EXPLORING COLLABORATIVE CULTURE AND LEADERSHIP

IN LARGE HIGH SCHOOLS

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A Dissertation

presented to

the Faculty of the Graduate School

at the University of Missouri-Columbia

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In Partial Fulfillment

of the Requirements for the Degree

Doctor of Education

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by

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MAY 2013

The undersigned, appointed by the dean of the Graduate School, have examined the

dissertation entitled

EXPLORING COLLABORATIVE CULTURE AND LEADERSHIP
IN LARGE HIGH SCHOOLS

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hereby certify that, in their opinion, it is worthy of acceptance.

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ACKNOWLEDGEMENTS

I would like to express my appreciation to my advisor, Dr. Jerry Valentine, for his guidance and patience during this time. I would like to thank my committee, all of which, I have enjoyed their professionalism and guidance during my experience in the program. I enjoyed my coursework with Dr. Donaldson for his scholarly and clear instruction in the cohort. Dr. Maher for her words of encouragement, her wealth of experience and knowledge as a school leader, and mentoring me through the cohort with humor and reality checks. Dr. Laffey, who I highly respect as a teacher of leaders and her genuine desire to be servant leader while a supporter of my learning as a principal. The committee's insight and support were valued and I am grateful for their longevity with my work to complete this dissertation. I would also to recognize the faculty and staff of David H. Hickman High School for their professionalism and support while working on my degree. The experience of working with these consummate experts and their incredible work in a large high school inspired my work for this dissertation. I am grateful for the great mentors, Jeff White, Wanda Brown, Phyllis Chase, and Mary Laffey, who always challenged my thinking and made me strive for growth in my own learning in being an effective leader. My numerous colleagues, Tracey Conrad, Andy Kohl, Renee Freers, and Todd White, who encouraged and supported through a variety of pep talks, consultations, and counseling sessions.

Most of all, I would like to thank my wife, Gail, who allowed me to have a midlife crisis of seeking an educational doctorate towards the end of my career and moving to Columbia while I did my coursework. She has always supported me and she

would not let the low moments in the dissertation process get in the way of completing

my goal. She is always there for me. I am eternally grateful for her love and support.

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Michael P. Jeffers

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ABSTRACT

The purpose of this exploratory study was to analyze how high school principals approached developing a collaborative culture and providing collaborative leadership in a large high school setting. The population sample for this study was 82 principals of large comprehensive high schools of grades 9 through 12 or some combination thereof with student populations of more than 1700 students from nine states in the middle region of the United States including Colorado, Missouri, Kansas, Iowa, Nebraska, Illinois, Indiana, Oklahoma, and Wisconsin. Of the 82 respondents, 81 fully completed the survey and one was incomplete. The survey was developed from questions from several survey instruments by Dr. Jeffrey Glanz, Professor, Yeshiva University, Dr. Jerry Valentine, Professor Emeritus at University of Missouri, Dr. Hank Rubin, Professor at South Dakota State University, and the researcher.

Quantitative data examined beliefs, practices, and self assessments by the principal based on collaborative leadership, collaborative learning, and school culture. Inferential statistics were used to draw conclusions from the sample population tested. The study through an analysis of variance and bivariate correlations analyzed differences sorted by degree of collaboration and relationships among variables correlated with collaborative learning and leadership of principals in a large high school setting. In addition, demographic data were analyzed using ANOVA to test for correlations between

these interrelated variables of the degree of collaborative learning in the school as described by the schools' principals (a) the degree to which the principals' self-described their leadership practices, (b) the degree to which the principals' self-described their beliefs about collaborative leadership, and (c) the demographic characteristics of the principals' professional experiences and background.

The study found principals in large high schools their learning practices, their beliefs about collaborative leadership, examples of their work, and their perceptions about the degree of collaborative learning were evident. The study found there are significant differences in leadership practices and beliefs for schools that are perceived as more collaborative compared to those perceived as less collaborative. The study found, however, there was no significant relationship between demographic characteristics of professional experiences and background were related to collaborative leadership and learning practices and beliefs. Overall, the findings from this study created awareness about the uniqueness of collaborative leadership in a large high school setting and how principals of large high schools can more readily facilitate collaborative learning in these complex settings.

CHAPTER 1

BACKGROUND OF THE STUDY

Introduction

Bolman and Deal (2003) referred to the frame of thought about education as "a

complex policy ecosystem" (p. 231) to describe the schools as an organization. An

example of a complex system is the traditional high school. Leading a high school as

principal involves building and sustaining positive relationships and developing the

knowledge, skills, experience, and capacity to create a collaborative culture among

faculty and staff members. In my experience as a leader in two large comprehensive high

schools, I have experienced many transitions and changes with school organization which

influenced my thoughts about the meaning of leadership, learning, and collaboration. I

have related to both Goldring and Sullivan's (1996) contention of the principal as a

negotiator and Ogawa and Bossert's (1995) contention of a leader as influence broker.

The terms such as negotiator and influence broker seem to label principal as a mediator

of the relationships with internal and external stakeholders only, but their role is much

more than these labels. Perhaps a broader view of leadership is needed. In their book,

Principals Who Learn, Barbara Kohm and Beverly Nance (2007) proposed a shift in

thinking:

> In the book The Fifth Discipline, Senge (1990) describes leaders as
> "designers, stewards, and teachers" (p. 340) rather than people who set the
> direction, make key decisions, and energize the troops. If principals are to
> handle the increasing flow of information, integrate new technologies into
> the classroom, and meet the challenging demands of both internal and
> external forces knocking on the door, they must shift their thinking.

Leadership is not an isolated activity but rather a collaborative endeavor. (p. 249)

Leaders facilitate the work of the stakeholders in every way and guide the direction through careful collaborative planning and deliberation.

The mission of the principal in balancing the needs of all the stakeholders along with the protection of the learning environment is a dynamic process to coordinate with the daily demands (Goldring & Sullivan, 1996; Ogawa & Bossert, 1995). Schlechty (2000) offered the notion principals must create a participatory process leading to shared purpose, common vocabulary, and visionary frame for developing synergy in the organization. Participatory leadership as Schlechty (2000) and Yukl (2006) resonates in the role of the high school principal broaden the scope of leaders within the organization. From this analysis principals must generate a synergy within the organization.

The principal's ability to facilitate this kind of synergy corresponds to the intent of many authors in the literature who address type of leadership needed in schools today. Schools are organisms (Bolman & Deal, 2006) which have cultural, political, and social implications for school leaders. Principals as school leaders, therefore, must find their learning capacity within the organic context of the organization. Given this interpretation of leadership, principals in large high schools usually with varying degrees of socioeconomic and racial diversity among student populations along with a large number of school personnel from the classroom teachers to the support staff, find themselves looking for the means to develop and nurture collaborative culture in their organizations.

Statement of the Problem

The interpretations of the principal's leadership style and how an organization operates and functions within school context are complicated to study. Schools themselves are complex organizations and large traditional high schools can be especially challenging for leaders. Aspects of organizational culture, leadership roles and relationships, interpersonal skills, learning skills, and management abilities are involved with the examination of principal leadership within an organizational context of a large high school. While research has indicated that leadership contributes to learning through structural and sociocultural processes around school improvement, the question of how does leadership affect the school organizational capacity to learn (Hallinger & Heck, 2010) needs further examination with a perspective of collaborative leadership and culture. Ricken (2007) noted school principal's must have humanistic skills and characteristics to find success as the research shows consistently about this role. The role of a high school principal as a catalyst (Hoerr, 2007/2008) for being a leader, a facilitator, and a learner creates the opportunity to examine how to create a climate or momentum for a group of individuals to find collective purpose in a collaborative culture.

To examine the role of the leader in the organization, one would need to break down and examine elements such as culture, leadership, learning, practices, and the ability to manage a complex system such as a large high school. Schein (2000) defines culture as a "state of property of a given group/organization or as a human process of constructing shared meaning" (p. xxiv). In building relationships with followers within the culture, leaders must understand there are variables within school organizations. An important point to distinguish is the concepts of leader versus leadership as Gordon

Donaldson (2008) describes in his book, *How Leaders Learn*, "Leadership is about what we accomplish" and, "Being a leader is what I do" (p. 5). The authentic way to investigate the process leaders rely on collaborative leadership and learning in a research study to explore meaningful explanations how principals lead in large high schools.

This collaborative leadership process revealed another dimension for leaders about learning among adults in an organization. Schools are institutions referred to as learning organizations. A principal has to consider how the organization can adapt and change to meet the needs of the students. A critical application is found in the research of Ikujiro Nonaka (1994), who raises questions around "how organizations process knowledge and, more importantly, how they create new knowledge" (p. 14). Building capacity implies the ability of the group to learn how to collaborate, develop reflective traits, and meet their common objectives as an organization. Principals in large schools must engage in this process to move their faculty and staff in a direction congruent with the goals of school improvement and student academic growth. An opportunity existed to further study how principals in large schools can engage in relationships through a collaborative leadership process.

Purpose of the Study

My view of leadership is shaped by the value I place on the leader's ability to facilitate the role as influenced by the understanding of the cultural perspective, the ability to interact with all stakeholders, and support the learning capacity within the organization. The purpose of this study is to explore factors that contribute to collaborative learning and leadership in relatively large high schools. The complex environment of the large high school and the role of the leader to provide the direction for the school create an opportunity to study these leader's beliefs and practices as related to collaborative leadership and learning. Large high schools, for the purpose of this study, are defined as schools of seventeen hundred or more students. The research questions for this study are framed around principals' perceptions about (a) collaboration for organizational learning, (b) the degree of collaboration present in large schools; and (c) collaborative structures and processes in place within large high schools. The specific research questions are:

1. To what degree do principals of large high schools view their school as a collaborative learning school based upon a formal definition of collaborative learning schools?

2. To what degree do principals of large high schools, who view their school as highly collaborative, differ in their perceptions of their leadership practices and beliefs compared to principals who view their schools as less collaborative?

3. Are there relationships between large collaborative high schools and large non-collaborative high schools concerning the following interrelated questions?

- the degree of collaborative learning in the school as described by the schools' principals,
- the degree to which the principals' self-described their leadership practices,
- the degree to which the principals' self-described their beliefs about collaborative leadership, and
- the demographic characteristics of the principals' professional experiences and background?

4. What are the strategies principals use to achieve collaborative learning and leadership in the large high school setting?

Principals strive to build the capacity of their organization through working with people. Hank Rubin, Joint Dean of Education in South Dakota, stated "Each one of us leads people and we lead them in and through relationships" (Houston, Blankstein, & Cole, 2007, p. 112). The variables found in the large school environment present challenges for principals trying to identify the aspects of building the capacity for collaborative culture and engaging the school as a learning organization. The complexity of school ecosystems such as large high schools along with the factors a leader must consider to lead such an environment will require feedback from principals in these settings to address the questions. A quantitative approach may identify the relationships of the variables of schools and perceptions of the leaders in seeking out the common understandings around collaborative leadership, learning, and culture. Targeted and substantive surveys could provide feedback from a larger sample size of schools throughout the Midwest with similar demographic aspects and possible relationships of themes and perspectives among leaders of large schools. These findings could yield new prisms through which to view the skills and actions of leaders as they demonstrate the

importance of collaborative practices in building a collaborative organizational culture in a large high school setting.

Quantitative methods would be used to analyze the perceptions of the principals concerning collaborative learning and leadership utilized in a large high school setting. The way in which informational data are collected must result reflecting a common understanding of the language and procedures used by leaders and followers within the schools examined. The setting of the large schools in terms of characteristics such as population subgroups, large faculty and staff, and traditional positions for leadership is common among the schools surveyed. The perceptual views of principals about their beliefs and practices may yield some insights into the collaborative processes, organizational leadership and learning, and the role of the principal in orchestrating the organizational purpose. The option in the survey to share a strategy from their school also provides an opportunity to see an example of collaborative practice. The intent was to develop a claim of a post positivist approach for developing knowledge (Creswell, 2003) through principal perceptions of leadership, learning, and collaborative processes in a unique setting of a large high school. The intent of the researcher was to further understanding by exploring collaborative leadership and collaborative learning practices in large school settings.

The research examined the high school principal perceptions, attitudes, and actions in schools based on the selected criteria of the size, student and faculty characteristics, and various locations of the schools. Those variables were schools with student populations over seventeen hundred students, various demographic factors, and a significant number of faculty and staff. Given this research purpose, a quantitative

approach seemed to be a comprehensive method to gather information through a survey/questionnaire instrument distributed to principals in these high schools. The purpose of the study was to identify the components potentially affecting leadership and culture in the organizations. The study compared principals' descriptions of their leadership capacity to determine if correlations existed between perceptions of collaborative learning, leadership beliefs and practices, and the other variables associated with size and complexities of these large schools.

By gathering authentic data and interpreting results through the analysis of quantitative methods, this researcher seized the opportunity to uncover new perspectives. As Field (2005) explained, surveys are valuable tools as a means to infer conclusions based on our research through a statistical model fitting the data collected (p. 2). Attempting to draw out the responses of current large school principals in this sample group in what they believed about collaborative leadership and organizational learning based on their perceptions about practices, beliefs, and background was an opportunity to explore the relationship of leaders and size of the organization. In seeking to find correlates to perceptions of the principals about leadership, collaboration, learning, and culture, the researcher would uncover common strategies, practices, and practices associated with collaborative learning and leadership in large high schools. The survey instrument (Appendix B) intended to determine if there was consensus within the data collected and analyzed from principals. Johnson and Christensen (2004) explained quantitative research attempts to identify the common characteristics and external reality to be observed under an assumption of objectivity (p. 33). Questions from the survey allow the researcher a means to analyze the variables of school size and setting regarding

leaders' practices, beliefs about collaboration in their school, and the perceptions of collaborative leadership in these conditions.

The survey included a brief qualitative element in asking principals to share their practices within their schools. The two open-ended questions (Appendix B) provided each principal a chance to identify specific items they felt were collaborative and constructive in their schools. Qualitative research does add an opportunity to examine processes in these schools. As Johnson and Christensen point out, a qualitative approach uses a "wide- and deep-angled lens, examining behavior as it occurs" (2004, p. 33). The examination of leadership and school culture is a broad concept requiring a more flexible and an open-ended approach to gather research. It is an important part of developing new frames of understanding around what we think we know and what is the views of others. Open-ended questions can provide a richer and more descriptive feedback to look at perceptions of individuals in a variety of different schools with similar characteristics. This would allow the researcher to further examine possible themes of organizational practices suggested unique steps by principals in addressing school improvement and leadership in their schools.

The experience of being a principal in a large high school has led me to examine my role not just as a leader, but as a facilitator-participant and learner. This research exposed elements about the insight of leaders in developing collaborative cultures in large schools and sought to validate thoughts and beliefs of the researcher. Perhaps leadership needs to be either deconstructed or reconstructed, but at least validated for administrators to begin to learn more authentic ways of leadership in a large school environment. Perhaps the study determined ways to look at developing, as Jack Mezirow

noted, "frames of reference as the results of ways of interpreting experience" (2000, p. 16). Constructing the appropriate meanings to measure the experiences of leaders in building collaborative culture is complicated by the constraints of time and demands of the job. The collaborative experiences found in the study seen through the frames of reference were illuminated through the research to allow for suggestions for further study of collaborative leadership.

This study revealed another dimension about learning among adults. Building capacity implies the ability of the group to learn how to collaborate, develop reflective traits, and meet their common objectives as an organization. A critical application can be found in the research of Ikujiro Nonoka (1994), who raised questions around "how organizations process knowledge and, more importantly, how they create new knowledge" (p. 14). In studying how principals responded about collaborative leadership, the data suggested the possible role of the principal as a catalyst to create new knowledge about the process of organizational growth through collaborative leadership. All educators (teachers and administrators) have the opportunity to revisit new thoughts on how to work together in new relationships. This reflection may serve to increase the capacity of the group to meet their objectives. This seems to be implied within the ability of the principal and teacher in building the collaborative capacity within the school. This study provided additional data about what principals believe about the capacity of individuals to collaborate within large high schools.

Limitations

A quantitative perspective could be limiting because the approach is narrowly focused on only the principal's perception rather than other stakeholders which would allow for further understanding of the organizational culture. The survey was a snapshot of the principal's perceptions and not a more detailed review of aspects of each school culture. A quantitative approach only provides a perspective of how the participants interpret the questions and it also attempts to narrow the focus of events. Johnson and Christensen (2004) noted "quantitative research often uses a narrow angle lens in the sense that only one or a few factors are studied at the same time" (p. 32). The points of view of the leaders involved in this study were their perceptions and their actions about collaboration and organizational interactions through a lens of being a principal of a large high school.

Examining the reliability and validity aspects regarding the survey within a quantitative approach raised several considerations for the researcher. Semantic concerns included the use of terms like "collaborative leadership, collaborative culture, or collaboration" which could mean different things to different people. As noted in Arlene Fink's book (2006), *How to Conduct Surveys,* "many attitudes and feelings…are subject to a range of definitions" (p. 12). Since the researcher is a former principal and the items are directed at principals, the risk of terminology being misunderstood is low, but the terms needed to be defined within the context of the survey. The researcher was careful about the use of words and phrases that were universal to encourage respondents gave authentic feedback. Keeping the questions simple with Standard English and avoiding too

many specialized words was also important to the clarity of the survey and the ability of the respondent to reply with useful information (Fink, 2006).

Noting the different backgrounds and individuals associated with these schools, the specificity of a question and potential bias was a concern for reliability. Assuming all principals considered collaborative leadership or culture in the same way has an effect of hidden bias. If the principal was concerned about his or her different organizational perspectives, the amount or validity of response could be reduced because the respondent would be reluctant to participate. The researcher needed to be prepared for such responses and determine the effect of such a response in relationship to the research questions. The researcher informally piloted survey questions with a small sample of principals to work on clarity in the instrument.

The survey items were in an electronic format, as approved by the Institutional Review Board (IRB). The number of closed-ended questions indicated viable means to survey with a high degree of likelihood of participation for a sample. The length and type of questions in this survey were more palatable with time constraints and willingness of principals to share their perceptions in a concise manner. Because the study looked at perceptions and beliefs about the importance of principal leadership and collaborative environment with the selected sample, the issue of time and the number of surveys given over time were considered.

The purpose of this study was to explore factors that contribute to collaborative learning and leadership in relatively large high schools. The complex environment of the large high school and the role of the leader to provide the direction for the school create an opportunity to study these leaders. The research questions focused on the perceptions

of the principals concerning collaborative culture, and their role as a collaborative leader in this setting of a large high school. In seeking knowledge about perceptions around collaborative structures, the researcher gauged the perception of the principals working in these environments. Their perceptions as they related to the role of the principal in building a collaborative culture in a unique setting of the large high schools would encourage the enhancement of knowledge and skills of leadership. This required a process, within a quantitative study with open-ended qualitative items, to gather insights from a large group of leaders to investigate their collective insights around collaborative culture.

Selecting large high schools and conducting a quantitative process with the principals about their perception of leadership and building capacity presents unique challenges. The last section of the survey instrument has two open-ended questions about identifying collaboration strategies by the principal and an example of results used in their school. These questions provided another means for a qualitative approach to find specific practices used by principals in their schools. There has been much written and researched about leadership theories and styles, organizational theories and processes, and how individuals respond to leadership in organizational culture. This study provided a means to examine the relationships between the perceptions of principals in building collaborative leadership capacity and the variables involved in a large school.

Even though this study was limited to a sample of principals in selected large high schools, the survey focused on collaborative leadership and culture which made it difficult to identify all aspects about critical leadership and organizational theory. The survey items in the questionnaire did provide for open-ended responses reflecting

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examples of collaborative activities along with questions on beliefs and practices. The discussion of the results provided a limited view of organizational learning among adults and leadership in education in the sample. The desired results would be to increase the discussion and help promote reflection among principals by creating knowledge around uniqueness of collaborative leadership in the large school setting to impact school improvement.

