promoting teacher leadership on the basis of expertise. Additional emphasis on expanding leadership opportunities per specific project or task.</p>
Collective learning	<p>Emphasis on developing a common language through professional inquiry, dialogue, practice, and reflection.</p> <p>Established through embedded action research requiring a protocol of trial, assessment, and reflection of initiative.</p>
Capacity building	<p>Emphasis on peer collaboration through the recognition of expertise and the nurturing of collective and individual efficacy. Building capacity through capacity building.</p>
Assessment and Accountability	<p>Emphasis on ongoing assessment and feedback regarding progress (results) of initiative and procedural components.</p> <p>Encourage a contractual commitment of stakeholders.</p>

Note. Based on Hord's (1997) Five dimensions of a PLC and DuFour, DuFour, & Eaker's (2008) Characteristics of a PLC. Descriptions are reflective of characteristics articulated in the literature review.

improving their school, balanced by the patience to sustain them for the long haul . . . ” (p. 12). DuFour’s example reflects the dilemma faced by principals on their changing role in the PLC. The contrast may be reflective of the changing attitudes of the previous leadership role principal’s assumed as the single authority figure of a site-based managed school to that of a facilitator in the school site-based professional learning community (Heck, Brandon, & Wang, 2001).

Eaker, DuFour, & DuFour (2002) offered a basic framework describing a principal’s role in a school-based professional learning community. It was suggested that the principal’s role be inclusive of targeting learning in the shared vision, while fostering a collaborative learning community. In addition, the principal should secure supportive conditions including time and professional development from the management perspective of the PLC. Of the principal’s roles in a PLC proposed by Eaker et al., the more traditional was monitoring teachers. However, this role has expanded to include the monitoring of team progress in the context of the PLC.

An additional recurring theme in the literature regarding the principal’s role in the PLC described a shifting in responsibilities as the PLC evolves. The principal as an initiator in the PLC’s inception transforms into a facilitator as the professional capacity of the school increases (Copland, 2003). Hord and Sommers (2008) offered a comprehensive list of roles assumed by an effective principal in coordinating a PLC. Hord and Sommers’s list was referred to as the 7Cs. The principal’s multiple roles included being a communicator, collaborator, coach, change agent, conflict manager, as well as a model of creativity and courage.

The 7Cs framework provides a comprehensive view of the responsibilities available for a principal to coordinate a PLC. The multiple roles are reflective of the five dimensions described by Hord (1997) and applicable to Eaker, DuFour, and DuFour (2002) model as well. The list of

responsibilities is an indication of the complexity involved in the coordination of a PLC. The literature regarding the principal's role in a PLC constantly referred to building capacity through shared leadership. The distribution of the appropriate leadership opportunities to teachers was a constant theme in implementing and sustaining PLCs as reflected in this literature review (DuFour, DuFour, & Eaker, 2008; Hord and Sommers, 2008; Moller & Pankake, 2006).

The researcher offers an additional conceptual framework attempting to identify and describe the roles of an effective principal in the context of a PLC in Table 2. The basis for the proposed framework is from Hord and Sommer's (2008) 7Cs recommendations for principals. The researcher modified the original list recommended by Hord and Sommers. The proposed conceptual framework's six roles presented in Table 2 are more compatible with the PLC characteristics proposed in Table 1. Each of the proposed roles is conducive to shared leadership and not linked to the concept of the principal bearing the sole responsibility. However, the principal's responsibility is to initiate these concepts by example. The principal must possess the needed skills to perform the recommended responsibilities highlighted in Table 2. In essence, the principal must achieve a degree of proficiency and competence in these skills before sharing these responsibilities with competent teacher leaders.

What are the roles of teachers in a school's professional learning community? "Schools that function as PLCs encourage teachers to move away from the traditional view of teachers as isolated practitioners and accept the role as a participant in a collaborative, learning-central model" (InPraxis Group Inc., 2006, p. 9). Major role players regarding the professional stakeholders in the PLC are the school's teachers (Solansky, 2008). They are the direct link to the students and negotiate the PLC's visions and values in the classroom on a daily basis (Buffman, Mattos, & Weber, 2009; DuFour, DuFour, & Eaker, 2008, Slater, 2008).

Table 2

Roles of an Effective Principal in a Professional Learning Community

Role	Responsibility
Communicator	Articulate a shared vision focusing on student learning and high expectations and reinforce values through a common language.
Collaborator	Facilitate peer interaction and professional collaboration among stakeholders in purposeful inquiry and shared practices.
Coach	Motivate stakeholders by example through modeling, practice, assessment, feedback, intervention, and professional development.
Change Agent	Initiate inquiry and risk-taking through constructed research-based experiences allowing for reflection and action.
Capacity builder	Promote a continuum of learning and shared leadership recognizing expertise. Use capacity building to build capacity.
Coordinator	Organize and assess the implementation of the PLC in phases with emphasis on interdependence among the five dimension while providing supportive conditions (e.g. human capacity & structure).

