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# CHANGE, PRINCIPAL TRUST AND ENABLING SCHOOL STRUCTURES: AN ANALYSIS OF RELATIONSHIPS IN SOUTHERN ALBERTA SCHOOLS

By

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#### Dissertation

presented in partial fulfillment of the requirements for the degree of

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#### ABSTRACT

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Educational Leadership

Change, Principal Trust and Enabling School Structures: An Analysis of Relationships in Southern Alberta Schools

Chairperson: Dr. Donald Robson

Improved student learning continues to be a pressing issue compelling schools and districts to undergo change. Schools are complex organizations and there are a number of interrelated factors that contribute to the success or failure of change into a new model. In Alberta, organizational change was mandated in 2003 through government acceptance of a Commission's recommendation that all schools operate as a professional learning community. The context of mandated change provided a unique opportunity to examine large scale change with factors that may have a relationship to successful change.

The purpose of this quantitative study was to examine the relationship among three variables: (a) change into a professional learning community, (b) faculty trust in the principal, and (c) enabling school structures. Data collected through questionnaires was obtained from teachers of 45 schools in southern Alberta. The questionnaire contained a demographic data form and three previously developed instruments to measure the variables.

Descriptive and correlation analysis was conducted to determine the relationship among the variables. The correlations among the variables were both strong and significant. It was concluded that schools imbued with high levels of trust in the principal were more successful in implementing change into a professional learning community, and more likely to possess enabling school structures. It was also concluded that schools perceived as having high levels of enabling bureaucratic structures were more successful in implementing change as a professional learning community. Overall, the variables of faculty trust in the principal and enabling school structures can be described as conditions related to successful change into a learning organization structure.

The results have implications for educational stakeholders charged with instituting change in the context of reform. The conclusions implied that it is imperative for principals to recognize the importance of relationships and the foundation of trust, and attend to behaviors and processes required to build trust and relationships. There is a need for principals to understand the attributes of enabling bureaucracies and learning organizations in order to assess current capacity. Implications for system leaders include giving attention to leadership development, enabling structures at a system level, and modeling relational behaviors that foster trust.

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I must extend a sincere thanks to the principals and professional staff members who advanced this study by completing the survey instruments.

To my husband, Donald A. Gilmore, thank you for your love, support, and selflessness throughout the doctoral program. You have sacrificed and supported me through many personal and professional milestones. To my daughters Cassandra and Michelle, who are ongoing sources of inspiration and happiness. Thank-you to Agnes Gilmore, your willingness to give of your time to the family made a significant difference.

#### **DEDICATION**

With love I dedicate this dissertation to
My husband Don
and
daughters Cassandra and Michelle.
The true measure of this accomplishment is
your enduring support, loyalty and love.

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#### CHAPTER ONE: INTRODUCTION

Improved student learning continues to be a pressing issue compelling schools and districts to undergo change in a search for organizational models that focus on growth and enhanced learning opportunities. Throughout North America, a number of reform efforts have been advanced without evidence of sustained success, and increasing public and political scrutiny with a demand for improvement has resulted in an emphasis on accountability (Lundt & Wiles, 2004). Schools and districts are expected to account for the outcomes of mandated measures and implement strategic plans to remedy performance that falls below expected standards. The pressure on schools to institute change in order to improve has resulted in a sense of immediacy, even urgency in restructuring attempts. This is especially the case in instances of mandated change that allow little time for planning and reflecting on either organizational or leadership readiness.

In Alberta organizational change has been mandated. Implementation of the professional learning community model in all public schools has been directed through the legislative acceptance of a recommendation put forth by Alberta's Commission on Learning (2003). The concept of learning organizations, from which professional learning communities derive, is pervasive in discussions on organizational reform and has received extensive attention since Senge's (1990) primary analysis of the art and practice of the learning organization. Recent educational change literature acknowledges the failure of past reform efforts and emphasizes the importance of recognizing change as a process and considering sustainability through capacity building (Calabrese, 2002; Fullan, 2000, 2002, 2005; Hall & Hord, 2001; Kruse, Louis, & Bryk, 1994; Lambert,

2003). The notion of schools as learning organizations is touted by many as the solution for ongoing, sustained improvement that will meet the demands of the future (DuFour, DuFour & Eaker, 2002; Fullan, 2005; Hord, 1997; Kanold, 2002).

A popular model based on the concept of learning organizations, the professional learning community as described by Hord (1997) and DuFour and Eaker (1998), applies the attributes of a learning organization to the education system, specifically schools. The Alberta's Commission on Learning (2003) report provides a description of the "key ingredients" of a professional learning community, a delineation of the benefits to staff and students, and an example of a school site guided by DuFour and Eaker's (1998) key questions. The professional learning community model and benefits described in the Commission's report align with the models described by Hord (1997) and DuFour and Eaker (1998).

The professional learning community movement in Alberta has been ranked by University of Lethbridge researchers as one of the most compelling changes ever to be adopted by the Alberta Education system (Ciurysek, Handsaeme, Palko, Sterling, & Toth, 2005). A plethora of school and district administrators throughout the province have attended conferences featuring Richard DuFour as well as SMART (specific, measurable, attainable, results-based, time-bound) Schools institutes and returned home with their own vision of how to implement a professional learning community.

The Alberta Teachers' Association (ATA) is an advocate for the development of professional learning communities in Alberta schools as evidenced in its submission of recommendations to Alberta's Commission on Learning (Alberta Teachers' Association, 2002). The ATA more broadly defines professional learning community as, "a school in

which staff members provide meaningful and sustained assistance to one another to improve teaching and student learning" (p. 34), and connects the development of professional learning communities to the ATA professional development framework. In the time following the acceptance of the recommendation by the Commission, the ATA has contributed to capacity building through the delivery of professional development focusing on professional learning communities, numerous publications related to PLCs, and ongoing tracking and evaluation of school jurisdiction professional development programs. Implementation of professional learning communities has been supported by Alberta Education primarily through jurisdiction level Alberta Initiative for School Improvement (AISI) projects.

Schools are complex organizations and there are a number of interrelated factors that contribute to the relative success and failure of change into a new model. Instances of large-scale mandated change can provide an opportunity to examine some of the factors involved in the complexity of change. Change can be a difficult construct to define and measure. The Alberta context provides an instance where change can be operationalized by defining and measuring the degree of change into the mandated structure.

The concept of learning organizations and the model of the professional learning community has been forwarded as one that is sustainable, growth- and future-oriented (DuFour & Eaker, 1998; Fullan, 2005; Hall & Hord, 2001; Hord, 1997; Senge, 2000). If the benefits of this have potential to be actualized, it would be prudent for Alberta schools to take advantage of the opportunity to measure change and consider factors that may or may not have a relationship to the success or lack of success of change into this model. Schools as organizational structures and the process of change have both been

described as complex. It can be difficult to isolate factors that influence change within this complexity, but research has identified some key factors that may have influence over the successful implementation of change.

A number of writers have identified the leadership role of the principal as critical for successful change in the school (Barth, 1990; Fullan, 2003, 2005). As pointed out by Hoy and Miskel (2001), leaders provide much needed guidance during times of change. Bass (1990) describes leadership as a critical factor in determining the success or failure of schools. Given the amount of research that identifies principal leadership as critical for successful change, it is important for further research to examine the relationship between aspects of principal leadership and change into a professional learning community.

The topic of principal leadership is also broad and can be examined in a number of ways. Some studies have focused on change and leadership style (Leithwood & Jantzi, 1990; Nash, 1999), some have focused on leadership style in successful professional learning communities (Ball, 2004; Richardson, 2003), and yet others have focused on leadership style and organizational capacity for change (Hopkins, 1997). The results of these studies provide some evidence that successful change is positively correlated to transformational and moral leadership. A construct that is common to research on leadership style in professional learning communities, transformational leadership, and moral leadership is that of trust.

Trust has been linked to successful schools, change and leadership in a number of studies. Primary researchers of the concept of trust, Hoy and his colleagues have conducted numerous studies over the past fifteen years focusing on trust and its relationship to organizational health, capacity for change, leadership, school effectiveness

and student achievement (Lenz, 2006; Tschannen-Moran, 2004). Trust has been called the foundation of school effectiveness and teachers' trust in their principal is linked to school effectiveness (Cunningham & Gresso, 1993).

Existing organizational structures and potential barriers within the structures have also been identified as important in the consideration of change (Hirshhorn, 1997; Hoy & Sweetland, 2001; Leonard, 2002; Tscahnnen-Moran, in press), and previous research supports the importance of examining organizational structures within a context of change (Anderson, 1974; Sinden, Hoy, & Sweetland, 2004). In a study focusing on features of enabling bureaucracies, Hoy and Sweetland suggest that enabling school structures are necessary for change and "are important to the development of effective learning organizations" (p. 317). As well, organizational structure is a variable that can be manipulated to better serve implementation of change. Trust is also identified in some research on organizational structure (Hoy & Sweetland, 2001; Zmuda, Kuklis, & Kline, 2004) as critical in the formation of enabling school structures (Adler & Borys, 1996). Hoy and Sweetland describe trust as a "key aspect of organizational life that enables a leader to innovate and deal with resultant confusion that often accompanies change" (p. 310).

In summary, research exists that examines change and identifies factors that may have influence over change. Much of this research identifies the importance of both leadership and trust. Research specific to the concept of trust has related it to organizational health, school improvement, student achievement, as well as enabling school structures necessary for change. Research has not been conducted that specifically examines the relationship between trust developed by the principal and its relationship to

both change into a professional learning community and enabling school structures.

Research that examines the relationship between these three variables may provide some valuable information pertaining to leadership behaviors and attributes that will positively inform leadership practice during times of change, both for principals in schools who are required to make a change, and for jurisdiction level personnel interested in selecting leaders and providing guidance, support and development opportunities to principals.

#### Problem Statement

In Alberta, organizational change was mandated in 2003 through government acceptance of the recommendation that all public schools "operate as a professional learning community dedicated to continuous improvement in students' achievement" put forth by Alberta's Commission on Learning (p. 65). Given the amount of positive recognition afforded learning organization theory and the professional learning community model (Ball, 2004; DuFour & Eaker, 1997; Hall & Hord, 2001; Hord, 1997; Senge, 2000), mandating change into such a model in Alberta appears a timely, forward-thinking requirement that has the best interest of students and their learning in mind. Change is never easy, however, and DuFour's (2004) recognition that the professional learning community model is beginning to lose meaning in its wide-spread implementation serves as a reminder that the change process is multifaceted and needs to be carefully examined.

Change is a complex process, and in the context of this Alberta mandate, jurisdictions and schools are faced with the challenge of implementing change into schools without a lot of advance consideration given to capacity building or sustainability as part of the mandate. Since the mandate, Alberta Education, school jurisdictions, and

the Alberta Teachers' Association have implemented some strategies directed at building capacity such as professional development, school site and jurisdiction projects through the Alberta Initiative for School Improvement (AISI), and research publications (Ciuryrek et al., 2005; In Praxis Group Inc., 2006; Skytt, 2003).

Even with a concerted effort by these stakeholders, the Alberta context is also one where mandates for change come at a time of some skepticism toward a seemingly neverending cycle of reform strategies. In Alberta, a study conducted by Townsend (1998) concluded that many educators that have been in the province for some time have a skeptical view of reform (p. 33), and Alberta teachers are challenging the belief that mandating policies and practices, even when rooted in research, is a wholesale solution to problems in education (College of Alberta School Superintendents, 2002). It is up to jurisdictions and schools, within this context, to move forward with the development of implementation strategies. Part of the difficulty is in the identification and understanding of what leadership and organizational variables may or may not contribute to successful change into this model.

The context of province-wide mandated organizational change provides an opportunity to examine variables that may have a relationship to the degree to which schools are able to implement change successfully. If it is true that the academic and social gains that can be achieved within the context of a professional learning community are worth the effort (DuFour & Eaker, 1998; Hall & Hord, 2001; Hord, 1997), it is important to more fully examine the variables that may inhibit or enhance chances of success.

The leaders of change with the provincial mandate will be the school principals. Leading change has implications for organizational structure, the individuals within the school, culture, communication and decision making. A number of reform movements have come and gone without evidence of successful change and the leadership of the school principal has been identified as critical for successful change to occur. Instituting significant change in a school is challenging, and principals are faced with the problem of understanding what leadership behaviors influence change as well as being able to recognize the school's organizational readiness for change. School leaders need to make decisions and changes based on valid research and careful assessment. A concept that has been identified as a pre-requisite for successful change is trust (Hoy & Sweetland, 2001; Fullan, 2003, 2005; Kochanek, 2005; Reina & Reina, 2006; Tschannen-Moran, in press; Tschannen-Moran & Hoy, 2000). Specifically, trust in the principal, created through leadership actions, has been described as necessary for creating the capacity to change, and trust in the principal has been described as necessary for the existence of enabling school structures that facilitate change. It is important, then, that research further investigates the concept of trust and enabling structures in the Alberta context of mandated school change to professional learning communities.

#### Significance of the Study

Research that examines the problem of leadership and organizational readiness in the context of mandated change is important for creating a body of knowledge that will help inform leadership practice. Given the provincial mandate, the number of schools and students that are experiencing transformation into professional learning communities in Alberta is significant. The degree of success in the change is important for students who

are currently in the system, and if found to be the model of the future that meets the demand of sustained change, critical for future generations of learners.

Numerous research studies indicate that principals, as school leaders, make a considerable difference during times of change (Fullan, 2001, 2002, 2005; Hall & Hord, 2001; Sergiovani, 2001). This investigation assists educators in understanding the relationship of faculty trust in the principal and change, as well as the relationship of the school's bureaucratic formalization and change. Past research has called for further study in the area of trust and leadership (Kochanek, 2005; Tschannen-Moran, 2004, 2006). Following an extensive summary of existing research on the concept of trust, Tschannen-Moran (2004) concludes that further quantitative study is needed to explore the relationship of trust with other constructs across schools (p. 212). Two questions she poses as important for research consideration focus on examining how level of trust is linked to the leader's ability to lead change initiatives and what structures and organizational conditions are necessary to facilitate trust (p. 213). Richardson (2003) tells us that "while numerous research studies have described the essential role of the principal as instructional and transformational leader ... no clear link exists between the behavioral aspects of principal leadership and the creation of a professional learning community" (p. 4). Literature on change within the context of education points to the need for school districts to identify and change dysfunctional structures and practices in order for improvement initiatives to proceed without barriers such as low trust and competing priorities (Fullan, 1993, 1999; Kruse, Louis, & Bryk, 1994).

Further research that focuses on an examination of the relationship among the construct of principal trust, enabling school structures and change into a professional

learning community contributes to a better understanding of leadership behaviors and structures that are related to and influence change. School and jurisdiction leaders are in need of such information, especially since the role of leader has become increasingly complex (Fullan, 2001, 2002) and there is growing recognition that leadership development with its traditional orientation on management and practice fails to address psychological competencies such as emotional intelligence, morally based leadership and trust necessary for successful leadership in today's world (Day, Zaccaro & Halpin, 2004; Sergiovanni, 2000a). Sergiovanni (2000a) contends that in order for school improvement to become a reality, it is time we begin to examine and give legitimacy to moral dimensions of leadership. The study may also inform policy at a jurisdiction level, especially with respect to developing profiles for principal selection, leader development processes and programs, and development of appropriate timelines for mandated change.

The study also adds to the scholarly research and literature in the field. Given the complexity of leadership and change, further research is needed to establish the existence of relationships between variables that have not been previously examined together.

Findings from quantitative studies such as this can be generalized and subsequently investigated in a more qualitative manner.

#### *Purpose of the Study*

The purpose of this quantitative study was to examine the relationship among three variables: (a) change into a professional learning community, (b) trust in the principal and (c) enabling school structures. In order to better understand the context within which change is occurring, the study also explored participants' engagement in forms of professional development focused on the professional learning community

model. Compelled by a provincial mandate in 2003, schools were chosen that initiated change into a professional learning community two to three years prior to this study. Degree of change to a school operation that reflects the presence of five major attributes of a professional learning community was measured using a survey instrument developed by Hord (1997). The construct of trust was measured using an instrument developed by Hoy and Tschannen-Moran (2003) and the degree to which the schools possess enabling school structures was measured using the enabling bureaucracy scale developed by Hoy and Sweetland (2001).

The three dependent variables, a) change into a professional learning community, b) faculty trust in the principal, and c) enabling school structures, were correlated in order to examine the degree to which covariance exists in the variable relationships. Two mediating variables, school size and school grade configuration, were identified in research as having some influence on the three variables (Bryk & Schneider, 2002; Fullan, 1993, 2001; Hoy & Sweetland, 2001; Hoy & Tschannen-Moran, 2003; Leonard, 2002; Leonard & Leonard, 2001). The mediating variables and three dependent variables underwent correlation analysis to determine if a relationship existed in the sample. As well, data pertaining to the nature and extent of professional development targeting the organizational change of schools into a professional learning community was gathered to provide an understanding of the Alberta mandated change context. Although this study does not identify causal relationships, uncovering the existence and strength of relationships provides a foundation for subsequent examination using a causal-comparative research design.

#### Definitions of Terms

The definitions for terms related to this study are as follows.

Change into a professional learning community. Change is a broad construct that is difficult to operationalize and measure. The context of this study provided the opportunity to more narrowly define change as the degree to which schools exhibit characteristics of a structure that has been mandated, that of a professional learning community model. A variety of definitions exist for professional learning communities. For the purposes of this study, the definition is based on Hord's (1997) five attributes of a professional learning community. A professional learning community within the context of a school is defined by Hord as a school community purposefully engaged in the following characteristic behaviors: (a) principal sharing of leadership and decision-making with staff, (b) shared vision based in staff's commitment to students' learning, (c) collective learning, (d) peer visitation, review and feedback with respect to classroom practice, and (e) ensuring supportive physical conditions and human capacities.

Change was measured as a score on the School Professional Staff as Learning Community (Hord, 1997) survey instrument reflecting the degree of maturity of practice as a professional learning community.

Trust. A variety of definitions for the concept of trust exist, and within these definitions different dimensions of trust are emphasized. Trust is a multifacted construct that is based on many factors related to context and expectations. In general terms, trust is commonly described as "a general confidence and overall optimism in occurring events; it is believing in others in the absence of compelling reasons to disbelieve" (Hoy & Tschannen-Moran, 1998). With respect to trust more narrowly defined in this study as the

leadership construct of trust, it is the willingness of the faculty to be vulnerable based on the confidence that the principal is benevolent, reliable, competent, honest and open (Hoy & Tschannen-Moran, 2003).

Trust was measured as a score on the Omnibus Trust Scales subtest Faculty Trust in the Principal (Hoy & Tschannen-Moran, 2003) reflecting the degree of trust the faculty has in the principal.

Enabling bureaucracy. For the purpose of this study, an enabling bureaucracy is the theoretical conceptua lization of an organizational structure that contains enabling, or positive, features of two aspects of bureaucratic organizations: formalization and centralization (Hoy & Sweetland, 2001). Hoy and Sweetland define formalization as "the degree to which the organization has written rules, regulations, procedures, and policies" (p. 297). Based on Adler and Borys (1996) theoretical analysis of formalization, Hoy and Sweetland define enabling formalization as "a system of rules and regulations that guides problem solving rather than punishes failure" (p. 318). Centralization of authority is defined as the "locus of control for organizational decision making... the degree to which employees participate in decision making" (Hoy & Sweetland, p. 299). Enabling centralization is conceived as possessing a hierarchy that is "flexible, cooperative, and collaborative rather than rigid, autocratic, and controlling" (Hoy & Sweetland, p. 300).

Enabling school structures. For the purpose of this study, the definition of an enabling school structures is the operationalized definition of enabling bureaucracy, defined above, as refined and tested by Hoy and Sweetland (2001). It is a unitary, bipolar construct with enabling school structures (enabling bureaucracy) at one end, and hindering school structures (hindering bureaucracy) at the other. Enabling school

structures was measured as a score on the Enabling School Structures survey instrument designed to reflect the degree to which a school structure is enabling or hindering (Hoy & Sweetland, 2001).

#### Research Questions

The overall research question for this study is: What relationship exists among the variables of change into a professional learning community, faculty trust in the principal, and enabling school structures?

Five principal questions guided the development of the research hypotheses for this study:

- 1. What is the relationship that exists between the scores measuring faculty trust in the principal and the scores measuring change into a professional learning community?
- 2. What is the relationship that exists between the scores measuring faculty trust in the principal and the scores measuring enabling school structures?
- 3. What is the relationship that exists between the scores measuring change into a professional learning community and the scores measuring enabling school structures?
- 4. What is the relationship that exists among the dependent variable measures of faculty trust in the principal, change into a professional learning community, and enabling school structures, and the mediating variables of school size and school grade configuration?
- 5. What forms of professional development specific to change into a professional learning community have participants engaged in?

#### **Delimitations**

Delimitations exist in this study. First, this study was confined to schools within Zone 6 jurisdictions in the province of Alberta which self-identified as having compelled schools to change into professional learning communities following the Alberta Commission on Learning (2003) recommendation and subsequent legislative acceptance. In addition, the schools were limited to those willing to participate in the study. The study's focus was limited to three specific variables: faculty trust in the principal, change as measured by attributes of a professional learning community, and enabling school structures, measured using Likert-type scales. Identification of mediating variables was limited to school size and school grade configuration, and understanding of the context of capacity building during implementation is limited to an examination of the nature and frequency of forms of professional development.

#### Limitations

The stratified sampling procedure as well as the voluntary nature of response decreases the generalizability of findings. The study is not generalizable to all schools that have undergone transformation into a professional learning community. As well, statistical correlation indicates the presence and degree of relationships; it does not provide a more in-depth examination of causation. Finally, given the complex nature of change, the role of the principal during change and influence of existing structures, there is the possibility that unidentified variables influenced the results.

#### **Assumptions**

There were some assumptions made in conducting this study. First, it is assumed that the three instruments used to measure the variables accurately measured what they

were designed to measure. The reliability and validity of each instrument is described in Chapter Three. As well, conclusions regarding the relationship of the variables are based on staff members' honest responses of their personal perceptions on formal survey instruments.

#### Chapter Summary

The current emphasis on the educational system's accountability for advancement of student learning has placed increasing demands on schools and leaders within the educational system to change. Pressure on schools to institute organizational change in the Alberta context came in the form of mandated change in 2003 requiring all public schools to become professional learning communities. The professional learning community model, rooted in the concept of the learning organization, has been touted by many as the solution for ongoing, sustained improvement that will meet the demands of the future. Schools are complex organizations and there are a number of interrelated factors that influence the degree of successful change.

Principal leadership has been identified as critical for successful change, and in the Alberta context, it is the school principal who ultimately is charged with moving the professional learning community organizational model forward in the school. The construct of trust is recognized across a number of leadership models as a foundational component of successful leadership and the ability to lead change. Another factor commonly associated with successful change is the capacity the existing organizational structure possesses for change. Research points to the importance of identifying organizational structures that may act as barriers to change. Connections have also been made between leadership and the nature of the organizational structure.

The province-wide mandate for change into a professional learning community provides an opportunity to operationalize change and explore variables that may have an influence on the success of change. Given the increased demand for change and leadership accountability for change, there is a need to examine the problem of change as it relates to leadership and organizational structure. This study sought to determine what the relationship among three variables: change to a professional learning community, faculty trust in the principal, and organizational capacity as an enabling bureaucracy. Understanding the relationship of leadership, trust, and structure can inform schools and jurisdictions with respect to policy, strategies for leadership development, and capacity building mechanisms.

#### CHAPTER TWO: REVIEW OF THE LITERATURE

#### Purpose

The purpose of the literature review is to establish the theoretical base upon which the study is founded. The study was designed to examine the relationship and influence among three variables: (a) change into a professional learning community, (b) faculty trust in the principal, and (c) enabling school structures. Existing research has established a theoretical foundation for each of these variables. Although existing research does not examine the relationship of all three variables concurrently, links between them has been established. It is important, then, to examine the existing research in order to develop a theoretical understanding of each of the three variables as well as what may or may not influence their correlation. The review of literature not only conveyed the theoretical foundation of the study, it served as a guide in the interpretation of results.