The principal is a key player in the development of any learning organization through building relationships and fostering a sense of purpose (Rubin, 2009). Knowledge of the stakeholders, an understanding of the governance structures, an awareness of resources and their application are all essential components of the principal's ability to lead their organization (Kruse & Seahsore-Louis, 2009). The coordination of the internal and external factors is part of the compelling need for more collaboration and relationship building on the part of building principal is outlined in the following model around this study. This study provided insights about the beliefs and practices of principals in large high schools, collaborative culture of large high schools, and role of the principal with the frame of collaborative leadership.
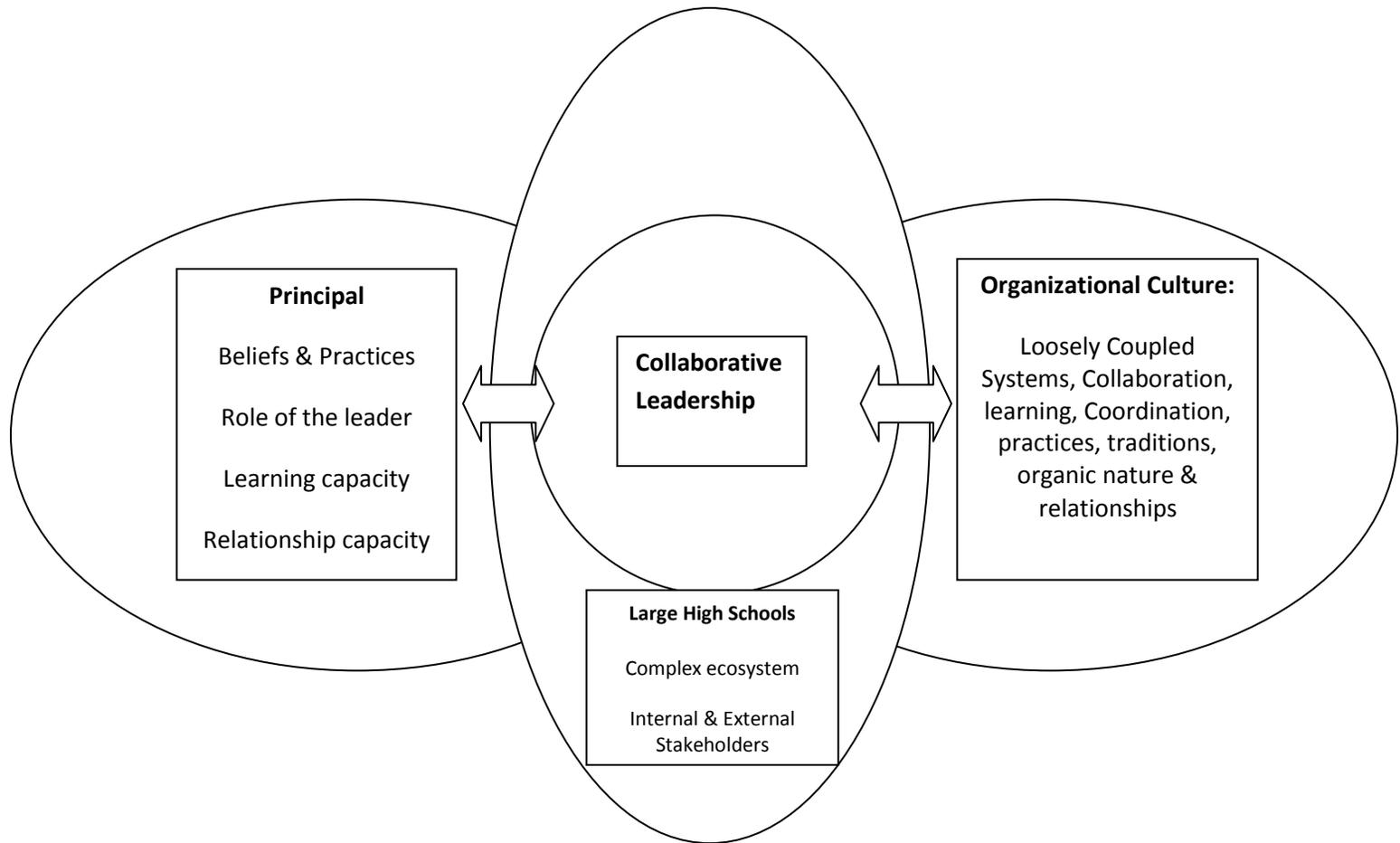
Figure 1. Model for Collaborative Leadership

Research Questions

1. To what degree do principals of large high schools in the Midwest view their school as a collaborative learning school based upon a formal definition of collaborative learning schools?

2. To what degree do principals of large high schools who view their school as highly collaborative differ in their perceptions of their leadership practices and beliefs compared to principals who view their schools as less collaborative?

3. Are there relationships between large collaborative high schools and large non-collaborative high schools concerning the following points:

- the degree of collaborative learning in the school as described by the schools' principals
- the degree to which the principals' self-described their own leadership practices,
- the degree to which the principals' self-described their beliefs about collaborative leadership
- the demographic characteristics of the principals' professional experiences and background?

4. What are the strategies that principals of large high schools use to achieve collaborative learning in large high school?

Definitions

Collaborative Learning: is an interdependence of individuals to share knowledge and create meaning in a group or organization.

Collaborative Leader: is a person "who has accepted responsibility for building or helping to ensure the success of a heterogeneous team to accomplish a shared purpose" (Houston, Blankenstein, & Cole, 2007, p. 115).

Collaborative Learning School: "a school of collaborative excellence moves collaboration to the center of its culture and the work of its teachers and administrators" (Rubin, 2009, p. 120).

Organizational Culture: is a product and a process by which beliefs, values, patterns, ceremonies are sustained in a collective way to adapt. (Bolman & Deal, 2003).

Collaboration: "is a purposeful relationship in which all parties strategically choose to cooperate in order to accomplish a shared outcome" (Houston, Blankenstein, Cole, 2007, p. 115).

Leadership: "a process whereby intentional influence is exerted by one person over other people to guide, structure, and facilitate activities and relationships in a group or organization" (Yukl, 2006 p. 3).

Learning: "the process of using a prior interpretation to construe a new or revised interpretation of the meaning of one's experience as a guide to future action" (Mezirow, 2000, p. 5).

Transformational Leadership: is when "the followers feel trust, admiration, loyalty, and respect toward the leader, and they are motivated to do more than they originally expected to do" (Yukl, 2006, p. 262).

Collaborative Leadership: "is a skillful and mission oriented management of relevant relationships" (Houston, Blankenstein, & Cole, 2007, p. 115).

Distributive Leadership: is the collective interactions among leaders, followers, and their situation (Spillane, 2006).

Large High Schools: student populations in excess of seventeen hundred students located in suburban, urban, or rural areas.

School Culture: defined as complex patterns of norms, practices, beliefs, traditions, attitudes, and behavior within a group in a school (Hoerr, 2005).

Role of the High School Principal: is an individual selected to lead a secondary institution in an educational system.

Outline of Study

This study follows a five chapter format, with Chapter 1 being the introduction. Chapter 2 is the review of literature relevant to understanding organizational theory, leadership styles and roles, knowledge and skills to lead in a learning organization, complex school organizations as high schools, and achievement factors. The methods for data collection and the analysis of the data are presented in Chapter 3. Findings of the quantitative data analysis of the study and the qualitative data from open-ended responses are presented in Chapter 4. Chapter 5 is a discussion and summary of the findings of the study and implications for future research.

CHAPTER 2

REVIEW OF THE LITERATURE

Introduction

The focus of this literature review was to examine the prospects of research

around collaborative leadership, organic nature of school culture, complexity in large

high schools, and the relationship of organizational learning. Gary Yukl (2006) noted in

his book *Leadership in Organizations* that a general application of leadership was " a

process of influencing others to understand and agree about what needs to be done and

how to do it, and the process of facilitating individual and collective efforts to accomplish

shared objectives" (p. 8). Richard Elmore (2006) noted in his book *School Reform from*

the Inside Out that "leadership is the guidance and direction of instructional

improvement" (p. 57). Roland Barth (2006), founding Director of the Principal's Center

at Harvard University defined leadership as "the ability to foster consequential

relationships" (p. 6).Given these interpretations of leadership, principals in large high

schools, usually with varying degrees of socioeconomic and racial diversity among

student populations along with a large number of school personnel from the classroom

teachers to the support staff**,** find themselves looking for the means to develop

relationships and nurture the learning capacity in their organizations.

The ability of the principal to navigate through complex school environments

creates challenges, given the organic nature of learning organizations such as large high

schools. Elements of culture, integrated with roles and practices of principal leadership,

allow for a new lens of collaborative leadership to be explored (Glanz, 2006). This

review of literature examines the relationships between the characteristics of organizational theory, leadership and school culture, collaborative leadership, and role of principals in large high schools.

The Large High School as a Complex Ecosystem

One such complex system was found within the institutions of large high schools in our school systems across the United States. The National Center for Educational Statistics found currently there are over 16, 000 high schools with an average student population of 856 in 2009-2010 in the United States (DOE NCES, 2011). The range of large school sizes was vast, with student populations ranging from 8000 to 1394 (2011). It was reported that the majority of students attend schools that have more than 1500 students, and these schools were located in urban and suburban areas (Shakrani, 2008). The evolution of the large high school corresponded with the rise in secondary education in the post-war era. Currently, large high schools have become more of an "efficiency, economy of scale, and curricular choice" because of the belief it is more financially viable to educate students in one location rather than smaller units (Allen, 2002, p. 36) Large high schools were developed as we attempted to find ways to broaden and offer a variety of programs in order to address the needs of students. An unintended consequence of expansion of large high schools has been an increase in the complexity and changing needs of our society; these issues have become a challenge for principals to lead these types of environments (Allen.2002).

Large comprehensive high schools are a product of the twentieth century industrialization model of schooling. A book, *The American High School Today*, written

by James Conant in 1959, proposed that the large comprehensive high school "could achieve the economies of scale necessary to supply students with a ranges of courses required by their diverse educational needs" (Toch, 2003, p. 4). This was the beginning of a movement to create schools large enough to provide more students with options by creating more opportunities with more classes requiring more staff to provide for those needs (Allen 2002). Conant's work impacted a generation of educators to embrace the larger comprehensive high school (Toch, 2003). This shift in thinking led to more schools with more populated systems in structures, along with a variety of changes in services; such services as special education, language, vocational, and student support, have evolved into the complex high schools that exist today (Allen, 2002;Toch,2003).

Other unintended consequences of the rise of the large comprehensive high schools are their becoming institutionalized, rather than flexible or adaptable, with changes in our society (Elmore, 2000; Toch, 2003). Large high schools in the United States have become the norm, due to an inherent commitment of school districts to meet various demands in communities. Bob Wise, President of the Alliance for Excellent Education, noted that today's high schools were designed to meet the needs of the twentieth century and not the needs of today (2008, p. 8-9). Demands of population growth, shrinking budgets, post-secondary expectations, and extra/co curricular activities have continued to sustain the large high school. Issues such as fragmentation, a lack of focus, apathy, and impersonal climates have become a norm in these schools (Toch, 2003). Richard Elmore (2006) in a report for the Albert Shanker Institute observed the large high school is an example of loose coupling in public schools that "create anonymous and disengaging environments for learning" (p. 6). The large high school fits

previously noted assessments as schools as complex environments for various

stakeholders especially students given the increased accountability found in education

today.

 While most of the discussion has centered on students, the impact on the adults in

these schools are recognized through similar aspects of depersonalization, lack of

communication, and isolation among faculty and staff. Craig Howley, Director of ERIC

Clearinghouse on Rural Education and Mall Schools, suggested these schools are

"ungovernable" over time as they keep getting bigger and bigger (Allen, 2002, p. 37).

Koch (2003) noted large schools as "highly fragmented institutions" and "intensely

impersonal places" with an "absence of focus" and a "high level of alienation among

students and teachers" (p. 6-7). The variables found in the large high school environment

present a challenge in trying to identify the aspects of building leadership capacity and

the aspects within the learning organization functioning as a school. This has created two

organizational challenges such as the dynamics of complex schools and the needs of

members of the organization for a building principal to grapple with on a daily basis

(Elmore, 2000).

Schools as Organisms

 Morgan's book *Images of Organization* (2006) presents different metaphors for

organizations. Morgan offers the metaphors as tools to see organizations with various

focuses. Different metaphors reveal various characteristics based on their unique lenses.

No single metaphor is perfectly able to capture every single detail of organizations, but

using the metaphors provides important implications for the educational leaders. For instance, in the organism metaphor, organizational adaptation is an approach for the leaders to address change in their organizations (Cameron, 1984). Organizational adaptation also offers ways for the leaders to focus on the relationships between the organization and the environment. An understanding of the metaphor of an organism as a lens in order to view organizational structure in school, and, thus, how learning occurs within the culture, is critical to understanding the foundation of leadership focused on collaborative practices (Rubin, 2009). School leaders are intrinsic to the learning and the culture of the organization (Kruse & Seahsore-Louis, 2009). Leadership and organizational theory are intertwined when looking at the complexity of schools today. In seeking knowledge about building leadership, the capacity of the leader trying to gauge the perception of the educators working in these organizations is critical (Glantz, 2006). This explains how the organization functions as it is related to the role of the principal and the teacher leaders in a unique setting of the large high schools.

When a leader looks through the lens of organisms, meeting the diverse needs of the population reveals its importance. The Hawthorne Studies explored the question of motivation and found that "individuals and groups like biological organisms operate most effectively only when their needs are satisfied" (Morgan, 2006, p. 35). The Hawthorne Studies illustrate this even further by interviewing the employees and acting upon their recommendations (Roethlisberger, 2001). Abraham Maslow focused his research on improving worker motivation. His "hierarchy of needs" supports this assumption that individuals, like organisms, operate most effectively when their needs are met (Morgan, 2006, p. 37). Cameron (1984) supported the theory that the human element is essential to

the success of an organization, specifically during a time of change. Thomas Hoerr

(2005) observed there has been an evolution of leadership away from hierarchy and

traditional structures of management:

> A hierarchy in which the lines of communication were limited and the
> chain of command was clear and rigid was once considered the portrait of
> a fine organization. Today, such a hierarchy is no longer effective. As
> relationships between supervisors and supervisees change, so too must the
> organizational structures change. In discussing today's leadership context,
> David Halberstam (2004) refers to the broader less hierarchical culture, in
> which you cannot give orders and assume that they will be obeyed. . .
> .People are better educated, and truly talented ones, the ones you want to
> motivate, have many more options. They're not likely to sit around and
> take orders from a harsh drill-sergeant-like superior. (p. 45)

Individual needs, not the structure or position, are the driving force within an

organization. Principals have to rely on skills of relationships and adaptability to operate

within organic organizations without traditional titles or hierarchies.

Flexibility, or adaptability, is another key concept in the organism metaphor.

Using the image of an organism focuses on flexibility and leads us to understand

organization as a process (Cameron, 1984). In reality, flexibility is a key piece when

working within an organization. An organization that has a highly trained staff must have

an even greater flexibility to use its craft in order to meet the individual needs of its

clients (Mintzberg, 1979). Organizational adaptation showcases ways for organizations to

be flexible during turbulent times (Cameron, 1984). Viewing organizations as an

organism also reveals relationships with the environment. Ludwig Von Bertalanaffy

(Morgan, 2006), a theoretical biologist, expands on this relationship by looking at

organizations as open systems. His research presents the idea that organizations as well as

people exist in an interdependent relationship with the environment. If an organization

wants to be successful, it must be aware of this relationship. An organic lens provides a greater tendency for flexibility with environmental forces and with the organization's ability to adapt itself to change.

Lastly, the metaphor of organisms pays attention to interrelated subsystems within organizations. Bolman and Deal (2003) outline the importance of coordination between individuals and group efforts to overall goals. Vertical coordination deals with a chain of command within the organization and lateral coordination deals with the informal interaction and flexible systems and rules (Bolman & Deal, 2003). Ogawa and Bossert (1995) emphasize the importance of leadership in the organizational structure because it flows through the networks and produces systems of interaction. Leadership has a significant influence on how the vertical and lateral coordination functions within the organization.

Using the organism metaphor enables us to see some characteristics of organizations. Simultaneously, the metaphor makes other characteristics invisible. The organism lens provides a focus on individual and environmental needs of organizations. Morgan (2006) refers to this process as the pattern of relationships embracing organisms and their environments into a "survival of fitting" (p. 63). Individuals within the educational setting develop the patterns of their needs to coincide with the environment of the organization in order to meet the needs of each other. The organism metaphor also highlights the organization's flexibility to react to ever- changing environments. Organizations face the challenge of changing needs from within the organizations as well as the outside environment. Cameron (1984) suggested numerous approaches in organizational adaptation in order to allow educators to find ways to address the changes

that come with ever-growing technology, employee needs, and an increase of knowledge.
These factors create a more complex system that requires lateral coordination and
collaboration.

In a school setting there is a need for everyone to have a focus and a motivation to
be a viable member of the school. This is an ideal situation, because in any human
organization there are issues that can affect individuals. Robert Ricken (2007) in his book
entitled, *Mastering the Balance of the Principalship*, stated:

> Principals employed in today's information age must be collaborative in
> their decision making. The school is an organization that encourages
> personal contributions. Teachers' ideas are solicited and valued by their
> administrators" Decisions are made close to the action and not exclusively
> at the top. Interoffice and interdepartmental communication flows freely
> and permeates the entire school. There is an emphasis on the risk taking
> and the belief that the system can also learn from its errors. School leaders
> believe in mutual learning and a shared vision. Principals encourage
> teachers to move beyond their assigned tasks by participating in all aspects
> of the school's mission. (p. 116)

Schools become involved in determining how to address the needs of everyone:
developing an organizational ecology, developing the shared needs of the school,
developing communities to establish norms, values, mission, and commitments, thus
allowing all involved to collaborate with the different stakeholders. Individuals within
the school setting develop the patterns of their needs to coincide with the environment of
the school organization in order to meet the needs of each other.

The formal practices are about written rules, policies, and procedures, as opposed
to the informal practices as the unwritten rules, practices, and rituals. Formal practices
lend themselves easily to more mechanistic styles of leadership which are evident in
authority-driven leaders. Yukl (2006) noted authority as defined by established power

structure to "exercise control of things such as money, resources, equipment, and materials" (p. 146). If a leader relies on these structures as a means of leadership, the cultural lenses and the perspective of the followers are left out of the study of leadership. Ignoring culture only encourages the potential of conflict and limits the ability to look at the effects of leadership in an organization. Informal practices reveal a deeper sense of norms and values of individual or groups of individuals within the organization. Whetton and Cameron (1985) observed "effective administrators are sensitive to members' strong allegiance to core cultural values and norms" (p. 466). Building relationships with individuals within the culture comes from building trust by respecting the aspects of the culture and not alienating those traditions (Kruse & Seashore-Louis, 2009).

In building relationships with followers within the culture, leaders must understand there are political and cultural variables within organizations. Anderson (1998) noted the conflicting paradigm in values and beliefs can mask the power, conflict, and interests of the organization with capacity building by the leaders' goals and ideas. Organizational adaptation showcases ways for organizations to be responsive during turbulent times (Cameron, 1984). By discovering the interplay of the environmental and organizational needs as revealed in Morgan's organism metaphor (2006), schools are complex learning organizations with many stakeholders. The members of the school have a critical discourse about common themes of change, direction, leadership, climate, and sustainability in challenges of organizational learning. As Weick (1991) pointed out, "organizations don't learn or that organizations learn but in nontraditional ways" (p. 117) is an indication of the challenges each leader faces when entering into an organization to seek change or to build capacity for change in order to determine the direction to meet the

needs of all the stakeholders. Nowhere is this more apparent than the examination of a principal's role in leading a learning organization in a complex environment such as a large high school.

Principal and School Culture

The role of the high school principal in educational reform has been viewed as a critical part of the leadership discussion and the ability of a school leader to engage the culture of the school. Seashore-Louis and Leithwood (1998) noted the phrase about a leader telling a story of "where we have been and where are we going" in order to crystallize the position of leadership's role in a complex learning environment (p. 283). Doug Reeves (2002) in his book, *The Daily Disciplines of Leadership*, referred to the school leader as the "architect of sustained improvement of individual and organizational performance" (p. 4). The focal point has come in the interest of researching which factors contribute to principal leadership and the relationship of the learning organization. Principal leadership and organizational culture are two areas that have received attention in the literature for the impetus for change and improvement in schools (Leithwood, Seashore-Louis, Andersen, & Wahlstrom, 2004; Marzano, Waters, & McNulty, 2005; Reeves, 2002). A school principal is expected to be a leader with knowledge, abilities, and skills to meet the needs of the learning organization, supervise the staff, and be accountable to the stakeholders both internally and externally (Yukl, 2006; Elmore, 2006; Ricken, 2007). In addition to these expectations, principals are expected to effectively lead and efficiently manage their schools while being sensitive and passionate about their schools and students (Lambert, 2003; Fullan, 2001). Conversely, the role of principal is

also interacting externally in the school district as a leader to meet the needs of the wider community around the school (Lambert, 2003). A principal must have a sense of relationships and a level of knowledge about the organization he or she serves.

The degree of knowledge of culture becomes more transparent in the degree of influence the principal can exert in the school. Reviews of research suggest successful school leaders can influence people and the organization towards addressing school improvement and student achievement (Davis, Darling-Hammond, LaPointe, & Meyerson, 2005). Leithwood, Seashore-Louis, and Wahlstrom (2004) further defined this influence in terms of practices of developing people, setting directions for the organization, and redesigning the organization. Influence is developed through capacity building of individuals, relationships built with the culture, and knowledge of how to change culture through iteration or incremental change. The challenge is to define exactly how a principal can develop these skills of influence through engaging a leadership style.

Given the organic nature of school organizations, the relationships and the influence a leader has in the culture determines the degree to which leadership can address the aspects of participants. All the participants within educational organizations have their own values and interests in either making policy or finding others with similar views to build coalitions to affect policy (Kruse & Seashore-Louis, 2009; Anderson, 1998). Anderson (1998) noted the "current transformational models of leadership retain a power over or a power through approach" (p. 950). Leithwood and Jantzi (2000) contended the conception of leadership is socially constructed and "one does not have to choose among alternative forms or models of leadership (e.g. 'instructional or

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transformational') in order to assess the relative impact of leadership offered by those in different roles" (p. 417). The discussion around what is the most viable leadership style given the organic setting is problematic. A further discussion of the cultural lens will allow for more clarity of the relationship of the principal and the organization of the school.

Role of School Culture

Culture is a complex concept within an organization. It is critical to note that culture encompasses broad interpretations of how a group operates and functions within a given context. Schein (2000) noted culture is a "state of property of a given group/organization or as a human process of constructing shared meaning" (p. xxiv). The follower's interpretation of leadership becomes a determinant in examining the effectiveness of a leader's action. Martin (2002) illustrated that there are various means to view culture as "both shared and unique" and inclusive of "a broad range of ideational and material manifestations" (p. 61). One must understand the context and meaning of why things exist within cultural settings for leadership.

Leadership through a cultural lens requires an understanding of the history of the culture, cultural manifestations, and the relationships among individuals. Schein (2000) noted a potential leader must recognize the workings of the organization through historical context. The need to understand the roots of beliefs, values, and practices of the followers, along with traditions, are vital for leaders to be able to engage the organization. It is critical that culture encompasses broad interpretations of how a group operates and functions within a given context (Bolman & Deal, 2003). Martin (2002)

illustrated "culture as both shared and unique" and included "a broad range of ideational and material manifestations of culture" (p. 61). A leader has to understand the context and meaning of why things exist within a culture at a deeper level in order to lead individuals or groups. As part of their understanding, the leaders must recognize the manifestations of the culture. Martin (2002) noted the types of culture manifestations: cultural forms, formal and informal practices, and content themes. These manifestations are critical to recognize the actions and norms of an organization. Leaders must have an understanding of organizational theory and context (Bolman & Deal, 2003; Morgan, 2006).