Note. Roles are based on Hord and Sommers's (2008) 7Cs. Responsibilities are reflective of characteristics articulated in the literature review.

The literature addressed the roles of teachers in one of two ways. The most critical role a teacher assumes as a member of a PLC is that of being an effective teacher (Cowan, 2003; InPraxis Group, Inc., 2006). In addition to content-related skills and knowledge, the classroom teacher has the opportunity to implement and articulate the PLC's visions, values, and collaborative practices to students in the context of classroom instruction (DuFour, DuFour, & Eaker, 2008; Marzano, Waters, & McNulty, 2005). The second role assumed by the teacher in a PLC is active membership. The teacher has an opportunity and responsibility to contribute to the development and enactment of the school's vision through collegial collaboration and a continuum of learning (Copland, 2003; Danielson, 2006; Wahlstrom & Louis, 2008).

Eaker, DuFour, and DuFour (2002) offered a comprehensive list of recommended roles and responsibilities for teacher participants in a professional learning community. The responsibilities are organized in a ten item list reflective of the dual role teachers have assumed in the professional learning community. Those responsibilities include:

1. Acknowledging and participating in professional collaboration activities.
2. Develop a comprehensive understanding of the PLC concepts and initiatives.
3. Participate in the development of the school's shared vision and values.
4. Embrace and practice the shared vision's focus on student learning.
5. Adopt a vision of excellence.
6. Use the vision statement in daily practice.
7. Link personal values to the shared vision.
8. Focus on short-term and long-term goals.
9. Engage in research-based and data-driven plans.
10. Expect a cyclical process.

Danielson (2006) recommends that teachers embrace a professional climate which values learning for adults and students. Teachers must be willing to improve upon select skills that will enable them to not only participate, but to lead. Danielson's recommended skills included collaboration, facilitation, planning, as well as action and evaluation.

The researcher offers an additional conceptual framework in Table 3, which attempts to identify the dual roles and opportunities teachers have as a member of a PLC. The proposed model uses the Eaker, DuFour, and DuFour (2002) recommendations for teacher involvement in the PLC. However, the proposed framework divides the roles between the classroom practitioner and the PLC member with responsibilities that are aligned with the proposed PLC dimensions in Table 1 and the roles assigned to the principal in Table 2.

The role of the teacher as a practitioner is based on the assumption that the teacher is an active member of the school's professional learning community. As an active member and a recipient of its professional benefits, the teacher enacts the philosophy and initiatives of the PLC into classroom practices. This assumption is based on the theory that the PLC members will merge their professional goals with that of the PLC's shared vision and values (Eaker, DuFour, and DuFour, 2002).

The fostering of a shared leadership role based on the assumption teachers will acquire leadership responsibilities based on the merit of expertise (Moller, 2003). The combining affect on teachers is that as the teachers' involvement in leadership roles increase, so will their competency (Slater, 2008). As teachers' competencies increase so will their individual efficacies transferring into collective efficacies translating into quality teaching and learning (Goddard, Hoy, & Hoy, 2004).

Table 3

Responsibilities of a Teacher in a Professional Learning Community

Role	Responsibility
As a practitioner	<p>Communicate the school's vision and values to students.</p> <p>Understand and enact the school's PLC concepts.</p> <p>Acknowledge and embrace collaboration with colleagues.</p> <p>Develop a vision of excellence, become an expert on a task.</p> <p>Engage students in collaborative activities and dialogue.</p>
As a PLC leader	<p>Contribute to the evolvement of the shared vision and values.</p> <p>Advocate and lead continuum learning activities.</p> <p>Engage in research and reflective exercises.</p> <p>Merge professional goals with PLC's vision.</p> <p>Exercise shared leadership role with school principal.</p>

Notes. Based on recommended roles for teachers by Eaker, DuFour, and DuFour (2002). Dual role concept and selected descriptors are reflective of characteristics articulated in the literature review.

Summary. The implementation of a professional learning community literally takes a community to achieve a level of functionality that will benefit the school and ultimately student learning. The shared vision of any school-based professional learning community should advocate student learning. Whether a school leader prescribes to Hord's (1997, 2004) five dimension model or the DuFour et al., (2008) model, it is critical that the school's principal and teachers have a comprehensive understanding of the PLC characteristics as to identify and perform their roles with fidelity. An additional critical component in developing a PLC is that school leaders must understand that although each dimension has its individual attributes to be addressed, the multi-dimensions must be attended to as interdependent characteristics for organization the achieve maximum potential.

Conclusions

Professional learning communities are being adopted by school leaders as a viable school reform measure (Schmoker, 2006). It is conceivable that many systems are implementing programs that address only some aspects of a learning community, but are falling short of reaching the desired outcome which is improving student achievement. A common error being committed is that school leaders attempt to look for quick remedies, which most often result in failure (Hord, 2004). Nevertheless, professional learning communities are increasing in popularity and implementation as school improvement initiatives (DuFour, DuFour, & Eaker, 2008).