#### Literature Review Design

The literature review design consists of an organizational plan that sequentially reviews research and literature that is relevant to developing a theoretical understanding of the three variables and their relationship. The existing research that underlies the three variables is extensive. As such, an attempt was made to narrow the review to those theories and models that appear most noteworthy and demonstrate a link between two or more of the variables. See Appendix A for a diagram summarizing the literature relevant to each of the variables.

#### Change Variable

An extensive body of research exists that focuses on the process of change both in the private sector and education. This study focused on a specific occurrence of change, that of mandated change to a professional learning community. As such, the review of literature focused primarily on change literature that relates specifically to this context. There are two common threads in the broader context of educational change literature, however, that are important to note prior to exploring change literature more specific to professional learning communities.

First, recent change literature emphasizes and delineates change as a process, not an event (Calabrese, 2002; Fullan, 2001, 2002, 2005; Hall & Hord, 2001; Lambert, 2003). Hall and Hord describe change as a process through which individuals and organizations move as they gradually come to understand and gain competence in the use of new methods and processes. Mandated change requiring organizations to institute change within a given time period compounds the difficulty and complexity of change because it does not recognize, to the full extent, the time that a particular change process may require. Mandated change is the context of change examined in this study compelled by the legislative acceptance of the recommendation by Alberta's Commission on Learning (2003) that all public schools in Alberta become professional learning communities.

The second common thread running through change literature is a growing emphasis on the concepts of building capacity and sustainability. Many researchers and practitioners argue that before education can improve, educators and schools must first build capacity for change (Fullan, 2002; Kruse et al., 1994). The call for capacity building encompasses capacities relating to people, support structures and organization (DuFour & Eaker, 1998; Hord, 1997; Leithwood & Louis, 1998; Newmann & Wehlage, 1995). Given the growing recognition that reform movements have come and gone

without evidence of sustained change or improvement (Hall & Hord, 2001; Lundt & Wiles, 2004), there is greater emphasis on instituting sustainability as part of the process of change (Elmore, 2002; Fullan, 2005).

The professional learning community model is not a model of change in and of itself, but an organizational model that calls for change in traditional structures and leadership paradigms within schools. It can be described as a change process that focuses on the application of systems theory (Fullan, 2005; Gurley, 2000; Hall & Hord, 2001; Hord, 1997; Leithwood & Louis, 1998; Senge, 1990; Watkins & Marsick, 1999; Zederayko, 2000). According to Senge (1990), a systems approach requires meaningful change that involves the entire organization and its environment. Some believe that sustained change can only occur through a perspective of change as a learning organization reflective of systems thinking (Caldwell, 1997; Zmuda et al., 2004). Fullan (2005) describes leaders for sustainability as system thinkers in action and contends that system thinking in practice is the key to sustainability (p. 43). Change to a learning organization characterized by systems thinking has been linked both to constructs of leadership (Day et al., 2004; Esche, 1998; Fullan, 2002; Gregg, Niska & Thompson, 2004), and barriers in traditional bureaucratic structures (Anderson, 1974; Hirshhorn, 1997; Hoy & Sweetland, 2000, 2001; Leonard, 2002; Tschannen-Moran, in press). Within the construct of leadership, change has been linked to aspects of trust, specifically the importance of trust in the principal (Brewster & Railsback, 2003; Bryk & Schneider, 2002; Fullan, 2003; Hord & Rutherford, 1998; Kouzes & Posner, 2003; Sergiovanni, 1992, 2001; Tschannen-Moran, 2001, 2004).

Resources Directed at Capacity Building in the Alberta Context

Some key educational stakeholders in the province of Alberta, including the Alberta Teachers' Association, Alberta Education, and the College of Alberta School Superintendents, voiced support for province-wide implementation of professional learning communities. Although full consideration of capacity building for professional learning community implementation was not a focus prior to the legislative acceptance of the recommendation, there has been some support mechanisms put in place, primarily in the area of professional development.

With respect to building capacity during times of change, the literature reveals a relationship between professional learning and the quality of teaching (Darling Hammond, 1996; Hawley & Vall, 2000; Morris, Chrispeels, & Burke, 2003; Porter, Garet, Disimona, Yoon, & Birman, 2000; Sparks, 2002). Literature focusing on effective professional development also establishes a connection with learning teams, collaborative teams and exchange, and professional learning communities (Elmore, 2002; Morris et al., 2003; Guskey, 2003; Sparks, 2002;). Finally, some literature stresses the importance of the role of the principal as the learning leader in the successful implementation of professional development as a systemic effort (Elmore, 2002; Wenglinsky, 2000).

The Alberta Teachers' Association has committed considerable resources to the advancement of professional learning communities. The ATA developed a workshop series consisting of twelve topics that address various attributes of professional learning communities (Alberta Teachers' Association, 2007a). The topics range from understanding PLC attributes and development strategies to processes related to PLCs such as team dynamics and collaborative decision making. Executive Assistant with the

ATA, Jean-Claude Couture, communicated that the ATA has delivered 200 PLC series workshops each year as well as 200 to 300 workshops associated to PLC aspects annually since the inception of the PLC mandate (personal communication, March 27, 2007). Additionally, the ATA has produced numerous publications related to PLCs including a theme issue of the ATA Magazine (Alberta Teachers' Association, 2003).

Alberta Education has also provided support for province-wide implementation of professional learning communities. The primary avenue for provincial support has been through the Alberta Initiative for School Improvement (AISI). AISI was first implemented in 2000 with a goal to "improve student learning and performance by fostering initiatives that reflect unique needs and circumstances of each school authority" (Alberta Education, 2007, p. 1). With a provincial annual budget allocation of approximately \$70 million, jurisdictions are allocated AISI funding on a per pupil rate and are responsible for determining, planning, leading and reporting on jurisdiction projects that focus on improvement. During the 2003 to 2006 cycle of AISI project implementation, 83 projects across the province identified professional learning community development as a project focus (Alberta Education, 2006). The AISI provincial project "recognizes the importance of professional development and requires that school authorities include a professional development component in their project proposals" (In Praxis Group Inc., 2006, p. 41). The annual AISI conference hosted by Alberta Education has continued to offer professional learning community sessions, and \$205,000 was spent to complete and share research over the past two years (Alberta Education, 2007).

The ATA strongly advances the relationship between professional development and professional learning communities. The ATA PD Framework (Alberta Teachers' Association, 2007b) outlines principles of effective PD that support professional learning communities. The framework recognizes that professional development is a complex process, operates within a collaborative learning culture, and is part of a changing context. The ATA's submission to Alberta's Commission on Learning supported a recommendation for province-wide professional learning community implementation, and described schools that are professional learning communities as ones that encourage "a wide range of professional development and activities for teachers" (Alberta Teachers' Association, 2002, p. 35).

The ATA tracks and evaluates school jurisdiction professional development programs through annual professional development and member opinion surveys.

Following the 2003-2004 survey, the association identified key findings associated with building capacity for professional learning communities (Alberta Teachers' Association, 2004a; 2004b). According to the key findings, the data indicated that although there had been an increase in the level of school site professional development, "many Alberta school jurisdictions lack a comprehensive approach to professional development planning and few have...collaborative decision-making structures in place" (2004b, p. 4).

Collaborative decision-making structures and comprehensive professional learning are key components of professional learning communities (DuFour & Eaker, 1998; Hord, 1997). The summary of the results of the 2006 survey drew the conclusion that, "the movement toward professional learning communities over the past three years has been helpful in focusing PD in the schools," but limited funds were noticeably moving away

from professional learning communities toward efforts in assessment for learning (Alberta Teachers' Association, 2006, p. 2). The principle of collaboration was identified as an area of continued concern as well as the "elusive goal" of embedding PD time into the school operating calendar (p. 1). The perceived lack of collaboration identified in the ATA survey may have an impact on the mandated change given the importance of collaborative environments in professional development stressed in the literature (Elmore, 2002; Fullan, 2002; Guskey, 2003; Marzano, 2003; Sparks, 2002). *Change and Reform* 

Although schools have been called upon throughout the 20th century to adapt to various social, economic and political changes, the current emphasis on change in the context of reform stems back to the 1980s beginning with the effective schools movement (Nash, 1999). Research reports that were critical of the degree to which schools actually influence student learning (Averch, Carroll, Donaldson, & Jencks, 1972; Kiesling, & Pincus, 1974) prompted close scrutiny of schools both by government and the public. The reports pointed to family and socio-economic status has having the most profound influence on student success and suggested that school quality made little difference in students' lives. The effective schools movement was a direct reaction to these claims and set out to define effective schools and identify correlates within these schools that contribute to student success (Nash; Reynolds, Bollen, Creemers, Hopkins, Stoll, & Lagerweij, 1996).

The formation of the National Commission on Excellence in Education by

President Reagan in the early 1980s generated greater interest in educational reform that
soon "became central to the policy platforms of both major American political parties"

(Nash, 1999, p. 19). Educational reform combined with a focus on accountability in the 1990s, and the politically charged combination of reform and accountability has been recognized as the driving force of change within schools since that time (Fullan, 2005; Hopkins, 2001; Reynolds et al., 1996). The current reform context is described by some as one that is increasingly complex and characterized by managing change (Fullan; Hopkins; Reynolds et al.).

#### Change to a Professional Learning Community

The demand for reform and accountability has created a growing interest in developing an organizational structure that goes beyond instituting change for the immediate context to one that is sustainable and will meet demands for future change. In Alberta, the professional learning community model has been espoused by the provincial government as the model that will build capacity, foster growth and meet future demands (Alberta's Commission on Learning, 2003). The professional learning community model is based on the theoretical underpinnings of Senge's (1990) systems thinking in the form of a learning organization.

#### Learning Organization

The foundational work for the concept of learning organization is Senge's book, *The fifth discipline: The art and practice of the learning organization* (1990). Senge's conceptualization of a learning organization needs to be explored to some degree in order to understand the original concept from which the professional learning community model derived. Senge defines learning organizations as "organizations where people continually expand their capacity to create the results ... where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people

are continually learning to see the whole together" (p. 3). The learning organization can be distinguished from more traditional organizations by basic disciplines or 'component technologies' that converge to create the learning organization (Smith, 2001). The five disciplines Senge identifies are: systems thinking, personal mastery, mental models, building shared vision, and team learning. People within the organizations are viewed as agents, able to act upon the structures and systems of which they are a part. All the disciplines are, in this way, "concerned with a shift of mind from seeing parts to seeing wholes, from seeing people as helpless reactors to seeing them as active participants in shaping their reality, from reacting to the present to creating the future" (Senge, p. 69).

Further work related in the book, *Schools that learn* (Senge, Cambron-McCabe, Lucas, Smith, Dutton, & Kleiner, 2000) made a direct link between the theory of learning organizations and schools. In *Schools that learn*, Senge et al. state, "The learning disciplines found in *The fifth discipline* offer teachers and administrators genuine help for dealing with the dilemmas and pressures of education today" (p. 7). The notion of learning organizations has been expanded by other writers and researchers and is viewed, by many, as the solution for ongoing, sustained improvement that will meet the demands of the future (DuFour et al., 2002; Hord, 1997; Kanold, 2002).

Learning organizations, leadership and bureaucratic structure. There are writers who have identified problems with Senge's conceptualization of a learning organization (Finger & Brand, 1999; Kerka, 1995; Smith, 2001). According to Kerka, real life examples of learning organizations are difficult to find, and there is a lack of critical analysis of the theoretical framework. A link is made between leadership practice and the realization of a learning organization by Smith when he contends that the sophistication

of the thinking required of leaders is not congruent with what they are up to in practice.

This potential incongruence points to the need to understand the relationship between leadership and learning organizations.

A link between the organization as a bureaucracy and readiness for transformation to a learning organization is also made. Based on an organizational study of a government service, Finger and Brand (1999) conclude that learning initiatives alone do not transform bureaucratic organizations. "The individual and collective learning that took place was not really connected to organizational change and transformation" (p. 146). Part of the issue, they suggest, has to do with the concept of the learning organization itself. They argue that organizational dimensions other than culture are not adequately addressed. "To transform an organization it is necessary to attend to structures and the organization of work as well as the culture and processes" (p. 146). Finally, they assert that there needs to be a clearer defining of the functions within the organization. These conclusions point to a need to understand the relationship between the bureaucratic structure of schools and change to a learning organization.

Learning organization as a professional learning community. A variety of definitions exist for professional learning communities. "The terms learning communities, communities of practice, professional communities of learners and communities of continuous inquiry and improvements are found throughout literature and research on school reform … they typically refer to the similar processes and common attributes of PLCs" (InPraxis Group, 2000, p. 4). There are some key understandings that cross the various definitions and terms. Shared mission and vision is commonly identified as a crucial factor with strong emphasis on collective and meaningful learning, supportive

and shared leadership, identification of goals through continuous inquiry, a focus on improvement, and a need for capacity building (DuFour & Eaker, 1998; Hord, 1997; Leithwood & Louis, 1998; Newmann & Wehlage, 1995). The literature on learning communities makes it clear that the characteristics are connected and interrelated. This would reflect the same emphasis on interdependence Senge (1990) describes between the five disciplines of a learning organization.

For the purpose of this study, the definition of professional learning community is based on Hord's (1997) research-based delineation of attributes of a professional learning community. A professional learning community within the context of a school is defined as a school community purposefully engaged in the following characteristic behaviors:

(a) principal sharing of leadership and decision-making with staff, (b) shared vision based in staff's commitment to students' learning, (c) collective learning, (d) peer visitation, review and feedback with respect to classroom practice, and (e) ensuring supportive physical conditions and human capacities.

Literature focusing on the development of school level professional learning communities is prolific. In addition to Hord, two commonly known writers on this subject are DuFour and Eaker. Some time will be taken in this literature review to delineate some basic components of DuFour and Eaker's (1998) model. This is important for two reasons. First, the population of this study is comprised of schools within Alberta and the DuFour/Eaker model of professional learning community has received extensive attention in Alberta through numerous institutes and workshops. Next, a description of the model will illustrate the alignment of the components with those described by Hord

(1997), the basis of the instrument that will be used to measure the variable of change into a professional learning community.

DuFour (2004) describes three 'big ideas' as the basis for purpose or mission and structure. The first, and most central big idea, is ensuring that all students learn. "The professional learning community model flows from the assumption that the core mission of formal education is not simply to ensure that students are taught, but to ensure that they learn" (DuFour, p. 8). The second big idea is a culture of collaboration. "Educators who are building a professional learning community recognize that they must work together to achieve their collective purpose of learning for all" (DuFour, p. 9). The model calls for the creation of structures to promote a collaborative culture as well as a systematic process for working together to analyze and improve classroom practice. The third big idea calls for the use of results for judging effectiveness. "Every teacher participates in the ongoing process of identifying the current level of student achievement, establishing a goal to improve the current level, working together to achieve that goal, and providing periodic evidence of progress" (DuFour, p. 10). The last big idea, with a focus on using results to provide feedback and establish goals, is the basis for a popular offshoot of DuFour's work called SMART School Teams (2002). SMART Schools (specific, measurable, attainable, results-based, time-bound) is a process for establishing and measuring goals. Promoted as a new and innovative way to address accountability in general, and the learning outcome focus of professional learning communities specifically, it is actually a revival of Peter Drucker's (1954) SMART method. In his model of organizational change called management by objectives, Drucker delineated a process that includes continuous tracking and provision of feedback to reach

objectives using SMART goals: specific, measurable, achievable, realistic and timerelated.

SMART Schools Teams provide schools with a step-by-step guide for school implementation. Perhaps filling the gap between theory and leadership in practice that Smith (2001) and Kerka (1995) describe, it makes even more concrete for schools what DuFour describes in his third big idea. SMART Schools Institutes are promoted across North America and many administrators return home with a plethora of practical templates to help them through the process of establishing SMART goals with their staffs as part of building a professional learning community. Reference to SMART Schools as part of the research is made here because it is important to note that application of a model within the school system, in these instances, has moved toward what is most practical and easy to implement, at least on the surface. SMART Schools is widely used and its popularity makes the point that what was delineated or described in the original theory or model of systems thinking and learning organizations may not necessarily be what happens in step-by-step reality.

A number of journal articles feature testimonials and descriptions of professional learning community application at the school level (Carver, 2004; Littky, Diaz, & Dolly, 2004). Common to the articles is the establishment of a culture of collaboration, a sense of community, focus on teacher learning and testimony of improved student learning. There is also an abundance of scholarly research that focuses on school level professional learning communities. A number of researchers (Darling-Hammond, 1996; Fullan, 2001; Hord, 1997; Speck, 1999; Sullivan & Glanz, 2005; Watkins & Marsick, 1999) have and continue to study schools that have characteristics related to learning organizations. As

well, doctoral dissertations can be found that address a variety of aspects of school professional learning communities ranging from professional development, behaviors and organizational structures, to leadership practice (Ball, 2004; Chaix, 2002; Gurley, 2000; Kanold, 2002; Wilson, 2005; Zarrow, 2001).

Change to professional learning community and relationship to trust. Of relevance to this study is research that explores the relationship between trust and successful change to a professional learning community. Zmuda et al. (2004) identify trust as a core operating principle of a competent system in the transformation of schools using a systems thinking approach. Tschannen-Moran (2004) contends that "teachers need trust to cope with the stress of changing expectations and the demands of accountability" (p. 174). A mixed-methods study (Gregg et al., 2004) involving six middle schools identified relationships and trust as vitally important to the development of a professional learning community. A close examination of a school identified as successful in the creation of a professional learning community, concluded that working in a professional learning community context was built on trust.

The creation of an open and trusting school climate as one of the specific actions that promote organizational learning was identified in a study by Zederayko (2000).

Bennis (1994) describes trust as important both in getting people on your side to initiate change as well as in getting people to stay there.

Trust is a key element of a learning community's soul. Trust contributes to learning community where people feel free to express ideas, take action and evaluate outcomes in an atmosphere where there is not retaliation or ill feelings by the principal. (p. 58)

The field work of the Alberta Teachers' Association with learning communities in six Alberta schools points out the importance of building trust as a foundation for cultural changes (Skytt, 2003). Richardson (2003) identifies the principal's actions and commitment to relationships as foundational for trust within a learning organization and Tschannen-Moran (2004) concludes that building trust is "one of the most important tasks facing school leaders at the start of the 21<sup>st</sup> Century" (p. 175).

# *The Principal and Leadership Theory*

# Principal Leadership and Change

The theory of learning organizations and the professional learning community model call for a kind of distributed, or shared, leadership that is necessary for both capacity building and sustainability. In a professional model, decision-making processes and organizational authority are shared, creating a sense of ownership and accountability for ongoing learning (DuFour & Eaker, 1998). It would follow that a study focusing on change into such a structure would select and define a variable that focused on collegial trust among the entire staff rather than focus on principal trust. Instead of debating whether examination of principal trust or collegial trust was more important in the context of the professional learning community model, the decision was made to focus on principal trust given both the lack of study that directly correlates principal trust to the other two variables in the study and the reality of principals having to assume leadership in the mandated change process in Alberta.

As well, there is evidence that there is a positive relationship between the leadership of the principal and the degree to which distributed leadership exists in a school (Fullan, 2002; Lambert, 1998; Marsh, 2000; Wilson, 2005). Lambert (1998)

asserts that while it is critical to develop staff leadership capacity, it is the principal who is in a position to initiate and support shared leadership. Fullan identifies the principal as ultimately responsible for conceptualizing and transforming the organization through others in the organization. A study examining eight Montana high schools that received exemplary accreditation status found a strong and significant relationship between distributed leadership and principal instructional management in the areas of school mission, instructional programs and positive school climate (Wilson, 2005). Wilson concluded that principals must engage in elements of instructional leadership to effectively distribute leadership.

In the current Alberta context, it is the principal and those involved in facilitating principal development who need further information with respect to behaviors and actions that may influence positive change. Additionally, while distributed leadership is a desired end product of the change, it is not necessarily a beginning factor. Speck (1999) describes the principal as the leader in the school responsible for assessing the current context, envisioning the future and determining the capacity for change to a professional learning community. Other work in the area of leadership and change for the future recognize that although leadership development of the collective is critical, leader development of the individual is a good starting point:

It is worth mentioning that developing individual leaders is not the same as leadership development nor does it guarantee that better leadership will follow. However, both are necessary for high-performing, healthy, and adaptive organizations. We are starting with leader development because we see it as the foundation on which to build and bridge with other efforts. (Day et al., 2004, p. 7)

A number of recent investigations into school reform have identified the leadership role of the principal as critical for successful change (Barth, 1990; DuFour & Eaker, 1998; Fullan, 2003, 2005; Hall & Hord, 2001; Sergiovani, 2001; Speck, 1999). Fullan (2002, 2005) points to school leaders as the key to large-scale, sustainable education reform and describes the leader as a kind of system thinker in action necessary for sustained change. To achieve and sustain reform, Fullan (2002) describes the necessary leadership as having the ability to create a fundamental transformation. As pointed out by Hoy and Miskel (2001), leaders provide much needed guidance during times of change. Bass (1990) describes leadership as a critical factor in determining the success or failure of schools.

The topic of principal leadership in the context of reform or change is broad and can be examined in a number of ways. Some studies have focused on change and leadership style (Leithwood & Jantzi, 1990; Nash, 1999), some have focused on leadership style in successful professional learning communities (Ball, 2004; Richardson, 2003), and yet others have focused on leadership style and organizational capacity for change (Fullan, 2001, 2002; Hopkins, 1997). For the purpose of this study, an examination of research related to principal leadership will be narrowed to those theories where the aspect of leader relationships and leader trust are critical components.

Transformational leadership. Transformational leadership was first distinguished from transactional leadership by Downton (1973). Downton's work was furthered by Burns in 1978, then subsequently operationalized by Bass in 1985 by proposing a model of transactional and transformational leadership. The most recent model called the full range leadership model developed in 1997 (Bass & Avolio) identified distinctive

behavioral constructs of transformational leadership such as attributes and behaviors associated with idealized influence, inspirational motivation, intellectual stimulation and individualized consideration. Bass (1985) described transformational leaders primarily in terms of leader's effect on followers. Followers are motivated by feelings of trust, admiration, loyalty and respect toward the leader.

It is important to note that followers are not necessarily a 'collective' in a school. Some studies that focused on transformational leadership concluded that the relationship between leader and follower is "individual" and dependent upon the follower "consent to leadership" (Barnett, McCormick, & Conners, 1997, p. 18). The nurturing of relationships with all followers, then, becomes an ingredient in the relative success of a transformational leader. Central to relationships is trust, and Bass (1997) has made the case that trust is a critical component of transformational leadership. "Trust is the single most important variable moderating the effects of transformational leadership on the performance, attitudes, and satisfaction of the followers" (Bass, p. 5). Trust is essential to what Bass calls the impression management of transformational leaders and this is lost when a "leader is caught in a lie ... or when hypocrisy and inconsistency are exposed" (p. 5). A connection can also be made between transformational leadership, employee commitment and trust. A study conducted by Podsakoff, Mackenzie, Moorman & Fetter (1990) concluded that transformational leadership behaviors that led to greater citizenship behavior (staff going beyond obligatory duties) occurred only if the employees trusted the leader. In cases where employees did not trust the leader, the behaviors did not result in greater citizenship.

A number of studies have concluded that transformational leadership best characterizes principals who achieve reform oriented change (Esche, 1997, 1998; Nader, 1997; Wheelehan, 2000). Leithwood (1994) distinguishes between the nature of change in school restructuring efforts for the twenty-first century and those demanded by past school improvement efforts of the 1970s and 1980s. He contends that instructional leadership is no longer sufficient with the emerging need to focus efforts on organizational building. In the face of mandated structural change, leaders are no longer implementers of imported solutions; they require the skill and nature necessary to become facilitators for participatory and investigative reform (Cuban, 1988; Murphy & Hallinger, 1992). Leithwood argues that transformational leadership is the most appropriate for the challenges of this kind of reform.