The cultural lens of leadership is influenced by external and internal forces. Schein (2000) pointed out that culture is "dynamic and perpetually evolving" (p. xxiv). This evolution is impacted by the forces of "technological and physical changes in the external environment," along with "changes in the internal dynamics of the social system" (p. xxv). The cultural lens allows us to examine all forces present in a changing environment. Each culture presents an opportunity to study the reactions and trends based on the interactions between leaders, followers, and their situations. Tierney (1988) stated, "the rationale for a cultural framework is not presumed that all organizations should function similarly, but rather to provide managers and researchers with a schema to diagnose their own organization" (p. 17). Each organization is affected differently by any number of factors that require flexibility. Flexibility and adaptability are key concepts noted in the organism metaphor. Using the metaphor of the organism focuses on flexibility and adaptability functions to recognize the role of culture for leaders to develop relationships in the organization.

In developing a research frame around the relationship of principal with the culture of the school, collaborative leadership and culture is a venue to be explored (Rubin, 2009). In building relationships with followers within the culture, Glantz (2006) suggested a "cultural diagnosis"(p.45) where leaders must understand there are variables within school organizations. Bacharach and Mundell (1993) proposed organizational politics in schools revolve around micro politics, macro politics, and logics of action. The relationships within the organization revolve around the phrase "logics of action" as "the implicit relationship between means and goals that is assumed by action in the organization" (p. 427). This implicit relationship is a challenge for the principal to reveal through his or her style of leadership in how he or she collaborates with members of organization. Hank Rubin (2009), Director of the Institute of Collaborative Leadership, framed the concept of collaboration as "a means of aligning people's actions to get something done" and "influence change in other people by managing our relationships with them" as a process for principals to fold into a leadership style (p. 3-4). Steve Gruenert (2005) observed in his work "looking at schools through the lens of culture focuses on the relationships of the adults in the building" (p. 50). An examination of the principal use of collaboration in the complex culture of large high schools allows for a lens of collaborative leadership to examine the principal's practices and beliefs around relationships.

Foundations of Collaborative Leadership

Leadership is widely studied in a variety of settings from public to private sectors and as the world has changed in a multitude of ways; indeed, there seems to be an opportunity to explore how leadership may be changing as well. In the book entitled, *The*

Power of Collaborative Leadership (2000), the authors, Bert Frydman, Iva Wilson, and Jo Ann Wyer, observed the changing dynamic of leadership across the spectrum, from a marketplace perspective of changing complexities that challenge the notion of command and control leadership and approach, to allowing the organizations the capacity to learn how to lead and to learn about adjusting to a complex world. A growing emphasis on how an organization will learn to adapt is changing the way we can look at leadership. Organizational learning is an inherent part of collaborative structures in working with people toward a shared purpose or mission. School leaders must understand the dynamics of the programs, stakeholders, and relationships between actions and intentions (Ogawa & Bossert, 1995). In the organism lens, the vision and purpose of the leader must be aligned to the stakeholders.

The organization's interrelated subsystems enable different groups to come together for a specific purpose, such as collaboration. This collaboration could provide feedback from various representations of individuals to support and to create dependence within the organization (Rubin, 2009). Donaldson and Kozoll (1999) noted this form of collaboration is the highest form of interdependence. The question of how collaboration is managed or coordinated is part of the role of the leader Rubin (2007) delineated further by suggesting "collaboration is a relationship" and "all relationships are personal" because leaders must understand "why people act as they act and how to influence people's action" (Houston, Blankenstein, & Cole, 2007, p. 117). A principal must be cognizant of interdependence as a basis for relationships and the purpose for the people within the organization.

The framework of collaboration is essential to developing a shared, common purpose. Glanz (2006) elaborated further about collaborative leadership concerns "decision-making processes, establishing priorities within a school, and collectively developing strategies to accomplish mutually agreed upon goals and objectives" (p. xxii). Bolman and Deal (2003) outlined the importance of coordination in an organization between individuals and group efforts to overall goals. Kohm and Nance (2007) widen the view of leadership as not isolated, but "a collaborative endeavor" (p. 249). When a leader is looking through the lens of collaboration, meeting the diverse needs of the population reveals its importance in terms of the relationships. An organization that has a highly trained staff must have flexibility to use its craft in order to meet the individual needs. The ideas brought out earlier in the paper have implications for looking at organizational structures in educational settings, such as public school districts.

School structures are about supporting all of the stakeholders in education. Staff, students, parents, and community rely on an organizational structure that can meet the needs of all involved. Schools as organisms require a means to interact by taking into account environments and the relationship of each member toward a collaborative purpose. A school environment can include a range of factors, such as the school climate, the structural set-up of the school, its location within the community, the composition of the students or staff, or even the governance of the school (Leithwood & Jantzi, 2000). School organization is definitely interrelated with each of the stakeholders in the school as well as the relationships that bind them together: from teacher to teacher, student to student, support staff to teacher, teacher to administrator, teacher to parent, teacher to student, and every other combination involving stakeholders (Kruse &

Seahsore-Louis, 2009; Goldring & Sullivan, 1996). Cooperation and collaboration among each of the stakeholders represent the different sub systems of an organism that allow it to function in a natural way.

The interaction of leader and the followers become the means for the principal to affect the organization. Leadership in schools has essentially been studied as a focus of a single individual or the follower's behavior within the organization or the tenets of control of the leader (Yukl, 2006). The relationship of the leader and the organization presents a realm of thought to figure out what works and what doesn't, why and why not, and how one can study this process in a way to lead to training better leaders. Leadership is a process of facilitation of the culture.

A widely accepted view of leadership in education revolved around transformational leadership through the theoretical work of James McGregor Burns in 1978 in his work entitled *Leadership*. Transformational leadership is about empowering teachers in the organization. Burns noted, "transforming leadership ultimately becomes moral in that it raises the level of human conduct and ethical aspirations of both the leader and the led" (p. 20) and leads to teachers distributing leadership throughout the school (Robbins & Alvy, 2003, p. 293-294). In our reviewing the literature, an implied aspect about leadership is the ability to adapt in interacting with a group in some way that will affect their status; this seems to suggest a set of abilities, skills, characteristics, circumstances and knowledge that a leader must identify in order to deal with complex organizations. Goldring and Sullivan (1996) supported this concept with the reference to "environmental leadership" in looking at principals' relationships with their stakeholders

(p. 17). A common denominator is about how we apply ourselves or facilitate the interaction with the stakeholders in the organization.

The ability of the leader to coordinate his or her efforts to support change would be affected by time. A leader has to consider an important element of time in order to build his capacity to coordinate organizational change. Leaders must have a realistic sense of timing for the followers in the organization to reflect, to resist, and to adjust to any form of change or focus. Leaders face conflict at times with the demands or expectations of others. Schlechty (2000) referred to building momentum perhaps in one year are critical to bring about changes. Many times leaders underestimate the time factor in moving too quickly or too slowly in engaging the organization in a process of change. This is a highly intangible concept, but facilitating change has to involve having a sense of timing in building the capacity of one's organization as well as managing resistance, because, without a viable sense of timing, a leader could lose the momentum needed.

Complexities of the membership of school organizations, along with historical and social processes, make schools a battlefield of values, attitudes, and beliefs. Leaders cannot find solutions through traditional hierarchy of power or mechanical means of exclusion in order to circumvent resistance. As Schlechty noted, only "weak leaders must use their power of their office because they do not have the capacity to get their action from others by any means" (p. 183). Facilitation of resistance has to be the quality a leader must have in order to use it for changing the organization. Granted, it is not a given that any leader will survive this process, but the important part is to always expect it and accept that it is fundamental in order to facilitate change. Yukl (2006) refers to resistance as "normal" and a process that must "look beyond individuals" (p. 286).

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Listening to alternative points of view or examining people's frame of thoughts is necessary to building capacity for people to begin to either deconstruct or reconstruct thinking about change. A leader must facilitate the discussion by creating the avenues for this discussion in creating a sense of urgency about the organizational purpose and mission (Barth, 2007). Engaging, rather than confronting resistance, must be the approach a leader must take in leading the direction of the organization. Downplaying either time or resistance can hamper the ability of leaders to facilitate a collaborative culture to promote the change process in their schools (Glantz, 2006).

Handling the pressures of time and the forces of resistance are at the focus of facilitating the school culture. Leaders facilitate the work of the stakeholders in every way and guide the direction through careful planning and deliberation (Rubin, 2009). Participatory leadership, as Schlechty (2000) and Yukl (2006) implied in their work, resonates well with tenets of collaborative practices. The ability to engage complex school environments, such as large high schools, is for the leader to be a facilitator of change and be open to dissent, as well as giving time to let the organization collectively develop the direction through a thoughtful process. The view of collaborative leadership is shaped by the ability to facilitate the role, as influenced by the understanding of the cultural perspective, the ability to interact with all stakeholders with a purpose and direction, and the ability to build the capacity of a vision and learning within the organization.

The ability to act through facilitation is an attribute worth examining with a leader's role in a complex environment such as schools. School leaders are given a responsibility to interact with a variety of stakeholders, followers, and supervisors in

order to bring about a system that gives students the best possible opportunity to find

success in their endeavors. Goldring and Sullivan (1996) presented a supporting view of a

leader as one who shares the school culture and climate for the means in order to have

congruency with all interaction with stakeholders. Ogawa and Bossert (1995) revealed

the four assumptions of functions, roles, attributes, and culture as contributing factors in a

study of leadership in terms of a quality. Leadership requires an ability to understand the

roles in order to facilitate actions and reactions within the culture and to understand

resistance along with constructing a cohesive vision in the process of leading the

organization. This suggestion brings together those concepts of sharing aspects of culture

with the assumptions suggested by the previous authors about a leader's skill to facilitate

the organization.

In the mission of the principal, balancing the needs of all the stakeholders, along

with the protection of the learning environment, are dynamic processes to coordinate with

the daily demands. (Goldring & Sullivan, 1996; Ogawa & Bossert, 1995) The dynamics

of the school environment require leaders to have a working knowledge of the culture and

the forces that affect it. This implies not only the knowledge of the culture, but also the

understanding of the possible implications of being a leader to affect change. Schein

(2000) pointed out an interesting dichotomy of concepts between the culture and climate

in order for the practitioner to affect change, when he indicated one must be able to

assess and understand the culture. Yukl (2006) supported the premise of understanding

the culture as critical in order for the leader to be cognizant of the assumptions, values,

and beliefs shared by the organization. A quality of a viable leader would be one that can

assess and draw valid conclusions in applying the lens of facilitation to the school culture.

A leader facilitates the culture by forming a focus for the organization (Kruse & Seashore-Louis, 2009). This focus would be a means to facilitate the school's vision by developing the capacity of the organization. Creating a vision is not a simple process for any leader to put into place. Yukl (2006) noted the essential processes for developing the vision to be democratic, viable, interactive, inclusive, and relevant for the organization. As a leader all of these processes, he/she is required to facilitate these processes by creating avenues for input, as well as connecting to the practices and functions of the culture, creating logistical means in supporting the process, and validating all contributors. This can be an effective means to build relationships and create trust among members to build more leadership capacity within one's organization (Blankstein, 2004). Schlechty (2000) referred to the process as creating a participatory process that leads to shared purpose, common vocabulary, and visionary frame for developing synergy in the organization. The principal's ability to facilitate this kind of synergy allows the intent of many authors in the literature to point to the direction of leadership needed in schools today.

Role of Collaborative Leadership for Principals

This synergy mentioned above is the foundation of collaborative leadership. The definition of collaborative leadership is broad and encompassing of many styles and approaches in leading schools. Hank Rubin, the Dean at South Dakota State University, (Houston, Blankstein, & Cole, 2007) defined "collaborative leadership is the skillful and

mission oriented management of relevant relationships" (p. 115). Relationships among

educators as Barth (2006) pointed out "define all relationships within that school's

culture" (p. 1). This term, relationships (among stakeholders), are the means to the ends

for leaders to view their leadership practice within the culture of the school. Spillane

(2006) noted terms such as collaborative leadership are used frequently in the literature as

synonymous with shared leadership, co-leadership, democratic leadership, distributed

leadership, and situational leadership. There are obvious overlaps in how we describe

leadership practice and theory from the literature. The focus of collaborative leadership is

related to how leaders are focused on the organization and direction of individuals within

the culture in order to promote shared vision and mission for learning.

Collaborative leadership provides a means for principals to engage in complex

organizations in order to promote the direction for the stakeholders. Rubin in his book,

Collaborative Leadership (2009), made an observation about leaders really helping lead

through developing skills and learning characteristics through collaborative leadership.

There is an assumption about leaders being able to embrace collaboration and the value

of culture. Jeffrey Glanz, a professor at Yeshiva University, observed current school

leaders do not have the background because of our culture of "go it alone" independent

style, along with expectations for a singular person to lead without influence of others

(2006, p. xvi.). The concept of the lone leader may also be driven by external factors.

Kohm and Nance (2007) observed:

> When superintendents, principals, and teachers are under pressure to
> improve test scores, there is tendency to abandon collaboration in favor of
> more direct, top down edicts. Collaborative cultures seem like a luxury
> that schools can no longer afford. Administrators often think it's more
> efficient and effective to tell teachers what to do. This attitude is a

mistake. Rising expectations for teachers and students call for more collaboration not less. (p. 206)

Just as organizations have many organic dimensions and external forces as noted earlier, so should leaders have such dimensions as well in their disposition toward leadership.

Leaders who embrace a collaborative leadership approach must have dimensions that are defined as mental constructs of behavior for collaboration (Rubin, p. 56). These dimensions noted were strategic thinking, group process, systems thinking, asset-based perspectives, professional credibility, consensus, and a commitment to diversity (Rubin, 2009). Glanz (2006) referred to similar dimensions or skills around collaboration as mindsets. The references to mindsets or mental constructs of behavior imply a leader must have a set of skills and characteristics in leading a school organization that push beyond traditional leadership qualities. The concept of leadership must be congruent with the concept and the function of the organization in order to learn and to adapt as a learning organization, given the challenges found in today's school organizations, especially in large high schools.

To lead an organization, the influence of the leaders to affect change will be measured through his or her ability to facilitate engagement of the stakeholders, coordinate the followers in order to develop a sense of shared purpose, and to manage the relationships within his or her school organization. In the setting of the large high school, the capacity of the organization and the capacity of leadership must be collaborative in creating the culture needed to address the complexities of a learning organization. Rubin (2009) suggested more questions are needed and more theories need to be explored on this subject (p. 55). Collaborative leadership and school culture are a research

opportunity which must be explored with the anticipation that the findings will confirm or expand existing knowledge. Collaborative leadership does provide a new prism to view the principal's engagement with the school organization. Frydman, Wilson and Wyer (2000) contended "the process of organizational learning is about actualizing the power of collaborative leadership" (p. xxxiv). All stakeholders are coordinated through principal leadership in order to learn as an organization and to be interdependent for reaching their mission, vision, and goals, thus meeting the needs of their students.

A more thorough understanding of these factors around collaborative learning and leadership could expand existing practices for leaders as well as determining how leaders engage in complex organizations. Schools, recognized as having a complex and organic nature, require the management of relationships, which implies the fostering of the interdependence of the various parts of the organization in order to work toward a shared purpose. There is opportunity to study the implications of collaborative leadership in these schools and broaden a research perspective of principal leadership and school culture.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

Introduction

The role and leadership of the secondary principal is an important focus in the current era of expectations and school accountability associated with the demands of leading large comprehensive high schools. Many professional organizations, foundations, and researchers in the field of educational leadership have studied the role of the principal and the impact the role has on student achievement, climate and culture, and the learning capacity of the school as an organization. This exploratory study focuses on the principal's role of creating collaborative leadership in large comprehensive high schools. This chapter is divided into four sections. The first section defines the research questions, hypothesis, and purpose. The second section outlines the sample of the respondents who participated in the study. The third section details the instruments used to collect data. The fourth section describes the step by step procedures used to collect the data. The last section describes the data analysis procedures.

Purpose of the Study

The purpose of this exploratory study was to analyze how high school principals approach developing a collaborative culture and providing collaborative leadership in a large high school setting. The intent behind the research was to examine the perceptions and to note emerging themes and values among the responses from the principals of the large high schools. The study examined the principal's self-perceptions of their leadership practices, their school, and their beliefs about collaborative leadership.

Research Questions

1. To what degree do principals of large high schools view their school as a collaborative learning school based upon a formal definition of collaborative learning schools?

2. To what degree do principals of large high schools who view their school as highly collaborative differ in their perceptions of their leadership practices and beliefs compared to principals who view their schools as less collaborative?

3. Are there relationships between large collaborative high schools and large less collaborative high schools concerning the following interrelated questions?

    - the degree of collaborative learning in the school as described by the schools' principals,
    - the degree to which the principals' self-described their leadership practices,
    - the degree to which the principals' self-described their beliefs about collaborative leadership, and
    - the demographic characteristics of the principals' professional experiences and background?

4. What are the strategies principals use to achieve collaborative leadership and learning in the large high school setting?

Null Hypothesis

Hypothesis One was developed and tested to study Research Question Two. Hypothesis Two was developed and tested to study Research Question Three. The two hypotheses are:

HO 1: There are no significant differences between the leadership practices and beliefs of principals of large high schools who described their respective schools as highly collaborative compared to the practices and beliefs of principals who did not describe their schools as highly collaborative.

HO 2: There are not statistically significant correlational relationships between the following variables in this exploratory study:

    a) the degree to which principals perceive collaborative learning in their respective schools,

    b) the degree to which principals self-described their leadership practices as collaborative,

    c) the degree to which the principals self-described their leadership beliefs as collaborative, and

    d) selected demographic characteristics of the principals' professional experiences and backgrounds.

Based upon the review of literature, survey questions were identified to measure the variable of this study. Items from the School Culture Survey were used to identify the degree to which principals viewed their school as collaborative. Items from Self Assessment Leadership Survey were used to identify the degree to which principals viewed their own beliefs about collaboration and around those practices in their school. The researcher developed the basic demographic questions and the open-ended questions for the survey.

The sources of the various survey items are listed in Table 1. In Table 2, the survey items analyzed for each research question are listed; and in Table 3, the survey questions, research questions, hypotheses, and statistical treatments are presented.

Table 1

Distribution of Questions by Source

Source of Survey Items	Survey Section	Survey Item
Culture & Practices (Valentine)	Part IV	1, 2, 3, 4, 5, 6, 7, 8, 9, 10
Leadership Beliefs (Glanz)	Part V	1, 2, 3, 4, 5, 6
Leadership Self Perceptions (Rubin)	Part III	1, 2, 3
Demographic Questions (researcher)	Part II	1-6
Open-Ended Questions (researcher)	Part VI	1, 2, 3

Table 2

Research Questions and Survey Items

Research Questions	Survey Section	Survey Item
1. To what degree do principals of large high schools view their school as a collaborative learning school based upon the formal definition of collaborative learning schools?	Part III	#1
2. To what degree do principals of large high schools who view their school as highly collaborative differ in their perceptions of their leadership practices and beliefs compared to principals who view their schools as less collaborative?	Part III Part V	#1, #2, & #3 #1-6
3. Are there relationships between large collaborative high schools and large non-collaborative high schools concerning the following interrelated questions: • the degree of collaborative learning in the school as described by the schools' principals, • the degree to which the principals' self-described their leadership practices, • the degree to which the principals' self-described their beliefs about collaborative leadership • the demographic characteristics of the principals' professional experiences and background?	Part III Part IV Part V Part II	#1, #2 #1-10 #1-5
4. What are the strategies that principals of large high schools use to achieve collaborative learning in the setting large high school?	Part VI	#1 & #2

Table 3

Research Questions and Hypothesis

Survey Questions	Research Questions	Hypothesis	Statistical Treatments
Part II : Demographics-Questions 1-6	#3	HO 2	Descriptive
Part III: Collaborative learning & Leadership-Questions 1-3	#1, #2, & #3	HOs 1 & 2	Bivariate Correlations Analysis of Variance
Part IV: Leadership Practices-Questions 1-6	#2 & #3	HOs 1 & 2	Bivariate Correlations Analysis of Variance
Part V: Leadership Beliefs	#2 & #3	HOs 1 & 2	Bivariate Correlations Analysis of Variance
Part VI: Open Ended Feedback	#4	NA	Qualitative Feedback

In using the items in the surveys to examine principal perceptions, beliefs and practices as leaders in their school provided a means to analyze their responses to the research questions and open-ended questions. The survey questions selected were centered on collaborative leadership and collaborative culture based on the work of the Gruenert and Valentine (1998), Glanz (2006), and Rubin (2009). Glanz (2006) noted the collaborative leader skills and mindsets must include:

> The ability to listen to others' viewpoints; the willingness to let go of dogmatically held view in order to achieve consensus with others; the realization that solutions developed collaboratively almost always turn out better than decision made by one person; the ability to negotiate, coach, and problem-solve. (p. xvi)

Glanz (2006) also includes specific practices such as "solicits the advice of teachers and other" (p. xvi), "engages the school staff and community in training to better understand collaborative decision-making" and "believes that collaborative leadership is a moral imperative for a principal in the 21st century" (p. xvii). The questions 1 and 2 in Part III (Appendix B) of the survey addressed directly the principal perception of their leadership mindsets and skills. Questions in Part IV and V (Appendix B) addressed with more detail the beliefs and practices of the principal needed to address research questions two and three. The propensity of the correlation between these perceptions and beliefs/practices provided data to address Null Hypothesis One and Two. The demographic section in Part II provided a chance to further glean profile information determining the background and experience of the principals as possible variables influencing collaborative leadership among these principals. The results produced from these survey items relate to the Null Hypothesis number two.