The review of contemporary educational research provides findings to support the critical importance of issues such as principal leadership, shared leadership, visions and values, and collegial collaboration. These issues are associated with themes such as professional development, efficacy, and student achievement. However, few studies were performed in the

context of a professional learning community. In fact, the development of the three research questions for this literature review was constructed on theoretical frameworks, rather than research findings. It is reasonable to assume that many of the effects related to the aforementioned variables will most likely be applicable to PLCs, maybe. The PLC as described by Hord (1997, 2004) and in the works of DuFour, DuFour, and Eaker (1998, 2002, 2008) is not a program, but a process and its properties are intended to become embedded in a school's culture.

The literature indicates that the implementation of a PLC is a complex process and requires a natural progression into the school's culture (Huffman, 2003). The process from initiation to institutionalization of a PLC at any given school site may span a period of time between three to six years depending on the capacity of the school and its progress (Fullan, 2007). School leaders may wish to consider implementing a PLC through a natural change process including initiating, implementing, and institutionalizing when planning the short and long term school improvement goals (Fullan, 1990).

The literature also suggests that the failure to establish or sustain a viable PLC may be due to the misconceptions held by a school's leaders and its membership. One explanation appears to be a lack of understanding regarding the characteristics of a PLC as well as the lack of the mechanisms and capacity for implementation and sustainability (Eaker, DuFour, & DuFour, 2002). The literature reflects that too often current initiatives referred to as PLC are in name only (DuFour, DuFour, & Eaker, 2008; Hord & Sommers, 2008). Hord's (1997) five dimension model provides a detailed description for school leaders with supplemental descriptions available in the literature (DuFour, DuFour, & Eaker, 2007).

How would a school know if they are operating as a PLC? What are the strengths and weaknesses in regards to particular dimensions? If a school leader lacks an understanding of the dimensions of a PLC and the specific attributes associated with each, the assumption is that the school may never establish a fully functional learning community (Hord, 2004). The literature is expanding in terms of descriptions related to the PLC infrastructure, but little research currently exists on assessing a school's progress and offering prescriptive interventions to address identified deficiencies.

Another gap in the literature exists in relating teachers' readiness as active members in the context of the professional learning community. Some studies indicate a relationship exists between teacher efficacy and the variables of student achievement, leadership, and professional development (Goddard, Hoy, & Hoy, 2004; Huffman, 2003; Leonard & Leonard, 2002, 2003; Moller, 2004). However, few studies have targeted these variables in the context of an operating professional learning community.

The researcher will offer the conceptual term of a teacher's *readiness*, inclusive of efficacy, comprehension, and concerns. Does the level of a teacher's readiness have a relationship to the application of an initiative, concept, or innovation in the context of an operating PLC? Does a correlation exist between the PLC's level of implementation status and a teacher's readiness? Studies have indicated a correlation exists between teacher preparation and efficacy with the implementation of instructional practices (Lord & Miller, 2000; Marks & Louis, 1999; Slater, 2008; Wheelan & Tilin, 1999). Here lies the theoretical and empirical question. Does this statistical relationship exist in a PLC culture?

Recommendations

The literature reflected that the individual dimensions of a professional learning

community are intricate and provide critical components to the organization. Hord and Sommers (2008) reiterated that the dimensions are interdependent. It is imperative that school leaders and teachers understand the characteristics of the PLC process and identify their specific roles (DuFour, DuFour, & Eaker, 2008).

Fullan (2007) would advocate that the implementation of a professional learning community requires a change process. The process would require schools to not only change instructional practices and professional development topics, but to change the operating philosophy, the value system, and the culture. This paradigm shift is a second order change and requires a clear and relentless vision, collaborative organization, ongoing assessment of the process, and accountability of the stakeholders (Marzano, Waters, & McNulty, 2005).

Wells and Feun (2007) drew two conclusions from their study regarding the failed implementation of school site-based PLCs. The first is that PLCs often collapse beyond the initiation process, because stakeholders do not recognize that additional phases are to be implemented for sustainability. The second conclusion was that the school's stakeholders falter as the process evolves due to either a lack of understanding their role or lack of organizational support.

One of the more referenced change models in the literature is Fullan's (1990, 2007) prescription of experiencing and nurturing three phases for change: initiation, implementation, and institutionalization. Considering Wells and Feun's (2007) conclusions, a school leader should consider Huffman and Hipp's (2003) findings that the level of commitment by stakeholders to a PLC's vision throughout the change process is critical for sustainability. A necessary management component in sustaining commitment and progress is performing frequent assessments through an internal accountability component (DuFour & Eaker, 1998).

Based on these findings the researcher proposes three areas of consideration for further studies. The first is to assist school leaders in determining if their school's collaborative professional development initiatives meet the characteristics of a professional learning community as defined by Hord's (1997, 2004) five dimensions. In this assessment, the data should be able to advise the school leader as to what level of change, if any, has been experienced for each PLC dimension. The phases would be defined as initiation, implementation, and institutionalized (Fullan, 1990, 2007).