The model of a professional learning community described by DuFour et al. (2002) identifies transformational leadership as one of the model's essential cultural shifts. A number of studies that have focused on the professional learning community have identified transformational leadership as the kind of leadership necessary for transition and sustainability of the professional learning community (Anderson, 2003; Cowan, 2002). Commitment strategies that are central to transformational leadership, such as shared vision building, motivation of followers, and shared decision-making (Leithwood, 1994) are also central attributes of the professional learning community.

Change theory often identifies the first step toward sustainable change as the identification of the need for change and subsequent development of commitment (Bennis & Nanus, 1985; Calabrese, 2002; Lewin, 1948; Schein, 1994). This can be especially challenging for a leader when change is mandated and requires the kind of

leadership that can motivate others within the organization through inspiration and connection and opposed to source command and coercion (Bennis & Nanus). Given the uncertainty and need for commitment rather than control strategies, Leithwood (1994) advocates that transformational leadership aligns with the need for membership identification of need and the fostering of commitment.

Moral leadership. More recently, there has been a growing interest in the concept of moral leadership and its influence on sustained change. Morally based leadership is described by some writers as a kind of stewardship (Sergiovanni, 2000a), by others as servant leadership (Greenleaf, 1977), and yet others as authentic leadership (Evans, 2000). While some writers approach morally based leadership as distinct from transformational leadership, Bass (1997, 1998) makes the case that it is reflected in the transformational leadership model and its existence within the model is necessary for the style to exist. Bass (1997) contends that the "truly transformational leader seeks the greatest good for the greatest number and is concerned about doing what is right and honest ... and have concern for maintaining credibility and trust" (p. 5). Supporting Bass' contention, some studies have linked moral and transformational leadership (Stevens, 2001).

Fullan (2002) identifies the moral purpose as one of five components that characterize leaders in a knowledge society. Leaders with moral purpose are described as possessing a social responsibility and desire to make a difference in the lives of both students and teachers. Fullan (2003) suggests that times of change require a strong sense of moral purpose. He describes moral purpose as the driver of change, with the change itself, such as building a professional learning community, as being in the service of

moral purpose. Quick and Normore (2004) describe the climate of the school as the "moral feeling derived from the values the principal advocates and makes actionable" (p. 337). Further, Quick and Normore contend that in order for the formation of a moral school community to occur, the leader needs to have "knowledge of his or her own values and the ability to translate that knowledge into action" (p. 337). According to Fullan (2003), the larger moral purpose of the school can only occur when the principal leads the process.

Sergiovanni (2000a) asserts that morally based leadership, a form of stewardship, is the kind of leadership that counts in the end. He describes it as the kind of leadership that "touches people differently... it taps their emotions, appeals to their values and responds to their connections" (p. 270). Direct leadership, characterized by leader control, creates a subordinate relationship and dependency that inhibits commitment beyond the minimum. Sergiovanni describes the successful alternative to direct leadership as that of being a leader of leaders; a servant leader who believes in shared decision-making, strives for collegiality and combines "the most progressive elements of psychological authority with aspects of professional and moral authority" (p. 273).

Trust is central to discussion on moral leadership. Evans (2000) identifies authenticity and integrity, key components of trust, as primary principles of moral leadership. Authentic leaders are described as those who are trusted and are trustworthy, and "distinguished by their integrity and savvy" (Evans, p. 288). Establishing purpose and instilling commitment to an organizational direction requires the trust of others (Sergiovanni, 2000a). Sergiovanni further states that stewardship is fundamentally and act of trust with the leader entrusted with obligations and duties to fulfill and perform on

behalf of those in the organization. A study of the moral aspect of leadership (Murry, 1996) concluded that interactions of school leaders must involve truthful, honest communication. Fullan (2003) identifies trust as a core aspect of moral imperative and contends that the depth of transformation required in schools requires high levels of relational trust.

## Principal Construct of Trust Variable

Establishing Importance of Faculty Trust in the Principal as a Variable

A construct that emerges as common to research on both transformational leadership and morally based leadership is that of trust. This is not a surprise given the relationship-centered orientation of these kadership theories and the importance of trust in the development of relationships. Of leaders' practices reviewed in the literature, trust is identified as one of the most important behaviors leaders display (Bennis, 1994; Deroche & Williams, 1998; NASSP, 1991; Raywid, 1993; Sergiovanni, 2000a, 2000b, 2001). Warren Bennis notes the trust factor as one of the most pivotal factors of a leader's success. "Trust is a key element of a learning community's soul. Trust contributes to learning community where people feel free to express ideas, take action and evaluate outcomes in an atmosphere where there is not retaliation or ill feelings by the principal" (p. 58). Tschannen-Moran (in press) echoes Bennis in identifying "trustworthy leadership as the heart of productive schools" (p. 13) and suggests that wellintentioned reform will fail if the principal fails to earn the trust of their faculty (Tschannen-Moran, 2003). Kochanek (2005) contends that "trust between the principal and faculty is particularly important for school reform ... [because it] allows the principal to introduce instructional and organizational changes to a more receptive faculty" (p. 6).

Evans (2000) tells us that "transformation begins with trust," describes it as the "essential link between [the] leader and led"(p. 287), and asserts that "school leaders seeking change need to begin by thinking of what will inspire trust among their constituents" (p. 288).

Governance structure change characterized by relational elements such as collaborative decision making, common vision and collective goals requires trust in the leader if it is to have any degree of sustained success (Hoy & Tarter, 2003; Kouzes & Posner, 2000a; Podsakoff et al., 1990; Powell, 1996). Kouzes and Posner have concluded that "world class performances aren't possible unless there's a strong sense of shared creation and shared responsibility" (p. 243). They further that in order to foster collaboration, a leader must skillfully create a climate of trust and positive interdependence. Collaboration and the building of trust is described as a reciprocal process in which the leader must be willing to make himself vulnerable to others.

Research points to the principal as the individual within the school organization as responsible for establishing trusting relationships with staff, especially given the hierarchical structure of a school (Tschannen-Moran, in press; Whitener, Brodt, Korsgaard, & Werner, 1998). It is essential that leaders do not assume positional power when establishing any sort of trusting relationship. "A common mistake leaders make is to assume that the position, role, or title earns them their trustworthiness. The only thing that earns a leader trustworthiness is the way they behave" (Reina & Reina, 2006, p. 10). Trusting climates are first established by leader example and through listening (Kouzes & Posner, 2000a). Leaders have to demonstrate an openness to influence and genuinely

consider alternative viewpoints in order to promote a sense of "mutual reliance – the feeling that we're all in this together" (Kouzes & Posner, p. 288).

Some literature points to credibility of action as the single most substantial determinant of whether a leader will be followed over time (Kouzes & Posner, 1987; Palestini, 1999; Sergiovanni, 2001). Kouzes & Posner (2003) describe the centrality of trust for leaders and identify it as an essential part of a leader's credibility. For leadership to flourish, a leader must lead by example and work to establish credibility (Palestini, 1999), and serve as a model for what followers are expected to know and do (Kouzes & Posner, 1987). Sergiovanni (1992) refers to this kind of leader competence as craft knowledge, or "knowing what to do and when to do it" (p. 15). Evans (2000) makes the connection between an authentic leader and a kind of competence he refers to as savvy, "a practical, problem-solving wisdom that enables leaders to make things happen" (p. 294).

Trust: Primary Sources of Research

Review of the literature reveals two primary sources of research conducted on the concept of trust in schools. Extensive research has been conducted by Wayne Hoy and colleagues at Ohio State University. Quantitatively oriented, research through Ohio State University stems back to the 1980s. The definition of trust and corresponding measurement scale used in this study is from the work of Hoy and Tschannen-Moran (2003). The second source of research is from Bryk and Schneider based out of the University of Chicago. Bryk and Schneider (2002) coordinated a large-scale study of trust and student achievement over a ten year period during a Chicago school reform effort that began in 1988.

Ohio State University: Wayne Hoy & colleagues. Primary researchers of the concept of trust, Hoy and his colleagues have conducted numerous studies focusing on trust and its relationship to organizational health, school effectiveness, professionalism and student achievement (Lenz, 2005). Although many of Hoy and colleagues' studies date back to the 1980s, it was not until a key study conducted in 1999 (Hoy & Tschannen-Moran) that "elements" of trust identified through previous research were conceptualized and applied to a study of trust. Based on an analysis of recurring themes in trust literature, Hoy & Tschannen Moran combined a willingness to risk vulnerability premise with trust as a multifaceted construct. The premise of vulnerability is based on the recognition that interdependence is a necessary condition of trust; where there is no interdependence, there is no need for trust (Tschannen-Moran & Hoy, 2000). The purpose of their study was to build a conceptualization of trust as a construct of five 'faces' that exist for different referents. The five faces of trust described in the study can be summarized as follows:

- 1. Benevolence is the confidence that one's well-being will be protected by trusted party. Benevolence is of particular importance in situations of change requiring interdependence (Tschannen-Moran & Hoy, 2000). As teachers experiment with new strategies within changed structures, they must rely on the good will of the principal to act in their best interest (Hoy & Sabo, 1998).
- 2. Reliability is the extent to which one can count on another person or group (Hoy & Tschannen-Moran, 1999). Reliability in the context of trust combines predictability with benevolence. Reliability reduces anxiety about whether

- someone will pull through with his commitment or act to meet the needs of others in a consistent way (Tschannen-Moran & Hoy, 2000).
- 3. Competency is the extent to which the trusted party has knowledge and skill.
  Competency is critical in the context of schools (Hoy & Tschannen-Moran,
  1999). In a situation of interdependence, as is the case in a learning
  community, assured confidence in adequate quality to enhance the teaching
  and learning goals of the school or group is needed to sustain collaborative
  work (Tschannen-Moran & Hoy, 2000).
- 4. Honesty is the character, integrity, and authenticity of the trusted party (Hoy & Tschannen-Moran, 1999). A correspondence between a person's statements and deeds characterizes integrity. Accepting responsibility for one's actions and avoiding distorting the truth in order to shift blame to another characterize authenticity (Tschannen-Moran & Hoy, 2000).
- 5. Openness is the extent to which there is no withholding of information from others. Sharing information is part of a process that makes individuals vulnerable to others. Openness builds confidence and signals reciprocal trust (Hoy & Tschannen-Moran, 1999). Closed communication breeds mistrust. "Principals in closed organizational climates engender distrust by withholding information and spinning the truth in order to make their view of reality the accepted standard" (Tschannen-Moran & Hoy, 2000, p. 558).

The different referent groups to which the five facets of trust can be applied were identified as students, teachers, principals and parents. Trust scales were developed and tested through four stages involving pilot studies, validation checks and scale refinement

(Hoy & Tschannen-Moran, 1999). The study concluded with an operational definition of trust as follows: the willingness of the faculty to be vulnerable based on the confidence that the principal is benevolent, reliable, competent, honest and open. This operational definition is measured with the Interpersonal Trust Scale (Hoy & Tschannen-Moran, 2003).

Relational trust: Bryk and Schneider. Relational trust and its relationship to school improvement was the focus of an extensive study conducted by Bryk and Schneider (2002) in Chicago schools. In this study, trust is conceptualized as being formed around the specific roles that people play in the school setting. The growth of trust depends in part on the degree to which people have shared understandings of their role obligations. The measurement of relational trust for the study was based on four dimensions of trust: (a) respect, (b) competence, (c) personal regard for others and (d) integrity (Bryk & Schneider). The four dimensions of relational trust described by Bryk and Schneider align with, and are reflected within, Tschannen-Moran and Hoy's (2000) theoretical model of the five facets of trust described earlier.

Overall, the study provides evidence that success of school reform hinges on the degree of relational trust among the educational stakeholders (Bryk & Schneider, 2002). The study provides conclusive evidence that schools with high levels of trust at the beginning of reform in 1994 were more likely three years later to possess greater "orientation to innovation, outreach to parents, professional community and commitment to the school community" (Bryk & Schneider, p. 118). The school principal was described as the leader in developing trust, both with respect to modeling relational trust and fostering a climate conducive to trusting relationships.

Bryk and Schneider (2002) also found that high-trust schools were more likely to take action against incompetent teachers. High-trust cultures, according to Bryk and Schneider, recognize that failure to act on incompetence effect both the students and entire school atmosphere. Not acting on incompetence is a breach of trust. In other words, relational trust "atrophies when individuals perceive that others are not acting in ways that are consistent with their understanding of the others' role obligations" (p. 51). High levels of relational trust reduce staff vulnerability during times of change and supports the social system necessary for the development of a professional learning community in schools. Bryk and Schneider found that low-trust schools do not have the capacity to engage in the difficult work of school improvement. Fullan, Bertani, and Quinn (2004) draw from the work of Bryk and Schneider as part of their description of what they have coined a 'culture of change.' Organizations with a high level of trust are described as combining respect, personal regard, integrity, and competence (p. 44). Emphasis is placed on the aspect of competence and it is pointed out that even well-intentioned people are not trusted in an organization if they are not good at what they do.

Additional studies. Reina and Reina (2006) have explored the concepts of trust and betrayal extensively in the more general context of the workplace. They point out that business is "conducted through relationships, and trust is the foundation of effective relationships" (p. 5). Without trust, according to Reina and Reina, change is difficult or impossible, and employees do not develop a sense of excitement about what they do. It is viewed as essential for collaboration and a unified sense of direction and improvement. Reina and Reina's model of trust and betrayal describes three components of what they call transactional trust: contractual, communication, and competence. The three facets are

considered to be interdependent, and transactional trust, as a whole, is destroyed with betrayal.

Contractual trust is described as the trust of character, it implies that "there is a mutual understanding that the people in the relationship will do what they say they will do" (Reina & Reina, 2006, p. 16). It involves such behaviors as "managing expectations, establishing boundaries, delegating appropriately, keeping agreements, and being congruent in our behavior" (p. 16). Communication trust is described as the trust of disclosure, determined by the individual's "willingness to share information, tell the truth, admit mistakes, maintain confidentiality, give and receive constructive feedback, and speak with good purpose" (p. 34). Finally, competence trust is described as the trust of capability, and involves acknowledgement of "people's skills and abilities, allowing people to make decisions, involving others and seeking their input, and helping people learn skills" (p. 58). The three components of transactional trust described by Reina and Reina identify behaviors that align with, and are reflected in, Tschannen-Moran and Hoy's (2000) model of the five facets of trust.

Some studies have pointed to the importance of distinguishing the role of the principal and trust from those that would be considered subordinates in the organizational structure. In a study of superiors and subordinates, Kramer (1996) found that judgment of trust was related to the positional authority one possessed in the organization. Individuals in authority evaluated trustworthiness of subordinates based on competence and the fulfillment of obligations and duties. Leaders were willing to give attention to the building of trust because they understood the long-term benefits. Subordinates, on the other hand, evaluated trust of superiors based on openness and benevolence. Rather than

expending effort to build trust with superiors, there was close attention to violations of trust by the superior.

Jones and George (1998) examine what it means to rise to a level of unconditional or identification-based trust in an organization. Unconditional trust occurs when parties move beyond a state of simple willingness to transact exchanges with one another to a state of trust where each comes to identify with the other. There is a mutual understanding that the parties can effectively act in each others' stead. This level of trust appears to align with the concept of transformational leadership, a level of leadership where relationships move beyond transaction (Burns, 1978). Jones & George contend that in a climate of unconditional trust, people are more likely to be open with information, more likely to seek help, and less likely to fear power and feel inadequate. What is referred to as organizational citizenship improves. Sergiovanni (2000) refers to this kind of optimal interrelationship within an organization characterized by mutual understanding and common cause as covenantal communities. In a covenantal community leadership is described as moral because it is grounded in "shared ideas, principles, and purposes that provide a powerful source of authority for leadership practice" (p. 167).

### Enabling Bureaucracy Variable

Schools as Bureaucratic Structures

Hoy and Sweetland (2001) contend that, "like it or not, schools are bureaucracies" (p. 296), and the Weberian structure (Weber, 1947) containing hierarchy of authority, division of labor, impersonality, objective standards, technical competence, and rules and regulations still exists in all organizations. Tschannen-Moran (in press) tells us that,

"schools ... necessarily employ elements of a bureaucratic structure to organize the complex task of educating large numbers of children" (p. 2). Literature on school reform movements often point to the inadequacy of the bureaucratic organizational structure to meet current and future needs and failure of reform movements often blame the inability of the bureaucratic structure to accommodate change (Nash, 1999). Common to the criticisms of the bureaucratic structure is human frustration with barriers caused by hierarchy, technical procedures, and unfair and restrictive rules (Hirschhorn, 1997).

On the other hand, the bureaucratic structure has also been shown to have positive aspects such as the organizational ability to "guide behavior, clarify responsibility, reduce stress, and enable individuals to feel and be more effective" (Hoy and Sweetland, p. 297). One has to wonder how study of an organizational structure can find such opposite outcomes within organizations. Hoy and Sweetland (2002) contend that the answer lies in the way in which the bureaucracy is "formalized." According to the work of Adler and Borys (1996) and further study by Hoy & Sweetland, the formalization of the bureaucracy can fit along a continuum that ranges from coercive to enabling.

Defining enabling school structures. For the purpose of this study, the definition of an enabling school structures is based on the furtherance of the concept of enabling formalization (Adler & Borys, 1996) and enabling centralization through research conducted by Hoy and Sweetland (2001). Hoy and Sweetland contend that two of the pivotal characteristics of bureaucratic organizations are formalization and centralization. "Formalization is the extent to which there are written rules, regulations, procedures and instructions" (Hoy & Sweetland, 2000, p. 526). Adler and Borys suggest that formalization of organizations lie along a continuum between enabling and coercive.

Coercive formalization is structured to produce forced compliance with rules and procedures that punish rather than promote or support productive practices (Hoy & Sweetland, 2000). The result of coercive formalization is "general alienation rather than commitment" (Hoy & Sweetland, p. 526). Enabling formalization, on the other hand, employs rules and procedures that are supportive and assist employees with problem-solving. Enabling formalization is characterized by two-way communication, encouragement of differences, promotion of trust, support for risk-taking and learning from mistakes (Hoy & Sweetland, p. 527).

Centralization has to do with the Weberian bureaucratic feature hierarchy of authority. "Centralization of authority is the degree to which employees participate in decision-making" (Hoy & Sweetland, 2000, p. 528). High centralization has authority concentrated at the top, is obsessed with control and imposes artificial standards that results in bureaucratic compliance rather than commitment. A high degree of centralization "is the basis for dissatisfaction, alienation and hostility" (Hoy & Sweetland, p. 529). Low centralization, on the other hands, is structured to provide diffuse decision-making with shared authority.

Research applying an exploratory factor analysis of the bureaucratic dimensions of formalization and centralization found that the factors co-varied together and formed one bi-polar factor with enabling at one extreme and hindering at the other (Hoy & Sweetland, 2001). The enabling bureaucracy possessing enabling school structures is a unitary construct that combines two major aspects of school structure, rules and hierarchy. "The prototype for an enabling bureaucracy is a hierarchy that helps rather

than hinders and a system of rules and regulations that guides problem solving rather than punishes failure" (Hoy & Sweetland, p. 318).

Bureaucratic Structures as Learning Organizations

The learning organization (Senge, 1990) and the professional learning community model (DuFour & Eaker, 1998) call for flattened organizational structures with distributed or shared leadership, a structure that the traditional paradigm of "bureaucracy" does not fit. The assumption can be made that an entirely new organizational structure needs to be created in order to transition into a learning organization. Reality, however, is that the Alberta mandate for schools to change into a professional learning community model is not accompanied by a change in the traditional hierarchy consisting of superintendents, principals, and teachers. When one examines the characteristics of the "enabling" bureaucracy operationalized through the study by Hoy and Sweetland (2001), however, it may not be so much a matter of complete organizational change as a matter of the capacity or readiness the bureaucracy already has for change. In other words, the school may have more or less capacity to change depending upon the degree to which the bureaucratic structures reflects characteristics of an enabling bureaucracy.

Hoy and Sweetland (2001) propose that "enabling bureaucracy should be directly associated with the school as a learning organization," and hypothesize that "enabling school structures are important to the development of effective learning organizations and to the creation of enabling knowledge" (p. 317). Examining the work of leaders in the bureaucratic organization of schools, Leithwood (1994) described sets of behaviors that foster staff commitment and consensus. One of the behavior sets described was the ability of the leader to use the bureaucratic mechanisms to support collaborative work, a

fundamental aspect of learning organizations. A qualitative examination of professional learning communities in the province of Alberta suggests an examination of organizational structures in transitioning to such a model (In Praxis Group Inc, 2006). A qualitative study (Sinden et al., 2004) exploring organizational structures in six high schools described organizational attributes that link enabling bureaucracies with characteristics described in learning organization models, such as more representative governance systems and open communication (p. 210).

In a recent study, Tschannen-Moran (in press) describes organizational culture in schools as existing along a continuum from professional to bureaucratic with a professional culture echoing the attributes described in Hoy and Sweetland's (2003) enabling bureaucracy as well as those described in learning organizations. A professional culture is characterized by collaboration, open communication, shared decision-making and common vision. On the end of the continuum away from the concept of learning organizations, schools characterized by a bureaucratic culture use authority to control, coercive procedures to demand obedience and obstruct innovations (Tschannen-Moran). *Trust and the Enabling Bureaucracy* 

Hoy and Sweetland (2001) hypothesized that "the more enabling the bureaucratic structure of the school, the greater the extent of faculty trust in the principal" (p. 311). Using the Faculty Trust Survey designed by Hoy and Tschannen-Moran (1999), Hoy and Sweetland correlated trust results with results from their Enabling School Structures survey. Findings supported the hypothesis evidenced by a correlation of r = .76, and significance of p = .01 (p. 313). Further, using regression analysis of study variables, it was found that "trust, truthfulness and limited role conflict are hallmarks of enabling

organizations ... central to enabling schools regardless of size, SES, and urbanicity" (p. 314).

According to Tschannen-Moran and Hoy (2000), organizational structure serves an important purpose in the development of trust, especially in the early stages of a relationship. "At the beginning of a relationship, trust will rely on deterrents or institutional structures" (p. 570). The absence of trust has an impact on bureaucratic formalization. Tschannen-Moran & Hoy found that without trust, both administrators and teachers resort to control mechanisms such as rules to protect themselves leading to a structure that is typically dysfunctional and counterproductive. Tyler & Kramer (1996) also establish a relationship between trust and the degree of formalization, or rules, in an organization. In the absence of trust, "people ... increasingly insist on costly sanctioning mechanisms to defend their interests" (Tyler & Kramer, p. 4).

According to Tschannen-Moran and Hoy (2000), there are organizational attributes that cultivate trust. With respect to the degree of centralization in the bureaucratic structure, it is necessary to acknowledge that trust needs to be established in hierarchical relationships. The reality of the structure of schools is that individuals have varying degrees of power and authority. Barriers to developing trust in a hierarchy can be overcome with attention to structure, policies and culture (Whitener et al., 1998). It is suggested that policies should be in place that demonstrate an expectation of trustworthy behavior on the part of organizational participants (Coleman, 1990).

Tschannen-Moran's (in press) recent research makes the point that the degree to which a school is characterized by a bureaucratic or professional culture is related to the level of trust between participants. Response to the deterioration of trust can be

organizational in nature by creating rules to serve as a substitute for trust (Shapiro, 1987; Sitkin & Stickel, 1996; Tschannen-Moran). A study exploring the concept of professional organization (Sitkin & Sitkin, 1996) focused on the effect of introducing bureaucratic rules on members of the organization. The imposition of rules resulted in hurt feelings and a loss of the sense of professionalism, and distrust emerged as workers began to perceive a mismatch between their level of professionalism and control systems. A qualitative study (Sinden et al., 2004) examining organizational structure in six high schools concluded that trust in a principal and honesty were critical factors that contribute to an enabling structure. The generalization was made that principals are more mindful, open and authentic (behaviors central to building trust) in enabling schools (p. 210). Tshannen-Moran makes the point that the use of bureaucratic structures such as division of labour and hierarchy, a reality in schools, does not mean that the school needs to be characterized by a bureaucratic culture. To foster trust, policies must demonstrate an expectation of trustworthy behavior as well as provide means to be responsive to breaches of trust (Tschannen-Moran, p. 5).