The open-ended questions in Part VI allowed the researcher to look at examples and outcomes of the principals self identified activities they related to being important to a collaborative school. Glanz (2006) pointed out a key factor for which to look when examining authentic collaborative leadership and culture is inclusiveness. Specific mechanisms by which the principal created and sustained to ensure collaborative culture and practice provided a lens to look at their actions and seek themes or commonalities congruent with collaborative practices in the school. The qualitative nature of these questions gave depth to the research question two and allowed the researcher to investigate those themes to be aligned with inclusiveness in a collaborative culture.

Participants

Participants for this study were principals of large comprehensive high schools of grades 9 through 12, or some combination thereof with student populations of more than 1700 students. The principals (schools) were selected from nine states in the middle region of the United States including Colorado, Missouri, Kansas, Iowa, Nebraska, Illinois, Indiana, Oklahoma, and Wisconsin. Each principal was asked to complete the survey. Survey responses were collected using an anonymous web link by *Qualtrics,* an online survey company.

Instruments

The researcher developed a quantitative survey instrument found In Appendix B, sections II, III, IV and V. This instrument provided detailed information about the principal's perceptions of collaborative leadership, decision-making, team building, and school culture along with demographic information. Part VI of the survey included open-ended response questions of examples of collaborative practices and perceptions of specific results found in their school improvement efforts used by the principals in their schools. While the main focus of the survey was quantitative, an opportunity existed to gather best practices from principals from an open-ended question for qualitative information that aided the researcher in examination of this topic. Qualitative questions were associated to quantitative survey items to look for congruency among principal responses for similarities and differences with their self-prescribed outcomes.

Using qualitative and quantitative questions positioned the researcher to utilize descriptive data to explore differences and correlations within the responses. Open- ended

items from principal's feedback in large schools about collaborative leadership and culture enhanced the understanding of the qualitative responses. Even though the focus of this study tried to delineate from a sample of large schools, the breadth of response will be limited. The responses did, however, add to the discussion and provided another view of organizational leadership and learning among principals.

Composition of Surveys

The surveys were composed of the questions developed by Dr. Jeffrey Glanz, Professor at Yeshiva University in New York City, Dr. Jerry Valentine, Professor Emeritus at University of Missouri, Dr. Hank Rubin, Professor at South Dakota State University, and the researcher. The intent of the survey items was to examine beliefs, practices, and self-assessments by the principal based on collaborative leadership, collaborative learning, and school culture. Twenty Likert-scaled questions, six selected response questions, and two open-ended questions were in the survey. These questions provided insights about collaborative culture, collaborative learning, and collaborative leadership to reveal the mindset and skills of the leaders. Demographic data about the principals' backgrounds and their schools were also collected. Open-ended feedback questions concluded the survey about how the principals used collaborative learning and leadership practices along with related outcomes in their school.

Procedures

A pilot of the survey was conducted with a small sample of thirteen area schools to examine potential issues with the questions and survey format. This field test allowed the researcher to use the software and adjust any formatting of the survey. Minor survey format refinements were made as necessary based on the feedback from the pilot before distributing the final survey.

A digital letter and document explaining the purpose and intent of the study was electronically sent through email to each principal along with a site link through *Qualtrics* of the survey. Over an eight week period the email survey was sent three times. Follow-up phone calls were made to principals in a few states where responses were low. Surveys responses were confidential. Data were encrypted and secured to maintain the privacy of the respondent by *Qualtrics*. Upon receipt of the returned surveys, the data collected were analyzed using the Statistical Package for the Social Sciences (SPSS).

Survey Data Analyses

Analysis of variance and bivariate correlations were the primary statistical treatments for the two null hypotheses. Data for this study provided the opportunity to analyze differences sorted by degree of collaboration and relationships among variables correlated with collaborative learning and leadership of principals in a large high school setting. Among the relationships studied were principals' perceptions of their leadership competencies and practices, their beliefs about collaborative leadership, examples of such work, and their perceptions about the degree of collaborative learning throughout their

respective schools. Coupled with demographic factors that might be related to these variables, an exploratory picture of collaborative learning in the set of large Midwestern high schools evolved. The desired outcomes for this study were (a) establish a baseline picture of the degree of collaborative leadership and learning occurring in large high schools, (b) determine if there are differences in leadership practices and beliefs for schools that are perceived as more collaborative compared to those perceived as less collaborative, and (c) understand the relationships between beliefs, collaborative leadership, and the degree of collaboration. Overall, the researcher hopes the findings from this study creates awareness about the uniqueness of collaborative leadership in a large high school setting and how principals of large high schools can more readily facilitate collaborative learning.

In Chapter 4, the findings of the study are presented. In Chapter 5, a review of the findings, a discussion of the implications and conclusion the researcher makes from the findings, and recommendations for future leaders are provided.

Chapter 4

DATA ANALYSIS

Introduction

The complexity of the large high schools from the perspective of the principal is an opportunity to further study their beliefs, practices, and actions in leading in such settings. Research studies conducted by numerous scholars (Goldring & Sullivan, 1996; Hallinger & Heck, 2010; Hoerr, 2007/2008; Ogawa & Bossert, 1995; Schlechty, 2000; Waters, Marzano, & McNulty, 2003; & Yukl, 2006) have attempted to determine the role of the principal and relationship with the organization as a leader to have an impact on school outcomes, but the conclusions of these researchers continue to call for further research around principal leadership in the setting of large high school and collaborative leadership. The opportunity to study the dimensions of collaborative leadership need to be explored more questions and theories which need further examination around the core of this work (Rubin, 2009). The challenges of large high schools can be difficult for principals to define their roles and their relationship in the organization. This exploratory approach in this study addressed principals through a lens of collaborative learning and collaborative practices to seek their perceptions of leadership and their role in this unique and complex setting of the large high school.

Results/Data Analysis

The purpose of this exploratory study was to analyze how high school principals approach developing a collaborative culture and providing collaborative leadership in a large high school setting. The intent behind the research was to examine the perceptions and to note emerging themes and values among the responses from the principals of the large high schools. The study examined the principal self-perceptions of their leadership style, their school, and their beliefs about collaborative leadership. Inferential statistics were used to draw conclusions from the sample population tested.

The Statistical Package for the Social Sciences (SPSS) was used to code and tabulate scores collected from the survey and provide summarized values where applicable including the median, mean, central tendency, variance, and standard deviation. Average scores were created by averaging items that corresponded to leadership practice, leadership beliefs, and collaborative learning and leadership. In addition, demographic data were processed using frequencies and percentages. A variety of statistical analysis, including Pearson correlation and analysis of variance (ANOVA) were used to address the two hypotheses and three research questions. A qualitative review of feedback was used for two open-ended questions.

Participant Demographics

The data gathered for this study were from 82 respondents. The majority had been in their current position as principal for 1-5 years (48%) or 6-10 years (37%). The largest number of participants had a specialist degree or 30 hours beyond Masters (36%). Majority of respondents had over 11 years as an administrator and over 16 years in education. The largest number of respondents (45%) had 4-6 subgroups of students

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defined by NCLB in their school noted in the last AYP report. In addition, 36% had

served as an Assistant Principal at the same high school. Additional information about the

frequencies and percentages for the demographic variables can be found in Table 4.

Table 4

Frequency and Percentages for Participants' Demographic Characteristics

Characteristic	*n*	%
Years in current position as principal		
1-5 years	39	48.0
6-10 years	30	37.0
11-15 years	5	6.0
16-20 years	3	4.0
20 + years	4	5.0
Total	81	100.0
Education level		
Masters Degree	19	24.0
Specialist Degree or 30 hours beyond Masters	29	36.0
Doctorate (Ed.D or PhD)	33	40.0
Total	81	100.0
Total number of years in education as an administrator		
1-5 years	4	4.9
6-10 years	14	17.3
11-15 years	25	30.9
16-20 years	23	28.4
20+ years	15	18.5
Total	81	100.0
Total years in education		
6-10 years	1	1.2
11-15 years	7	8.6
16-20 years	19	23.5
21-25 years	20	24.7
26-30 years	7	8.6
30+ years	27	33.3
Total	81	100.0
Number of subgroups of students defined by NCLB in your school noted in the last AYP report		
1-3	21	26.3
4-6	36	45.0
7-10	23	28.8
Total	80	100.0

Note. Two participants did not answer several demographic questions.

Table 5

Frequency and Percentages for Participants' Demographic Background Characteristics

Characteristic	*n*	%
Immediate prior experience before assuming current position		
Served as Principal at a similar or larger high school	5	6.0
Served as Principal at a smaller high school	10	12.0
Served as an Assistant Principal at the same high school	29	36.0
Served as an Assistant Principal at a different high school with similar or larger size	16	20.0
Served as Principal at a different school level (e.g. elementary, middle level or junior high)	10	12.0
Served as a dean, teacher, counselor, or similar position	1	1.0
Served in a board office position (e.g. assistant superintendent, director, or coordinator)	4	5.0
Other (Explain)	6	8.0
Total	81	100.0

Note. One participant did not answer this question.

Descriptive Statistics for Key Variables (Averaged)

In order to analyze the data the questions and responses were grouped into three areas based on the areas of the survey; collaborative leadership and learning, leadership beliefs, and leadership practices. These areas were the variables used for the descriptive statistics. The descriptive for the summarized variables can be found in Table 6. Each variable were analyzed using Cronbach's alpha with the survey items responded by principals. The average score for collaborative learning and leadership was 5.86 (*SD* =

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.71) and participants' scores ranged from 3.00 to 7.00. Three items were averaged and the items had a Cronbach's alpha of .71 indicating satisfactory reliability. The average score for leadership beliefs was 6.28 (*SD* = .67) and participants' scores ranged from 3.33 to 7.00. Ten items were averaged and the items had a Cronbach's alpha of .80 indicating good reliability. The average score for leadership practices was 6.12 (*SD* = .48) and participants' scores ranged from 4.20 to 7.00. Six items were averaged and the items had a Cronbach's alpha of .83 indicating good reliability.

Table 6

Descriptive Statistics for Summarized Variables (N = 81)

Variable	Min	Max	*M*	*SD*	# of items	Cronbach's alpha
Collaborative learning and leadership (average)	3.00	7.00	5.86	.71	3	.72
Leadership beliefs (average)	3.33	7.00	6.28	.67	10	.80
Leadership practices (average)	4.20	7.00	6.12	.48	6	.83

The Pearson correlations for the summarized variables are displayed in Table 7. The variable of collaborative learning and leadership was significantly and positively associated with leadership beliefs ($r = .67$, $p = .00$) and with leadership practices ($r = .45$, $p = .00$). More specifically, an increase in the extent to which the principal fostered collaborative relationships and the capacity of faculty to learn individually and collectively by sharing knowledge (collaborative learning and leadership) was associated with an increase in (a) beliefs that the principal is critical to leadership (leadership

beliefs) and (b) the extent to which the principals engage in practices that emphasize a collaborative culture and learning environment. The responses by the principals were self-perceived.

There was also a significant positive correlation between leadership behaviors and leadership beliefs ($r = .62$, $p = .00$). In other words, an increase in the extent to which the principal engages in practices and behaviors that emphasize a collaborative culture and learning environment (leadership behaviors) was associated with an increase in beliefs that the principal is critical to leadership (leadership beliefs).

Table 7

Pearson Correlations for Summarized Variables (N = 81)

		1	2	3
1. Collaborative learning and leadership (average)		--		
2. Leadership beliefs (average)	r	.67**	--	
	p	.00		
3. Leadership practices (average)	r	.45**	.62**	--
	p	.00	.00	

Note. ** Correlation is significant at the .01 level (2-tailed).

Analysis of Research Questions

Analysis for Research Question 1

Research question 1 was, "To what degree do principals of large high schools view their school as a collaborative learning school based upon a formal definition of collaborative learning schools?" This question was addressed with descriptive statistics (i.e., frequencies, percentages, mean, standard deviation, minimum, and maximum) for question 1 from Part 3 of the survey. As shown in Table 8, none of the respondents chose 1 (We are not a collaborative school) or 2 as a response. The majority of responses were between 6 and 7 (we are a highly collaborative school); 58% of respondents choosing 6 or 7. As shown in Table 9, the mean for this item was 5.42 ($SD = .97$).

Table 8

Frequencies and Percentages for Collaborative Learning Question 1

Survey Item	n	%
To what degree do you perceive your school to be a collaborative learning organization		
1 & 2	0	0
3	3	3.7
4 (We are sometimes a collaborative school)	13	16.0
5	18	22.2
6	41	50.6
7 (We are a highly collaborative school)	6	7.4
Total	81	100.0

Table 9

Descriptive Statistics for Collaborative Learning Question 1

Item	N	Min	Max	Mean	*SD*
To what degree do you perceive your school to be a collaborative learning organization?	81	3	7	5.42	.97

Analysis for Research Question 2

Research question 2 was: To what degree do principals of large high schools who view their school as highly collaborative differ in their perceptions of their leadership practices and beliefs compared to principals who view their schools as less collaborative? This question was addressed using the average of (a) questions 1 to 3 from Part 3 (collaborative learning and leadership) of the survey and (b) the average of questions 1 to 6 from Part 5 (leadership beliefs) of the survey. The median was 6.0, and therefore a median split was used to divide the respondents into two groups: (a) those who viewed their school as highly collaborative as indicated by averaged scores that range from 6.00 to 7.00 and (b) those who view their schools as less collaborative as indicated by averaged scores that ranged from 1.00 to 5.90. The frequencies and percentages for each group can be found in Table 10. Sixty-three percent ($n = 51$) of respondents were classified as being in highly collaborative schools and 37% ($n = 30$) were classified as being in less collaborative schools.

Table 10

Frequencies and Percentages for the Highly Collaborative or Less Collaborative Groups

Collaboration Group	*n*	%
Less collaborative	30	37.0
Highly collaborative	51	63.0
Total	81	100.0

An ANOVA was conducted to analyze mean differences in leadership beliefs as a function of being in a highly collaborative or less collaborative school. The data presented in Table 11 showed the means and standard deviations of the average leadership beliefs score being in a highly collaborative or less collaborative school. Results of this analysis suggest there are statistically significant differences in leadership beliefs by collaborative group ($F(1, 79) = 25.29, p = .00$) (see Table 12). More specifically, principals in large high schools they described as highly collaborative had significantly higher mean leadership beliefs scores ($M = 6.52, SD = .41$) than those in less collaborative high schools ($M = 5.85, SD = .80$). On average, principals in highly collaborative schools were more likely than principals in less collaborative schools to agree that the beliefs of the principal of large high schools are critical to leadership. The plotted means for the two groups can be found in Figure 2.

Table 11

Descriptive for Leadership Beliefs (Average)

Group	N	M	SD	Std. Error	Min	Max
Less collaborative	30	5.85	.80	.14	3.33	7.00
Highly collaborative	51	6.53	.41	.05	5.50	7.00
Total	81	6.28	.67	.07	3.33	7.00

Table 12

ANOVA Statistics for Principal Leadership Beliefs (Average)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	8.82	1	8.82	25.29	.00
Within Groups	27.57	79	.349		
Total	36.40	80			

Figure 2. Leadership Beliefs & Highly or Less Collaborative Principal

Analysis for Research Question 3

Research question 3 was: Are there relationships between large collaborative high

schools and large non-collaborative high schools for the following interrelated questions:

- the degree of collaborative learning in the school as described by the schools' principals,
- the degree to which the principals' self-described their leadership practices,

- the degree to which the principals' self-described their beliefs about collaborative leadership, and
- the demographic characteristics of the principals' professional experiences and background?

The basic research question was addressed using Pearson product moment correlations. To further understand the variables, ANOVA was used to test for significant differences in the key demographic variables (education level, years as principal, and total years in education) for the perceived degree of collaboration (highly collaborative versus less collaborative). A Bonferroni adjustment was used to control for multiple comparisons in the ANOVA. Given the number of ANOVA models tested, a Bonferroni adjustment was used to reduce the alpha to .00 (.05/12); therefore $p < .01$ was used as the threshold for statistical significance for these analyses.

Relationships between Selected Study Variables

A Pearson pm correlation was used to assess the degree of association, at the bivariate level, between Collaboration Items 1, 2, and 3. Perception of the degree to which the school is a collaborative learning organization was positively and significantly associated with the perception of the degree to which the respondent viewed his/her leadership to be collaborative ($r = .56$, $p = .00$). In addition, principal perception of the degree to which the school is a collaborative learning organization was positively and significantly associated with the principal's perception of the degree to which the respondent viewed collaborative leadership, collaborative culture, and collaborative learning as important component of their role to meet school improvement efforts ($r = .33$, $p = .00$). Finally, the degree to which the respondent viewed his/her leadership to be

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collaborative was positively and significantly associated with the perception of the degree

to which the respondent viewed collaborative leadership, collaborative culture, and

collaborative learning as important component of their role to meet school improvement

efforts ($r = .33$, $p = .00$). These correlations are presented in Table 13.

Table 13

Pearson Correlations for Collaborative Learning Survey Items

Collaborative Learning Survey Item		1	2	3
1. To what degree do you perceive your school to be a collaborative learning organization		--		
2. To what degree do you perceive your style of leadership to be collaborative	r p N	.56** .00 80	--	
3. To what degree do you perceive collaborative leadership, collaborative culture, and collaborative learning as important component of your role to meet school improvement efforts	r p N	.33** .00 81	.51** .00 80	--

Note. **Correlation is significant at the .01 level.

Analysis for Research Question 4

Research question 4 was what are the strategies that principals of large high

schools use to achieve collaborative learning in the setting large high school? There were

two open-ended prompt questions in the survey. In this study, two open-ended questions

concerning collaborative leadership and learning were used in the survey. The questions

were intended to allow the respondents to further elaborate on collaborative leadership

strategies and successful examples of the strategies on school improvement in their

school. This part of the survey was to provide feedback about their valuable experiences in the large high school setting. The first question allowed the principals to share their recommended strategies for large school settings for collaborative learning. The second question allowed principals to provide examples of results within their large school setting to suggest recommended steps as a leader in the collaborative school. The feedback from principals in the survey revealed their strategies around collaborative learning, organizational structures, and perceived results they relied upon in their buildings. Their suggestions provided possible best practices for principals in these settings to consider.

These open-ended survey items provided insight to address the research question: What are the strategies that principals of large high schools use to achieve collaborative learning in the setting large high school? The overall responses to the both open-ended questions were fifty-two out of eighty-two principals surveyed responded to the open-ended questions. In the examination of the survey responses by the principals and years of experience, the principal's range of experience was between one to fifteen years. To break down the feedback by the principals, strategies shared from their experiences in large schools were categorized into common themes. Principal responses developed common themes centered on organizational practices, shared leadership practices, and instructional practices to demonstrate collaborative learning in their school.

<center>Organizational Practices</center>

The specific types of organizational practices deducted from the survey responses were professional learning communities, collaborative curricular teams, processes around

collaboration, and structures such as built-in time for collaboration, site-based leadership team structures, and focused building instructional strategies.

Professional learning communities were referred directly in principal comments nineteen different times. Principals referred to this as a process, a structure, or a model for recommended strategies. As part of the professional learning community, principals shared practices such as built in time for ongoing collaboration among teachers, professional learning teams to address student performance and outcomes, common assessments and data collection, shared core principles and norms for collaboration, curriculum and professional development work by the professional learning teams, and professional learning teams working climate related activities such as Positive Behavior Support and discipline/behavior procedures. Utilizing the practices associated with professional learning communities were the most prevalent in the feedback from principals in the survey as an organizational practice in large high schools.

The second area of organizational practices identified in the survey responses were variations of collaboration in their school without reference to professional learning communities. Twelve principals referred to collaboration in a varying form in the survey. Principals reported they supported or created these teams and structures for collaborative practices in their schools. The concept of collaboration was related to the ways teams were assigned, their work, and specific school structures such as designated time and place for teams to meet and to complete their assigned tasks. Time and task were identified the most around the work of collaborative teams. Examples of the kinds of teams they had in buildings such as subject based curricular, school improvement, departmental, grade level, and interdisciplinary along with designated time and frequency

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of meetings. Tasks were mentioned with how these collaborative teams created community in the school, help make decisions around courses and assessments, work around initiatives such as literacy, technology, Response to Intervention, Common Core State Standards, and develop curriculum and assessments for courses and grade levels.

<div align="center">Shared Leadership Practices</div>

Many shared leadership practices were identified in the survey responses was centered on leadership teams, principal directed committees, and traditional structures such as departments and department chairs. Eleven principals noted use of leadership groups such as committees, departments, or specific teams. The concept of leadership by teachers seem to be more principal directed with more less autonomy and more task oriented in the role of these groups. As one principal put it "defined autonomy" in talking about leadership teams. The composition of these groups were defined as steering committees, administrative teams, school leadership teams composed of department chairs, content teams, instructional leadership teams, campus leadership, teacher advisory teams, problem solving or solutions team, instructional, school improvement committees, and data teams. The role and tasks of the leadership teams were varied in topics and in purpose such as leadership development, whole group faculty professional development, data analysis around student performance, advisory to principal, site team decision making, and school improvement teams. These groups reported directly to principals or their designee around school or curricular issues. The overall feedback suggests a more distributed approach to how leadership is used with teacher and staff involvement.

Instructional Practices

The final theme delineated in the survey focused on instructional practices. These practices were identified by principals as collaborative learning strategies five different times in the survey. These comments were noted around instructional practices such as technology, student resource support, shared grading and performance assessments, and analysis of student data. The feedback suggested principals rely on a focus by teachers on targeted areas to create collaborative practices to affect change in instructional practices. Principals sought collaborative focus by deploying various types of collaborative learning strategies lead to application of these strategies in their buildings through various structures and teachers.