The change phases described by Fullan (1990, 2007) have been applied to Hord's (1997) five dimensions of professional learning communities by Olivier, Hipp, and Huffman (2008). The *Professional Learning Communities Assessment - Revised* (PLCA-R) designed by Olivier, Hipp, and Huffman is currently being used in the educational field as a measurement in the phases of implementation regarding school-site professional learning communities. The model can indicate the phase of implementation per dimension of an ongoing PLC initiative.

This instrument would provide quantitative descriptive data including mean, standard deviation, and range per variable and dimension. The data would allow for interpretation regarding the phase of implementation in which each PLC dimension has been applied. The implication of these results would enable school leaders and faculty to set learning goals in addressing any areas experiencing a lesser degree of implementation. The process would also generate dialogue and a comprehensive understanding among the stakeholders regarding the characteristics of a PLC.

The second area of investigation to be considered would involve examining the readiness and capacity of the stakeholders in performing their PLC roles through the change process. One of the teacher's roles is to participate in a collaborative examination of selected initiatives

DuFour, DuFour, & Eaker, 2008). As stated in the literature, a teacher's efficacy level may correlate to his or her confidence and ability to perform instructional innovations (Goddard, Hoy, & Hoy, 2004). The common phenomenon is that as individual efficacy and capacity of a teacher increases, so does the collective efficacy of the learning organization (Wahlstorm & Louis, 2008).

A research consideration may be conducting quantitative data collection through the use of *Measuring Implementation in Schools: The Stages of Concern Questionnaire* (George, Hall, Stiegelbauer, 2006). The questionnaire attempts to measure a teacher's level of concern to a diagnostic scale consisting of seven stages. According to George et al., the assumption is that a teacher's level of concern directly effects his/her application of an initiative. The data collected would offer a school leader an analysis of levels of concern among the teachers in the context of implementing a PLC initiative. The implications for the PLC would be to gauge the current status of implementation and anticipated progress. In addition to identifying specific deficiencies or strengths regarding stages of concerns, the dialogue generated through data interpretation in the context of a PLC may further advance the progress of the organization regarding procedural or cultural issues.

The possible third area of investigation would be to determine the levels of use in which the PLC's initiative is being applied. Obviously, if a PLC endorsed strategy is not being implemented the goal of student learning cannot be expected. The data would require focused interviews using the protocol featured in *Measuring Implementation in Schools: Levels of Use* (Hall, Dirksen, George, 2006). The data would provide information regarding the degree an initiative is being used on a scale of eight levels. The assumption being the higher level of use reflects the more implementation and collaboration being engaged in the PLC process. The

implications would enable the school leaders and the PLC membership to determine strengths or weaknesses of the implementation process occurring in the school.

Although each of these potential areas for future research is presented individually, a researcher could combine two or all three events and data sources for a comprehensive view of a school's PLC status. The researcher may look at correlations between the featured variables or possibly examine triangulations reviewing factors contributing to strengths and weaknesses. The suggested research effort or assessment process may provide schools with research-based evaluation procedures to further the advancement of implementing and sustaining school site-based professional learning communities.

References

- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologists*, 37, 122-147.
- Belenardo, S. (2001). Practices and conditions that lead to a sense of community in middle schools. *National Association of Secondary School Principals*, 86(627), 33-45.
- Bell-Hobbs, F.L. (2008). Creating leaders: A correlational study of the principal's leadership impacting an innovation for sustainability (Doctoral dissertation, University of Arkansas at Little Rock, 2008). *ProQuest Dissertation Abstracts*, (AAT 3307693)
- Birky, V.D. (2002). Perspectives of teacher leaders in an educational reform environment: Finding meaning in their involvement. *Dissertation Abstracts International*, 63,03A
- Birky, V.D., Shelton, M., & Headley, S. (2006). An administrator's challenge: Encouraging teachers to be leaders. *National Association of Secondary School Principals*, 90(2), 87-101.
- Buffman, A., Mattos, M., Weber, C. (2009). *Pyramid response to intervention: RTI, professional learning communities, and how to respond when kids don't learn*. Bloomington, IN: Solution Tree.
- Chrispeels, J.H. (2002). An emerging conceptual and practical framework for implementing district-wide effective schools reform. *Journal for Effective Schools*, 1(1), 17-30.
- Coleman, C.H. (2005). *Teachers' perceptions of administrative leadership styles and schools as professional learning communities*. Unpublished doctoral dissertation, University of New Orleans, New Orleans, Louisiana.
- Coleman, R. (2001). *No Child Left Behind and the Louisiana school accountability system: A*