A generalization can be made from an examination of these studies. Trust and the organizational structure that is demanded by a professional learning community, should be mutually reinforcing. A cooperative orientation in structure accompanied by distribution of power and shared decision-making broaden and enhance trust (Elmore, Peterson, & McCarthy, 1996).

### Research Summary

Variable of Change to a Professional Learning Community

Change literature in education has emphasized change as a process (Calabrese, 2002; Fullan, 2001, 2002, 2005; Hall & Hord, 2001; Lambert, 2003) and capacity building for sustainability (Elmore, 2002; Fullan, 2002, 2005; Hord, 1997; Kruse et al., 1994; Leithwood & Louis, 1998). Within the context of mandated change to a professional learning community in Alberta, key educational stakeholders have extended considerable resources to build capacity within the system for this change. Support mechanisms to date have primarily focused on the delivery of professional development targeting the development of professional learning communities (Alberta Education, 2006, 2007; Alberta Teachers' Association, 2004a, 2004b, 2006, 2007a, 2007b). Data gathered through member surveys of Alberta teachers (Alberta Teachers' Association, 2004a, 2004b, 2006) indicate that there has been movement toward incorporating professional development at the school level, but that the principle of collaboration remains elusive.

Mandated change, such as the one being experienced in Alberta today, can be traced back to the effective schools movement in the 1980s (Nash, 1999; Reynolds et al., 1996) and the driving force of reform and accountability that gained momentum in the 1990s (Fullan, 2005; Hopkins, 2001). Senge's (1990, 2000) work with systems thinking and learning organizations provides foundational theory for the concept of the professional learning community. An abundance of research and literature has focused on the implementation of the professional learning community in schools. Of importance in the context of this study is the work of Hord (1997), and DuFour and Eaker (1998) that

has seen widespread application in Alberta. The work of Hord (1997) is applied in this study as a means by which we measure the degree to which a school characterizes attributes of a professional learning community. Attributes described by Hord closely align with those described by DuFour and Eaker.

Research exists that describes what may be called a gap between learning about organization theory and actual implementation of the theory. The gaps identified by Smith (2001), Kerka (1995), and Finger and Brand (1999) point to a need to understand the relationship among change into a learning organization, leadership and the organizational structure of a bureaucracy. Findings from some of the research indicate that trust, especially trust in the leader, is an important variable in successful change to a professional learning community (Bennis, 1994; Gregg et al., 2004; Richardson, 2003; Skytt, 2003; Zederayko, 2000; Zmuda et al., 2004).

Principal as Leader and Variable of Principal Trust

Literature was reviewed to delineate some theory underlying the importance of principal as leader during change and the construct of principal trust. First, literature that supported the supposition that the principal is an important determinant of successful change was identified (Bass, 1985, 1990; Barth, 1990; Day et al., 2004; Fullan, 2003, 2005; Hall & Hord, 2001; Hoy & Miskel, 2001; Sergiovani, 2001; Speck, 1999). The relationship between leadership of the principal and the success of attributes common to professional learning communities, such as distributed or shared leadership, has been established in the literature (Fullan, 2002; Lambert, 1998; Marsh, 2000; Wilson, 2005).

Two leadership theories that have links to trust, transformational leadership and moral leadership, were reviewed. Transformational leadership was also linked to the

professional learning community model (DuFour & Eaker, 1997; DuFour et al., 2002) and successful reform oriented change (Anderson, 2003; Cowan, 2002; Esche, 1998; Nader, 1997; Wheelehan, 2000). The importance of trust in the principal as a variable was explored followed by a review of foundational trust theory literature of Hoy and colleagues, and Bryk and Schneider. The quantitative research conducted by Hoy and colleagues since the 1980s provides evidence of the influence of trust in a number of areas including school effectiveness, culture, organizational health and collaboration. As well, work by Hoy and Tshannen-Moran (1999) has provided an operational definition of trust. The indepth research of Bryk and Schneider (2002) of some Chicago schools provides evidence of the importance of trust in successful change and identifies the principal as key in the development of trust and a climate of trusting relationships. *Variable of Enabling Bureaucracy* 

The concept of bureaucratic formalization developed by Adler and Borys (1996) was furthered into an operational definition of the enabling bureaucracy through a series of studies conducted by Hoy and Sweetland (2001). The prototype for enabling bureaucracy has mechanisms that provide for a problem solving approach, is supportive of teachers and imbued with trust. These kinds of qualities can be linked to effective change and transformational leadership.

At the conclusion of their research exploring the construct of an enabling bureaucracy, Hoy and Sweetland (2001) hypothesized that "enabling school structures are important to the development of effective learning organizations and the creation of enabling knowledge" (p. 317). Research was described that drew connections between the concept of an enabling bureaucracy and learning organization (DuFour & Eaker,

1997; In Praxis Group, 2006; Sinden et al., 2006) as well as research that drew connections between enabling bureaucracy and trust (Coleman, 1990; Shapiro, 1987; Sitken & Stickel, 1996; Sitkin & Sitkin, 1996; Tschannen-Moran, in press; Tyler & Kramer, 1996; Whitener et al., 1998).

Relationships Among the Variables

This review of literature examined several bodies of literature that provide a theoretical foundation for change into a professional learning community model, the importance of the principal in educational change, the principal construct of trust and its' relationship to change, transformational and moral leadership, as well as the concept of the enabling bureaucracy. Within this theoretical foundation, research has also suggested relationships between the three variables. Links have been made between the professional learning community, transformational leadership and trust. Relationships have been established between trust, change, moral leadership, transformational leadership and the enabling bureaucracy. Finally, the principal has been identified as key in both initiating and sustaining change within the school context, as well as in establishing a climate of trust. This study will take the research one step further by concurrently examining the relationship of all three variables: faculty trust in the principal, change into a professional learning community, and enabling school structures.

To conclude, further research that focuses on an examination of the relationship among the construct of principal trust, enabling school structures and change into a professional learning community will contribute to a better understanding of leadership behaviors and structures that may need to be in place prior to attempting change. School and jurisdiction leaders are in need of such information, especially since aspects of moral

leadership, such as trust, are paid little attention in the pre-service or training of school administrators. Further study of these variables can also inform policy at a jurisdiction level, especially with respect to attending to relational behaviors in the development of profiles for principal selection, professional learning of principals, and the development of appropriate timelines for mandated change.

#### CHAPTER THREE: METHODOLOGY

#### Introduction

Schools are experiencing increased pressure to institute change in a climate of accountability for improved student learning. In the context of the province of Alberta, organizational change of schools into professional learning communities was mandated through legislative acceptance of a recommendation put forth by Alberta's Commission on Learning in 2003. The review of literature associated with change suggests that there is relationship between leadership of the principal and change, and more specifically, trust in the principal as leader and change. The research review also suggests that both change and trust are connected to the nature of the bureaucratic organization in the school, conceptualized by Hoy and Sweetland (2001) as enabling school structures.

Research was not found that examined these variables concurrently.

This study was designed to increase the understanding of the relationship among three variables: a) change into a professional learning community, b) faculty trust in the principal, and c) enabling school structures. Data were gathered from a sample of 52 schools located in Alberta Zone 6 jurisdictions. A 37-item questionnaire comprised of three instruments designed to measure the variables was completed by participants (see Appendix B) and correlation analysis was used to examine relationships.

In order to develop some understanding of capacity building for the mandated change in the Alberta context, the study also gathered data regarding participants' engagement in forms of professional development focused on change into a professional learning community. As well, two mediating variables identified in research as

potentially influencing change, school size and school grade configuration, were analyzed to determine their degree of relationship with the three dependent variables.

### Methodology

The correlation research design used for this study was appropriate because the purpose was to explore co-varying relationships among three variables: (a) change, (b) faculty trust in the principal, and (c) enabling school structures. The three variables were chosen on the basis of research that points to a relationship between successful change, faculty trust in the principal, and enabling school structures. For the purpose of this study, successful change was defined as the degree to which schools that have undergone efforts to change to a professional learning community exhibited attributes of a professional learning community. Analysis of data from a correlation study can be used to make inferences regarding the influence of one variable on another.

Stratified sampling was used to select schools from the accessible population.

Data from the sample schools was gathered using a questionnaire comprised of three instruments designed and validated in the literature. The 37- item questionnaire was sent to the teaching staffs of each school selected in the sample. The questionnaire consisted of response scales designed to assess perceptions of the degree to which the three dependent variables exist in the school. Individual scores of each participant were calculated from the returned questionnaires for each variable, and scores of each variable subsequently calculated for each school site. The questionnaire also obtained information from each participant regarding engagement in different forms of professional development focused on professional learning communities. In addition, the

questionnaire obtained the data for the mediating demographic variables of school size and school grade configuration.

Descriptive statistics including sample return rate, reporting of the site scores by mean average or standardized score, and rank order among school sites were computed for each of the three instruments. Data analysis procedures used to determine the relationship among the three dependent variables comprised of Pearson Product Moment Correlation Coefficient testing. Point-biserial Correlation testing was used analyze the relationship between the mediating variables and each of the dependent variables as the first step in determining if conditions required to claim a mediating relationship were met. Data regarding participant engagement in forms of professional development was analyzed by computing frequency of engagement.

# Research Questions and Hypotheses

The overall research question for this study was: What relationship exists among the variables of change into a professional learning community, faculty trust in the principal, and enabling school structures?

Null Hypothesis: There will be no experimentally important or experimentally consistent relationship between the following variables: change into a professional learning community, faculty trust in the principal, and enabling school structures.

The principal research questions and hypotheses addressed in this study include the following:

1. What is the relationship that exists between the scores measuring faculty trust in the principal and the scores measuring change into a professional learning community? *Null Hypothesis #1*: There will be no relationship between the scores measuring faculty trust in the principal and the scores measuring change into a professional learning community.

- 2. What is the relationship that exists between the scores measuring faculty trust in the principal and the scores measuring enabling school structures?
  Null Hypothesis #2: There will be no relationship between the scores measuring faculty trust in the principal and the scores measuring enabling school structures.
- 3. What is the relationship that exists between the scores measuring change into a professional learning community and the scores measuring enabling school structures?

*Null Hypothesis #3*: There will be no relationship between the scores measuring change into a professional learning community and the scores measuring enabling school structures.

- 4. What is the relationship that exists among the dependent variable measures of faculty trust in the principal, change into a professional learning community, and enabling school structures, and the mediating variables of school size and school grade configuration?
  - *Null Hypothesis #4:* There will be no relationship between the scores measuring the three dependent variables and the mediating variables of school size and school grade configuration.
- 5. What forms of professional development specific to change into a professional learning community have participants engaged in?

### **Participants**

The target population comprised of 152 schools in 10 jurisdictions located in Zone 6 in the province of Alberta. Zone 6 is located in Southern Alberta consisting of primarily rural schools. Two cities with moderate populations of 80,000 and 70,000 are also located within the zone. The accessible population comprised of schools within jurisdictions that initiated change into a professional learning community two to three years prior to the initiation of this study, and communicated a willingness to be included in the study if chosen through random sampling. All ten jurisdictions met the criteria of accessible population.

# Sampling

The school was the unit of analysis with data deriving from individual teacher's response within the selected schools. A form of stratified sampling was used to select a school sample that proportionally represented identified subgroups in the accessible population. Stratifying for subgroups was necessary to test for the mediating variables. The subgroups were stratified according to school size (<200, 201-350, over 350) and school configuration (elementary, secondary, and combined elementary/secondary). Table 1 represents the stratified subgroups from the entire Zone 6 population of schools. Following identification of the subgroups from the accessible population, a table of random numbers was used to randomly select schools from each subgroup.

Table 1. Stratified Subgroups within Zone 6 Population of 152 Schools

#### School Size

		<200	201-350	>350	Total
Configuration	Elementary	19 (13%)	29 (19%)	13 (9%)	61 (40%)
onfigu	Secondary	6 (4%)	10 (7%)	20 (13%)	36 (24%)
	Combined	34 (22%)	15 (10%)	6 (4%)	55 (36%)
School	Total	59 (39%)	54 (36%)	39 (26%)	152 (100%)

# Sample Size

Practical limitations on the scope of this study precluded using an experimental sample size recommended by Krejcie and Morgan (1970). According to the sample size chart for given populations, the appropriate sample size for a population of 150 is 108. Based on an examination of alternative sample size guidelines and sample size used in preceding studies using the same instruments, a sample size of 52 schools with 480 participants was used. Gay and Airasian (2003) point out that a minimum of 30 participants are needed to establish the existence or nonexistence of a relationship in correlation studies (p. 112).

A field test designed to measure the internal consistency reliability and stability reliability of the School Professional Staff as Learning Community survey consisted of a sample of 21 schools and 690 teachers (Meehan, Orletsky, & Sattes, 1997). Desiring a high level of power with a minimum effect size of d= 0.80, a study that utilized the Faculty Trust Survey pre-determined a minimum sample size of 44 based on results of a

power analysis (Goddard, Tschannen-Moran, & Hoy, 2001). A study designed to gather data for question factor analysis and validity evidence using the Enabling School Structures survey instrument used two samples consisting of 61 and 116 teachers respectively (Hoy and Sweetland, 2000). Aligning with the highest survey sample cited above, the sample size of 52 allowed for a poor return rate from 8 schools in an effort to maintain a statistical sample size of usable sets of  $\geq$  44. In keeping with the subgroup distribution as identified in Table 1, the number of schools selected for the sample from each subgroup is delineated in Table 2.

Following the standard established by Halpin (1959) and Goddard et al. (2001), a usable school set was defined as a minimum of five faculty responses. Allowing for return rate attrition and variable staff size, ten faculty members were randomly chosen from each selected school site by distributing the questionnaire alphabetically by first name. For those sites with 10 or less faculty members, the entire faculty was surveyed. With an approximate total faculty population of 2,500, a sample size of 480 faculty members fell within the recommended sample size delineated in the sample size chart created by Krejcie and Morgan (1970).

Table 2. Number of Schools within Subgroups for Sample

N = 52	School Size					
		<200	201-350	>350	Total	
School Configuration	Elementary	7	10	5	22	
onfigu	Secondary	2	3	7	12	
001 C	Combined	11	5	2	18	
Sch	Total	20	18	14	52	

### Variables and Level of Data

There were three dependent variables in this study: (a) faculty trust in the principal, (b) change measured by attributes of a professional learning community and (c) enabling school structures. Scores derived from Likert-type scales provided interval data scores for each dependent variable. Mediating demographic variables of school size and grade configuration were considered in the statistical description. Grade configuration produced nominal data with three categories (elementary, secondary, and K-12). School size also produced nominal data with three categories (<200, 201-350, >350).

#### Data Collection Procedures

Letters were provided to all superintendents in Zone 6 requesting permission to contact and consider schools for inclusion in the accessible population of the study. The package to each superintendent included a letter explaining the research (Appendix B), a sample principal letter (Appendix C), a sample teacher letter (Appendix D), a copy of the questionnaire (Appendix E), and a sample informed consent form (Appendix F) that would be sent to each teacher.

Following approval from the ten jurisdiction superintendents, 52 schools were selected through stratified sampling using a table of random numbers within each category. Letters were sent to the principals of the 52 schools selected requesting permission to survey the teaching staff. Principal packages included a letter explaining the research and a sample teacher package. Follow-up phone calls were made to school principals that had not replied through mail or e-mail within two weeks. Five of the original sample selected declined to participate. Five additional schools were selected for

the sample, again using a table of random numbers. The five schools selected in this second round of sample selection agreed to participate.

Once school approval was obtained, a package containing 10 questionnaires was sent to each school that had agreed to participate. The package was addressed to the principal with instructions to distribute to teaching staff alphabetically by first name. Each teacher package was in a separate envelope with a letter explaining the study, an informed consent form, a questionnaire, and a return envelope with postage. The questionnaires were coded by a random number assignment to each site package in order to determine return rate and collate site data for usable sets.

The teacher questionnaires were comprised of Likert-type questions that measured the three dependent variables, as well as demographic questions relative to school size, school grade configuration, and engagement in forms of professional development targeting professional learning communities. The questionnaires combined, in separate sections, three previously developed instruments described below.

#### Instrumentation

Three previously developed instruments were combined in one questionnaire. Permission was requested and subsequently received to use these instruments in this study (Appendix G). The total number of questions on the questionnaire was 37.

School Professional Staff as Learning Community. The survey instrument developed by Hord (1997), School Professional Staff as Learning Community (SPSLC), was administered to measure the maturity of a school's professional staff as a learning community. The instrument consists of seventeen descriptors grouped into five major professional learning community dimensions: (a) principal sharing of leadership and

decision-making with staff, (b) shared vision based in staff's commitment to students' learning, (c) collective learning, (d) peer visitation, review and feedback with respect to classroom practice, and (e) ensuring supportive physical conditions and human capacities. The descriptors are designed as a series of three statements structured along a five point continuum that would reflect most desirable or more mature practice of the descriptor to least desirable or less mature (Southwest Educational Development Laboratory, 2001). The format and layout of the instrument required the respondent to read all three indicators for each of the 17 descriptors and then mark the response scale.

Faculty Trust Scale. One of the subtests, Faculty Trust in the Principal, from the survey instrument developed by Hoy and Tschannen-Moran (2003), Omnibus Trust Scale (Omni TS), was administered to measure the level of faculty trust in the principal. The format of the subtest is eight 6-point Likert response set from strongly agree to disagree. Respondents were asked to indicate the extent to which they agreed with the items. The items tap the five facets of trust described in the model of trust developed by Hoy and Tschannen-Moran (2000): benevolence, reliability, competency, honesty and openness.

Enabling Bureaucracy Scale. A survey instrument developed by Hoy and Sweetland (2001), Enabling School Structures (ESS), was used to measure the degree to which the school structure is enabling. The ESS form is a 12-item Likert-type scale response set from never to always. Respondents were asked to indicate the extent to which each statement characterized behavior in their school. The higher the score, the more enabling the school structure, and conversely, the lower the score, the more hindering the structure.

Validity and Reliability of Research Design

The most applicable threats to internal validity (Campbell & Cook, 1979) in this study included instrumentation, participant selection and rival variables. The validity and reliability of selected instruments are discussed below. With respect to participant selection, the less random the selection of participants, the greater the threat to validity. Randomization in this study was somewhat reduced by using a stratified sample and units of measurement (schools) that were already formed. A sample size determined by researching previous studies, random selection of schools within stratified groups, and random assignment within those schools were design elements used in the study to address this threat. It can be difficult to control for rival variables in an educational study (Gay & Airasian, 2003). Some control was established by including two mediating variables often identified as having some influence on school outcomes: school size and school configuration (Bryk & Schneider, 2002; Fullan, 1993, 2001; Hoy & Sweetland, 2001; Hoy & Tschannen-Moran, 2003; Leonard, 2002; Leonard & Leonard, 2001).

"External validity is concerned with the extent to which the study results can be generalized to outside populations" (Gay & Airasian, 2003, p. 359). The most applicable threats to external validity (Bracht & Glass, 1968) that limit generalization in this research include participant selection and specificity of variables. With a sample size of ≥ 30, and the similarity of school jurisdiction structures, teacher and student populations within Zone 6, the sample results are generalizable to the accessible population recognizing the described limitations. The need for operational definitions of the variables in the study was met.

Validity and Reliability of Instrumentation

School Professional Staff as Learning Community. Field testing of the School Professional Staff as Learning Community survey instrument with a sample size of 21 schools and 690 teachers was conducted to assess instrument reliability and validity (Meehan, Orletsky, & Sattes, 1997). Using Cronbach's Alpha formula to determine internal consistency, the reliability coefficient on the main file of 690 cases was a = .94. The Alpha reliabilities for the 21 individual schools were computed to assess the reliabilities at the level of intended use, the individual school. The Alphas ranged from a = .62 to a = .95. It was concluded that the instrument yielded satisfactory internal consistency at both the full group and individual school level.

A stability (test-retest) reliability coefficient was also calculated using a subsample of four high school faculties with a sample size of 23 participants. Using Cronbach's Alpha formula, the resulting value was a = .62. It was concluded that this was marginally satisfactory. It was recognized that the sample size was low, and pointed out that the value had potential to increase or decrease, if the sample size were to increase.

Validity analysis of the instrument consisted of three types: content, concurrent and construct. Three stages of review were used to determine content validity using a literature review, field research, and consensus of author and three independent experts. The instrument was judged by the author and expert to possess sufficient content validity for the intent of measuring the concept of community of learners with the professional staff of K-12 schools (Meehan, Orletsky, & Sattes, 1997).

Concurrent validity was assessed by administering a school climate instrument (Manning, Curtis, & McMillan, 1996) with a subsample (n=114) of four faculties. The correlation between the 17-item field test instrument and the 10-item school climate instrument was r = .75, significant at the .001 level. To determine construct validity, researchers used known-group methodology that compared a known group identified in the instrument pilot test to the field study group. It was determined that the instrument represents the construct of a mature professional learning community. Additionally, construct validity factor analysis was conducted and it was determined that the instrument represents a unitary construct of professional learning community within schools (Meehan, Orletsky, & Sattes, 1997).

Faculty Trust Survey. The extensive testing of the Omnibus T-Scale for the purpose of determining instrument reliability and validity is detailed in one document:

The conceptualization and measurement of faculty trust in schools: The Omnibus T-Scale (Hoy & Tschannen-Moran, 2003).

The Faculty Trust Survey was progressively tested for reliability and validity: a) development of conceptual framework and item writing, b) field testing to evaluate clarity of instructions, appropriateness of response set and face validity, c) pilot study with a sample of 50 teachers in 50 different schools to examine factor structure, reliability and validity, d) large scale studies with 45 elementary schools and 97 secondary schools (Hoy & Tschannen-Moran, 2003).

With respect to testing for internal consistency, Cronbach's Alpha formula was applied to the data collected in the pilot study, as well as both large scale studies. The

reliability coefficient for the construct of principal trust was a = .95 on the pilot study, and a = .98 on both the elementary and secondary large scale studies.

Content validity was established through the development of a conceptual framework based on extensive research, alignment of item writing with the five facets of trust established in the framework, and a subsequent review of the items by a panel of experts. There was additional content analysis conducted following the first pilot study to ensure all the facets of trust were represented in each scale.

Concurrent validity was established through correlation analysis with scales measuring self-estrangement (Forsyth & Hoy, 1978), sense of powerlessness (Zielinski & Hoy, 1983), and teacher efficacy (Bandura, unpublished manuscript). The trust survey related to school variables in predictable ways. There was a negative correlation of trust with self-estrangement, r = -.88, and powerlessness, r = -.83, and positive correlation with efficacy, r = .87. The correlation between trust and all criterion variables ranged between .83 and .95.

Construct validity of the scale has been supported in two factor analytic studies. Factor analysis in the pilot study produced three strong factors: clients, colleagues, and principals. Only the strongest items loading >.40 were retained and two new items were added to ensure content validity for the large-scale study. Varimax orthogonal rotation was applied to assess construct validity in the large-scale study. Twenty-six items with the highest factor loadings were retained for the final scale with factor loadings in the principal trust construct ranging between .84 and .97. Overall, it was concluded that the instrument had a stable factor structure and the findings support the construct validity of faculty trust in the principal (Hoy & Tschannen-Moran, 2003).

Enabling School Structures. The Enabling School Structures scale was constructed and tested for reliability and validity progressively through three studies (Hoy & Sweetland, 2000; Hoy & Sweetland, 2001). The first preliminary study sample consisted of 61 teachers representing 61 schools, and the second preliminary study sample consisted of 116 schools with one teacher representing each school (Hoy & Sweetland, 2000). The third study broadened the sample with staff from 97 high schools; the school was used as the unit of analysis (Hoy & Sweetland, 2001).