There was only one comment from responses to this question around strategies for collaborative leadership suggesting collaboration was not a viable part of learning in their building. The comment made by this respondent stated "principals lead, teachers follow" and collaboration is not needed in his large school setting. The majority of comments were in contrast to this view point. One other principal did suggest leadership around collaborative learning would require monitoring and structure to keep teachers focused around outcomes and principal leadership was still the key.

The second open-ended question responded to by principals in the survey was: what results from being a collaborative school which allow us to tease from this study some recommended steps that will be valuable to all principals of large high schools. The question asked principals to share their perceptions about what they believed were recommendations for other principals. Principals responded with examples of changes, results, or recommendations around their perception of collaborative leadership. There

were fifty-two respondents who provided examples and next steps around their perception of collaborative leadership. All but two respondents had rated themselves as highly collaborative in their responses. The feedback to this question provided an additional lens into the perception of their work with collaborative leadership in their respective buildings. The responses overall were congruent with the responses to the first question responses of practices, processes, and specific types of collaborative structures. The differences from the first question in the responses to this question were evident in examples of results and outcomes of the different structures.

Specific types of structures were reported such as professional learning communities, collaboration schedules, and composition of various teams of teachers involved in collaborative purposes. Professional learning communities were referred to by eleven principals in their responses to this question. References by seven principals about teacher organized groups like teacher leadership teams, committees, subject area teams, school improvement site teams, or specific groups targeting a specific area in the building were noted as examples. Eight principals referred in general to collaboration in context of these suggested actions such as school wide instructional strategies, school expectations, school improvement efforts, and school culture and site team leadership.

Another set of responses centered on assessment strategies and successes as a result of the collaborative teams. Eighteen respondents referred to achievement and non-achievement outcomes such as increases in statewide assessment results, improved scores with national college readiness assessments as American College Testing (ACT) and Scholastic Aptitude Testing (SAT), local district and school assessments, Advanced Placement Testing (AP), and failure rates in core classes. Respondents also noted

improvements in non-academic data such as attendance, discipline, and persistence to graduation. Strategies noted were instructional, test preparation, positive behavior supports, data analysis and changes in classroom practices, and working with state standards for curriculum. The majority of principals reported these outcomes were related to use in some form of collaborative leadership.

The final category of responses was related to how building data results were being used, shared with others and process of data analysis being utilized in their collaborative setting. Nine different respondents referred to data as part of their collaborative work for teachers. The types of data ranges from student's academic performance and achievement to stakeholder survey data in various forms. Two different respondents shared the challenge of teaching teachers how to use and analyze data for instructional decisions and the processes needed to make teachers ready for such work. This feedback really focused on the actions of these groups around data and the procedures taken for this work to be done by teachers.

In summary, the four research questions allowed for the exploratory study to further examine the self-perceptions of the principals and their experiences with such collaborative practices used in their schools. Survey data accrued from the first three questions provided correlational data to explore possible relationships in how principals used collaborative learning and leadership in the setting of the large high school. The relationship of the research used in the first three questions provided the data to test the two hypotheses in the study.

Data Results to Address Null Hypothesis One

The examination of principal's self perceptions of the differences in the degree to which less collaborative and highly collaborative schools were self described by their leadership practices. Therefore, the null hypothesis that there are no significant differences between (a) the degree to which principals perceive collaborative learning in their respective schools, (b) the degree to which principals self described their leadership practices as collaborative, and (c) the degree to which the principals self-described their leadership beliefs as collaborative was rejected.

To better understand the nature of the primary variables in this study, an ANOVA was conducted to test for differences in leadership practices in schools perceived as highly collaborative or those perceived as less collaborative. The means and standard deviations of the average leadership practices scores for highly collaborative and less collaborative schools are noted in Table 14. Results of this analysis suggest there are statistically significant differences in leadership practices by collaborative group ($F(1, 79) = 18.78$, $p = .00$) (see Table 15). More specifically, those in schools perceived as highly collaborative had significantly higher mean leadership practices scores ($M = 6.29$, $SD = .38$) than those in schools perceived as less collaborative ($M = 5.85$, $SD = .52$) (see Table 14). On average, those perceived as highly collaborative schools were more likely than those perceived in less collaborative schools to use leadership practices that fostered collaboration based on principal self perception. The plotted means for the two groups can be found in Figure 3.

Table 14

Descriptives for Leadership Practices (Average) by Collaborative Group (Highly Collaborative vs. Less Collaborative)

Group	*N*	*M*	*SD*	Std. Error	Min	Max
Less collaborative	30	5.85	.52	.09	4.20	6.80
Highly collaborative	51	6.29	.38	.05	5.60	7.00
Total	81	6.12	.48	.05	4.20	7.00

Table 15

ANOVA Statistics for Leadership Practices (Average) by Collaborative Group (Highly Collaborative vs. Less Collaborative)

	Sum of Squares	*df*	Mean Square	*F*	Sig.
Between Groups	3.65	1	3.65	18.78	.00
Within Groups	15.36	79	.19		
Total	19.02	80			
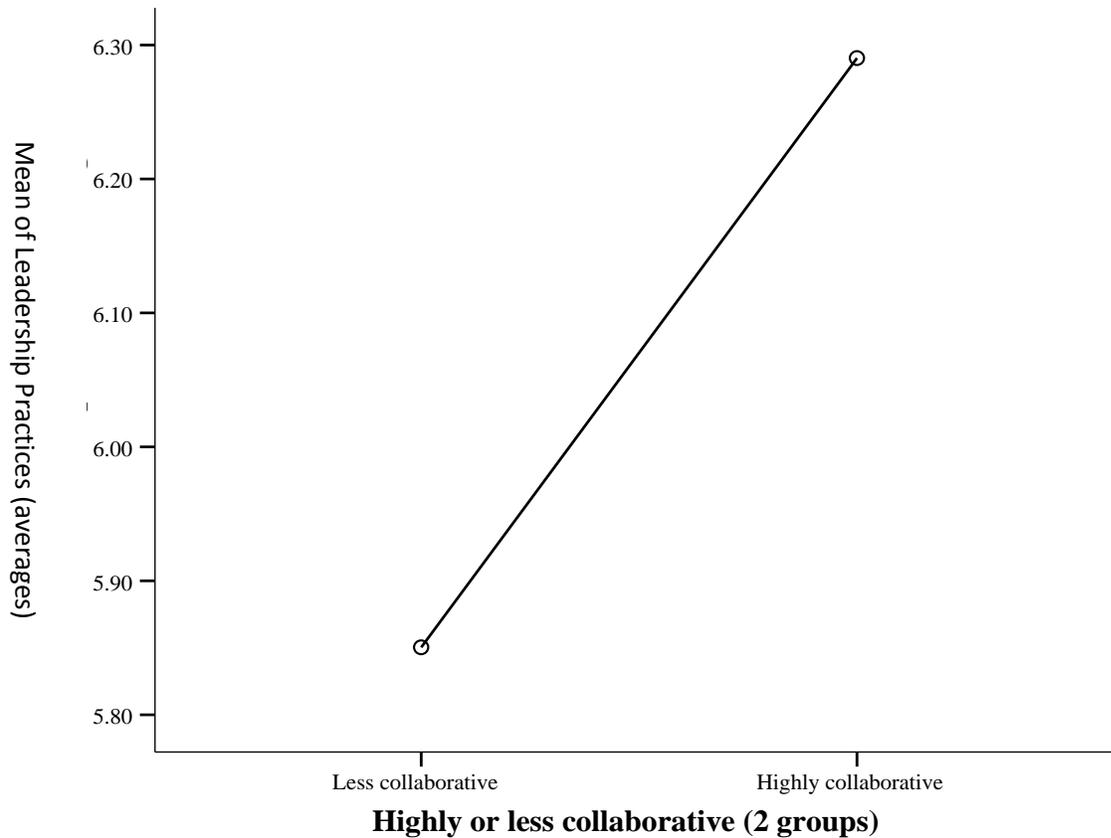
Figure 3. Leadership Practices & Highly or Less Collaborative Principal

As such, the hypothesis that there are not significant differences between the

leadership practices of principals of large high schools who described their respective

schools as highly collaborative compared to the leadership practices of principals who did

not describe their schools as highly collaborative was rejected. An ANOVA was

conducted to analyze mean differences in leadership beliefs as a function of being in a

highly collaborative or less collaborative school. The data found in Table 16 presented

the means and standard deviations of the average leadership beliefs scores for highly

collaborative and less collaborative schools. Results of this analysis suggest there are

statistically significant differences in leadership beliefs by collaborative group ($F(1, 79) =$

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25.29, $p = .00$) (see Table 12). More specifically, those in highly collaborative schools had significantly higher mean leadership beliefs scores ($M = 6.52$, $SD = .41$) than those in less collaborative high schools ($M = 5.85$, $SD = .80$) (see Table 16). On average, those in highly collaborative schools were more likely than those in less collaborative schools to agree that the beliefs of the principal of large high schools are critical to leadership. The plotted means for the two groups can be found in Figure 3.

Table 16

Descriptives for Leadership Beliefs (Average) by Collaborative Group (Highly Collaborative vs. Less Collaborative)

Group	N	M	SD	Std. Error	Min	Max
Less collaborative	30	5.85	.80	.14	3.33	7.00
Highly collaborative	51	6.53	.41	.05	5.50	7.00
Total	81	6.28	.67	.07	3.33	7.00

Given these results, the hypothesis that there are no significant differences between the leadership beliefs of principals of large high schools who described their respective schools as highly collaborative compared to the leadership beliefs of principals who did not describe their schools as highly collaborative was rejected.

Differences in the Degree to which Less Collaborative and Highly Collaborative Schools Described Collaborative Learning and Leadership

An ANOVA was conducted to analyze mean differences in collaborative learning and leadership as a function of being in a highly collaborative or less collaborative school. The findings noted in Table 16 presented the means and standard deviations of the average collaborative learning and leadership score for highly collaborative or less collaborative schools. There are statistically significant differences in collaborative leadership beliefs by collaborative group ($F(1, 79) = 120.74$, $p = .00$) (see Table 18). More specifically, those in highly collaborative schools had significantly higher mean collaborative learning and leadership scores ($M = 6.28$, $SD = .29$) than those in less collaborative high schools ($M = 5.14$, $SD = .63$). On average, respondents in schools perceived as highly collaborative schools were more likely than in schools perceived as less collaborative to agree the principal fostered collaborative relationships and the faculty demonstrated the capacity to learn individually and collectively by sharing. The plotted means for the two groups can be found in Figure 4.

Table 17

Descriptives for Collaborative Learning and Leadership Beliefs (Average) by

Collaborative Group (Highly Collaborative vs. Less Collaborative)

Group	N	M	SD	Std. Error	Min	Max
Less collaborative	30	5.14	.63	.11	3.00	5.67
Highly collaborative	51	6.28	.29	.04	6.00	7.00
Total	81	5.86	.71	.07	3.00	7.00

Table 18

ANOVA Statistics for Collaborative Learning and Leadership Beliefs (Average) by

Collaborative Group (Highly Collaborative vs. Less Collaborative)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	24.54	1	24.54	120.74	.00
Within Groups	16.05	79	.20		
Total	40.59	80			
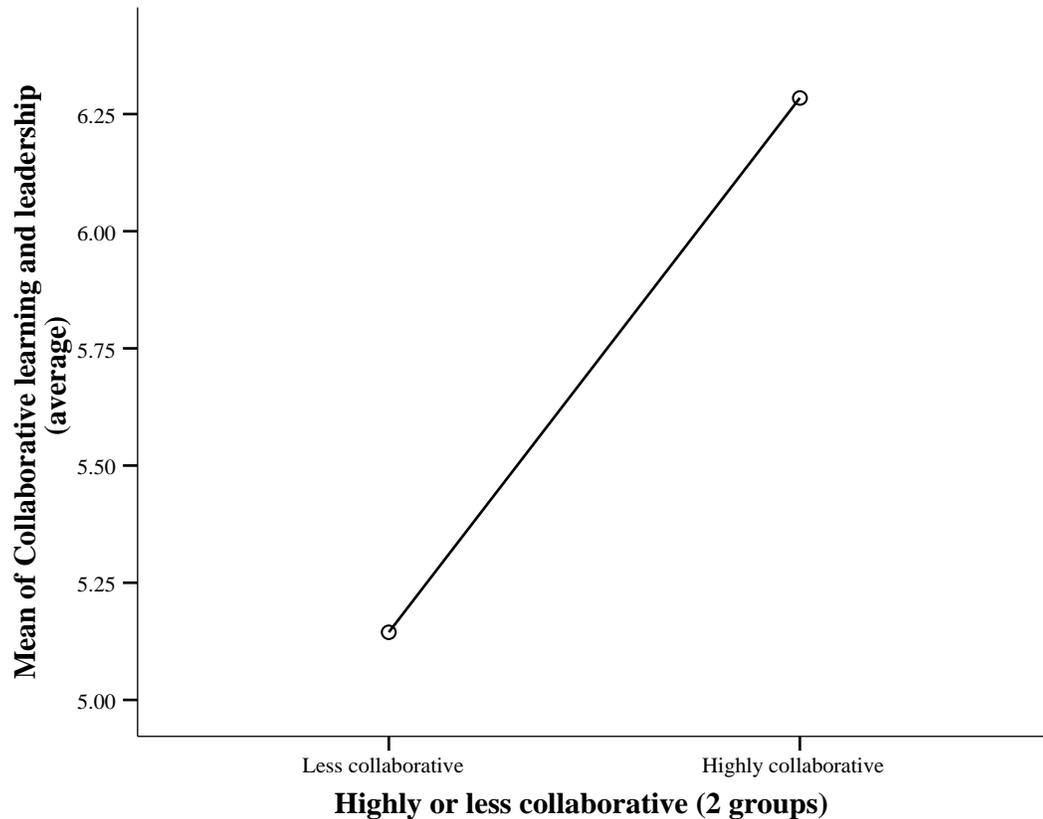
Figure 4. Collaborative Learning & Leadership & Highly or Less Collaborative Principal

As a result of these findings, the hypothesis is rejected that there are no significant differences between the collaborative beliefs of principals of large high schools who described their respective schools as highly collaborative compared to the practices and beliefs of principals who did not describe their schools as highly collaborative was rejected.

Data Results to Address Null Hypothesis Two

The differences in principal's perceptions of collaborative learning by demographic variables are noted in the hypothesis two. Null hypothesis two stated there

are not statistically significant relationships between the following variables in this exploratory study:

a) the degree to which principals perceive collaborative learning in their respective schools,

b) the degree to which principals self described their leadership practices as collaborative,

c) the degree to which the principals self-described their leadership beliefs as collaborative, and

d) selected demographic characteristics of the principals' professional experiences and backgrounds.

The variables were analyzed through the use of an ANOVA to determine if the relationships of principal perceptions and demographic characteristic were significant.

Education level. For these analyses, three categories were compared (i.e., (a) Master's level, (b) specialist degree, and (c) doctorate). An ANOVA was conducted to analyze mean differences in collaborative learning and leadership as a function of educational level. The findings in Table 19 presented the means and standard deviations of the average collaborative learning and leadership scores by education level. Thought the means are progressively higher for each additional education level attained, results of this analysis suggest there are no statistically significant differences in collaborative learning and leadership by education level ($F(2, 78) = 1.95$, $p = .14$) (see Table 20). Further correlations around educational levels were limited by the structure of questions in the surveys prevented any viable data. The plotted means for the three groups can be found in Figure 5.

Table 19

Descriptive Statistics for Collaborative Learning and Leadership Beliefs (Average) by

Educational Level

Education	N	M	SD	Std. Error	Min	Max
Masters Degree	19	5.59	.82	.18	3.00	6.33
Specialist Degree or 30 hours beyond Masters	29	5.88	.57	.10	5.00	7.00
Doctorate (PhD/EdD.)	33	5.99	.73	.12	4.00	7.00
Total	81	5.86	.71	.07	3.00	7.00

Table 20

ANOVA Statistics for Collaborative Learning and Leadership Beliefs (Average) by

Education Level

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.93	2	.96	1.95	.14
Within Groups	38.66	78	.49		
Total	40.59	80			
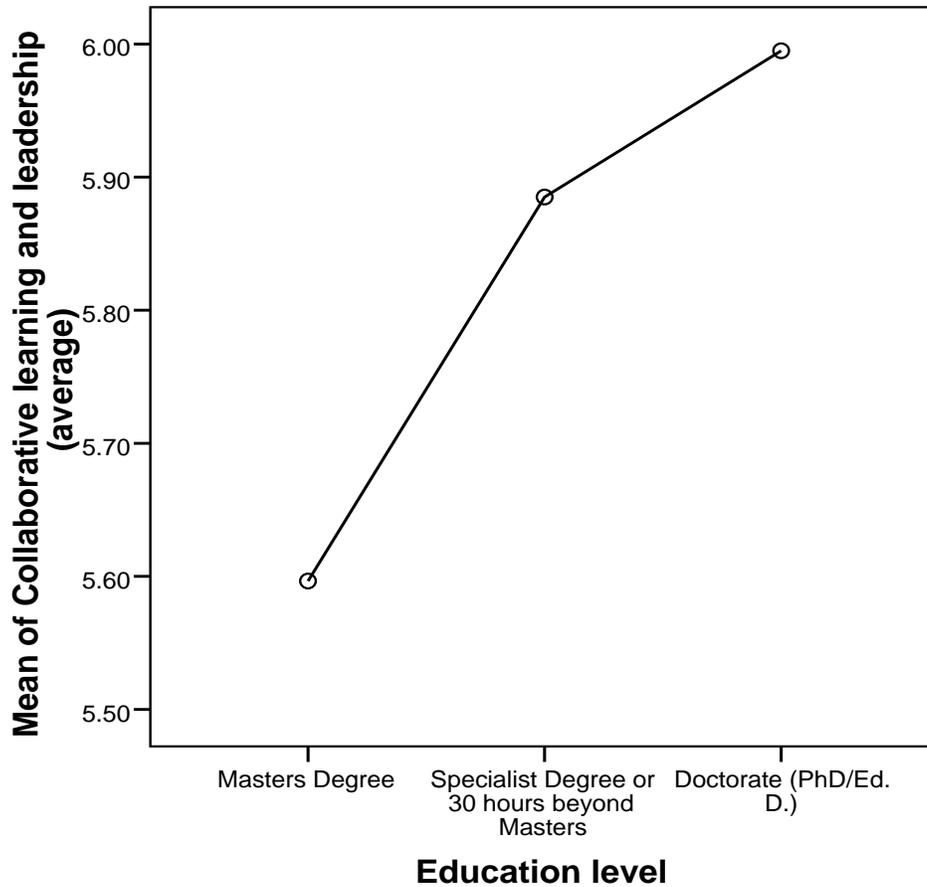
Figure 5. Collaborative Learning & Leadership Educational Level

The next part of the question in hypothesis two examined the number of years as a

principal. To eliminate small sample size for some of the category years as principal was

recorded into two categories for comparison: (a) 1 to 5 years and (b) 6 years or more. An

ANOVA was conducted to analyze mean differences in collaborative learning and

leadership as a function of years as principal. The findings in Table 21 reported the

means and standard deviations of the average collaborative learning and leadership scores

by years as principal. Results of this analysis suggest there are no statistically significant

differences in collaborative learning and leadership by years as principal ($F(1, 798) = .08$,

$p = .76$) (see Table 22). Given the nature of the questions requested ranges of year in

experience, further correlations would be difficult to produce viable data without exact

number of years served from each principal. The plotted means for the two groups can be

found in Figure 6.

Table 21

Descriptive Statistics for Collaborative Learning and Leadership (Average) by Years as Principal

Years as Principal	*N*	*M*	*SD*	Std. Error	Min	Max
1-5 years	39	5.83	.54	.08	4.67	7.00
6 years or more	42	5.88	.84	.13	3.00	7.00
Total	81	5.86	.71	.07	3.00	7.00

Table 22

ANOVA Statistics for Collaborative Learning and Leadership Beliefs (Average) by Years as Principal

	Sum of Squares	*df*	Mean Square	*F*	Sig.
Between Groups	.04	1	.04	.08	.76
Within Groups	40.55	79	.51		
Total	40.59	80			
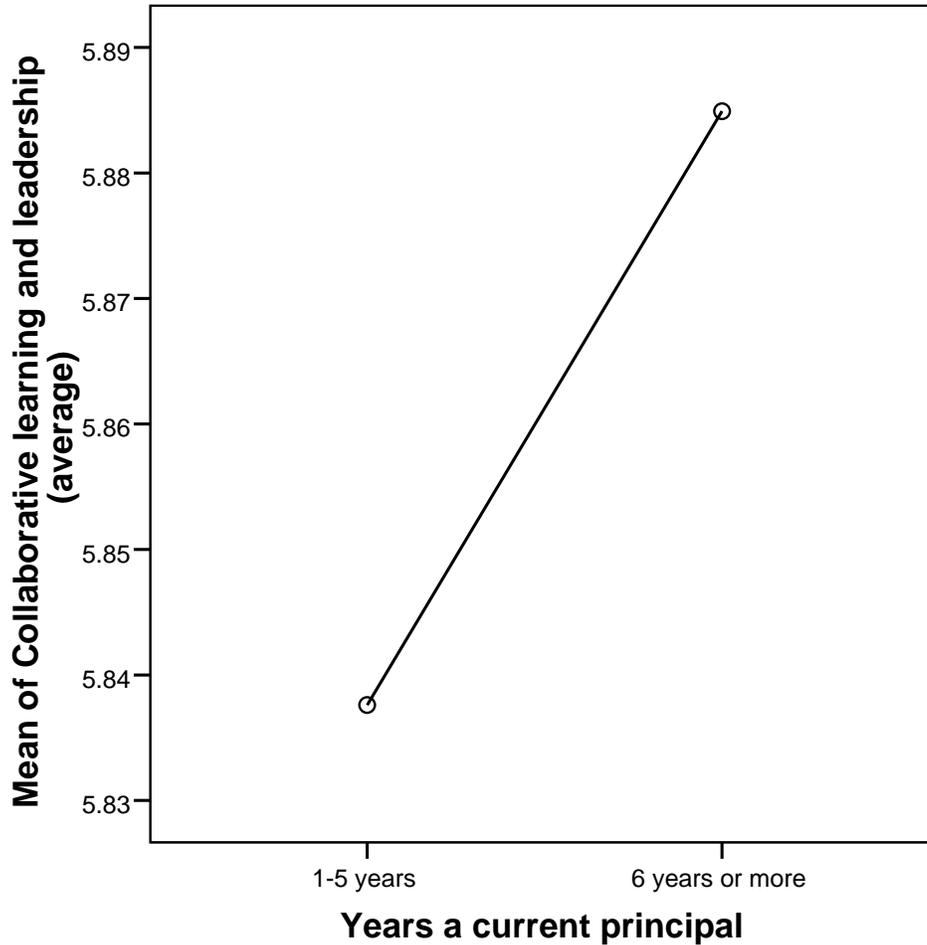
Figure 6. Collaborative Learning & Leadership & Years a Principal

The next part of hypothesis two went further to examine each principal's total

years in education. To eliminate small sample size, the years as principal were grouped as

follows: (a) 6-20 years, (b) 21-30 years, and (c) more than 30 years. An ANOVA was

conducted to analyze mean differences in collaborative learning and leadership as a

function of years in education. The means and standard deviations of the average

leadership beliefs scores by years in education are found in Table 24. Results of this

analysis suggest there are no statistically significant differences in collaborative learning

and leadership by years in education ($F(1, 78) = .99, p = .37$) (see Table 25). Further

correlations were limited due to the questions for this part of the survey were given as

ranges and not individually noted for each principal for total years, which only allowed

for the use of ANOVA for analysis. The plotted means for the three groups can be found

in Figure 7.