- comparative study of accountability systems*. Unpublished doctoral dissertation, Louisiana State University, Baton Rouge.
- Cooper, J.E., Ponder, G., Merritt, S., & Mathews, C. (2005). High-performing high schools: Patterns of success. *National Association of Secondary School Principals*, 89(645), 2-23.
- Copland, M.A. (2003). Leadership of inquiry: Building and sustaining capacity for school improvement. *Educational Evaluation and Policy Analysis*, 25(4), 375-395.
- Cowan, D. F. (2003). The PLC connection to school improvement. In J.B. Huffman & K.K. Hipp (Eds.). *Reculturing schools as professional learning communities* (pp. 75-82). Lanham, MD: Scarecrow Education.
- Cummings, E.W. (2006). *The role of local change agents' beliefs in the implementation of the No Child Left Behind Act*. Unpublished dissertation. Pennsylvania State University, University Park.
- Danielson, C. (2006). Teacher leadership that strengthens professional practice. Alexandria, VA: Association for Supervision and Curriculum Development.
- Darling-Hammond, L., Hightower, A.M., Husbands, J.L., LaFors, J.R., Young, V.M., & Christopher, C. (2006). Building instructional quality: 'Inside-out' and 'outside-in' perspectives on San Diego's school reform. In A. Harris & J.H. Chrispeels (Eds.), *Improving schools and educational systems: International perspectives* (pp. 129-185). London: Routledge.
- Datnow, A. (2005). The sustainability of comprehensive school reform models in changing district and state contexts. *Educational Administration Quarterly*, 41(91), 121-153.
- DuFour, R.P. (1999). Help wanted: Principal who can lead professional learning communities. *National Association of Secondary School Principals*, 83(604), 12-17.

- DuFour, R.P. (2002). The learning centered principal. *Educational Leadership*, 59(8), 12-15
- DuFour, R.P. (2003). Building a professional learning community. *School Administrator*, 60(5), 13-18.
- DuFour, R.P. (2004). What is a “professional learning community”? *Schools as Learning Communities*, 61(8), 6-11. Retrieved on November 13, 2008 from <http://pdonline.ascd.org/pdonline/secondaryreading/ef200405DuFour.html>.
- DuFour, R.P. (2005). What is a professional learning community? In R. DuFour, R. Eaker, and R. DuFour (Eds.), *On common ground: The power of professional learning communities* (pp. 31-43). Bloomington, IN: Solution Tree.
- DuFour, R.P. (2007). In praise of top-down leadership. *School Administrator*, 64(10), 38-42.
- DuFour, R. & Eaker, R. (1998). *Professional learning communities at work: Best practices for enhancing student achievement*. Bloomington, IN: Solution Tree.
- DuFour, R., Eaker, R., & DuFour, R. (2005). Recurring themes of professional learning communities and the assumptions they challenge. In R. DuFour, R. Eaker, and R. DuFour (Eds.), *On common ground: The power of professional learning communities* (pp. 7-27). Bloomington, IN: Solution Tree.
- DuFour, R., DuFour, R., & Eaker, R. (2008). *Revisiting professional learning communities at work: New insights for improving schools*. Bloomington, IN: Solution Tree.
- DuFour, R., DuFour, R., Eaker, R., & Many, T. (2006). *Learning by doing: A handbook for professional learning communities at work*. Bloomington, IN: Solution Tree.
- Eaker, R., DuFour, R., & DuFour, R. (2002). *Getting started: Reculturing schools to become professional learning communities*. Bloomington, IN: National Educational Service.
- Elmore, R. and Barney, D. (1999). Investing in teacher learning: Staff development and

- instructional improvement. In L. Darling-Hammond and G. Sykes (Eds.), *Teaching as the learning profession: handbook of policy and practice* (pp. 263-291). San Francisco, CA: Jossey-Bass.
- Fawcett, Y.B. (2008). *A case study of: Leadership practices of the turnaround principal*. Unpublished doctoral dissertation. Virginia Polytechnic Institute and State University, Blacksburg, Virginia
- Fleming, G. L. (2004). Principals and teachers as continuous learners. In S.M. Hord (Ed.). *Learning together, leading together: Changing schools through professional learning communities* (pp. 20-30). New York: Teachers College Press.
- Fullan, M. (1990). Staff development, innovation and institutional development. In B. Joyce (Ed.). *Changing school culture through staff development* (pp. 3-25). Alexandria, VA: Association of Supervision and Curriculum Development.
- Fullan, M. (1991). *The new meaning of educational change*. New York: Teachers College Press.
- Fullan, M. (1994). Coordinating top-down and bottom-up strategies for educational reform. Retrieved on October 5, 2008 from http://www.michaelfullan.ca/Articles_98-99/09_94.htm.
- Fullan, M. (1996). Turning systemic thinking on its head. *Phi Delta Kappan*, 77, 420-423.
- Fullan, M. (2001). *Leading in a culture of change*. San Francisco: Jossey-Bass.
- Fullan, M. (2003). *The moral imperative of school leadership*. Thousand Oaks, CA: Corwin Press.
- Fullan, M. (2005). *Leadership & sustainability: System thinkers in action*. Thousand Oaks, CA: Corwin Press
- Fullan, M. (2006a). The future of educational change: System thinkers in action. *Journal of*