Exploratory factor analysis of the 24-item scale used to measure enabling formalization and enabling centralization in the first preliminary study led to the conclusion that enabling bureaucracy was a bipolar construct. The construct consisted of enabling bureaucracy at one extreme and hindering at the other. Reliability as me asured by factor analysis evidenced strong internal consistency of the single enabling bureaucracy scale, a = .94. Factor analysis in the second preliminary study using the same 24-item scale also pointed to strong internal consistency with the result of a = .96. The final study used a 12-item scale consisting of items that displayed the strongest factor loadings from the two preliminary studies. By the third study, factor loadings for the 12 items were strong, ranging from .69 to .86 with 10 of the 12 loading .8 or greater, and variance explained by the factor at 64.4%. Again, the factor analysis displayed strong internal consistency with an alpha coefficient of a = .95.

Initial evidence of validity was established in the first study by testing the relationship of the enabling bureaucracy construct with elements of bureaucracy previously established through research, dependency on hierarchy and dependency on rules (Aiken & Hage, 1968). Two scales developed by Aiken and Hage measuring

hierarchy dependence and rule dependency were used. Results confirmed the theory that enabling bureaucracy would not be characterized by dependence on hierarchy with a correlation of r = -.62,  $p \le .01$ , or dependence on rules with a correlation of r = -.25,  $p \le .05$ .

Validity was further established in the second study with comparison of enabling bureaucracy with two additional scales supported through research: collegial trust (Hoy & Tschannen-Moran, 1999), and powerlessness (Zielinski & Hoy, 1983). Results supported the theory that enabling bureaucracy would be positively correlated with trust, r = .61,  $p \le .01$ ; and negatively correlated with powerlessness, r = -.74,  $p \le 01$ .

The final study continued with establishing concurrent validity with a comparison of enabling bureaucracy with faculty trust in the principal (Hoy & Tschannen-Moran, 1999), spinning the truth (Sweetland & Hoy, in press, as cited in Sweetland & Hoy, 2001), and role conflict (Rizzo, House, & Lirtzman, 1970). Correlation analysis supported the hypotheses that enabling bureaucracy would be negatively correlated with role conflict, r = -.71,  $p \le .01$ ; positively correlated with trust in the principal, r = .74,  $p \le .01$ ; and negatively correlated with truth spinning, r = -.78,  $p \le .01$ .

#### Data Analysis Procedures

Data analysis procedures were selected that would provide results appropriate for the examination of the principal questions and hypotheses of this study. The SPSS Version 12 statistical package and Microsoft Excel spreadsheets were used to analyze the data. Descriptive analyses were conducted including sample return rate, school site mean average or standardized score by instrument, and rank order results by school for each of the three instruments.

Pearson Product Moment Correlation Coefficient was used to test the null hypotheses of principal questions one, two and three involving three dependent variables: (a) change measured by professional learning community attributes, (b) faculty trust in the principal, and (c) enabling school structures. A measure of covariance, results are expressed as a correlation coefficient r, and reflect the degree to which the variables vary together.

With respect to establishing a priori experimental importance for the correlation analysis of the three dependent variables, consideration was given to previous examples of correlation analysis using the three instruments measuring the variables, as well as evidence of relationships revealed through the literature review. The three instruments used to measure the dependent variables: School Professional Staff as Learning Community (SPSLC), Omnibus T-Scale Faculty Trust in the Principal subscale (Omni TS), and Enabling School Structures (ESS), have all been subject to correlation analysis with other instruments as part of analysis for concurrent validity. The results of these correlations are provided in detail in this chapter as part of the preceding Validity and Reliability of Instrumentation subsection.

The instrument correlated with SPSLC, School Climate Questionnaire (Manning, Curtis, & McMillan, 1996), contains two factors related to both trust in the principal and enabling school structures: supportive leadership and collaboration. Correlation between SPSLC and the School Climate Questionnaire was reported as r = .75. A Teacher Efficacy Scale (Bandura, unpublished manuscript) correlated with the Omnibus T-Scale measuring trust contains questions relative to influence on decision making and school climate. The correlation was reported as r = .87. Involvement in decision making and

supportive school climate reflect identified attributes of a professional learning community. Additionally, the research pertaining to the three variables delineated in Chapter two points to a theoretical relationship between a professional learning community and trust, as well as a relationship between a professional learning community and enabling school structures. Acknowledging both the strength of the evidence pointing to the potential for a relationship between the variables, as well as attributes of the variables unaccounted for in previous study, the a priori level of importance for the correlation between professional learning community and faculty trust in the principal, as well as between professional learning community and enabling school structures was established at r = .60.

The Enabling School Structures instrument was correlated with the Omnibus T-Scale Faculty Trust in the Principal subscale as part the instrument's validation (Hoy & Sweetland, 2001). The correlation was reported as r = .74. The research delineated in Chapter Two of this study also supports a theoretical relationship between the two variables. As such, the researcher expected a level of importance as high as the relationship established in the study conducted by Hoy and Sweetland. The a priori level of importance for the correlation between faculty trust in the principal and enabling school structures was established at r = .75.

With respect to testing for all study hypotheses, the a priori level of significance was set at  $p \le .05$ , a level commonly established in educational studies (Gay & Airasian, 2003).

The null hypothesis of principal question four states that there will be no relationship between the scores measuring the three dependent variables and the

mediating variables of school size and school grade configuration. Point-biserial Correlation testing was used to analyze the relationship between the mediating variables and each of the dependent variables as the first step in determining if conditions required to claim a mediating relationship were met. According to Baron and Kenny (1986), in order to claim and test for a mediating relationship, a significant relationship between the mediating variable and other study variables must be established.

If conditions required to claim a mediating relationship were met, statistical analysis was to proceed to multiple regression testing with each of the three dependent variables identified as the criterion variable in separate tests. The intent was to analyze the relationship with respect to the amount of total variance that could be explained by each of the predictor variables, including school size and school grade configuration. Conditions required to claim a mediating relationship were not met, and statistical analysis did not proceed to multiple regression analysis.

Descriptive statistical analysis in the form of participant percentage was used to analyze data pertaining to participants' engagement in forms of professional development specific to change into professional learning community. Percentage of participation in the different forms of professional development identified on the questionnaires was calculated: a) inservice or workshop at the school level, b) inservice or workshop at the jurisdiction level, c) inservice or workshops delivered by the Alberta Teachers' Association, d) inservice or workshop at a provincial conference, and c) inservice or workshop delivered outside of Alberta.

### Chapter Summary

All public schools in Alberta fell under a provincial mandate to become professional learning communities following legislative acceptance of a recommendation made by Alberta's Commission on Learning in 2003. The purpose of the study was to determine the relationships among perceptions of change into a professional learning community, and two other variables supported by research as having an influence on change, trust in the principal and enabling school structures. A stratified sample of 52 schools was selected from an accessible population of 152 schools within ten Zone 6 school jurisdictions.

Interval data for the three dependent variables was gathered using a questionnaire comprised of three previously tested instruments: a) School Professional Staff as Learning Community (Hord, 1997), b) Omnibus T-Scale Faculty Trust in the Principal subscale (Hoy & Tschannen-Moran, 2003), and c) Enabling School Structures (Hoy & Sweetland, 2001). Two mediating variables, school size and school grade configuration were identified as having demonstrated a relationship to the dependent variables through previous studies. Data for the mediating variables was gathered as part of the demographic data on the questionnaire. Data pertaining to participants' engagement in forms of professional development that focused on developing into a professional learning community was also gathered on the questionnaire.

Descriptive statistics including sample return rate, average mean score or standardized score for each instrument, and rank order by instrument, were computed.

Pearson correlations were used to determine relationships among the three variables.

Correlations of the dependent variables and mediating variables were used to determine if

the conditions required to claim a mediating relationship were met. No further analysis of the mediating variables was conducted once it was determined that conditions were not met. Percentages of participant engagement in different forms of professional development outlined on the questionnaire were calculated.

#### CHAPTER FOUR: RESULTS

Chapter Four presents the results of the study using the methods described in the previous chapter to analyze the data. Principals of 52 schools agreed to participate in the study. The target population was comprised of 152 schools in 10 jurisdictions located in Zone 6 in the province of Alberta. The sample of 52 schools was randomly selected within subgroups stratified according to school size and school grade configuration. A total of 303 teachers and 45 school units, defined by a greater than five response rate, returned the questionnaire. The questionnaire contained a demographic data form identifying school grade configuration, school size, and professional development engagement, a School Professional Staff as Learning Community (SPSLC) questionnaire, a Faculty Trust Survey (Omni TS), and an Enabling School Structures (ESS) questionnaire.

Descriptive analysis was conducted, including sample return rate, instrument mean score or standardized score, and rank order results by school for each of the three instruments. Descriptive data provided some information pertaining to the characteristics of the sample, as well as a preliminary examination of the relationship among variables at the school site level.

In order to address principal research questions one, two, and three, Pearson

Product Moment Correlation Coefficient was used to determine the relationship among
three dependent variables: a) change into a professional learning community, b) faculty
trust in the principal, and c) enabling school structures. In order to address research
question four, Point-biserial Correlation testing was used between the mediating variables
of school size and school grade configuration, and the three dependent variables. The

purpose of testing the correlation between the mediating and dependent variables was to determine if conditions were met for a mediating relationship among the variables prior to proceeding to multiple regression testing. Conditions were not met and as such, statistical analysis did not proceed to multiple regression testing.

In order to address research question five, participant engagement in professional development was analyzed by calculating the percentage of engagement in different forms of professional development focused on change into a professional learning community.

Presentation of the results begins with the descriptive analysis, followed by results presented sequentially relative to the principal research questions.

### Descriptive Data

Characteristics of the Sample

Following approval by 10 Alberta jurisdiction superintendents in Zone 6, 52 schools within stratified subgroups were randomly selected for the study sample.

Approval for school participation was obtained from 47 of the principals. In order to maintain a number of 52 schools as a starting point for inclusion in the study, five additional schools were randomly selected from the remaining accessible population.

Principals from these five schools agreed to allow their schools to participate in the study. Questionnaire packages were sent to a total of 480 professional staff randomly selected within each of the 52 school sites.

The school was defined as the unit of analysis with data deriving from individual teacher responses within the selected schools. Following a standard established by Halpin (1959), and Goddard et al. (2001), a usable set was defined as a minimum of five faculty

responses. Sufficient response was obtained from 45 schools, 86.5% of the school site sample, to be considered usable sets within the sample for the purpose of statistical analysis. This met the pre-determined minimum school unit sample size of 44 based on preceding research and sample size recommendations (Cohen, 1977; Goddard et al., 2001; Keppel, 1991). School site sample return rate by subgroup and comparison to distribution of subgroups in the accessible population is summarized in Table 3.

Table 3. Sample Return Rate by Subgroup and Comparison to Subgroups Within Accessible Population

N = 45	School Size						
		<200	201-	>35	Sample	Sample	Population %
tion			350	0	Total	%	
figura	Elementary	5	9	5	19	42.2%	40%
School Configuration	Secondary	2	3	6	11	24.4%	24%
	Combined	9	4	2	15	33.3%	36%
•1	Sample Total	16	16	13	45		
	Sample %	35.5%	35.5%	29%		100%	
	Population %	39%	36%	26%			100%

As results in the table suggests, with the largest difference between a population subgroup and sample subgroup at less than four percent, the sample subgroups can be considered an accurate reflection of the accessible population. The total number of teacher questionnaires returned was 303, a return rate of 63%. A threat to external validity, the individual return rate fell somewhat below the recommended number of

participants, 331, as defined by Krecjcie and Morgan (1970) for an accessible population of 2,400.

Questionnaire Mean Score and Rank Order Results by School and Instrument

The questionnaire designed for this study was comprised of three separate instruments designed to measure the three dependent variables. The variable of change defined by maturity as a professional learning community was measured using the School Professional Staff as Learning Community (SPSLC) questionnaire (Hord, 1997). The total scores from individual respondents are calculated as a school site mean average. The maximum score on the instrument is 85. The higher the mean score, the higher the level respondents perceive the school site to possess attributes of a professional learning community. The statements for each question were designed to differentiate the high, middle and low parameters of the described professional learning community attribute (Meehan, Orletsky, & Sattes, 1997). As such, mean scores below 40 would indicate low levels of professional learning community attributes, where as scores over 70 would indicate high levels of professional learning community attributes.

The variable of faculty trust in the principal was measured using the Omnibus

Faculty Trust in the Principal (Omni TS) subscale (Hoy & Tschannen-Moran, 2003). The

variable of enabling school structure was measured using the Enabling School Structures

(ESS) questionnaire (Hoy & Sweetland, 2001). For both instruments, to determine the

score for a school site, a mean score is calculated and converted to a standardized score

with a mean of 500 and standard deviation of 100. The higher the standardized score

using Omni TS, the higher the faculty perceives trust in the principal. The higher the

standardized score using ESS, the higher the faculty perceives that the site possesses characteristics of an enabling bureaucracy.

With fewer than 30 study participants at each school site, the sample size is too small to correlate variables by site (Gay & Airasian, 2003). Descriptive data for school sites can be presented in the form of mean scores for SPSLC, and standardized scores for Omni TS and ESS, as well as the rank order of each instrument. This descriptive data provides some information for the purpose of examining the relationship of the variables among sites (see Table 4). Further descriptive data delineating site scores for each instrument as mean score percentages with range of scores can assist in interpreting comparisons within and between sites (see Appendix H)

Table 4. Mean Score, Standardized Scores, and Rank Order Results by School

School	+SPSLC		++Omni TS		++ESS	
	Mean	Rank	z score	Rank	z score	Rank
*20 C	77.3	1	680.3	2	808.8	1
***15 E	77	2	651.3	5	770.0	3
***43 S	72.7	3	616.8	9	696.4	11
***41 S	72.1	4	689.1	1	770.6	2
*21 C	71.8	5	587.9	14	721.4	8
**12 E	71.5	6	635.2	7	748.7	5
***18 E	71.4	7	526.8	25	607.6	20
*23 C	71.4	8	596.6	12	649.5	15
***16 E	70.7	9	632.2	8	724.5	7
***42 S	68.9	10	589.3	13	666.7	13

School	+SPSLC		++Omni TS		++ESS	
	Mean	Rank	z score	Rank	z score	Rank
***17 E	68.6	11	545.3	19	585.7	26
**30 C	68.1	12	653.6	3	751.4	4
**6 E	67.6	13	601.3	11	724.5	6
*26 C	66.0	14	563.1	17	612.0	19
*3 E	64.8	15	537.9	22	515.8	32
*28 C	64.3	16	508.6	28	590.1	24
*25 C	64.0	17	499.2	30	607.6	21
***33 C	63	18	647.7	6	703.1	10
*24 C	62.8	19	573.7	16	620.7	17
*4 E	62.0	20	539.1	21	651.4	14
**31 C	61.7	21	585.6	15	666.7	12
***34 C	60.6	22	544.9	20	603.8	22
***40 S	60.5	23	653.6	4	636.1	16
***19 E	60.3	24	433.8	40	521.4	31
**10 E	59.8	25	607.0	10	703.9	9
**8 E	58.6	26	517.5	27	598.9	23
**9 E	58	27	499.5	29	440.7	40
*22 C	57.7	28	345.9	44	422.4	43
***44 S	57.4	29	484.9	33	565.5	28
**39 S	57.0	30	462.1	36	427.6	42
**14 E	56.2	31	449.6	37	533.3	30

School	+SPSLC		++Omni TS		++ESS	
	Mean	Rank	z score	Rank	z score	Rank
*35 S	56.1	32	496.8	31	546.4	29
*36 S	55.5	33	529.3	24	444.3	39
**38 S	55.3	34	469.0	34	504.8	34
**13 E	55	35	447.0	38	471.4	36
**7 E	54.8	36	488.2	32	585.7	25
*2 E	52.7	37	396.7	42	429.7	41
**11 E	52.4	38	526.4	26	615.1	18
**37 S	51.3	39	548.4	18	483.9	35
**29 C	50.8	40	465.0	35	565.5	27
*27 C	49.6	41	534.7	23	515.8	33
**32 C	46.8	42	348.8	43	327.7	45
*1 E	46.6	43	446.5	39	454.5	37
*5 E	40.7	44	424.9	41	447.9	38
***45 S	38.3	45	302.3	45	349.5	44
Mean	60.6		530.7		586.4	
Range	39		386.8		481.2	

Note. SPSLC = School Professional Staff as Learning Community; Omni TS = Faculty

Trust in the Principal; ESS = Enabling School Structures

+The maximum score is 85; ++ Standardized score with a mean of 500 and standard deviation of 100; \* = <200; \*\* = 201 to 350; \*\*\* = >350.

E = elementary; C = combined elementary and secondary; S = secondary

Some observations relative to the relationship of the variables among the school sites can be made based on the data in Table 4. First, there are some whole sample differences between the standardized scores for trust in the principal (Omni TS), and scores for enabling school structures (ESS). The mean average of the standardized scores for both instruments was slightly above the mean of 500, with the mean of Omni TS at 530.7, and the mean of ESS at 586.4. The mean of the standardized scores for ESS was 55 points higher than Omni TS, and the range was 95 larger. These results show that the perception of faculty regarding structures that are enabling in a school varied between sites to a greater degree than perception of faculty regarding trust in the principal. As well, the overall perception that the school site possessed enabling structures was higher than the overall perception of faculty trust in the principal.

With respect to the mean scores measuring maturity as a professional learning community, a fairly large number of schools had mean scores that reflected moderately high to high levels of maturity with 13 of the 45 schools above a mean of 67 (80% average), and 13 schools above a mean of 58 (70% average). A small number of schools had mean scores that reflected low levels of maturity with three schools below a mean of 50 (60% average), and only two schools below a mean of 43 (50% average).

The rank order delineation of the instruments provides some preliminary evidence that there is a positive relationship between the three variables within sites. For example, five schools rank in the top ten across all three measures (school numbers 20, 15, 41, 12, and 16), and five schools rank in the bottom ten across all three measures (school numbers 45, 5, 1, 32, and 2). Across the rank order of 45 school sites and three different instruments, there are 135 comparisons that can be made between ranks within each

school site. There were only 24 instances (17.7%) of a difference in rank greater than 10 between the rank order at the same school site.

Recognizing that the rank order results across the three measures are fairly parallel, there are also some interesting rank order differences to point out. There were two schools that ranked fairly low in SPSLC and ESS, and comparatively high in Omni TS (school numbers 37 & 40). Two schools that ranked low in SPSLC had comparatively high rank order in Omni TS and ESS (school numbers 10 & 33). There are two schools that ranked low in Omni TS with moderate rankings in SPSLC (school numbers 19 & 22). There were not any schools that ranked low Omni TS and high in SPSLC or ESS. In other words, there were not any instances where schools with low levels of trust achieved high levels of maturity as a professional learning community or enabling school structures.

## Principal Research Questions One, Two, and Three

Principal research questions one, two, and three require data analysis to determine if there is a relationship among three dependent variables: a) change into a professional learning community, b) faculty trust in the principal, and c) enabling school structures.

Pearson r Correlation Analysis

The purpose of the Pearson r correlation coefficient analysis was to examine the relationship among the three dependent variables.

Assumptions. Assumptions regarding the data for the purpose of correlation were tested prior to proceeding with correlation testing. The assumption of homescedasticity, that each variable is normally distributed and the variance of one variable is the same at all values of the other variable, is met if testing shows that the variables are linearly

related (Tabachnick & Fidell, 2006). The linearity of the relationship was tested using scatterplots. The scatterplots displayed in Appendix I provide evidence that the assumption of linearity was met.

For samples of less than 100, skewness or kurtosis must be tested to ensure high levels do not degrade the analysis (Tabachnick & Fidell, 2006). Tests indicated that skewness and kurtosis values were within normal limits. A test for outliers indicated that z scores were within normal limits. Results of tests for skewness, kurtosis, and outliers are displayed in Appendix I.

Correlation analysis. A Pearson r correlation was applied to examine the relationship among the three variables. Table 5 displays the results of the analysis.

Table 5. Correlation Analysis, N=45

	SPSLC		ES	ESS		Omni TS	
-	r	$r^2$	r	$r^2$	r	$r^2$	
SPSLC			.82**	.67	.78**	.61	
ESS	.82**	.67			.90**	.81	
Omni TS	.78**	.61	.90**	.81			

Note. SPSLC = School Professional Staff as Learning Community; ESS = Enabling School Structures; Omni TS = Faculty Trust in the Principal.

 $<sup>**</sup>p \le .01$ 

Principal Questions and Hypotheses One, Two, and Three

Principal question one. What is the relationship that exists between the scores measuring faculty trust in the principal and the scores measuring change into a professional learning community?

*Null hypothesis one*. There will be no relationship between the scores measuring faculty trust in the principal and the scores measuring change into a professional learning community.

The correlation between faculty trust in the principal (Omni TS) and change into a professional learning community (SPSLC) shows a strong, positive relationship at r=.78, indicating that as trust in the principal increases, so too does the level of change into a professional learning community. The percentage of the variance ( $r^2$ ) explained by knowing the Omni TS score is substantial at 61%. Based on the literature supporting a theoretical relationship between the two variables, and previous correlation results using the SPSLC instrument (Bandura, unpublished document; Manning, Curtis, & McMillan, 1996), the a priori level of importance was established at r=.60. The positive correlation was significant at  $p \le .01$  level. The *a priori* level of significance was established at  $p \le .05$ . The results demonstrate that an important and significant relationship between the two variables exists. Hypothesis one is not supported by this result. As such, the null hypothesis is rejected.

Principal question two. What is the relationship between the scores measuring faculty trust in the principal and the scores measuring enabling school structures?

*Null hypothesis two*. There will be no relationship between the scores measuring faculty trust in the principal and the scores measuring enabling school structures.

The correlation between faculty trust in the principal (Omni TS) and enabling school structures (ESS) shows an exceptionally strong positive relationship at r = .90, indicating that as trust in the principal increases, so too does the level of enabling school structures. The percentage of the variance  $(r^2)$  explained by knowing the Omni TS score is substantial at 81%. Based on the literature supporting a theoretical relationship between the two variables, and a previous correlation using the same instruments (Hoy & Sweetland, 2001), the a priori level of importance was established at r = .75. The positive correlation was significant at  $p \le .01$  level. The a priori level of significance was established at  $p \le .05$ . The results demonstrate that an important and significant relationship between the two variables exists. Hypothesis two is not supported by this result. As such, null hypothesis two is rejected.

Principal question three. What is the relationship that exists between the scores measuring change into a professional learning community and the scores measuring enabling school structures?

*Null hypothesis three*. There will be no relationship between the scores measuring change into a professional learning community and the scores measuring enabling school structures.

The correlation between change into a professional learning community (SPSLC) and enabling school structures (ESS) was a strong, positive relationship at r = .82, indicating that as maturity as a professional learning community increases, so too does the level of enabling school structures. The percentage of the variance ( $r^2$ ) explained by knowing the maturity as a professional learning community score is substantial at 67%. Based on the literature supporting a theoretical relationship between the two variables,

and previous correlation results using the SPSLC instrument (Bandura, unpublished document; Manning, Curtis, & McMillan, 1996), the a priori level of importance was established at r = .60. The positive correlation was significant at  $p \le .01$  level. The a priori level of significance was established at  $p \le .05$ . The results demonstrate that an important and significant relationship between the two variables exists. Hypothesis three is not supported by this result. As such, null hypothesis three is rejected.

## Principal Research Question Four

Two mediating variables, school size and school grade configuration, were identified in research as having some influence on the three variables (Bryk & Schneider, 2002; Fullan, 1993, 2001; Hoy & Sweetland, 2001; Hoy & Tschannen-Moran, 2003; Leonard, 2002; Leonard & Leonard, 2001).

Point-Biserial Correlation Analysis: Mediating Variables

To test for the relationship between the mediating variables and dependent variables, the research design called for a multiple regression analysis. The intent was to determine the contribution of each mediating variable while controlling for the others. Before the research could proceed to a multiple regression analysis, conditions underlying a mediating relationship needed to be tested. According to Baron and Kenny (1986), in order to claim and test for a mediating relationship, a significant relationship between the mediating variable and study variables must be established. Point-Biserial Correlation analysis was conducted to test for this relationship (see Table 6).