Table 23

Descriptive Statistics for Collaborative Learning and Leadership (Average) by Years in Education

Years in Education	N	M	SD	Std. Error	Min	Max
6-20 years	27	5.90	.55	.10	5.00	6.67
21-30 years	27	5.97	.59	.11	4.33	7.00
30+ years	27	5.70	.92	.17	3.00	7.00
Total	81	5.86	.71	.07	3.00	7.00

Table 24

ANOVA Statistics for Collaborative Learning Leadership Beliefs (Average) by Years in Education

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.01	2	.50	.99	.37
Within Groups	39.58	78	.50		
Total	40.59	80			
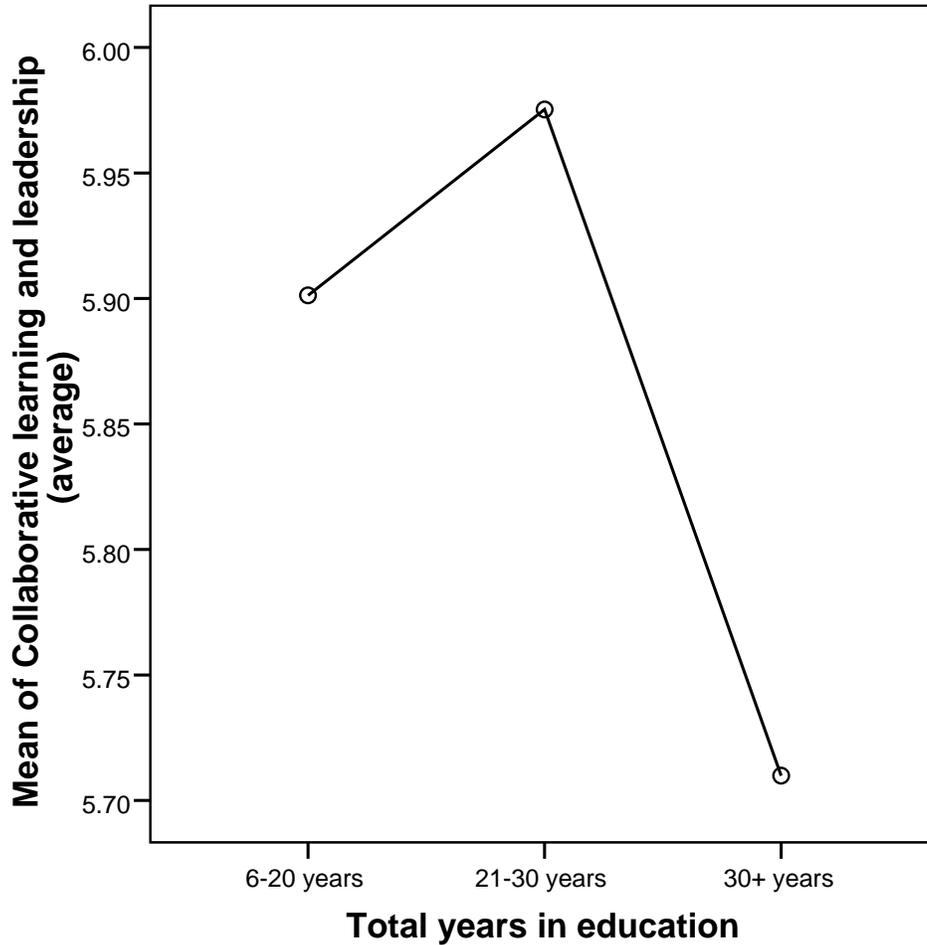
Figure 7. Collaborative Learning & Leadership & Total Years in Education

The second hypothesis also examined the differences in leadership practices and demographic background of educational level**.** Three categories were compared (Master's level, (b) specialist degree, and (c) doctorate. An ANOVA was conducted to analyze mean differences in leadership practices as a function of educational level. The means and standard deviations of the average leadership practices scores by education level are found in Table 25. Results of this analysis suggest there are no statistically significant

differences in leadership behaviors by education level ($F(2, 78) = 1.36, p = .26$) (see

Table 26). The plotted means for the three groups can be found in Figure 8.

Table 25

Descriptives Statistics for Leadership Practices (Average) *by Education Level*

Education	N	M	SD	Std. Error	Min	Max
Masters Degree	19	6.03	.36	.08	5.50	6.70
Specialist Degree or 30 hours beyond Masters	29	6.06	.51	.09	4.90	7.00
Doctorate (PhD/Ed.D.)	33	6.23	.51	.09	4.20	7.00
Total	81	6.12	.48	.05	4.20	7.00

Table 26

ANOVA Statistics for Leadership Practices (Average) by Education Level

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.64	2	.32	1.36	.26
Within Groups	18.37	78	.23		
Total	19.02	80			
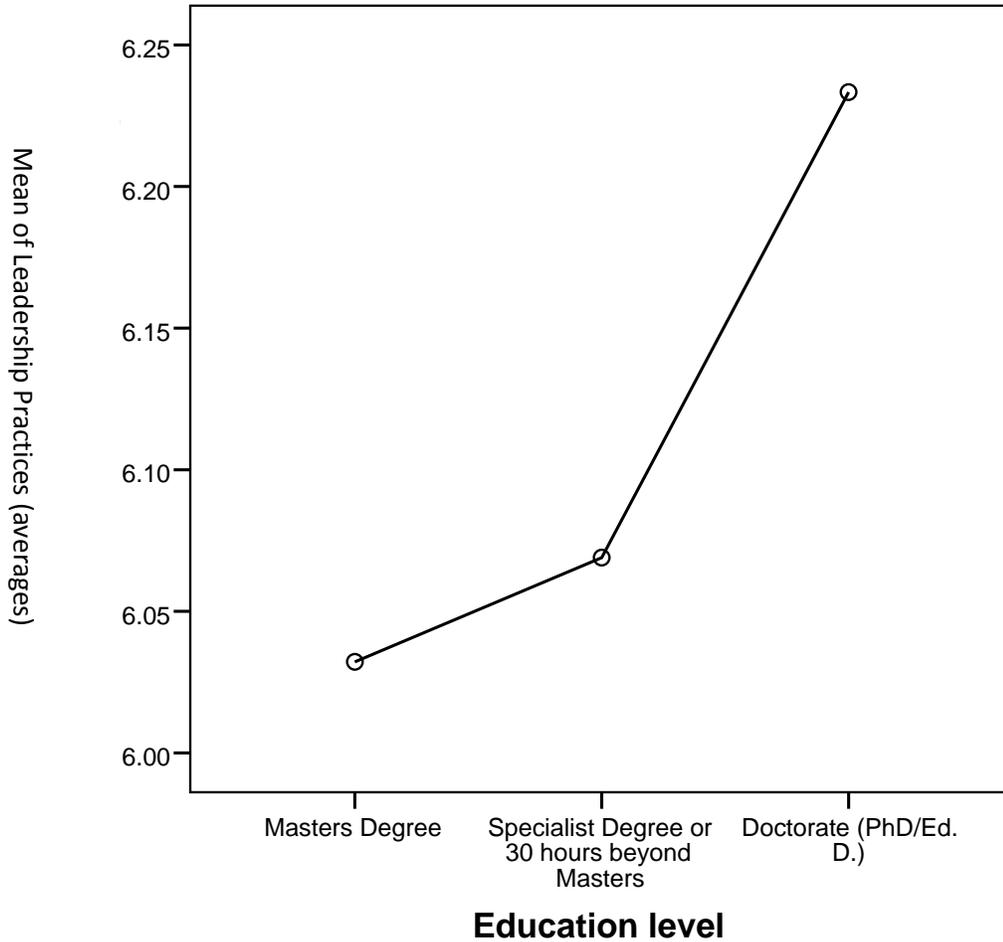
Figure 8. Leadership Practices & Education Level

Years as Principal

  To eliminate small sample size for some of the category years as principal was combined into two categories for comparison: (a) 1 to 5 years and (b) 6 years or more. An ANOVA was conducted to analyze mean differences in leadership practices as a function of years as principal. The means and standard deviations of the average leadership practices scores by years as principal are noted in Table 27. Results of this analysis suggest there are no statistically significant differences in leadership practices by years as

principal ($F(1,79) = .78$, $p = .37$) (see Table 28). Further correlations were limited by the

survey for this part of the survey were broad and not individually noted for each principal

for years as principal, which only allowed for the use of ANOVA for analysis. The plotted

means for the two groups can be found in Figure 9.

Table 27

Descriptive Statistics for Leadership Practices (Average) by Years as Principal

Years as Principal	N	M	SD	Std. Error	Min	Max
1-5 years	39	6.17	.39	.06	5.20	6.80
6 years or more	42	6.08	.56	.08	4.20	7.00
Total	81	6.12	.48	.05	4.20	7.00

Table 28

ANOVA Statistics for Leadership Practices (Average) by Years as Principal

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.18	1	.18	.78	.37
Within Groups	18.83	79	.23		
Total	19.02	80			
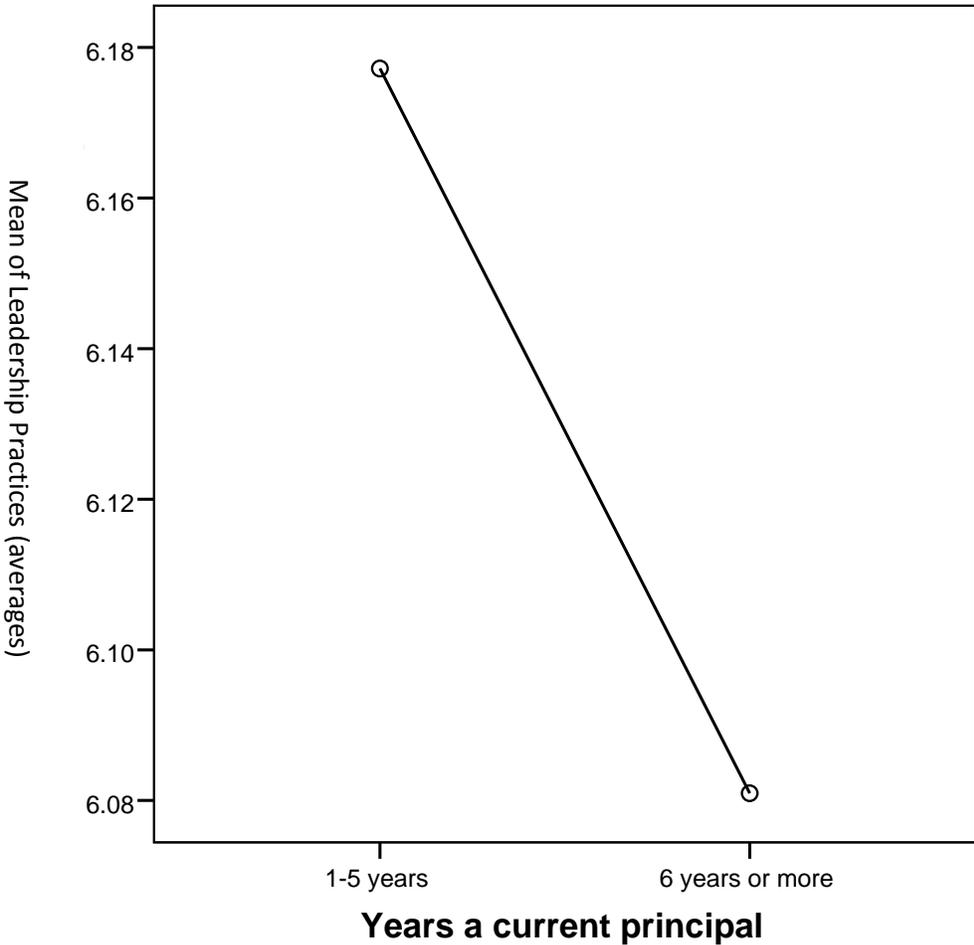
Figure 9. Leadership Practices & Years a Current Principal

The second hypothesis also examined years in education and leadership practices.

An ANOVA was conducted to analyze mean differences in leadership practices as a

function of years in education. The means and standard deviations of the average

leadership practices scores by years in education are found in Table 29. Results of this

analysis suggest there are no statistically significant differences in leadership practices by

years in education ($F(2,78) = .20, p = .81$) (see Table 30). Further correlations were

limited by this part of the survey because responses were ranges and not individually

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noted for each principal for total years, which only allowed for the use of ANOVA for

analysis. The plotted means for the two groups can be found in Figure 10.

Table 29

Descriptive Statistics for Leadership Practices (Average) by Years in Education

Years in Education	*N*	*M*	*SD*	Std. Error	Min	Max
6-20 years	27	6.17	.48	.09	4.90	6.80
21-30 years	27	6.08	.27	.05	5.70	6.80
30+ years	27	6.11	.64	.12	4.20	7.00
Total	81	6.12	.48	.05	4.20	7.00

Table 30

ANOVA Statistics for Leadership Practices (Average) by Years in Education

	Sum of Squares	*df*	Mean Square	*F*	Sig.
Between Groups	.10	2	.05	.20	.81
Within Groups	18.91	78	.24		
Total	19.02	80			
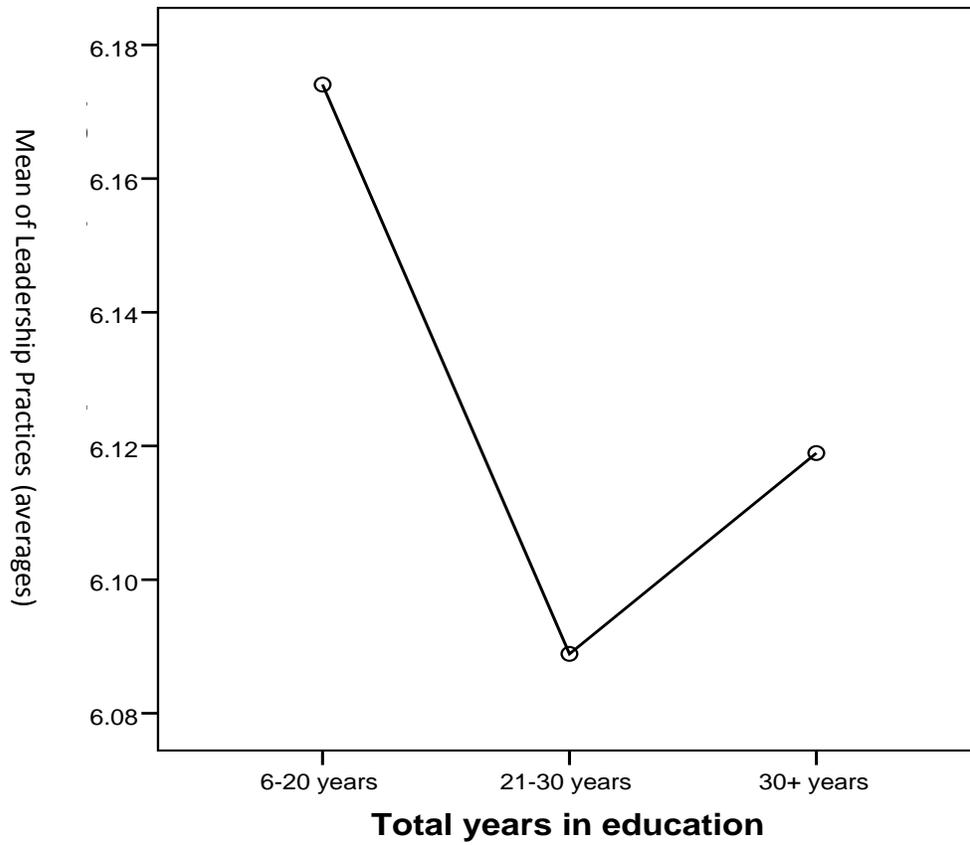
Figure 10. Leadership Practices & Total Years in Education

The second hypothesis tested for differences in leadership beliefs by demographic background concerning educational level. Three categories were compared (a) Master's level, (b) specialist degree, and (c) doctorate. An ANOVA was conducted to analyze mean differences in leadership beliefs as a function of educational level. The means and standard deviations of the average leadership beliefs scores by education level are found in Table 31. Results of this analysis suggest there are no statistically significant differences in leadership beliefs by education level ($F(2, 78) = 1.83$, $p = .16$) (see Table 32). The plotted means for the three education groups can be found in Figure 11.

Table 31

Descriptive Statistics for Leadership Beliefs (Average) by Educational Level

Education	N	M	SD	Std. Error	Min	Max
Masters Degree	19	6.10	.81	.18	3.33	6.83
Specialist Degree or 30 hours beyond Masters	29	6.21	.65	.12	4.17	7.00
Doctorate (PhD/Ed.D.)	33	6.44	.57	.10	4.67	7.00
Total	81	6.28	.67	.07	3.33	7.00

Table 32

ANOVA Statistics for Leadership Beliefs (Average) by Educational Level

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.635	2	.818	1.83	.16
Within Groups	34.767	78	.446		
Total	36.402	80			
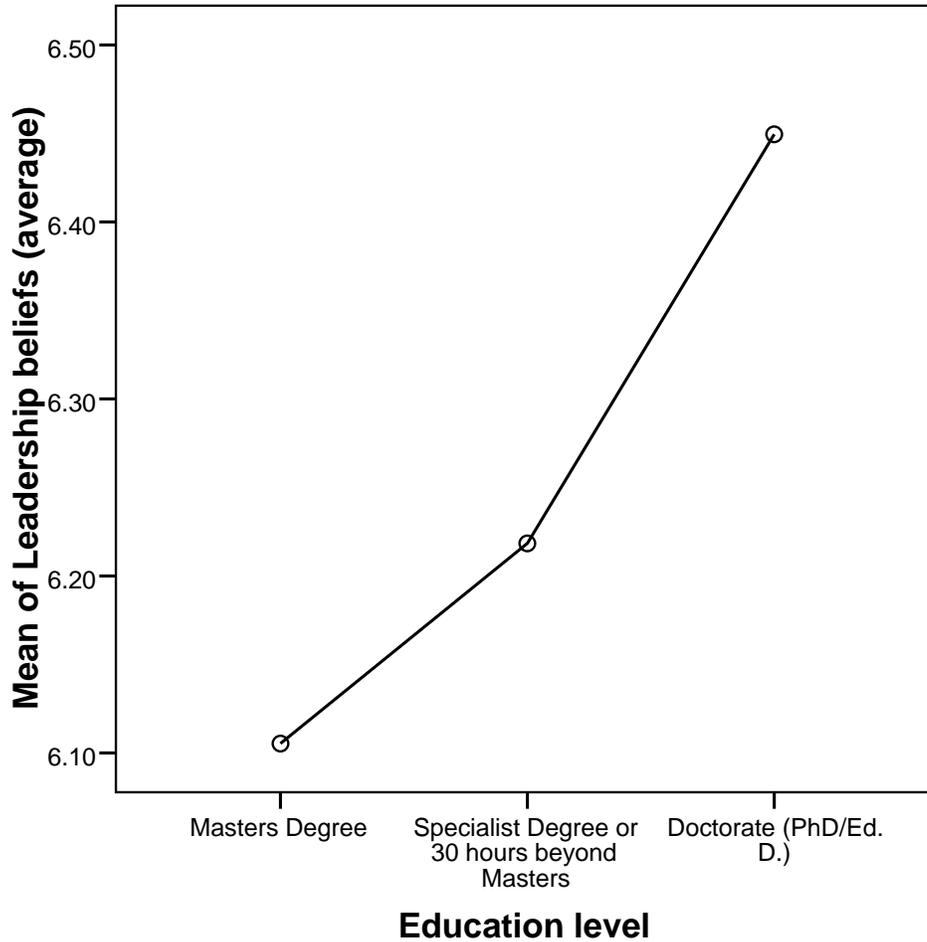
Figure 11. Leadership Beliefs & Education Level

The second hypothesis tested the leadership beliefs and their years as principal. To eliminate small sample size for some of the category years as principal was combined into two categories for comparison: (a) 1 to 5 years and (b) 6 years or more. An ANOVA was conducted to analyze mean differences in leadership beliefs as a function of educational level. The means and standard deviations of the average leadership beliefs scores by education level are found in Table 31. Results of this analysis suggest there are no statistically significant differences in leadership beliefs by education level ($F(2, 78) =$

.05, *p* = .82) (see Table 34). Further correlations were limited by the item choices in the survey for this part of the survey were ranges and not individually noted for their years as a principal, which only allowed for the use of ANOVA for analysis. The plotted means for the two groups can be found in Figure 12.