- Educational Change*, 7(2), 113-122.
- Fullan, M. (2006b). *Turnaround leadership*. San Francisco, CA: Jossey-Bass.
- Fullan, M. (2007). *The new meaning of educational change* (4th Ed). New York: Teachers College Press.
- Fullan, M., Bertani, A. & Quinn, J. (2004). New lessons for districtwide reform. *Educational Leadership*, 61(7), 42-46.
- Giles, C. & Hargreaves, A. (2006). The sustainability of innovative schools as learning organizations and professional learning communities during standardized reform. *Educational Administration Quarterly*, 42(1), 124-156.
- Gilrane, C.P., Roberts, M.L., & Russell, L.A. (2008). Building a community in which everyone teaches, learns, and reads: A case study. *The Journal of Educational Research*, 101(6), 333-351. Abstract obtained from *ProQuest*, 2008, ID1583545941.
- Goddard, R.D., Hoy, W.K., & Hoy, A.W. (2004). Collective efficacy beliefs: Theoretical developments, empirical evidence, and future directions. *Educational Researcher*, 33(3), 3-13.
- George, A.A., Hall, G.E., & Stiegelbauer, (2006). *Measuring implementation in schools: The stages of concern questionnaire*. Austin, TX: Southwest Educational Developmental Laboratory.
- Hall, G.E., Dirksen, D.J., George, A.A. (2006). *Measuring implementation in schools: Levels of use*. Austin, TX: Southwest Educational Developmental Laboratory.
- Hanson, D., Burton, D. & Guam, G. (2006). Six concepts to help you align with NCLB. *Technology Teacher*, 66(1), 17-21.
- Heck, R.H., Brandon, P.R., & Wang, J. (2001). Implementing site-managed educational changes:

- Examining levels of implementation and effect. *Educational Policy*, 15(2), 302-322.
- Hord, S. M. (1997). *Professional learning communities: Communities of continuous inquiry and improvement*. Austin, TX: Southwest Educational Development Lab. (ERIC Document Reproduction Service No. ED410659).
- Hord, S. M. (Ed.). (2004). *Learning together, leading together: Changing schools through professional learning communities*. New York: Teachers College Press.
- Hord, S.M. & Sommers, W.A. (2008). *Leading professional learning communities: Voices from research and practice*. Thousands Oaks, CA: Corwin Press.
- Huffman, J. (2003). The role of shared values and visions in creating professional learning communities. *National Association of Secondary School Principals*, 87(637), 21-34.
- Huffman, J.B. & Hipp, K.K. (Eds.). (2003). *Reculturing schools as professional learning communities*. Lanham, MD: Scarecrow Education.
- InPraxis Group Inc. (2006). Professional learning communities: An exploration. Online Submission. Alberta Education. Retrieved on November 5, 2008 from http://education.alberta.ca/media/618576/prof_learn_g_communities_2006.pdf.
- Lambert, L (2003). *Leadership capacity for lasting school improvement*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Leithwood, K. & Jantzi, D. (1999). The relative effects of principal and teacher sources of leadership on student engagement with school. *Educational Administration Quarterly*, 35(5), 679-706.
- Leithwood, K. & Jantzi, D. (2008). Linking leadership to student learning: The contributions of leader efficacy. *Educational Administration Quarterly*, 44(4), 496-527.
- Leithwood, K. & Mascal, B. (2008). Collective leadership effects on student achievement.

Educational Administration Quarterly, 44(4), 529-561.

- Leonard, L. & Leonard, P. (2003). The continuing trouble with collaboration: Teachers talk. *Current issues in education*, On-line, 6(15). Retrieved on November 11, 2008 from <http://cie.ed.asu.edu/volume6/number15/>
- Leonard, P. & Leonard, L. (2001). Assessing aspects of professional collaboration in schools: Beliefs versus practices. *Alberta Journal of Educational Research*, 47(1), pp.4-23.
- Levin, B. & Fullan, M. (2008). Learning about system renewal. *Educational Management Administration & Leadership*, 36(2), 289-303.
- Lord, B. & Miller, B. (2000). Teacher leadership: An appealing and inescapable force in school reform? Archived Information, *Education Development Center, Inc.* Retrieved on November 5, 2008 from www.ed.gov/inits/math/glenn/LordMiller.doc
- Louis, K.S. & Kruse, S.D. (1995). *Professionalism and community: Perspectives on reforming urban schools*. Thousand Oaks, CA: Corwin Press.
- Louis, K., Toole, J., & Hargreaves, A. (1999). Rethinking school improvement. In J. Murphy & K. Louis (Eds.), *Handbook of research on educational administration* (2nd ed. pp. 251-276). San Francisco: Jossey-Bass.
- King, D. (2002). The changing shape of leadership. *Educational Leadership*, 59(8), 61-63.
- Marks, H. & Louis, K. S. (1997). Does teacher empowerment affect the classroom? The implication of teacher empowerment for instructional practice and student academic performance. *Educational Evaluation and Policy Analysis*, 19, 243-275.
- Marks, M.M. & Louis, K.S. (1999). Teacher empowerment and the capacity for organizational learning. *Educational Administration Quarterly*, 25(5), 707-750.
- Marzano, R., Waters, T., & McNulty, B.A. (2005). *School leadership that works: From research*