Table 6. Point-Biserial Correlation: Mediating Variables, N=45

Mediating Variables	Γ	Dependent Variables						
School Size	$SPSLC r_{pb}$	ESS $r_{pb}$	Omni TS r <sub>pb</sub>					
<200	04	14	12					
201-350	24	09	09					
>350	.29	.24	.23					
School Configuration								
Elementary	02	01	09					
Combined	.14	.15	.09					
Secondary	06	08	.06					

Note. SPSLC = School Professional Staff as Learning Community; ESS = Enabling School Structures; Omni TS = Faculty Trust in the Principal

*Principal question four.* What relationship exists among the dependent variable measures of faculty trust in the principal, change into a professional learning community, and enabling school structures, and the mediating variables of school size and school grade configuration?

*Null hypothesis four*. There will be no relationship between the scores measuring the three dependent variables and the mediating variables of school size and school grade configuration.

The results of correlation analysis between the mediating variable of school size and the three dependent variables show weak relationships among all variables.

Correlation was not significant at any level. Correlation results between the mediating

variable of school grade configuration and the three dependent variables show weak relationships among all variables. Correlation was not significant at any level. These results support null hypothesis four. As such, there is failure to reject null hypothesis four.

The condition that there must be a significant relationship between a mediating variable and study variables to establish a mediating relationship was not met. As such, statistical analysis did not proceed to multiple regression testing.

## Principal Research Question Five

In order to develop some understanding of capacity building for the mandated change in the Alberta context, the study gathered data regarding participants' engagement in forms of professional development focused on change into a professional learning community. Respondents were asked to indicate if they had participated in delivery of professional development delineated on a list. Opportunity was also provided to identify any other form of professional development not listed. For those respondents who had not been involved in any form of professional development, they were asked to indicate whether or not they were familiar with the concept of the professional learning community model. Descriptive data analysis, displayed in Table 7, was obtained by calculating the percentage of respondent engagement in the delivery of professional development listed on the questionnaire.

Table 7. Percentage of Respondent Engagement in Forms of Professional Development, N=303

Forms of Professional Development	n	%
Delivered at school level	273	90.1%
Delivered at jurisdiction level	234	77.2%
Delivered by the Alberta Teachers' Association	111	36.6%
Delivered at provincial conference or learning institute	115	37.9%
Delivered at conference or learning institute outside Alberta	21	6.9%
Other (primarily reading)	26	8.6%
Never involved, but familiar with concept of PLC	10	3.3%
Never involved, and not familiar with concept of PLC	5	1.7%

Note. PLC = professional learning community.

Of the respondents who chose "Other," 22 described it as professional reading, while 4 did not provide a description.

Principal question five. What forms of professional development specific to change into a professional learning community have participants engaged in?

Results show that a high percentage of respondents have been involved in some form of professional development related to the professional learning community model. The highest level of engagement reported, 90.1%, was at the school site level.

Jurisdiction delivered professional development was also reported as quite high at 77.2%. It is evident that the Alberta Teachers' Association has also delivered a number of workshops in Zone 6 with a participation rate of 36.6% across the 45 schools.

Professional development at a provincial conference level has also involved over one-third of the respondents. A very small percentage of the sample, 5.0%, reported as not having professional development, and fewer still, 1.7%, as not being familiar with the professional learning community concept.

### Summary of Research Results

Chapter Four presented an analysis of the data gathered for this study. A questionnaire gathered data pertaining to the mediating variables of school size and school grade configuration, engagement in professional development, and three dependent variables: a) change into a professional learning community, b) faculty trust in the principal, and c) enabling school structures. Three previously developed instruments were used to measure the dependent variables: a) School Professional Staff as Learning Community, SPSLC (Hord, 1997), b) Faculty Trust Survey, Omni TS (Hoy & Tschannen-Moran, 2003), and c) Enabling School Structures, ESS (Hoy & Sweetland, 2001).

Descriptive data was reported including sample return rate, mean score, standardized score, and rank order results by school for each of the three instruments. Descriptive data provided some information pertaining to the characteristics of the sample, as well as a preliminary examination of the relationship among variables at the school site level. There was sufficient response from 45 of the 52 schools surveyed (86.5%) to be included as a unit of analysis in the study. With the school as the unit of analysis, the response rate met the goal of 44 schools for the purpose of analysis. Response rate from the stratified subgroups closely paralleled the distribution of subgroups in the accessible population. Response rate from the 480 teachers surveyed

was 63% with 303 questionnaires returned. A rank order of the three questionnaires showed that the three measures were fairly parallel across the 45 schools.

A Pearson Product Moment Correlation analysis was conducted to test for the relationship among the three dependent variables. Strong and significant relationships were shown between faculty trust in the principal and change into a professional learning community, faculty trust in the principal and enabling school structures, and change into a professional learning community and enabling school structures. As such, null hypotheses one, two, and three were rejected. A Point-biserial Correlation analysis was conducted to test for conditions necessary to further analyze the variables of school size and school grade configuration with mediating relationships. Results of the analysis showed weak correlation between the mediating variables and dependent variables. The correlations failed to produce any level of significance. As such, further multiple regression analysis was not conducted. With lack of evidence to demonstrate a relationship between the mediating variables and dependent variables, results failed to reject null hypothesis four.

Descriptive analysis in the form of calculating the percentage of respondent engagement in forms of professional development was conducted. Results showed a high level of engagement in professional development focused on the professional learning community model at both the school site and jurisdiction levels of delivery. Over one-third of the respondents also participated in professional development delivered at a provincial level and by the Alberta Teachers' Association. Results from this analysis address principal question five intended to explore the nature of capacity building for change into a professional learning community in the form of professional development.

### CHAPTER FIVE: DISCUSSION

#### Introduction

The purpose of this study was to examine the relationship among three variables:

(a) change into a professional learning community, (b) faculty trust in the principal, and

(c) enabling school structures. In order to better understand the context within which

change was to have occurred, the study also explored participants' engagement in forms

of professional development focused on the professional learning community model.

Two mediating variables, school size and school grade configuration, identified in

previous studies as having an influence on change, were considered in data gathering and

analysis.

The educational context in the province of Alberta provided a unique opportunity to examine large-scale change with factors that may have some influence over the relative success of change at the school site level. Compelled by a provincial mandate in 2003, schools initiated change into a professional learning community two to three years prior to this study. The professional learning community model reflects learning organization theory (Senge, 1990), and both have been touted as the solution for ongoing, sustained improvement that will meet the demands of the future (DuFour, DuFour & Eaker, 2002; Fullan, 2005; Hord, 1997; Hall & Hord, 2001; Kanold, 2002). On the surface the mandate appears timely and forward thinking. During this era of accountability, however, a number of reform movements have come and gone without record of sustained success (Fullan, 2001; Lundt & Wiles, 2004). This suggests that both the difficulty and complexity of change should not be underestimated.

For the past three years, jurisdictions and schools in Alberta have been faced with the problem of implementing change without a lot of advance consideration given to capacity building or sustainability as part of the mandate. Three years following the mandate was an appropriate time to examine the relative success of change into a professional learning community, and the relationship of two variables identified in the research as having some influence on change: faculty trust in the principal and organizational structure.

It is the principal at the school site level ultimately leading organizational change into a professional learning community. An attribute of leadership identified across a number of leadership models and theories was trust (Bass, 1997; Bennis, 1994; Fullan, 2002, 2003; Greenleaf, 1977; Sergiovanni, 2000a). Trust was also linked with the learning organizations (DuFour & Eaker, 2002; Leithwood & Louis, 1998) and successful change (Bryk & Schneider, 2002; Fullan, 2003; Hord & Rutherford, 1998; Kouzes & Posner, 2003; Tschannen-Moran, 2001, 2004). As such, the variable of leadership was refined to a close examination of faculty trust in the principal.

Mandate for change into a professional learning community at the school level was not accompanied with any sort vision or mandate for restructuring of the current educational bureaucracy. The hierarchy comprised of the provincial education department, jurisdiction superintendents, principals, and teachers remains, as well as the education policies and regulations governing roles and responsibilities. As such, change into a professional learning community model at the school level had to be accomplished within a bureaucratic organization. The bureaucratic model has undergone extensive criticism with respect to advancing barriers to change, but some research suggests that an

enabling bureaucratic structure supports change (Adler & Borys, 1996; Hoy & Sweetland, 2001; Sinden et al., 2004). Hoy and Sweetland (2001) theorized that enabling bureaucracy should be directly associated with the school as a learning organization, and predicted that enabling structures provide such a context for schools. Additionally, research suggested a relationship between an enabling bureaucratic structures and trust in the principal (Hoy & Sweetland, 2001; Tschannen-Moran, 2000, in press).

This study used a correlational research design appropriate for studying covarying relationships among variables. The three dependent variables, change into a
professional learning community, faculty trust in the principal, and enabling school
structures, were correlated in order to examine the degree to which covariance existed in
the variable relationships. The correlations among the variables were both strong and
significant. The mediating variables of school size and school grade configuration, and
three dependent variables underwent correlation analysis to determine if a relationship
existed in the sample. Correlations between the mediating and dependent variables were
weak and lacked significance. The descriptive data delineating the percentage of
respondent engagement in different forms of professional development delivery showed
that high levels of respondents have been involved in delivery targeting the change at
both the school site and jurisdiction level.

A summary of the findings will be provided and conclusions will be drawn in this chapter. Implications of the research will be presented, as well as recommendations for further study stemming from this research. This researcher believes this study will further the understanding of the relationship among change into a professional learning community, trust in the leader, and enabling school structures. As schools continue to

move forward with change in organizational structures, research such as this can assist in identifying and addressing necessary conditions underlying change, such as trust and enabling structures.

# Findings and Conclusions

The overall research question asked what relationship exists among the variables of change into a professional learning community, faculty trust in the principal, and enabling school structures. The findings of the study support the overall conclusion that the relationship of change, faculty trust in the principal, and organizational structure are variables of critical importance when considering if a school has the capacity for successful change. As the change agents in the school, principals shoulder the responsibility for initiating, promoting and sustaining organizational change. Ultimately accountable for the success of change in their school, it is the principal who needs to both recognize and understand the importance of trusting relationships, as well as the humanness that underlies both enabling bureaucratic structures and professional learning communities.

The study consisted of 45 schools across stratified subgroups defined by school size and school grade configuration. The schools were randomly chosen across 10 jurisdictions located in Zone 6 in the province of Alberta. Data from 303 teachers was gathered using a questionnaire containing a demographic form identifying school grade configuration, school size, and professional development engagement, and three previously developed instruments designed to measure the variables. School Professional Staff as Learning Community, SPSLC (Hord, 1997), was administered to measure change defined as the maturity of a school's professional staff as a learning community. Omnibus

Trust subscale Faculty Trust in the Principal, Omni TS (Hoy & Tschannen-Moran, 2003), was administered to measure the level of faculty trust in the principal. Enabling School Structures survey, ESS (Hoy and Sweetland, 2001), was used to measure the degree to which the school structure is enabling.

Relationship of Change, Trust and Organizational Structure

Principal research questions and null hypotheses one, two and three addressed the overall research question.

*Null hypothesis one*. There will be no relationship between the scores measuring faculty trust in the principal and the scores measuring change into a professional learning community.

*Null hypothesis two*. There will be no relationship between the scores measuring faculty trust in the principal and the scores measuring enabling school structures.

*Null hypothesis three*. There will be no relationship between the scores measuring change into a professional learning community and the scores measuring enabling school structures.

Null hypotheses one, two, and three were tested using Pearson Product Moment Correlation. The three null hypotheses were rejected with strong, significant correlations among all variables exceeding the a priori levels of importance and significance. The correlation between faculty trust in the principal and change into a professional learning community was r = .78, with a substantial percentage of variance ( $r^2$ ) at 61 percent. The correlation between faculty trust in the principal and enabling school structures was an exceptionally strong relationship at r = .90, with the percentage of variance at 81 percent. Finally, the correlation between change into a professional learning community and

enabling school structures was also strong at r = .82, with the percentage of variance at 67 percent. These results show that the three variables co-vary; as the level of one variable increases, so too does the level of the other two variables.

The descriptive rank order of school sites by result of each instrument supports the strong overall correlation. The rank order across the three measures at the level of school site was fairly parallel with five of the schools ranking in the top ten in all measures, and five ranking in the bottom ten in all measures. Less than eighteen percent of the comparisons between rank orders among all instruments had a difference in rank of greater than ten.

These results suggest that within the context of mandated change in Alberta, schools that are imbued with high levels of trust in the principal were more successful in implementing change into a professional learning community. Because correlation results do not suggest cause, the reverse could be true. Schools that successfully progressed as mature professional learning communities may have become more trusting as organizational structures changed. Trust was also strongly correlated with enabling school structures. The strong correlation indicates that when faculty perceptions of trust in the principal are high, the bureaucratic structure of the school is more likely to be enabling. Conversely, in schools where the faculty perceived the bureaucratic structure as enabling, where rules and procedures where open and interactive, and decision making procedures cooperative and collaborative, they were more likely to extend trust to the principal. This supports the research findings of Hoy and Sweetland (2001) that hypothesized the more enabling the bureaucratic structure of a school, the greater the

extent of faculty trust in the principal, and concluded that enabling structures encourage trusting relations between the principal and faculty.

The strong and significant correlation of faculty trust in the principal to both change into a professional learning community and enabling school structures, reinforces the importance of the principal's leadership in creating conditions necessary for successful change. This supports the position forwarded by other researchers that trust in the leader is a strong indicator of the degree to which reform will succeed (Bryk & Schneider, 2002; Kochanek, 2005; Reina & Reina, 2006; Tschannen-Moran, 2003), and the extent to which an organization will successfully mature as a professional learning community (Brewster & Railsbach, 2003; DuFour & Eaker, 1998; Hord & Rutherford, 1998).

The strong correlation also suggests that successful leadership practices of the principal depend, in part, upon the personal and behavioral characteristics of leaders. Trust is relational (Bryk & Schneider, 2002), reciprocal (Kouzes & Posner, 2001), and grounded in the behavior of the individual desiring trust. The only thing that earns leaders trustworthiness is the way they behave (Reina & Reina, 2006), and it is up to the leader to model relational trust and foster the development of trust among and between the professional staff. Interdependence has been described as a necessary condition of trust (Hoy & Tschannen-Moran, 2000). Interdependence is also an attribute of both the professional learning community and enabling bureaucracy (Hord, 1997; Hoy & Sweetland, 2001). The correlation among the three variables in this study would support the notion that the interdependence demanded of the organizational structures and trust in the principal are mutually reinforcing.

New forms of governance that call for relationship-oriented processes, such as the development of shared vision and collaborative decision-making, depend on trust (Hoy Tarter, 2003; Kouzes & Posner, 2001; Moorman, & Fetter, 1990; Podsakoff et al., 1990). Both the professional learning community model and conceptualization of an enabling bureaucracy identify these relationship-oriented processes as central to the success of the structure. The high correlations among the three variables in this study support the premise that trust is necessary to move relational processes forward into structures that are less centralized and formalized.

Although the overall correlation among trust in the principal, maturity as a professional learning community, and enabling school structures was high, there were some schools that were exceptions. School numbers 37 and 40 ranked low in maturity as a professional learning community, and low or moderate in enabling school structures, but high in trust in the principal (see Table 4). These results suggest that it is possible to have made marginal progress in the development of a professional learning community, have a school structure that is fairly inhibiting, and yet have a high level of faculty trust in the principal. This condition could be attributed to a number of factors, and even though it does not follow the correlation pattern, it does not negate the preceding conclusions related to the importance of trust in change and relational organizational structures. The models of trust presented in the literature review did not advance the claim that trust alone initiates change. When one considers the five facets of trust described by Hoy and Tschannen-Moran (2000), it would be possible for high levels of trust to exist in conditions that have no inclination to change or move into a flattened structure of leadership. The five facets of benevolence, reliability, competency, honesty,

and openness, could characterize well-intended and moral relationships in a variety of contexts.

Another exception to correlation among all three variables was two schools that ranked high in trust in the principal and enabling structures, but low in maturity as a professional learning community (see school numbers 10 and 33 in Table 4). This suggests that it is possible for schools to have high levels of trust within an enabling organization, but not advance in movement toward a professional learning community. Again, this could be attributed to a number of factors such as a lack of interest on the part of the leader to initiate change into the mandated structure. It is important to note that there were not any schools that exhibited high levels of maturity as a professional learning community and enabling structures, and low levels of trust in the principal. This would support the conclusion that trust in the leader is an important variable that needs to be considered in the context of change, and within structures that have low levels of centralization and formalization. This reflects the findings of Bryk and Schneider (2002), and the contention that low-trust schools do not have the capacity to engage in and sustain school reform efforts.

The strong correlation of enabling school structures and change into a professional learning community indicate that schools possessing enabling bureaucratic tendencies were more likely to succeed in growing into mature professional learning communities. Conversely, the greater the levels of maturity as a professional learning community, the more likely schools were to move toward enabling organizational structures. This finding supports past qualitative research that has made some preliminary links between enabling bureaucratic structures and learning organizations (Sinden et al.,

2004), and the theoretical hypothesis proposed by Hoy and Sweetland (2001) that enabling bureaucracy should be directly associated with the school as a learning organization.

The high level of correlation between the two variables is not surprising given the number of attributes that are common to both models. Both organizational models are based on more representative governance systems. Shared mission and vision is frequently identified as a crucial factor in a professional learning community with strong emphasis on collective and meaningful learning, supportive and shared leadership, identification of goals through continuous inquiry, a focus on improvement, and a need for capacity building (DuFour & Eaker, 1998; Hord, 1997; Leithwood & Louis, 1998; Newmann & Wehlage, 1995). The learning organization concept calls for a flattened structure governed by shared decision making and high levels of interdependency. The enabling school structures model (Hoy & Sweetland, 2001) describes an enabling bureaucracy as one that possesses low levels of formalization and centralization. Bureaucratic organizations with low levels of formalization are characterized by interactive dialogue, respect for differences, and enabling strategies that require participation and collaboration. A low level of centralization within the organization requires a flexible hierarchy that empowers, facilitates problem solving, cooperation, and broad professional direction rather than narrow organizational control. Both the professional learning community and enabling bureaucracy structures suggest that leadership cannot be viewed as an autonomous task, and that it is important for the leader to foster and manage collaborative working relationships.

The results of the correlation among change into a professional learning community, trust in the principal, and enabling school structures, leads to the conclusion that the three variables can be described as conditions related to successful change into an organizational structure reflective of learning organizations.

Relationship of Mediating Variables: School Size and Grade Configuration

Principal research question and null hypothesis four explored the relationship between the three dependent variables, change into a professional learning community, faculty trust in the principal, and enabling school structures, and two mediating variables.

Null hypothesis four. There will be no relationship between the scores measuring the three dependent variables and the mediating variables of school size and school grade configuration.

Null hypotheses four was tested using Point-biserial Correlation. The test was intended to be a preceding step to multiple regression testing. Conditions underlying a mediating relationship, that of a significant relationship between the mediating variables and test variables, needed to be established. The results of the correlation testing did not support school size and school grade configuration as having a mediating relationship with the study variables. Correlations were weak and did not produce a level of significance. Results of the correlation can be found in Table 6. The findings resulted in failure to reject null hypothesis four. The descriptive rank order data displayed in Table 4 supports this conclusion with both school size and school grade configuration lacking a pattern of ranking among the subgroups of schools.

These results suggest that school size and school grade configuration were not related to the degree to which schools successfully matured as professional learning

communities within the sample of this study. The mediating variables did not have a relationship with the level of trust in the principal or the degree to which the schools possessed enabling structures.

The mediating variables were identified in research as having some influence on the three variables of change into a professional learning community, faculty trust in the principal, and enabling school structures (Bryk & Schneider, 2002; Fullan, 1993, 2001; Hoy & Sweetland, 2001; Hoy & Tschannen-Moran, 2003; Leonard, 2002; Leonard & Leonard, 2001). The results of this study support results of a previous study (Hoy & Sweetland, 2001) that found no significant relationship between school size and trust in the principal. The results of this study do not support research that identifies small elementary schools as more conducive to the development of a professional learning community and trusting relationships (Bryk & Schneider, 2002; Leonard, 2002; Leonard & Leonard, 2001).

In fact, six schools in the top ten of rank order for the measure of maturity as a professional learning community and faculty trust in the principal were from the large school size subgroup, and three were secondary level. Four schools in the top ten of rank order for the measure of enabling school structures were from the large school size subgroup. Four of the schools in the bottom ten of rank order for the measure of professional learning community were from the small school size subgroup, and five were elementary. Four of the schools in the bottom ten of rank order for the measure of faculty trust in the principal were from small school size subgroup, and six were elementary. Five of the schools in the bottom ten of rank order for enabling school structures were from the small school size subgroup, and five were from elementary. This

pattern demonstrates that, contrary to some previous research, larger secondary schools were as likely as smaller elementary schools to be imbued with faculty trust in the principal and develop into mature professional learning communities.

The Alberta Context: Capacity Building Through Professional Development

In order to develop some understanding of capacity building for the mandated change in the Alberta context, the study gathered data regarding study participants' engagement in forms of professional development focused on change into a professional learning community. Research indicated that the recommendation put forth by Alberta's Commission on Learning had full support of some key educational stakeholders including Alberta Education, the Alberta Teachers' Association, and the College of Alberta School Superintendents. Although the legislated mandate came without a lot of consideration given to building capacity, the schools, jurisdictions, and the Alberta Teachers' Association have been quite proactive in the delivery of professional development as evidenced by the data in this study.

The results indicate that a high percentage of respondents have been involved in some form of professional development related to the professional learning community model. A level of 90% engagement of teachers in professional development associated with the mandated change suggests a high level of commitment on the part of schools to have staff involved in the change process. This supports the research that points to support of professional learning communities through jurisdiction professional development, AISI projects and Alberta Teachers' Association workshops. Both the research and results reflect a common interest among key stakeholders. This is an

indication that the kind of interrelationships among components of the entire system necessary for systems thinking (Senge, 1990) is at play.

## *Implications*

Reform efforts in the current climate of accountability have put increasing pressure on schools and leaders within the educational system to change. The context of this study was provincially mandated change for schools to organize into professional learning communities throughout Alberta. This study analyzed variables associated with the change three years following the mandate. The correlation analysis of three variables, change into a professional learning community, faculty trust in the principal, and enabling school structures, has implications for educational stakeholders charged with the responsibility for instituting change.

A number of reform efforts have come and gone without proof of sustained success. The concept of learning organization (Senge, 1990, 2000), has received extensive attention as a model that will promote ongoing organizational learning and meet the needs of the future. The professional learning community model has been touted as the organizational structure for schools seeking to advance student learning in an organizational model that promotes continuous improvement. Change is complex, and some implementation difficulties of these laudable models have been noted (DuFour, 2004; Finger & Brand, 1999; Smith, 2000). Gaps between the theory of learning organization steeped in the creation of culture and organizational reality have been pointed out, as well as gaps between the complexity and sophistication required of leadership and what the leaders are prepared to do in practice. It is important, then, that

studies that focus on change into this model contribute to a building of understanding surrounding change in actual instances of implementation.

Findings of this study have implications for the principals of schools. As is the case in the Alberta context, most school reform efforts and accompanying organizational changes fall to the responsibility of the principal. It is important for principals to gain knowledge and determine the leadership behaviors and organizational components that have a demonstrated relationship to successful change. The conclusions of this study imply that it is important for principals to recognize the value of relationships in building capacity for change. For principals interested in building professional learning communities, developing trustworthy relationships is a productive way to begin. When considering how to inspire trust among the faculty, attention should be given to all facets of trust and those processes that lend themselves to authentic and open relationships.

The development of interpersonal skills and implementation of processes that advance relationships requires both knowledge and personal professional development. Principals should seek opportunities to learn about collaborative processes, methods of communication such as interactive dialogue, and distributed leadership.