Table 33

Descriptive Statistics for Leadership Beliefs (Average) by Years as Principal

Years as Principal	*N*	*M*	*SD*	Std. Error	Min	Max
1-5 years	39	6.30	.53	.08	4.83	7.00
6 years or more	42	6.26	.78	.12	3.33	7.00
Total	81	6.28	.67	.074	3.33	7.00

Table 34

ANOVA Statistics for Leadership Beliefs (Average) by Years as Principal

	Sum of Squares	*df*	Mean Square	*F*	Sig.
Between Groups	.02	1	.02	.05	.82
Within Groups	36.37	79	.46		
Total	36.40	80			
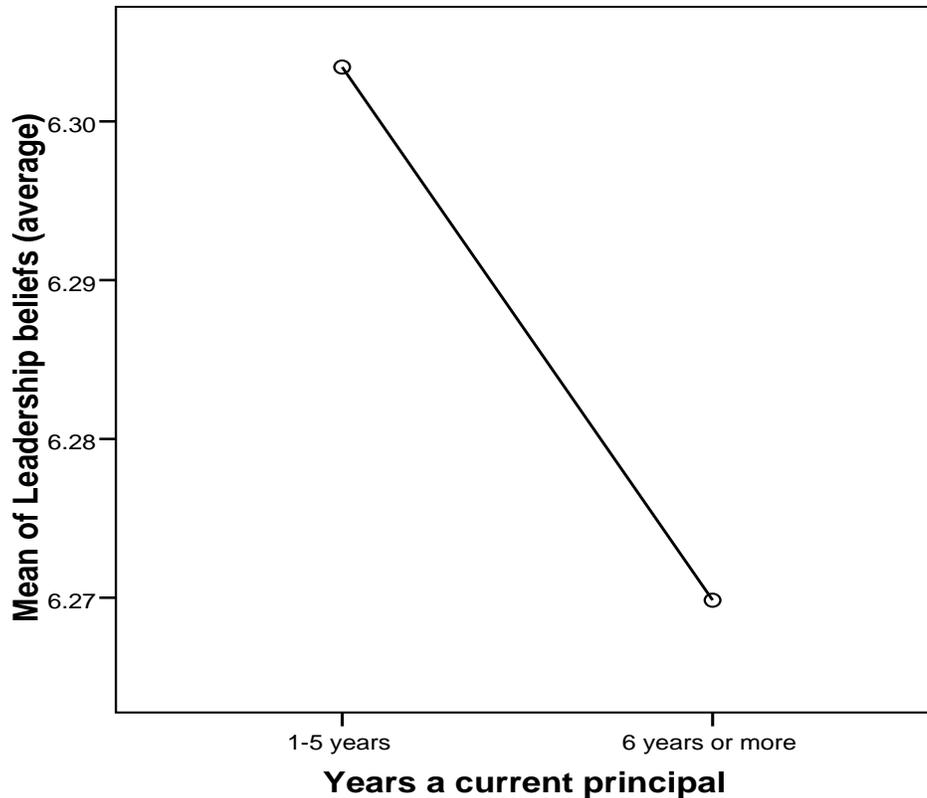
Figure 12. Leadership Beliefs & Years as a Current Principal

The second hypothesis tested leadership beliefs and years in education. To eliminate small sample size for some of the category years as principal was placed into three categories for comparison: (a) 6-20 years, (b) 21-30 years, and (c) more than 30 years. An ANOVA was conducted to analyze mean differences in leadership beliefs as a function of years in education. The means and standard deviations of the average leadership beliefs scores by years in education are presented in Table 35. Results of this analysis suggest there are no statistically significant differences in leadership beliefs by education level ($F(2, 78) = .98$, $p = .37$) (see Table 36). Further use of correlations were limited by the survey because the response options were ranges and not individually

noted for each principal for total years in education, which only allowed for the use of

ANOVA for analysis. The plotted means for the three groups can be found in Figure 13.

Table 35

Descriptive Statistics for Leadership Beliefs (Average) by Years in Education

Years in Education	N	M	SD	Std. Error	Min	Max
6-20 years	27	6.42	.61	.11	4.17	7.00
21-30 years	27	6.25	.49	.09	4.83	7.00
30+ years	27	6.17	.85	.16	3.33	7.00
Total	81	6.28	.67	.07	3.33	7.00

Table 36

ANOVA Statistics for Leadership Beliefs (Average) by Years in Education

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.89	2	.44	.98	.37
Within Groups	35.50	78	.45		
Total	36.40	80			
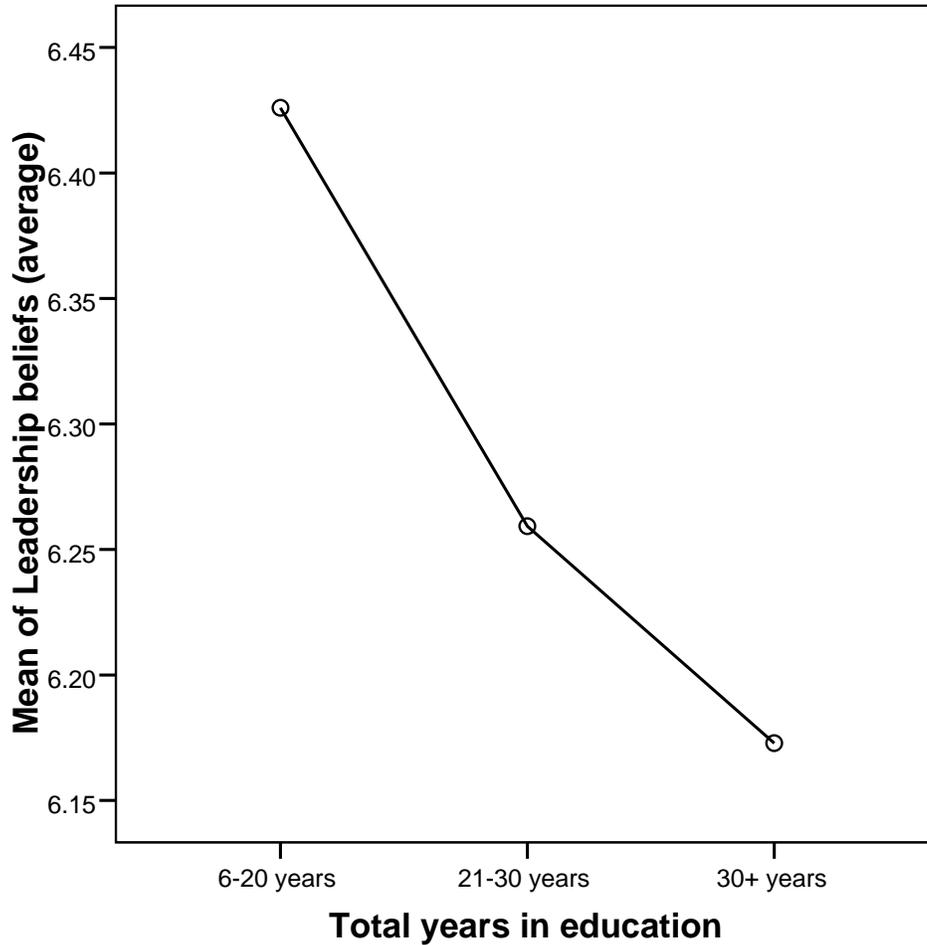
Figure 13. Leadership Beliefs & Years in Education

Given these results, the null hypothesis two that there were no significant differences as a function of participants' demographic characteristics (education level, years as principal, or years in education) was accepted.

Summary

Research question 1 was, to what degree do principals of large high schools view their school as a collaborative learning school based upon a formal definition of

collaborative learning schools? Majority of respondents (58%) felt they were in a highly collaborative school).

Research question 2 was, to what degree do principals of large high schools who view their school as highly collaborative differ in their perceptions of their leadership practices and beliefs compared to principals who view their schools as less collaborative? Results of an ANOVA showed statistically significant differences in leadership beliefs by collaborative group. More specifically, those in highly collaborative schools were more likely than those in less collaborative schools to agree that the beliefs of the principal of large high schools are critical to leadership.

Research question 3 was, are there relationships between large collaborative high schools and large non-collaborative high schools concerning the following interrelated questions? First a Pearson correlation was used to assess the degree of association, at the bivariate level, between Collaboration Items 1, 2, and 3. Perception of the degree to which the school is a collaborative learning organization was positively and significantly associated with the perception of the degree to which the respondent viewed his/her leadership to be collaborative. Perception of the degree to which the school is a collaborative learning organization was positively and significantly associated with the perception of the degree to which the respondent viewed collaborative leadership, collaborative culture, and collaborative learning as important component of their role to meet school improvement efforts. Finally, the degree to which the respondent viewed his/her leadership to be collaborative was positively and significantly associated with the perception of the degree to which the respondent viewed collaborative leadership, collaborative culture, and collaborative learning as important component of their role to

meet school improvement efforts. Therefore, there is statistically significant correlational relationships between (a) the degree to which principals perceive collaborative learning in their respective schools, (b) the degree to which principals self described their leadership practices as collaborative, and (c) the degree to which the principals self-described their leadership beliefs as collaborative and (d) the relationship of demographics characteristics of principals was rejected.

The interrelated part of research question three concerning (d) the relationship of demographic characteristics of the principals' professional experiences and background with collaborative leadership. A series of ANOVAs were used to explore differences in leadership practices, leadership beliefs, and collaborative leadership beliefs by level of collaboration, education level, years as principal, and total years in education. The results yielded no significant relationship with these variables.

Research Question 4 was what are the strategies principals used to achieve collaborative learning in the large high school setting? The predominant themes suggested as strategies from principals were professional learning communities, collaborative structures of time for collaboration and various types of teacher teams, and leadership guided school improvement teams to address various school wide issues. The rate of responses with the two open-ended questions was sixty-two percent of the total sample. Out of the fifty-two responses around both questions there was only one respondent questioning the use of collaborative leadership as a strategy. There is a general consensus of principals surveyed that they utilized collaborative structures and opportunities for leadership from the principal to the teacher as means to provide support for their large high school buildings. The questions states only to identify the strategies

used by these principals to be possible suggestion for other leaders in these settings. The findings summarized above provide the basis for the discussions of findings in Chapter 5. The chapter will include a brief review of the findings, a discussion of the findings, the conclusions that can be made from the findings, and a discussion of implications. Recommendations for research and leadership practice are also presented in the final chapter.

Given the first null hypothesis tested, there were significant differences in leadership practices and beliefs by collaborative group. On average, those principals in highly collaborative schools were more likely than those principals in less collaborative schools to use leadership practices and beliefs that foster collaboration. As such, the hypothesis one that there are no significant differences between the leadership practices and beliefs of principals of large high schools who described their respective schools as highly collaborative compared to the leadership practices and beliefs of principals who did not describe their schools as highly collaborative was rejected.

The findings were significant in the differences in leadership beliefs by collaborative group. On average, those in highly collaborative schools were more likely than those in less collaborative schools to agree that the beliefs of the principal of large high schools are critical to leadership. As such, the findings suggested there is a significant difference between the leadership beliefs of principals of large high schools who described their respective schools as highly collaborative compared to the leadership beliefs of principals who did not describe their schools as highly collaborative was significant.

There were also statistically significant differences in collaborative leadership practices by collaborative group. On average, those in highly collaborative schools were more likely than those in less collaborative schools to agree the principal fostered collaborative relationships and the capacity of faculty to learn individually and collectively by sharing. As such, the null hypothesis that there are no significant differences between the collaborative practices of principals of large high schools who described their respective schools as highly collaborative compared to the practices of principals who did not describe their schools as highly collaborative was rejected.

The null hypothesis two was confirmed in the review of the data used for the study. Results of this analysis suggest there are no statistically significant differences in collaborative learning and leadership by education level, years as principal, or years in education. In addition, there were no statistically significant differences in leadership beliefs and practices by education level, years as principal, or years in education. Finally, there were no statistically significant differences in leadership beliefs by education level, years as principal, or years in education. A major weakness in the study was the limitation to apply further correlations due to the ranges defined in many of items in the survey. Therefore, the null hypothesis that there are not significant differences as a function of participants' demographic characteristics (education level, years as principal, or years in education) was accepted.

Chapter 5

DISCUSSION OF FINDINGS

Introduction

The institution of the large high school is an embedded part of the current

secondary school landscape. Although reform efforts to address these large institutions

either structurally or organically are in play, the challenges for principals to lead these

types of schools remain. In this period of heightened school accountability and changing

dynamics of school reform, principals are at the center of discussion of how to lead in

these circumstances. Research consistently implies principal leadership around school

improvement is critical for schools to meet demands of improvement (Leithwood,

Seashore-Louis, Andersen, & Wahlstrom, 2004; Marzano, Waters, & McNulty, 2005;

Reeves, 2002). Another lens of the leadership in large high schools reveals the

importance of culture in these settings and how the principal interacts with the culture.

Research has linked school culture as a critical part of school improvement and

leadership (Davis, Darling-Hammond, LaPointe, & Meyerson, 2005 & Leithwood,

Seashore-Louis, & Wahlstrom, 2005). The convergence of school leadership and school

culture has provided the opportunity to explore principal perceptions of collaborative

leadership and learning in the setting of the large high school.

Overview of the Study

The purpose of this study was to explore collaborative leadership as a means for principals to lead in the setting of the large high school. The research questions for this study are framed around principal's perceptions about (a) collaboration for organizational learning, (b) the degree of collaboration present in large schools; and (c) collaborative structures and processes in place within large high schools. A two part quantitative survey was used to gather data for collaborative leadership and school culture. There were also two open-ended questions to expose collaborative strategies within the large high schools of the respondents.

Findings from the study provided insight about collaborative leadership and learning in complex culture such as large high schools. In this study, survey data were collected from principals of large high schools of seventeen hundred or more over an eight week period. A questionnaire was sent to principals in nine different states (Missouri, Iowa, Kansas, Nebraska, Illinois, Wisconsin, Indiana, Oklahoma, and Colorado) in a web-based format for principals to reply to the questionnaire electronically. A total of 398 principals were identified and received the survey with eighty-two responding to the survey. The return rate for the sample for the study was twenty percent. The survey asked principals to weigh in on their beliefs and practices of collaborative leadership and learning with the option to provide examples and results of collaborative learning in their school.

The research examined principal perceptions, attitudes, and actions in large schools in nine states. Given this research purpose, a quantitative approach seemed to be a comprehensive method to gather information through a survey/questionnaire instrument

distributed to principals in these high schools. The purpose of the study was to identify the components potentially affecting leadership and culture in the organizations. The study compared principals' descriptions of their leadership capacity to determine if correlations existed between perceptions of collaborative learning, leadership beliefs and practices, and the other variables associated with size and complexities of these large schools.

Research Questions

1. To what degree do principals of large high schools view their school as a collaborative learning school based upon a formal definition of collaborative learning schools?

2. To what degree do principals of large high schools, who view their school as highly collaborative, differ in their perceptions of their leadership practices and beliefs compared to principals who view their schools as less collaborative?

3. Are there relationships between large collaborative high schools and large non-collaborative high schools concerning the following interrelated questions?

- the degree of collaborative learning in the school as described by the schools' principals,
- the degree to which the principals' self-described their leadership practices,
- the degree to which the principals' self-described their beliefs about collaborative leadership, and
- the demographic characteristics of the principals' professional experiences and background?

4. What are the strategies principals use to achieve collaborative leadership and learning in the large high school setting?

Two Null Hypotheses

HO 1: There are no significant differences between the leadership practices and beliefs of principals of large high schools who described their respective schools as highly collaborative compared to the practices and beliefs of principals who did not describe their schools as highly collaborative.

HO 2: There are not statistically significant differences between the following variables in this exploratory study:

    a) the degree to which principals perceive collaborative learning in their respective schools,

    b) the degree to which principals self described their leadership practices as collaborative,

    c) the degree to which the principals self-described their leadership beliefs as collaborative, and

    d) selected demographic characteristics of the principals' professional experiences and backgrounds.

Summary of Findings

Hypothesis Testing

Hypothesis one. Hypothesis one in this study, there are no statistically significant correlational relationships between (a) the degree to which principals perceive collaborative learning in their respective schools, (b) the degree to which principals self described their leadership behaviors as collaborative, and (c) the degree to which the principals self-described their leadership beliefs as collaborative was rejected. There were statistically significant differences in leadership beliefs by collaborative group.

Hypothesis two. Hypothesis two in this study, there are no significant

differences as a function of participants' demographic characteristics (education level,

years as principal, or years in education) and interrelated questions were accepted. There

were no statistically relationships with these variables and collaborative leadership.

Descriptive Results

The following sections provide a breakdown of findings from the 82 principals surveyed

in the study. The sections are organized by participant demographics, collaborative

leadership beliefs and culture data, and qualitative responses.

Participant Demographics

The survey had six questions to report demographic variables of principals. The

data gathered for this study was from 82 respondents. The majority had been in their

current position as principal for 1-5 year (48%) or 6-10 years (37%). The largest number

of participants had a specialist degree or 30 hours beyond Masters (36%). Majority had

over 11 years as an administrator and over 16 years in education. The largest number of

respondents (45%) had 4-6 subgroups of students defined by NCLB in their school noted

in the last AYP report. In addition, 36% served as an Assistant Principal at the same high

school. 20% served as an Assistant Principal of a different school in a large school

setting. Two principals did not answer the demographics section.

Collaborative Leadership Beliefs and Practices

The survey was composed of 18 questions for principals to reflect upon their beliefs, practices, and actions around collaborative learning and leadership in their experience in a large high school setting. Part A of the survey (Appendix B) asked the respondent to read an explanation of collaborative leadership and learning and respond to two key questions around being a collaborative school and a collaborative leader.   In Part B of the survey, principal practices and beliefs were explored with questions taken from two surveys entitled "Assessing Your Role in Teamwork" found in the book, *Collaborative Leadership*, by Jeffrey Glanz (2006) and School Culture Survey (Grunert & Valentine, 1998) on collaborative leadership. The survey measures collaborative aspirations and reflective views about teamwork, actions, and beliefs along with perceptions about school culture.

The survey results were analyzed to test the hypotheses presented. The degree of individual beliefs in collaborative leadership provided an opportunity to measure those principals as leaders in their large school setting.   There were mixed results around the hypotheses. For hypothesis one there were significant correlations in the differences between collaborative and non-collaborative principals were found in the study and were rejected. The survey responses around research questions did yield some positive associations with leaders and their beliefs and action around collaborative leadership in the setting of a large high school.

The second hypothesis was accepted because there were no significant correlations found with the interrelated questions in a principal's background or educational level. It is important to note part of the lack of data to demonstrate the

correlation were linked to the weakness in the survey instrument. The structure of the how the questions were constructed using ranges at years as leader, years in education, and educational level did not allow for further analysis of the principal to broaden the opportunity for better correlations to be applied in the study. Also further detailed information about their educational experience and pedagogy of the administrative program in training these principals was not evident in the study. These weaknesses would warrant researchers to further study principal leadership with more depth to obtain better correlational data.

The study addressed four research questions through the feedback of the principals from large high schools. Research question 1 was, to what degree do principals of large high schools view their school as a collaborative learning school based upon a formal definition of collaborative learning schools? This question was addressed with descriptive statistics (i.e., frequencies, percentages, mean, standard deviation, minimum, and maximum) for question 1 from Part 3 of the survey. A shown in Table 7, none of the respondents chose 1 (We are not a collaborative school) or 2 as a response. The majority of responses were between 6 and 7 (We are a highly collaborative school); 58% of respondents choosing 6 or 7. As shown in Table 8, the mean for this item was 5.42 (*SD* = .97). Clearly, a significant portion of the respondents perceived their schools as collaborative learning environments as described as a culture of learning among the faculty, focused on the needs of students, and teamwork oriented in their work in these large schools setting.

In the field of educational leadership, most writers support the concept of collaboration implies cooperation, communication, interdependence, and effectively

working together across the school so issues and problems can be resolved and

faculty/staff understand and support the work of the school (DuFour, Eaker & DuFour,

2005; Elmore,2006: Hoerr, 2007/2008; Glanz 2006; Rubin,2006). Collaboration requires

leaders to create interdependence among stakeholders in the school and your ability to

use teamwork along with shared decision-making to lead and to learn in a learning

organization. Wagner and Kegan (2006) observed collaboration is critical for producing

new adult learning and adaptive work situations (p. 72). This question is further

delineated by strategies outlined in research question 4 as examples of their work and

their assessment of results.

Research Question 2 was, to what degree do principals of large high schools, who

view their schools as highly collaborative, differ in their perceptions of their leadership

practices and beliefs compared to principals as less collaborative. Collaborative learning

and leadership was significantly and positively associated with leadership beliefs ($r = .67$,

$p = .00$) and leadership practice ($r = .45$, $p = .00$). More specifically, an increase in the

extent to which the principal fostered collaborative relationships and the capacity of

faculty to learn individually and collectively by sharing knowledge (collaborative

learning and leadership) was associated with an increase in (a) beliefs that the principal is

critical to leadership (leadership beliefs) and (b) the extent to which the principals engage

in practices that emphasize a collaborative culture and learning environment. The

research about collaborative leadership (Rubin 2009; Glanz, 2006) confirmed the

necessity of facilitating the relationships by purposeful and mission driven direction in

developing the learning capacity of teachers in your building. Linda Lambert (1998)

noted the important task of the principal "to establish collegial relationships in an

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environment that may have previously fostered dependency relationships (p. 24-25)."
The study confirmed the importance of relationship and capacity building as the role of
the principal.