- to results*. Alexandria, VA: Association for Supervision and Curriculum Development.
- McLaughlin, M. (1990). The RAND change agent study revisited: Macro perspectives, micro realities. *Educational Researcher*, 19(9), 11-16.
- McLaughlin, M. & Talbert, J. (2001). *Professional communities and the work of high school teaching*. Chicago: The University of Chicago Press.
- Moller, G. (2003). Case study # 4: The role of principal commitment in creating learning communities. In J.B. Huffman & K.K. Hipp (Eds.). *Reculturing schools as professional learning communities* (pp. 121-128). Lanham, MD: Scarecrow Education.
- Moller, G. (2004). Building teacher leadership within a traditional school structure. In S.M. Hord (Eds.), *Learning together, leading together: Changing schools through professional learning communities* (pp 140-150). New York: Teachers College Press.
- Moller, G. and Pankake, A. (2006). *Lead with me: A principal's guide to teacher leadership*. Larchmont, NY: Eye on Education.
- Morrissey, M. (2000). *Professional learning communities: An ongoing exploration*. Austin, TX: Southwest Educational Development Laboratory. Retrieved on October 1, 2008 from <http://www.sedl.org/pubs/changed45/plc-ongoing.pdf>.
- No Child Left Behind Act of 2001, (2002, January 8). Title I, Part F, Sections 1606, Local use of funds and 1608, quality initiatives. Retrieved October 10, 2008, from <http://www.ed.gov/print/policy/elsec/leg/esea02/pg13.html>.
- Olivier, D.F., Hipp, K.K., & Huffman, J.B. (2008). Assessing and analyzing schools as PLCs. In K.K. Hipp & J.B. Huffman (Eds.). *Professional learning communities: A practical approach* (working title in progress). Lanham, MD: Rowman & Littlefield (text, also in progress).
- Pankake, A.M. & Moller, G. (2003). Overview of professional learning communities. In

- J.B. Huffman, & K.K. Hipp, (Eds.), *Reculturing schools as professional learning communities* (pp 3-14). Lanham, MD: Scarecrow Education.
- Perez, P.D. (2006). *Schools as professional learning communities: The actions of the principal*. Unpublished doctoral dissertation, University of Texas at Austin
- Printy, S.M. (2008). Leadership for teacher learning: A community of practice perspective. *Educational Administration Quarterly*, 44(2), 187-226.
- Reichstetter, R. (2006). Defining a professional learning community. *E & R Research Alert*, Report No. 06.05. Retrieved on November 5, 2008 from http://www.wcpss.net/evaluation-research/reports/2006/0605plc_lit_review.pdf.
- Reynolds, D., Teddlie, C., Creemers, B, Scheerens, J., & Townsend. (2000). An introduction to school effectiveness research. In C. Teddlie & D. Reynolds (Eds.), *The International Handbook of School Effectiveness Research* (pp 3-25). London: Falmer Press.
- Rosenholtz, S. (1989). *Teacher's workplace: The social organization of schools*. New York: Longman.
- Schechter, C. (2008). Organizational learning mechanisms: The meaning, measure, and implications for school improvement. *Educational Administration Quarterly*, 44(2), 155-186.
- Schmoker, M. (1999). *Results: The key to continuous school improvement* (2nd ed.). Alexandria, VA: Association for Supervision and Curriculum Development.
- Schmoker, M. (2006). *Results now: How can we achieve unprecedented improvements in teaching and learning*. Alexandria, VA: ASCD.
- Scribner, J.P., Cockrell, K.S., Cockrell, D.H., & Valentine, J.W. (1999). Creating professional communities in schools through organizational learning: An evaluation of a school

- improvement process, *Educational Administration Quarterly*, 35(1), 130-160.
- Senge, P.M. (1990). *The fifth discipline: The art and practice of the learning organization*. New York: Currency Doubleday.
- Senge, P. Cambron-McCabe, N., Lucas, T., Smith, B., Dulton, J., & Kleiner, A. (2000). *Schools that learn*. New York: Doubleday.
- Sergiovannie, T.J. (2001). *The principalship: A reflective proactive perspective*. Boston: Allyn & Bacon
- Siskin, L.S. (1997). The challenge of leadership in comprehensive high schools: School vision and departmental division. *Educational Administration Quarterly*, 33, 604-623.
- Slater, L. (2008). Pathways to building capacity. *Educational Management Administration & Leadership*, 36(1), 55-69.
- Smylie, M.A., Lazarus, V., & Brownlee-Conyers, J. (1996). Instructional outcomes of school-based participative decision making. *Educational Evaluation and Policy Analysis*, 18, 181-198.
- Solansky, S.T. (2008). Leadership style and team processes in self-managed teams. *Journal of Leadership & Organizational Studies*, 14(4), 332-341.
- Southwest Educational Developmental Laboratory (SEDL). (2005a). An introduction to the professional teaching learning cycle. *Working systemically to increase student achievement toolkit*. Austin, TX: Author.
- Southwest Educational Developmental Laboratory (SEDL). (2005b). *Working systemically to increase student achievement: A facilitator's handbook*. Austin, TX: Author.
- Sparks, D. (1999). Real-life view: Here's what a true learning community looks like. *Journal of Staff Development*, 20(4), 53-57.