The strong relationship between enabling structures and professional learning communities evidenced by this study implies that principals need to assess the school's current capacity for change by examining the nature of the current bureaucratic structure within which the school operates. A principal can begin by becoming knowledgeable about formalization and centralization tendencies within the bureaucratic structure of a school. The forward thinking intent to transform a school into a learning organization still must be accomplished within a bureaucratic educational structure. In order to build

capacity for change, enabling formalization characteristics such as flexible rules with a professional orientation, interactive dialogue, respect for differences, and decision-making processes that are oriented toward problem solving should be instituted.

Tendencies toward strong centralization with the principal as the sole locus of control should be avoided, and collaborative decision-making processes that distribute leadership developed. This also implies that principals need to attend to the development of leadership capacity among the staff in the school.

This study also has implications for system leaders. The results imply that it is important for jurisdictions to plan and institute support for leaders' growth in the complex skills necessary for relationship-centered organizational models. Leadership development programs should include a focus on the development of personal attributes that foster relationships. In humanistic organizational structures, such as a professional learning community, leaders need to understand the causes of behavior as much as the consequences of actual behavior. Programs should also focus on the development of skills to implement collaborative, communicative processes. Jurisdictions must be willing to provide the necessary support and resources for extensive leadership development.

The strong relationship between trust, enabling structures, and change also implies that jurisdictions need to examine district level bureaucratic structures to assess alignment with enabling attributes. Policies should not be restrictive and focused on punishment. Jurisdiction procedures should be focused on providing support in a flexible manner to meet the needs of each individual school, not unyielding and coercive. Finally, jurisdiction leaders need to model relational behaviors that foster trust, commitment, and collaboration system-wide.

## Recommendations for Further Research

This research study was conducted to determine the relationship among the variables of: a) change into a professional learning community, b) faculty trust in the principal, and c) enabling school structures. New understandings of organizational change and variables that are related to successful change are emerging. This study contributes to the body of research that identifies variables within leadership and organizational structures that require attention before and during the change process. A number of directions for future research emerge from this study.

The importance of the development of faculty trust in the principal in the context of change, as well as in organizational structures that are enabling, was supported by this research. Correlational research establishes the existence of a relationship, but does not establish causation. Further quantitative research is recommended that has the design and sample requirements necessary to more clearly establish directional influence between trust, change, and other organizational variables.

The results of this study did not support past research that established a relationship between the development of professional learning community and the variables of school size and school grade configuration. Further research with larger subsamples of school size and school grade configuration may contribute to a more comprehensive understanding of the mediating effect of these two variables on change into a professional learning community.

Trust research in the school context is fairly recent and there could be benefit in exploring the relationship of trust with other educational variables such as school climate, innovation in the classroom, and teacher satisfaction. Given the critical role the principal

plays as a change agent, the relationship of trust and effective leadership should be explored. Qualitative research that begins with high trust schools identified through quantitative research could examine principal behaviors in the school context that lead to relationships imbued with trust and a trusting school climate. Further examination of relational processes identified as important for developing a professional learning community, such as collaboration and distributed leadership, would contribute to research focusing on effective leadership. Qualitative research that examines school structures that facilitate trust would further the understanding of effective organizational structures. Understanding how trust relates to organizational structures is important if schools are to successfully develop into learning organizations with enabling structures.

Past research contends that there is a gap between learning organization theory and a learning organization in practice (Finger & Brand, 1999; Smith, 2001). This research supports the theoretical link between learning organizations and enabling bureaucracies. It is likely that reform efforts will continue within a bureaucratic education system. Both quantitative and qualitative research that explores the relationship between enabling bureaucratic structures and change into a learning organization would contribute to a better understanding of what bureaucratic attributes contribute to successful change, as well as what attributes act as barriers to change. Application of a model in practice also needs to consider the environmental conditions that contribute to successful implementation. For example, one might explore the effect of accountability measures on establishing a learning organization that calls for flattened structure, trust, and supportive interrelationships. Given the extensive attention given to the learning organization as the model necessary for continued improvement and meeting the needs of the future, it is

imperative that research address implementation of the model in practice. The success of reform efforts depend on bridging theory and practice.

This study supports the existence of a relationship between a specific leadership construct, trust, and successful change into a professional learning community. Evidence of whether leadership behaviors, such as the ability to establish trusting relationships, actually produce achievement results is lacking in current research. As such, research focused on effective school reform efforts might consider analyzing the effects of principals' behavior on student achievement within a professional learning community.

Data specific to professional development gathered in this study pointed to fairly extensive professional development efforts in Alberta directed at supporting the implementation of professional learning communities. The data of this study do not address the method of professional development delivery or the level of effectiveness. Given the importance of professional learning identified in the professional learning community model, further study examining delivery methods and effectiveness would contribute to an understanding of the impact of professional development as a support mechanism, as well as inform effective delivery strategies.

## Chapter Summary

Conclusions based on major findings of the research were delineated in this chapter. The overall research question of the study asked what relationship exists among the variables of change into a professional learning community, faculty trust in the principal, and enabling school structures. A strong and significant correlation was found among all three variables. It was concluded that the schools imbued with high levels of trust in the principal were more successful in implementing change into a professional

learning community. Conversely, schools that had successfully progressed as mature professional learning communities were more likely to possess trusting relationships with the principal. It was also concluded that the schools possessing high levels of trust in the principal were more likely to possess enabling school structures. Finally, it was concluded that schools perceived as having high levels of enabling bureaucratic structures were more successful in implementing change into a professional learning community. The findings of the correlation among the three variables contributed to the overall conclusion that the variables can be described as conditions related to successful change into a learning organization structure.

The findings of the correlation between the mediating variables (school size and school grade configuration), and the study variables, led to the conclusion that there was not a mediating relationship among the variables. The findings of participant engagement in forms of professional development led to conclusion that there has been a high level of engagement at the school site and jurisdiction level in Alberta Zone 6 jurisdictions.

The conclusions drawn from the strong correlation among the variables of change into a professional learning community, trust, and enabling structures, have implications for educational stakeholders charged with instituting change in the context of reform. As the change agent at the school level, the importance of the principal was identified. The conclusions implied that it is imperative for principals to recognize the importance of relationships and the foundation of trust, gain knowledge, and attend to the behaviors and processes required to build trust and relationships. Another important implication for school leaders was the need for principals to understand the attributes of enabling bureaucracies and learning organizations in order to assess current capacity, and direct

attention to creating enablers and eliminating barriers. Implications for system leaders included giving attention to leadership development, enabling structures at a system level, and modeling relational behaviors that foster trust, commitment, and collaboration system-wide.

This research joins other research in supporting the shifting paradigm of leadership required to meet the needs of the future. The complexity of leadership in the face of accountability driven reform and changing societal context requires a sound knowledge base to focus energy and inform practice. Current educational reform has placed a lot of emphasis on re-structuring as a learning organization. The context of Alberta with a mandate for all public schools to form as professional learning communities is an example of wide-scale implementation of the learning organization concept. This study builds on previous research related to organizational change to a professional learning community. It furthers research in this area by providing an analysis of relationships among three variables not previously examined concurrently: change into a professional learning community, faculty trust in the principal, and enabling school structures.

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#### APPENDIX A. LITERATURE REVIEW MAP

# Principal Trust Variable

## Principal leadership theory in context of change

- Barth, 1990; Bass, 1990; Day et al, 2004; Fullan, 2002/03/05; Hall & Hord, 2001; Hopkins, 1997; Leithwood & Jantzi; 1990; Nash, 1999; Sergiovanni, 2001; Speck, 1999

#### Transformational leadership

- -Downton, 1973; Burns, 1978; Bass, 1985; Bass & Avolio, 1997
- ...and change: Cuban, 1988; Esche, 1997; Leithwood, 1994; Murphy & Hallinger, 1992; Nader, 1997; Wheelehan, 2001
- ... and trust: Bass, 1997; Podsakoff et al., 1990
- ... and PLCL: Anderson, 2002; Cowan, 2001; DuFour, DuFour & Eaker, 2002

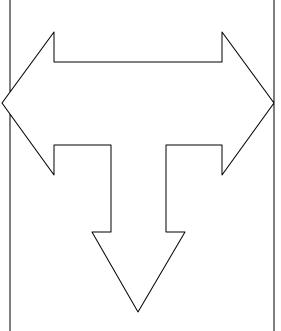
#### Moral leadership

- -Evans, 2000; Greenleaf, 1977; Sergiovanni, 2000a
- -Link to transformational : Bass, 1997; Stevens, 2001
- -Moral purpose: Fullan, 2002/03); Quick & Normore, 2004
- -Link to trust: Evans, 2000; Murry, 1996

#### **Principal construct of trust**

- -Trust in the principal as a variable: Bennis, 1994; Deroche & Williams, 1998; Kochanek, 2005; Palestini, 1999; Raywid, 1993; Sergiovani, 2000/01; Tschannen-Moran, 2003/06; Whitener et al., 1998
- -Trust & governance structures: Hoy & Tarter, 2003; Kouzes & Pozner, 2000; Podsakoff et al., 1990; Powell, 1996
- -Definition: Hoy & Tschannen-Moran, 1999/2000/2003 -Two Schools of Research:
  - 1. Hoy & colleagues (1980s to present)
  - -Key study: Hoy & Tschannen-Moran, 1999
  - 2. Bryk & Schneider, 2002 relational trust
  - -Fullan, 2003; Fullan et al., 2004
- 3. Additional: Jones & George, 1998; Kramer, 1996; Reina & Reina, 2006

## Relationship



#### **Change Variable**

#### **Broader Context of Change**

-Process, capacity building & sustainability: Calabrese, 2002; Elmore, 2002; Fullan, 2001/2002/2005; Hall & Hord, 2001; Hord, 1997; Kruse, Louis & Bryk, 1994; Lambert, 2003; Leithwood & Louis, 1998; Newman & Wehlage, 1995

#### Change & Reform

- -Effective Schools movement: Averch et al., 1974; Jencks, 1972; Nash, 1999
  - -Reform & accountability: Fullan

#### Learning organization

- -Senge (1990/2000)
- -Connections: Smith, 2001; Kerka, 1995; Finger & Brand (1999)

#### **Professional Learning Community**

- -Leithwood & Louis, 1998; Newman & Wehlage, 1995
- -Models and definition: DuFour & Eaker, 1998; Hord, 1997 -SMART Schools (2002); Drucker (1954)
- -Research support: testimonials: Carver, 2004; Littky et al, 2004 -scholarly research: Darling-Hammond, 1996; Fullan, 2001; Watkins & Marsick, 1999
- -dissertations: Ball, 2004; Chaix, 2002; Gurly, 2000; Kanold, 2002; Wilson, 2005; Zarrow, 2001;

#### Principal leadership and PLC

-Studies: Gregg, Niska & Thompson, 2004; Zederayko, 2000; Richardson, 2003; Bennis,

#### PLC & Trust

-Brewster & Railsback, 2003; Gregg, Niska & Thompson, 2004; Kouzes & Posner, 2003; Skytt, 2003; Tschannen-Moran, 2004/2006

#### Organizational Structure: Enabling Bureaucracy Variable

Schools as bureaucratic structures: - Adler & Borys, 1996; Hirshhorn, 1997; Liethwood, 1994; Nash, 1999; Tschannen-Moran, 2006; Weber, 1947

#### Definition

- -Hoy & Sweetland (2001/02/03)
- + connection to learning organizations: Senge, 1990; DuFour & Eaker, 1998; Leithwood, 1994; Sinden, Hoy & Sweetland. 2004: Tschannen-Moran, 2006
- + connection to trust: Coleman, 1990; Elmore et al., 1996; Hoy & Sweetland, 2001; Sitkin & Sitkin, 1996; Sitkin & Stickel, 1996; Tschannen-Moran, 2002/06; Tschannen-Moran & Hoy, 2000; Tyler & Kramer, 1996; Whitener et al., 1998

#### APPENDIX B. REQUEST FOR SUPERINTENDENT AUTHORIZATION

#### **Request for Jurisdiction Permission to Conduct Study**

Cheryl Gilmore 4713 60 Ave. Taber, Alberta	T1G 1E1
Date	
School Superin School Jurisdic	
Dear	:

I am a doctoral student in educational leadership studies at The University of Montana. The topic of my dissertation is "Change, Principal Trust and Enabling School Structures: An Analysis of Relationships in Southern Alberta Schools." In 2003 a recommendation was put forth by the Alberta Commission on Learning for all public schools in Alberta to form professional learning communities. The recommendation was accepted by the provincial government and schools throughout Alberta have been encouraged to proceed with the accepted recommendation. Province-wide change of schools into learning communities provides an opportunity to explore the variable of change and its relationship to two variables that have been identified in research as having an effect on change: trust and school structure. The purpose of this study is to determine if there is a relationship between the three variables within the described context.

The research design identifies the target population as teachers employed in public schools located in Southern Alberta, Zone 6. I am requesting permission to conduct research on the topic of change, principal trust and enabling school structures in your jurisdiction. Schools within jurisdictions that provide Superintendent permission to proceed with study will be included in the pool of accessible population schools. Letters will be sent to the principals of 52 schools selected through stratified sampling. Once school approval has been obtained from the principal, questionnaires will be sent to all teachers of the sample schools. The teacher questionnaires will comprise of likert-type questions that measure the three dependent variables: maturity as a professional learning community, enabling school structures and faculty trust in the principal.

The three data collection instruments that will be used are: School Professional Staff as Learning Community, Omnibus Trust Scale (Faculty Trust in Principal subscale), and Enabling School Structures (ESS). The questionnaire combining the three instruments will take approximately fifteen minutes to complete. Each staff member will receive an envelope with a copy of your letter of permission, an informed consent form, and the questionnaire with a return envelope including postage. I assure you that anonymity and confidentiality will be maintained. Reporting of results will not identify jurisdictions or schools.

Thank-you for your consideration in providing permission to include schools within your jurisdiction as part of this study. If you have any questions, please contact me at (403) 223-3547 or my advisor Dr. Don Robson (406) 243-4893. I look forward to your response.

Respectfully,

Cheryl Gilmore Graduate Student University of Montana

#### Enclosures

- Research Questionnaire
- Letter to principals
- Letter to teachers
- Dissertation Proposal Approval

#### APPENDIX C. LETTER TO PRINCIPALS

Chervl Gilmore

4713 60 Ave.	
Taber, Alberta Canada T1G 1E1	
Date	
School Principal Name	
School Address	
Dear:	
Your jurisdiction Superintendent,,	
for me to elicit collection of data from schools within the jurisdic	
will be used to complete my doctoral studies in educational leade	
University of Montana. The topic of my dissertation is "Change,	*
Enabling School Structures: An Analysis of Relationships in Sour	
2003 a recommendation was put forth by the Alberta Commission	C
public schools in Alberta to form professional learning communi	
was accepted by the provincial government and schools througho	
encouraged to proceed with the accepted recommendation. Provin	C
schools into learning communities provides an opportunity to exp	
change and its relationship to two variables that have been identif	<u>e</u>
an effect on change: trust and school structure. The purpose of this	•
there is a relationship between the three variables within the desc	
school was one of fifty-two schools selected using stratified rando	1 0
accessible population of all public schools in Southern Alberta Zo	one o.

I am requesting permission to elicit data on this topic from your teaching staff. Specifically, I would like to collect data from your teachers through the use of a questionnaire. The questionnaire is comprised of three data collection instruments: School Professional Staff as Learning Community (Hord, 1996), Omnibus Trust Scale: Faculty Trust in Principal subscale (Hoy & Tschannen-Moran, 2003), and Enabling School Structures: ESS (Hoy & Sweetland, 2000).

Upon approval, a package of questionnaires to distribute to teaching staff will be mailed directly to you at your school. Questionnaire packages are to be distributed to teaching staff within the school by yourself or a designate. The questionnaire will take about fifteen minutes for staff to complete. Each staff member will receive the questionnaire, a letter of permission, and Human Subjects Informed Consent Form. Return envelopes with postage will also be included with each questionnaire to facilitate direct mailing to the researcher.

Thank-you for your consideration in providing permission to survey teachers in your school. I will be very appreciative of your participation and support. I assure you that

anonymity and confidentiality will be maintained. Reporting of results will not identify jurisdictions or schools or any information that can identify schools.

If you have any questions, please contact me at (403) 223-3547 or my advisor Dr. Don Robson (406) 243-4893. I look forward to your response.

Respectfully,

Cheryl Gilmore Graduate Student University of Montana

#### Enclosures:

- Letter to teachers
- Questionnaire
- Human Subjects Informed Consent Form
- Letter of approval for study from jurisdiction Superintendent

#### APPENDIX D. LETTER TO TEACHERS

Cheryl Gilmore 4713 60 Ave. Taber, AB T1G 1E1

Date

Dear Teacher:

Your school Superintendent and principal have granted permission for me to elicit data collection from the professional staff at your school. I am requesting your professional assistance in the provision of data by completing the enclosed questionnaire. In 2003 a recommendation was put forth by the Alberta Commission on Learning for all public schools in Alberta to form professional learning communities. The recommendation was accepted by the provincial government and schools throughout Alberta have been encouraged to proceed with the accepted recommendation. Province-wide change of schools into learning communities provides an opportunity to explore the variable of change and its relationship to two variables that have been identified in research as having an effect on change: trust and school structure. The purpose of this study is to determine if there is a relationship between the three variables within the described context. Your school was one of fifty-two schools selected using stratified random sampling from an accessible population of all public schools in Southern Alberta Zone 6.

Your participation is entirely voluntary and anonymous. Reporting of results in this study will not identify individual participants, schools or jurisdictions. Your professional opinion is indeed valued. It is the front line teacher who is the gateway to change and student learning. To provide your perspective on the subject of the relationship among change into a professional learning community, trust in the principal and school structure, you are asked to take approximately fifteen minutes to complete the enclosed questionnaire. The questionnaire is comprised of three data collection instruments: School Professional Staff as Learning Community (Hord, 1996), Omnibus Trust Scale: Faculty Trust in Principal subscale (Hoy & Tschannen-Moran, 2003), and Enabling School Structures: ESS (Hoy & Sweetland, 2000). Instructions may be found on each instrument. Please be honest with your responses to the three survey instruments. Your responses will be anonymous, held strictly confidential, and will be used only for my research study.

Please complete the questionnaire and return by placing the questionnaire in the stamped enveloped enclosed for direct mail to the researcher. I encourage you to contact me directly if you have any questions or concerns regarding the study.

Contact information is as follows:

e-mail: cheryl.gilmore@horizon.ab.ca

phone: (403) 223-3547 extension 30 or (403) 223-1139

mailing address: 4713 60 Ave. Taber, Alberta Canada T1G 1E1

You may also contact my research advisor, Dr. Don Robson at (406) 243-4893.

Thank-you in advance for your time and significant contribution to this study.

Respectfully,

Cheryl Gilmore Doctoral Student The University of Montana

# APPENDIX E. DATA COLLECTION INSTRUMENTS

# Demographic Data Form

Please complete the following by checking or circling the appropriate response:

1.	Size of	Schoo	ol. Ple	ase pla	ace v								
		_ Le	ess tha	n 200	studen	its							
		20	1 to 3:	50 stud	dents								
		_ M	ore tha	an 350	stude	nts							
2.	Grade C	Config	guratio	on of S	chool								
	Please o	circle	all of	the gra	ades w	ithin y	your so	chool:					
K	1	2	3	4	5	6	7	8	9	10	11	12	
3.	Profession	onal I	Develo	pment	t								
	Please p developi learning	ment 1	related	l to <b>pr</b>	ofessi	onal l	earnir	ig com	ımuni	ties (als	o referre	ed to as	
		Ins Ins Ins ou Ins	service service service tside y	e or we or we or we or we or we or we of Albe	orkshoorkshoorkshoorkshoots orkshootstrict orkshoorta	op at the pop delicop at a but in op at a	ne juri vered confer Albert	by AT rence o	n level 'A at th or learn	ne schooning ins	ol or juri titute de stitute de		eve]
								ional c		oment b	out famil	iar with th	he
					-			evelop comm		nd not	familiar	with the	

# **School Professional Staff as Learning Community**

**Directions:** This questionnaire concerns your perceptions about your school staff as a learning organization. There are no right or wrong responses. Please consider where you believe your school is in its development of each of the five numbered descriptors shown in bold-faced type on the left. Each sub-item has a five-point scale. On each scale, circle the number that best represents the degree to which you feel your school has developed.

1. School administrators Administrators invite advice and Administrators never share participate democratically Although there are some legal and fiscal decisions required of the counsel from the staff and then information with the staff with teachers sharing power, authority, and decision principal, school administrators make decisions themselves. nor provide opportunities. making. consistently involve the staff in discussing and making decisions about most school issues. 1b. Administrators involve the entire Administrators involve a small Administrators do not involve staff. committee, council, or team of staff. any staff. 2. Staff shares visions for 3 Visions for improvement held Visions for improvement are discussed school improvement that Visions for improvement are not have an undeviating focus by the entire staff such that consensus thoroughly explored; some staff by the staff are widely on student learning, and are and a shared vision results. agree and others do not. divergent. consistently referenced for the staff's work. 2 1 Visions for improvement do not Visions for improvement are always Visions for improvement are focused on students and learning and sometimes focused on students and target students and teaching and teaching and learning. teaching and learning. learning 2 1 Visions for improvement do not Visions for improvement address Visions for improvement target high quality learning experiences for all quality learning experiences in include concerns about the terms of students' abilities. students. quality of learning experiences

Date:

3. Staff's collective learning and application of the learnings (taking action) create high intellectual learning tasks and solutions to address student needs.	issues, sha	staff meets to discuss re information, and learn rom each other.	4	Subgroups of the staff meet to discuss issues, share information, and learn with and from each other.	Individuals randomly discuss issues, share information, and learn with and from each other.	<u>[</u>
	frequently	5 neets regularly and on substantive student- ducational issues.	4	The staff meets occasionally on substantive student-centered educational issues.	The staff never meets to discuss substantive educational issues.	<u>L</u> I
		5 iscusses the quality of ing and students'	4	The staff does not often discuss their instructional practices nor its influence on student learning.	The staff basically discusses non-teaching and non-learning issues	Ī
	makes and address s tu effective to	based on their learnings, implements plans that adents' needs, more eaching, and more student learning.	4	The staff occasionally acts on their learnings and makes and implements plans to improve teaching and learning.	The staff does not act on their learning.	<u>[</u>
		5 ebriefs and assesses the heir actions and makes	4	The staff infrequently assesses their actions and seldom makes revisions based on the results.	The staff does not assess their work.	
4. Peers review and give feedback based on observing each other's classroom behaviors in order to increase Individual and organizational		5 arly and frequently visit we each other's teaching.	4	The staff occasionally visit and observe each other's teaching.	2 Staff never visit their peers' classrooms.	<u>l</u>
capacity.	about teacl	de feedback to each other hing and learning based assroom observations.	4	Staff discuss non-teaching issues after classroom observations.	2 Staff do not interact after classroom observations.	Ī

5. School conditions and capacities support the staff's arrangement as a professional learning organization.

5a. <u>5</u>	4	3	2 1
Time is arranged and committed for		Time is arranged but frequently	Staff cannot arrange time for
whole staff interactions.		The staff fails to meet.	interacting.
5b. <u>5</u>	4	3	2 1
The size, structure, and arrangements of the school facilitates staff proximity and interaction.		Considering the size, structure, and arrangements of the school, the staff are working to maximize interaction.	The staff takes no action to manage the facility and personnel for interaction.
5c. 5	4	3	2 1
A variety of processes and procedures are used to encourage staff communication.		A single communication method exists and is sometimes used to share information.	Communication devices are not given attention.
5d. 5	4	3	2 1
Trust and openness characterize all		Some of the staff are trusting and	Trust and openness do not
the staff.		open.	exist among staff.
5e. 5	4	3	2 1
Caring, collaborative, and productive		Caring and collaboration are	Staff are isolated and work alone
relationships exist among all the staff.		inconsistently demonstrated among the staff.	at their task.