- Tarnoczi, J. (2006). Critical reflections on professional learning communities in Alberta. *Electronic Journal of Sociology*, ISSN: 1198 3655. Retrieved on October 10, 2008 from <http://www.sociology.org/content/2006/tier2/tarnoczi.html>.
- Timperly, H. & Robinson, V. (2000). Workload and the professional culture of teachers. *Educational Management & Administration*, 28(1), 47-62.
- Wahlstrom, K. & Louis, K.S. (2008). How teachers experience principal leadership: The roles of professional community, trust, efficacy, and shared responsibility. *Educational Administration Quarterly*, 44(4), 458-495.
- Wells, C. & Feun, L. (2007). Implementation of learning community principles: A study of six high schools. *National Association of Secondary School Principals*, 91(2), 141-160.
- Wheelan, S.A. & Tilin, F. (1999). The relationship between faculty group development and school productivity. *Small Group Research*, 30(1), 59-81. Retrieved on October 10, 2008 from <http://sgr.sgepub.com/cgi/content>
- Wood, T.L. (2006). *The No Child Left Behind Act: The divide between policy and practice*. Unpublished doctoral dissertation, University of Texas, Austin
- Youngs, P. & King, M. (2002). Principal leadership for professional development to build school capacity. *Educational Administration Quarterly*, 38(5), 643-670.

Bibliography

- Astuto, T.A., Clark, D.L., Read, A., McGree, K., & Fernandez, L. (1993). *Challenges to dominant assumptions controlling educational reform*. Andover, MA: Regional Laboratory for the Educational Improvement of the Northeast and Islands.
- Beyer, B.M. & Ruhl-Smith, C. (1998). The principal's role in school restructuring and reform: An examination of self-perceived leadership styles. *The Journal of Leadership Studies*, 5(2), 117-128.
- Caine, G. & Caine, R.N. (2000). The learning community as a foundation for developing teacher leaders. *National Association of Secondary School Principals*, 84(616), 7-14.
- Clark, M.L. (2008). An examination of the relationship between school leadership autonomy and student learning, (Doctoral dissertation, Vanderbilt University, TN, 2008). *ProQuest Dissertation Abstracts*, (ATT 3312813)
- Coburn, C.E. & Russell, J.L. (2008). District policy and teachers' social networks. *Educational Evaluation and Policy Analysis*, 30(3), 203-235.
- DuFour, R.P. (2003). Building a professional learning community. *School Administrator*, 60(5), 13-18.
- Fullan, M. (2005). Professional learning communities writ large. In R. DuFour, R. Eaker, & R. DuFour (Eds.), *On common ground: The power of professional learning communities* (pp. 209-223). Bloomington, IN: Solution Tree.
- Fullan, M., Rolhesier, C. Mascal, B. & Edge, K. (2001). *Accomplishing large scale reform: A tri-level proposition*. Manuscript. Toronto, Canada: Ontario Institute for Studies in education, University of Toronto. Retrieved November 5, 2008 from <http://sustainability2002.terc.edu/invoke.cfm/page/70>.

- Goddard, R.D., LoGerfp, L. & Hoy, W.K. (2004). High school accountability: The role of perceived collective efficacy. *Educational Policy*, 18(3), 403-425.
- Kahne, J. & Westheimer, J. (2000). A pedagogy of collective action and reflection: Preparing teachers for collective school leadership. *Journal of Teacher Education*, 51(5), 372-383.
- Little, M.E. & Houston, D. (2003). Research into practice through professional development. *Remedial and Special Education*, 24(2), 75-87.
- National Association of Secondary School Principals. (1996). *Breaking ranks: Changing an American institution*. Reston, VA: Author.
- Olivier, D.F. (2003). Assessing schools as PLCs. In J.B. Huffman & K.K. Hipp (Eds.). *Reculturing schools as professional learning communities* (pp. 67-74). Lanham, MD: Scarecrow Education.
- Pankake, A.M., (2004). The superintendent's influence on the creation of a professional learning community: A story of school transition. In S.M. Hord (Eds.), *Learning together, leading together: Changing schools through professional learning communities* (pp 127-139). New York: Teachers College Press.
- Weiss, C.H. & Cambone, J. (1994). Principals, shared decision making and school reform. *Educational Evaluation and Policy Analysis* 16(3), 287-301.