\*Hord, Shirley M. (1996). Austin, TX: Southwest Educational Development Laboratory

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# Form ESS

The following statements are descriptions of the way your school is structured. Please indicate the extent to which each statement characterizes behavior in your school.

Never	Once in a While	Sometimes	Fairly Often	Always
1	2	3	4	5
Page	rd vour rooponoo by siral	ing the appropriate	number beside the sta	tomont

		Neve	er		Alv	vays
1.	Administrative rules in this school enable authentic communication between teachers and administrators	1	2	3	4	5
2.	In this school red tape is problem	1	2	3	4	5
3.	The administrative hierarchy of this school enables teachers to do their job	1	2	3	4	5
4.	The administrative hierarchy obstructs student achievement	1	2	3	4	5
5.	Administrative rules help rather than hinder	1	2	3 4	5	
6.	The administrative hierarchy of this school facilitates the mission of this school.	1	2	3	4	5
7.	Administrative rules in this school are used to punish teachers	1	2	3	4	5
8.	The administrative hierarchy of this school obstructs innovation	1	2	3	4	5
9.	Administrative rules in this school are substitutes for professional judgement.	1	2	3	4	5
10.	Administrative rules in this school are guides to solutions rather than rigid procedures.	1	2	3	4	5
11.	In this school the authority of the principal is used to undermine teachers.	1	2	3	4	5
12.	The administrators in this school use their authority to enable teachers to do their job	1	2	3	4	5

# Omnibus T-Scale

#### **DIRECTIONS:**

The following are statements about your school. Please indicate the extent to which you agree with each statement along a scale from strongly disagree (1) to strongly agree (6).

			rong sagr		Strongly Agree		
1.	Teachers in this school trust the principal	1	2	3	4	5	6
2.	The teachers in this school are suspicious of most of the principal's actions	1	2	3	4	5	6
3.	The teachers in this school have faith in the integrity of the principal	1	2	3	4	5	6
4.	The principal in this school typically acts in the best interests of teachers	1	2	3	4	5	6
5.	The principal of this school does not show concern for the teachers.	1	2	3	4	5	6
6.	Teachers in this school can rely on the principal	1	2	3	4	5	6
7.	The principal in this school is competent in doing his or her job	1	2	3	4	5	6
8.	The principal doesn't tell teachers what is really going on	1	2	3	4	5	6

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#### APPENDIX F. INFORMED CONSENT

Change, Principal Trust and Enabling School Structures: An Analysis of Relationships in Southern Alberta Schools

Investigator: Cheryl Gilmore

Contact Information: e-mail: cheryl.gilmore@horizon.ab.ca

phone: (403) 223-3547 extension 30 or (403) 223-1139 mailing address: 4713 60 Ave. Taber, Alberta Canada

T1G 1E1

Committee Chairperson: Dr. Don Robson

Telephone Number: (406) 243-4893.

#### I. INTRODUCTION

You are invited to take part in a research study. Before you decide to take part in this study, you need to understand the risks and benefits. This form provides information about the research study. The investigator of the research study will be available to answer your questions and provide further explanations. If you agree to take part in the research study, you will proceed to completing the enclosed questionnaire and returning the questionnaire in the stamped envelope directly to the investigator.

Your decision to take part in the study is voluntary. You are free to choose whether or not you will proceed with filling out the questionnaire in order to take part in the study.

#### II. PURPOSE

As a doctoral student in the Graduate School of Education of The University of Montana, the investigator is carrying out a research study to investigate the relationship among change into a professional learning community, faculty trust in the principal and enabling school structures in the geographic area of Southern Alberta, Zone 6. The investigator (person in charge of this research study) is Mrs. Cheryl Gilmore.

#### III. PROCEDURES

Your school was one of fifty-two schools selected using stratified random sampling from an accessible population of all public schools in Southern Alberta Zone 6. Following approval to conduct this research from your school Superintendent and principal, packages containing the enclosed information and questionnaires were mailed for distribution to professional staff at your school. Principals were asked to distribute information to individual teachers. The total amount of time you will be asked to participate in this study is approximately fifteen minutes for the purpose of filling out and returning the enclosed questionnaire.

#### IV. POSSIBLE RISKS

To the best of the investigator's knowledge, the research activity that you will participate in will pose no more psychological (stress) risk of harm than you would experience in everyday life.

#### VI. POSSIBLE BENEFITS

There are no expected personal benefits associated with taking part in this research study. The information gained from this study, however, may benefit knowledge and other individuals in the future. Research that focuses on an examination of the relationship among the constructs of principal trust, enabling school structures and change into a professional learning community has the potential to contribute to a better understanding of leadership behaviors and structures that are related to and influence change. The study may also inform policy at a jurisdiction level, especially with respect to developing profiles for principal selection, professional development of principals, and development of appropriate timelines for instituting change.

#### VII. COSTS

There are no costs associated with taking part in this research study.

#### VIII. COMPENSATION

You will not receive any financial compensation for participating in this study.

#### IX. RIGHT TO WITHDRAW FROM THE STUDY

Your participation in this research study is strictly voluntary. You may choose to stop participation or withdraw from the study at any time. Once questionnaires are mailed they become indistinguishable to the investigator with respect to identification of individual respondents. You will be told of any new information about the research study that may cause you to change your mind about participation.

#### X. CONFIDENTIALITY OF RESEARCH RECORDS

Your responses will be held confidential. Your personal information is not provided to the investigator on the questionnaire. The information provided on the school Demographic Data Form preceding the questionnaire will be used to determine representation of population and consider the mediating variables of school size and school grade configuration in analysis of the data. Your responses will only be used for research purposes.

# XI. QUESTIONS

If you have any questions about the procedures of this research study, please contact Cheryl Gilmore by telephoning (403-223-3547 extension 30) during the workday or (403-223-1139) during the evening. You may also e-mail any questions to: <a href="mailto:cheryl.gilmore@horizon.ab.ca">cheryl.gilmore@horizon.ab.ca</a>

You may also contact my research advisor, Dr. Don Robson by telephoning (406-243-4893.

#### APPENDIX G. REQUEST AND PERMISSION FOR INSTRUMENT USE

# Electronic Request for use of instrument: Questionnaire SPSLCQ (School Professional Staff as a Learning Community Questionnaire)

#### e-mail to:

Nancy Reynolds <nreynold@sedl.org>

Nancy Reynolds, Information Associate
Information Resource Center, Southwest Educational Development Laboratory 211 E. 7<sup>th</sup> St., Suite 200
Austin, TX 78701-3253
512-476-6861, x226
http://www.sedl.org

**Date sent:** Sun, 5 Nov 2006 13:41

Dear Nancy Reynolds,

I am a doctoral student working with a doctoral cohort through the University of Montana at the Missoula campus. I am at the point in my program where I am preparing for a Dissertation proposal. My research focuses on the development of professional learning communities in Alberta, Canada, and its relationship to staff trust in the principal and enabling structures in bureaucratic organizations. I am requesting permission to use the questionnaire designed by Shirley Hord in 1996 (School Professional Staff as a Learning Community Questionnaire - SPSLCQ) as part of my Dissertation research to assess where on a continuum schools are in the development of their professional learning communities.

My contact information is as follows: e-mail: cheryl.gilmore@horizon.ab.ca phone: (403) 223-3547 extension 30 mailing address: 4713 60 Ave. Taber, Alberta Canada T1G 1E1 Thank you for your assistance. If you require further information, please let me know. I look forward to your response.

Respectfully, Cheryl Gilmore



211 East Seventh Street Austin, Texas 78701 Voice: 512/476-6861 Fax:512/476-2286

TO: Cheryl Gilmore (Licensee)

4713 60 Ave.

Taber, Alberta Canada T1G 1E1

FROM: Nancy Reynolds

Information Associate, Information Resource Center Southwest Educational Development Laboratory

211 East Seventh Street Austin, TX 78701-3253

SUBJECT: Permission to reprint and distribute SEDL materials

DATE: November 6, 2006

Thank you for your interest in using the printed instrument **School Professional Staff as Learning Community** (the "work"), a questionnaire created by Dr. Shirley Hord of the Southwest Educational Development Laboratory (SEDL) in 1996.

SEDL is pleased to grant permission for use of the material cited above in the licensee's doctoral research on the development of professional learning communities in Alberta, Canada and its relationship to staff trust in the principal at the University of Montana at Missoula. The following are the terms, conditions, and limitations governing this limited permission to reproduce the work:

- All reprinting and distribution activities shall be solely in the medium in which
  the work has been made available for your use, i.e., copies printed from a PDF
  document, and shall be solely for educational, non-profit use only. Precise
  compliance with the following terms and conditions shall be required for any
  permitted reproduction of the work described above.
- No adaptations, deletions, or changes will be made in the material, nor shall the work be converted into any other medium, nor shall any derivative work based on or incorporating the work be created, without the prior written consent of the Southwest Educational Development Laboratory.
- This permission is non-exclusive, non-transferable, and limited to the one-time use specified herein. This permission is granted solely for the period November 6, 2006 through November 6, 2007, inclusive. SEDL expressly reserves all rights in this material.
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Page 2 of 2 Permission to reprint and distribute SEDL materials

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I'm e-mailing you a PDF of this agreement. Please print and sign one copy below, indicating that you understand and agree to comply with the above terms, conditions and limitations, and send the original back to me. If you wish to keep a copy with original signatures, please also print, sign, and return a second copy and, after I sign it, I'll return it with both of our signatures to you.

Thank you, again, for your interest in SEDL's materials. If you have questions, please contact me at (800) 476-6861, ext. 226 or by e-mail at nreynold@sedl.org.

Nancy Remolds
For Southwest Educational Development Laboratory

Agreed and accepted:

Signature:

Date signed: Nov. 6/06

A PDF document of "School Professional Staff as Learning Community Questionnaire" will be e-mailed to licensee Cheryl Gilmore at Cheryl.gilmroe@horizon.ab.ca.

#### **Electronic Request for use of instrument: Form ESS (Enabling School Structures)**

#### e-mail to:

Wayne Hoy <whoy@mac.com>

Wayne K. Hoy Fawcett Professor of Education Administration www.coe.ohio-state.edu/whoy 614-292-4672

**Date Sent:** Mon, 6 Nov 2006 01:31

Dear Dr. Hoy,

I am a doctoral student registered with the University of Montana at the Missoula campus. I am at the point in my program where I am preparing a Dissertation proposal. My research focuses on the relationship of three variables:

- 1) Change (the development of professional learning communities in all public schools as mandated by the provincial government in 2003) in Alberta, Canada:
- 2) Staff trust in the principal;
- 3) School bureaucratic structure conceptualized along the enabling/hindering continuum (Hoy & Sweetland, 2000)

To measure the third variable, school bureaucratic structure, I would like to use the questionnaire designed by you and Dr. Sweetland (ESS Form: 12 item likert-type scale that measures the degree to which school structure is enabling).

I am requesting permission to reproduce the ESS instrument for the purpose described above. If you would like to discuss my research proposal in detail, my contact information is below.

My contact information is as follows:

e-mail: <u>cheryl.gilmore@horizon.ab.ca</u> phone: (403)223-3547 extension 30 mailing address: 4713 60 Ave. Taber, Alberta Canada T1G 1E1

Thank you for your assistance. I look forward to your response.

Respectfully, Cheryl Gilmore

# **Electronic Response providing permission to copy: Form ESS Enabling School Structures**

#### e-mail from:

Wayne Hoy <whoy@mac.com>

### e-mail received by:

cheryl.gilmore@horizon.ab.ca

**Date Received:** Mon, 6 Nov 2006 15:10

Hi Cheryl--

You have my permission to use the scale for your research. You can find the measure on line at www.coe.ohio-state.edu/whoy.

#### Good Luck.

Wayne

Wayne K. Hoy Fawcett Professor of Education Administration www.coe.ohio-state.edu/whoy 614-292-4672

#### **Electronic Request for use of instrument: Form Omni-TS Scale**

#### e-mail to:

MeganTM@aol.com

Megan Tschannen-Moran College of William and Mary, The School of Education PO Box 8795 Williamsburg, VA 23187-8795

Telephone: 757-221-2187

http://www.CelebrateSchools.com

**Date Sent:** Sun, 5 Nov 2006 13:59

Dear Megan Tschannen,

I am a doctoral student registered with the University of Montana at the Missoula campus. I am at the point in my program where I am preparing a Dissertation proposal. My research focuses on the development of professional learning communities in Alberta, Canada, and the relationship of change to staff trust in the principal and enabling structures in bureaucratic organizations. In 2003 a recommendation was put forth by the Alberta Commission on Learning for all public schools in Alberta to form professional learning communities. The recommendation was accepted by the provincial government and all schools were mandated to proceed. I am requesting permission to use the questionnaire designed by you and Dr. Hoy (copyright 2003 - Faculty Trust Scale).

My contact information is as follows: e-mail: cheryl.gilmore@horizon.ab.ca phone: (403)223-3547 extension 30

mailing address: 4713 60 Ave. Taber, Alberta Canada T1G 1E1

I look forward to your response.

Respectfully, Cheryl Gilmore

#### Electronic Response providing permission to copy: Omni-TS Scale

e-mail from:

MeganTM@aol.com

e-mail received by:

cheryl.gilmore@horizon.ab.ca

**Date Received:** Sun, 5 Nov 2006 21:10

Cheryl,

I am pleased to learn of your interest in studying trust. Your project in linking trust to the development of professional learning communities and to school change in general is one of particular interest to me. I will attach a paper I presented last spring at AERA linking trust and a professional culture in schools. You may cite it in your dissertation, but please check back before you publish in case I have it in publication by that time.

You have my permission to use the Omnibus Trust Scales in your dissertation research. You may download a copy of the instrument from my web site (<a href="http://www.MeganTM.com">http://www.MeganTM.com</a>). I trust that you will give proper attribution.

Because your study aligns so closely with my own interests, I would love to receive a brief summary of your findings once you complete your study.

All the best,

Megan Tschannen-Moran College of William and Mary The School of Education PO Box 8795 Williamsburg, VA 23187-8795 Telephone: 757-221-2187

http://www.CelebrateSchools.com

# APPENDIX H. SCHOOL SITE MEAN AND RANGE OF MEASURES

School	SPS	LC	Omni	TS	ESS	<u> </u>
	Mean raw	Range	Mean	Range	Mean	Range
	score %		raw score %		raw score %	
1	55.8	23.5	71.3	16.7	69.6	16.7
2	62.0	51.0	69.4	41.7	62.8	60.4
3	76.2	30.6	76.0	33.3	81.3	35.4
4	72.9	10.6	86.3	15.0	82.1	27.1
5	47.8	20.0	70.8	38.3	66.7	45.8
6	79.5	14.1	91.9	10.0	88.7	31.3
7	64.5	24.7	81.3	15.0	75.4	14.6
8	68.9	23.5	82.3	23.3	79.2	31.3
9	68.2	24.7	70.3	38.3	76.7	37.5
10	70.4	10.6	90.3	10.0	91.3	12.5
11	61.7	36.5	83.6	20.0	80.4	33.3
12	84.1	14.1	93.8	8.3	95.1	16.7
13	64.7	40.0	72.6	55.0	69.6	62.5
14	66.1	17.6	77.3	15.0	70.0	16.7
15	90.6	14.1	95.4	8.3	97.2	8.3
16	83.2	17.6	91.9	18.3	94.6	12.5
17	80.7	25.9	81.3	20.0	82.9	45.8
18	84.0	24.7	83.0	5.0	80.4	16.7
19	70.9	23.5	76.4	46.7	67.9	64.6
20	90.9	21.2	98.3	5.0	97.9	8.3
21	84.5	7.1	91.7	10.0	87.1	41.7
22	67.8	22.4	68.9	38.3	58.7	66.7
23	84.0	17.6	86.2	21.7	88.1	12.5
24	73.9	27.1	84.0	35.0	75.4	47.9
25	75.3	41.2	83.0	31.7	76.7	58.3
26	77.6	31.8	83.3	13.3	84.2	37.5
27	58.4	40	76.0	30.0	80.8	41.7
28	75.7	36.5	81.7	40.0	77.8	58.3
29	59.7	12.9	79.8	10.0	72.7	37.5
30	80.1	30.6	94.0	11.7	94.8	12.5
31	72.5	11.8	87.5	13.3	86.8	12.5
32	55.1	35.3	61.7	26.7	59.0	45.8
33	74.1	17.6	90.3	13.3	94.1	12.5
34	71.3	27.1	82.7	16.7	82.0	29.2
35	66.1	28.2	78.3	28.3	76.4	45.8
36	60.3	43.5	70.6	8.3	80.2	14.6

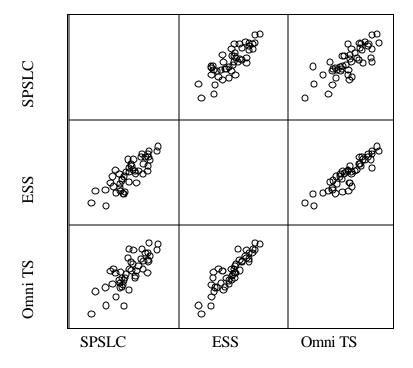
School	SPS	LC	Omni	TS	ESS	S
	Mean raw	Range	Mean	Range	Mean	Range
	score %		raw score %		raw score %	
37	60.3	43.5	73.6	43.3	82.4	33.3
38	65.1	48.2	75.2	48.3	73.1	60.4
39	67.1	31.8	69.3	48.3	72.3	58.3
40	71.2	31.8	85.2	10.0	94.8	18.8
41	84.9	18.8	95.4	10.0	99.0	6.3
42	81.0	20.0	87.5	25.0	87.2	33.3
43	85.5	24.7	89.8	15.0	90.5	16.7
44	67.5	28.2	79.8	41.7	75.0	35.4
45	45.0	25.9	63.3	23.2	53.6	35.4

Note. SPSLC = School Professional Staff as Learning Community; Omni TS = Faculty

Trust in the Principal; ESS = Enabling School Structures

# APPENDIX I. TESTS FOR LINEARITY, SKEWNESS, KURTOSIS AND OUTLIERS

Scatterplots indicating that test of linearity has been met.



Notes.

SPSLC = measure for professional learning community maturity

ESS = measure for enabling school structures

Omni TS = measure for trust in the principal

## Tests for Skewness, Kurtosis and Outliers

Variable	N	Min	Max	Mean	SD	Skewness	SE of Skewness	Kurtosis	SE of Kurtosis
SPSLC	45	38.3	77.3	60.647	9.0900	295	.354	178	.695
ESS	45	327.65	808.84	586.4113	118.86744	169	.354	684	.695
Omni TS	45	302.31	689.13	530.7404	90.74930	403	.354	101	.695

	N	Minimum	Maximum
Zscore(SPSLC)	45	-2.45956	1.83088
Zscore(ESS)	45	-2.17689	1.87123
Zscore: Omni TS	45	-2.51716	1.74535

Notes.

SPSLC = measure for professional learning community maturity

ESS = measure for enabling school structures

Omni TS = measure for trust in the principal

For samples <100, skewness or kurtosis is a problem if skewness or kurtosis divided by its standard error (z score) is >± 3.29. For samples <1,000 an outlier exists if it has a standard score >3.29 (Tabachnick & Fidell, 2006).

#### APPENDIX J. TIMELINE FOR THE STUDY

#### 2006-2007

October – December 5 Complete writing of proposal including

Chapters I, II and III, authorization letters,

and informed consent letters.

Secure Permission to use the School

Professional Staff as Learning Community (SPSLC) questionnaire (Hord, 1996) from the Southwest Educational Development Laboratory; the Omnibus Trust Scale: Faculty Trust in Principal Subscale (Hoy & Tschannen-Moran, 2003) from Dr.

Tschannen-Moran; and Enabling School Structures: ESS (Hoy & Sweetland, 2000)

from Dr. Hoy.

November 30 Seek permission from the Human Subjects

Institutional Review Board to conduct

questionnaire survey.

December 11 Defend Proposal

December 18 – January 24 Attain permission to conduct research project

in respective school jurisdictions in Southern

Alberta, Zone 6.

January 25- February 28 Gather questionnaire assessment data

March 1 – March 30 Conduct quantitative data analysis.

Outline and complete: Results, Discussions,

**Conclusions and Implications** 

Organize Appendices; complete Abstract; review and make necessary revisions.

April 16 Submit final copy of Dissertation to

Dissertation Committee

April 20 Submit Dissertation to Graduate School

Office to indicate dissertation is defendable and all members of the committee have

agreed it is ready for defense.

April 30 Defend Dissertation

May 31 Completion of all requirements for graduation including submission of the final electronic version of Dissertation to the

Graduate School.

#### APPENDIX K. INSTITUTIONAL REVIEW BOARD APPROVAL





Legal Counsel 133 University Hall The University of Montana Missoula MT 59812 Phone (406) 243-4742 Fax (406) 243-2797

Date: January 7, 2007

Γο: Cheryl Gilmore, Educational Leadership

From: Claudia D. Denker, IRB Chair

Re: IRB proposal titled: "Change, Principal Trust and Enabling School

Structures: An Analysis of Relationships in Southern Alberta Schools"

This study has been approved on the date that the "checklist" was signed. If the study requires an Informed Consent Form, please use the "signed and dated" ICF and Assent Forms as "masters" for preparing copies for your study. Approval continues for one year. If the study runs more than one year, a continuation form must be approved by 10/11/07 or it will need to be resubmitted.

Also, you are required to notify the IRB if there are any significant changes or if unanticipated or adverse events occur during the study. Finally, when you terminate the study, please notify our office in writing so that we can close the file.

Claudia D. Denker

[attachment(s)]

10:55PM REROW-Harrison School Division

403-223-2999

T-950 P 002/004 F-962

For Internal Use Only

000 05 2006

PROPOSAL #8-07 Form RA-100 (Rev. 11/03)

UNIVERSITY OF VONTAVA The University of Montana VICE PRESIDENT FOR RESEARCH CHECKLIST

TIONAL REVIEW BOARD (IRB) Submit one completed copy of this Checklist, including any required attachments, for each project involving human subjects, The IRB meets monthly to evaluate proposals, and approval is usually granted for one year. See IRB Guidelines and Procedures for details. Project Director: Cheryl Gilmore, Doctoral program student Dept: Graduate School, Educational Phone: 403-223-3547 (day time) 403-223-1139 (evening) 103-352 -840/ E-mail: cheryl.gilmore@horizon.ab.ca Date: November 30, 2006 Phone: Dept.: Co-Director(s): Project Title: Change, Principal Trust and Enabling School Structures: An Analysis of Relationships in Southern Alberta Schools Project Description: Doctoral Dissertation. The study explores the relationship of three variables in the context of public schools in Southern Alberta, Canada: change into a professional learning community, faculty trust in the principal and enabling school structures. Data will be gathered using a questionnaire administered to teachers in fifty-two public schools identified through stratified random sampling. The questionnaire is comprised of three previously developed instruments: School Professional Staff as Learning Community (Hord, 1996), Omnibus Trust Scale: Faculty Trust in Principal subscale (Hoy & Tschannen-Moran, 2003), and Enabling School Structures: ESS (Hoy & Sweetland, 2000). Data will be analyzed using Correlational and Stepwise Regression Analysis. Results, discussion, conclusions, and implications for further study will follow the analysis. All investigators, including faculty supervisors, on this project must complete the self-study course on protection of human research subjects, available at the UM IRB website: http://www.umt.edu/research/irb.htm. Certification: I/We have completed the course - (Use additional page if necessary) Date NOV-30 Students Only: Faculty Supervisor: Dr. Don Robson Dept Phone: 4 Signature: Conald Katson

(My signature confirms that I have read the IRB Checklist and attachments and agree that it accurately represents the planned research and that I will supervise this research project.)

For IRB Use Only	
IRB Determination:	
Approved Exemption from Review — Exemption # 2	_
Approved by Expedited/Administrative Review	
Full IRB Determination:	
Approved	
Conditional Approval (see attached memo) Resubmit Proposal (see attached memo)	
Disapproved (see attached memo)	
Signature IRB Chair: Olaudia Denta	Date: 1/7/07
Project Information	(over)
IRB 11-Point Summary	