There was also a significant positive correlation between leadership behaviors and
leadership beliefs. An increase in the extent to which the principal engages in practices
and behaviors that emphasize a collaborative culture and learning environment
(leadership practices) was associated with an increase in beliefs that the principal is
critical to leadership (leadership beliefs). On average, principals in highly collaborative
schools were more likely than those in less collaborative schools to agree that the beliefs
of the principal of large high schools are critical to leadership. Perception of the degree
to which the school is a collaborative learning organization was positively and
significantly associated with the perception of the degree to which the principal viewed
his/her leadership to be collaborative. Finally, the degree to which the principal self-
described his/her leadership to be collaborative was positively and significantly
associated with the perception of the degree to which the perception of the degree to
which the respondent viewed collaborative leadership, collaborative culture, and
collaborative learning as important component of their role to meet school improvement
efforts. Principal leadership is needed as a critical element for culture and collaborative
learning in the school to change from isolation among teachers (DuFour &
Marzano,2011).

Research Question 3 was the relationships between large collaborative high
schools and large non-collaborative high schools concerning the following interrelated
questions?

- the degree of collaborative learning in the school as described by the schools' principals,

- the degree to which the principals' self-described their leadership practices,

- the degree to which the principals' self-described their beliefs about collaborative leadership, and

- the demographic characteristics of the principals' professional experiences and background?

The study attempted to explore what factors make a principal more collaborative than others. Results found in the study noted no significant differences in collaborative leadership and learning by demographic background such as educational level, experience as principal, or total years in education, For the analysis of educational level , three categories were compared (i.e., (a) Master's level, (b) specialist degree, and (c) doctorate). An ANOVA was conducted to analyze mean differences in collaborative learning and leadership as a function of educational level. Table 19 presents the means and standard deviations of the average collaborative learning and leadership scores by education level. Results of this analysis suggest there are no statistically significant differences in collaborative learning and leadership by education level ($F(2, 78) = 1.95$, $p = .14$) (see Table 20). For the analysis for years as principal, the study, two categories for comparison: (a) 1 to 5 years and (b) 6 years or more to analyze mean differences in collaborative learning and leadership as a function of years as principal. Table 21 presents the means and standard deviations of the average collaborative learning and leadership scores by years as principal. Results of this analysis suggest there are no statistically significant differences in collaborative learning and leadership by years as principal ($F(1, 798) = .08$, $p = .76$) (see Table 22).

Finally examining years in education, the comparison: (a) 6-20 years, (b) 21-30 years, and (c) more than 30 years. The study analyzed mean differences in collaborative learning and leadership as a function of years in education. The findings in Table 23 presented the means and standard deviations of the average leadership beliefs scores by years in education. Results of this analysis suggest there are no statistically significant differences in collaborative learning and leadership by years in education. Research question 3 was a mixed response because the study results showed positive differences between highly collaborative and less collaborative principals with self-perceptions of their school, behaviors, and beliefs, but the demographic characteristics did not show any relationship of those variables with the degree of collaborative behavior, beliefs, or actions of the principals. As for interrelated questions, the data did not clearly indicate any impact on the degree of collaborative beliefs and actions of principals based on demographic factors in these settings.

Research Question 4 was what are the strategies principals used to achieve collaborative leadership and learning in the large high school setting. Two open-ended questions in the survey (Appendix B) were as follows:

In this study we want to learn what efforts you have in place with the hope that such insight will allow us to tease from this study some "recommended strategies" that will be valuable to all principals of large high schools.

Please provide one or more examples of change, data, or anecdotes that will support your rating of the change on the above scale (part of a quantitative question about the role of collaborative practices in the impacting results in their school).

The analysis of this data related to the feedback principals provided is categorized in terms of inputs and outputs. The term input refers to the processes, structures around schedules, and organizational coordination of teachers into teams, committees, and councils. The term output refers to actions, outcomes, or results of academic and non-academic nature.

The examination of these inputs translated into strategies suggest by the principals as a means of collaborative learning used in their schools. The common themes gleaned from the survey comments were organizational and shared leadership practices to demonstrate collaborative learning or school improvement focus in their school. Notable references included professional learning communities (PLC), collaborative curricular teams, processes around collaboration structures such as built in times and scheduled tasks, site based leadership teams and structures, and focused school wide instructional strategies. The most mentioned strategy was PLCs by the principals of the work in their schools. In the context of the large high school, DuFour and Marzano (2011) noted the principal's influence on teacher leaders in a large staff which is best served by the "PLC process provides a vehicle for focused interactions between principals and teachers" (p. 51). This is consistent with the perceptions of school reform advocates such as Mike Schmoker who noted "a broad, even remarkable concurrence among educational researchers and organizational theorists who have concluded that developing the capacity of educators to function as members of professional learning communities is the best known means by which we might achieve truly historic, wide scale improvements in teaching and learning" (DuFour, Eaker, & DuFour, 2005, p. 7).

The concept of PLCs has been a significant part of the conversation around school reform over the past twenty years. Different authors from a variety of viewpoints of researchers to practitioners have discussed the concept of a PLC. Alan Blankstein (2004) in his book, *Failure is not an option*, observed about the defined nature of PLCs:

> More important than the use of one definition or another, however, is the common understanding of what a community looks and feels like, how one behaves in this context, what the mutual commitments are, and how all of this affects students in general and academic achievement in particular. It is more common to find school professionals who say they are part of a learning community than it is to actually find a professional learning community in operation. (p. 51)

The comments made by principals did not specify any reference to any certain author or organization about PLC, but only shared elements of their school's efforts in being a PLC. While it is a challenge to draw conclusions on the limited number of principals and the depth of the schools involvement given the limited amount of data gathered in the survey; however, the open-ended questions allowed principals to give illustrations of what those communities are like in those large school settings. Since this part of the question asked for specific strategies, a practitioner perspective seems to be appropriate to examine the strategies shared by the principals.

The inputs noted by principals suggested a mindset change in these settings around developing a broader base for engagement of leadership and learning. As Rick DuFour, a former principal and superintendent, observed " principals in PLCs are called upon to regard themselves as leaders of leaders rather than leaders of followers, and broadening teacher leadership becomes one of their priorities" (DuFour, Eaker, & DuFour, 2005, p. 23). Examples given by principals of facilitated structures around site

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based leadership teams, instructional leadership teams, climate teams, and interdisciplinary teams focused on school improvement, school culture, and student achievement were noted 30 different times in the survey. Intertwined in these examples were references about the learning aspect related to student results and to instructional practices of the teachers through school wide collaboration as part of the principal's collaborative practice.

The term collaboration used in the examples given by principals was about the relationships in the building around a task or purpose. For clarity in this discussion, the term collaboration "is a purposeful relationship in which all parties strategically chooses to cooperate in order to accomplish a shared outcome" (Houston, Blankenstein, Cole, 2007, p. 115) is used. The degree of how collaboration is embedded into the school community is problematic to glean from the responses. Many examples suggested a more defined use of collaboration around certain areas such as curriculum, instruction, and assessment. Others broaden the use of collaboration to be inclusive of school governance, site based decisions, or advisory role to the principal. The range of examples seems to imply the principal guided collaboration in a means to support his role.

The role of the principal was brought out in the examples of support for the process for collaboration as part of the school culture and organizational learning. As one principal noted "it (collaboration) has helped restore community to the school." Another principal stated "we have a collaborative decision making model for all site decisions." Principal shared how they provided structures for teachers to discuss curriculum, share instructional practice, analyze data, problem solve student needs, and the evaluation of student progress. Principals want collaboration as a part of

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organizational learning model for school to improve the capacity of teachers to meet the needs of students in the classroom. Sharon Kruse and Karen Seashore-Louis (2009) noted "the concept of organizational learning suggests that continuous improvement through collective engagement with new ideas will generate enhanced classroom practice and deeper understanding of how organizational improvement occurs" (p. 8).   Principals in these large high schools believe collaboration is a valuable part of their work with their teachers and school improvement.

The second question asked principals to match output referred to actions, outcomes, or results of academic and non-academic nature with significant progress made in their buildings as a result of collaborative practices. The examples given to this question were tied to a quantitative scaled question with a metric of one where collaborative practices did not make a significant impact to seven where collaborative practices did make a significant impact. Results from the survey indicated 73% of principals (59 out of 81) responded with a rating of 6 or 7 on the scale reporting collaborative practices did make a significant impact. While this perceptual data is limited to the self assessment of the principal, the examples noted provided additional antidotal experiences in their buildings around the results observed by the leader.

Eighteen respondents referred to specific achievement and non-achievement outcomes as examples of collaborative practices. Outcomes listed such as significant increases in statewide assessment results, improved scores with national college readiness assessments such as American College Testing (ACT), meeting proficiency targets of local district and classroom assessments, scoring three or more on Advanced Placement Testing (AP), and decreasing failure rates in core classes. Respondents also noted

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improvements in non-academic data such as attendance, discipline, and persistence to graduation. Strategies noted were instructional, test preparation, positive behavior supports, data analysis, and changes in classroom practices, and working with state standards for curriculum. Principals overwhelming reported these outcomes were related to use in some form of collaborative practice.

These inputs and outputs noted in the principal responses suggest collaborative practices allow for teachers and principals to work interdependently on school improvement and student performance goals. There is an implied shared responsibility of teachers and principals to use collaborative practices to achieve shared goals. Richard DuFour (2005) confirmed this thinking by noting the "benefits in the research in support of collaboration is exhaustive, as is the research that links collaborative cultures to improving schools" (p. 16). The ability to develop the inputs and outputs require principals to be collaborative leaders. The role of the principal is to model collaborative leadership through supporting collaboration structures and exercising collaborative practices to meet the needs of your school (Glanz, 2006). Feedback on these open- ended questions have illustrated the majority of these principals have engaged in collaborative leadership practices.

Implications for Practice

The results of this exploratory study suggested collaborative leadership is a viable model for principals to engage the complex climate of the large high school. Leadership comes from the management of the various relationships with individuals or groups in the building to be focused around outcomes and school culture. The focus of collaborative

leadership is about leaders who are focused on the organization and direction of individuals within the culture in order to promote shared vision and mission for learning above management of the school as an organism. A principal of a large high school cannot be the only person in the school responsible for all aspects of schooling; however, he/she is accountable for the outcomes of the building in terms of organizational learning and structures to meet the needs of students.

While there is a clear connection between beliefs, practices, and collaborative learning, there are no variables of experience in education, experience as principal, or educational level has any bearing on principals in these settings in their role as a leader. This finding suggested principals are a product of their own relationship with the school culture to determine their beliefs, practices, and role around collaborative leadership. One notable outlier in this discussion around these variables is the succession entry into the principal position which was not examined was 60% of these principals came from similar size schools or assistant principal positions from either the same school or one of similar size. Having the experience of working in large schools seemed to be a factor related to these individuals becoming principals by shaping their understanding of the challenges of these large schools.

Feedback from principals both in quantitative responses and qualitative examples provided further evidence of the benefits of collaborative leadership in the large high school. Principals from these large schools overwhelmingly embraced collaborative practices like professional learning communities, smaller learning communities, shared leadership structures to empower teachers, and specific organizational groups around climate and instruction to address the complexities of the large schools. The use of these

models reveals another layer of depth to principal practicing collaborative leadership. The majority of the principals in these settings believed their practices made a significant impact on their efforts of school improvement and student performance. While it is perceptual feedback, it certainly should further the discussion in the future for more research.

Recommendations for Future Research

A broader and larger sampling of principals in these large high schools needed to be conducted for deepening our understanding of their perceptions around collaborative leadership and learning. This exploratory study was a small slice of the body of research needed to really fully gage the model or leadership practices needed for this complex ecosystem known as the large high school. A larger sample size of principals along with a greater breadth in the number of large schools could further the discussion of collaborative learning and leadership.

There is an opportunity to expand study beyond a survey based upon a mixed method of study to go deeper into the beliefs and practices of principals in these settings. Qualitative means to conduct observations, interviews, and focus groups could expand the discussion in a more comprehensive manner. As noted several times concerning the limitations in survey for specificity of responses around the interrelated question in regards to each principal did limit the extent of correlation possible to further explore their background and experience. More individualized data from each principal could have been more helpful in teasing out more about what shapes the collaborative leadership and learning capacity of the principal in the setting of a large high school. At

this juncture, the study did not establish any finding to support the research question or the hypothesis.

Expanding the surveys to teachers and other staff within the large high school could provide more insight on the viability of collaborative learning and leadership from their perspective and to further study alignment with principals. While researching the aspects of the large high school, there seemed to be a gap around the experience of the teacher in the large high school setting. Further exploration of the concept of what a professional learning community is about in each large school setting from structures to values and commitments by all stakeholders in the building should be explored. Hopefully this study can begin to add to the discussion around leadership adapting to the needs of the large schools and what are the models principals need to apply to these settings.

Another aspect during this time of increased accountability is to examine student achievement data and the principal perception of collaborative learning and leadership for any degree of correlation. Other models of leadership have been studied in this way to allow for more sophisticated descriptive analysis of student results as aligned to leadership practices. Typically, larger schools struggle in the area of performance and further study could expand the discussion of value of collaborative learning and leadership upon student achievement in these schools. Most of the research about large schools report about the deficiencies in student performance, but not always study when students are successful in these large settings.

Conclusion

The following highlights of what was learned in this exploratory study suggested principals in large high schools have to engage complex environment by coordinating and collaborating with stakeholders to meet the needs of such organizations. Collaborative leadership and learning practices should be modeled in large high schools. There are varying degrees of these leadership and learning practices depending on the self-perception of the principal of not being the sole source of leadership in these schools. By modeling collaborative leadership and learning, the principals in these settings were more likely to be collaborative in their beliefs and actions toward leading their schools. The management of those relationships in the school suggests an organic lens and the propensity of the principal to create opportunities for stakeholders in the school to be a part of the culture and function of the school towards school improvement goals.

The complexity of large high schools will continue to challenge how principals function in these environments. Increasing pressure to see more results from these large complex schools could influence principals to seek ways to engage their organizational learning to new models of collaborative leadership practice as delineated in this study. These new models will challenge principal's beliefs and practices along with traditional norms of school leadership.

Appendix A

Principal Cover Letter

May 30, 2012

Dear Participant,

My name is Michael Jeffers and I am a doctoral student at the University of Missouri. I am inviting you to participate in a leadership research study to be conducted electronically via a secure server. The title of the study is "Exploring Collaborative Learning and Leadership in Large High Schools". The purpose is to explore principal beliefs and practices related to collaborative culture, learning, and leadership in large high schools. As a former principal of a large mid-west high school with more than 2100 students in three grades, I am interested in the perceptions and experiences of others who are serving in this role. I currently serve as Deputy Director of Secondary Education in a large Midwestern school district, which makes my interest in understanding successful leadership of very high schools even more acute.

Your participation in this study will involve responding to 6 demographic questions, 25 survey items around collaborative learning and leadership that your rate on a 1-7 scale and responding to several brief open ended questions. The duration of the time to complete this survey will be about 15-20 minutes. I think you will find the questions interesting and the findings of this study of value. Those of us who do lead or have led large high schools face unique challenges each day. I hope to shed some light on the difficulty of how to create a collaborative learning environment in a large high school. For your time to complete this study, I will send you an electronic copy of the findings of the study. To respond to the questionnaire, please click on the following URL:

As a graduate student researcher at the University of Missouri, I am obligated to share the following with you: I will maintain confidentiality of your identity and responses through the use of a secure server and by encrypting the data during storage. All responses will be aggregated across schools and responses referenced throughout the study will be anonymous. I appreciate your insight and your expertise in serving in the unique setting of the large high school and the service you do every day for young people in our schools. I look forward to your input in my research study.

If you have any questions, please feel free to contact me at mjeffers@nkcschools.org .

Sincerely,

Michael Jeffers
Graduate Student
College of Education: Educational Leadership and Policy Analysis Department
University of Missouri
Columbia, Missouri

Appendix B

Principal Survey

Principal Survey

Part I. Introduction and Informed Consent.

Thank you for participating in this study to explore collaborative learning and leadership in large high schools. Once the study is complete, you may request a copy of the results.

By completing this survey you agree to participate in the voluntary study entitled Exploring Collaborative Learning and Leadership in Large High Schools and you understand that:

    a.   All responses will be used for dissertation research by Michael Jeffers.
    b.   All participation is voluntary.
    c.   All identities will be protected in all reports of the research; all responses will be confidential.

Part II. Demographic Questions: (Please complete these items.).

1. Total number of years you have served in your <u>current</u> position as principal?
   - 1-5 years
   - 6-10 years
   - 11-15 years
   - 16-20 years
   - 20 + years
2. Your education level beyond Bachelors degree?
   - Masters Degree
   - Specialist Degree or the equivalent (30 or more graduate hours beyond a Masters)
   - Education Doctorate (Ed.D.)
   - Doctor of Philosophy (PhD)
3. Your prior experience immediately before assuming your current position:
   - Served as Principal at a similar or larger high school
   - Served as Principal at a smaller high school
   - Served as an Assistant Principal at the same high school
   - Served as an Assistant Principal at a different high school with similar or larger size
   - Served as an Assistant Principal at a smaller high school
   - Served as Principal at a different school level (e.g. elementary or middle or junior high).
   - Served as dean, teacher, counselor, or other similar position
   - Served in a board office position (e.g. assistant superintendent, director, or coordinator)
   - Other (Explain) _____
4. Total number of years in education as an administrator
   - 1-5 years

- o 6-10 years
- o 11-15 years
- o 16-20 years
- o 20+ years

5. Total number of years in education including teaching (or counseling if applicable) and administration
    - o 1-5 years
    - o 6-10 years
    - o 11-15 years
    - o 16-20 years
    - o 21-25 years
    - o 26-30 years
    - o 30+ years

6. In your current school, how many sub groups of student population as defined by the *No Child Left Behind* law in your school are noted in your last Adequate Yearly Progress Report?
    - o 1-3
    - o 4-6
    - o 7-10

Part III: Collaborative Learning and Leadership.

For the purposes of your responses, please read the following paragraph and respond to the short questions with the explanation of collaboration, collaborative leadership, and collaborative learning in mind.

In the field of educational leadership, most writers indicate that collaboration implies cooperation, communication, interdependence, and effectively working together across the school so issues and problems can be resolved and faculty/staff understand and support the work of the school. Collaboration requires leaders to create interdependence among stakeholders in the school and your ability to use teamwork along with shared decision-making to lead and to learn in a learning organization. Collaborative leadership refers to the principal's ability to foster the collaborative relationships in the school. Collaborative learning refers to the capacity of the faculty to learn individually and collectively by sharing knowledge and creating a school-wide culture of learning that begins with the faculty and transfers to the students. A school with a collaborative learning culture is one in which the faculty work together, learn together, and grow together as a whole faculty with the determined focus of better serving the needs of the students they teach.

Please indicate the degree to which each statement describes your view of the conditions in your large high school.

Q1: To what degree do you perceive your school to be a collaborative learning organization, where faculty truly work together to address issues and problems, study and learn together on a regular basis, and thus create a culture that is highly-student centered…a place where we grow together with the best interest of students at the center of your work?

[1   2   3   4   5   6   7]

We are not a
collaborative school

We are sometimes a
collaborative school

We are a highly
collaborative
school

Q2: To what degree do you perceive your style of leadership to be collaborative, meaning you skillfully manage the collaborative relationships, support collaboration among staff, ensure effective communication among staff, and help the faculty maintain focus on collaborative problem solving with students' best interests in mind?

[1   2   3   4   5   6   7]

I do not rely on
collaborative leadership

I sometimes rely on
collaborative leadership

I highly rely on
collaborative
leadership

Q3: To what degree do you perceive collaborative leadership, collaborative culture, and collaborative learning as important component of your role to meet school improvement efforts such as state and national accreditation, district goals and performance expectations, or achievement targets such as state or national performance standards?

[1   2   3   4   5   6   7]

I do not rely on
collaborative leadership

I sometimes rely on
collaborative leadership

I highly rely on
collaborative leadership

Part IV. Leader Practices

As noted previously, this study is about the challenges we face as principals of large high schools, particularly the challenges of creating a collaborative culture and a collaborative learning environment. An understanding of your perspectives and practices will be valuable as I attempt to study the relationships between collaboration and leadership. Therefore, please respond to the following 10 items.

	Seldom Always	Usually			Frequently		
	1	2	3	4	5	6	7
1. As principal, I value teacher's ideas.							
2. I trust the professional judgment of teachers.							
3. I praise teachers who perform well.							
4. I involve teachers in the decision-making processes in our school.							
5. I support risk-taking and innovation in teaching.							
6. I plan for and protect collaborative planning time.							
7. I encourage teachers to share ideas.							
8. I empower teachers to lead and make decisions							
9. I listen to and learn from others.							
10. I am willing to let go of a firmly held belief in order to reach consensus with others.							

Part V. Leader Beliefs

The beliefs of the principal of large high schools are critical to leadership, particularly given the challenges of creating a collaborative culture and a collaborative learning environment in an organization as complex as a large high school. Therefore, please respond to the following items.

(SD = Strongly Disagree, D =Disagree, SWD= Somewhat Disagree, WN=Whenever Necessary, SWA= Somewhat Agree, A=Agree, SA= Strongly Agree)

	SD	D	SWD	WN	SWA	A	SA
	1	2	3	4	5	6	7
1. I believe in the importance of empowering teachers and the processes of shared decision making.							
2. I believe collaboration is an inherent part of school culture.							
3. I believe shared decision making is a way to support collaboration in my school.							
4. I believe the role of the principal should be redefined from instructional leader to developer of a community of leaders who collaboratively learn together.							
5. Although I am ultimately responsible for what happens in my school, I believe responsibility is a shared goal of the entire team.							
6. I believe in establishing a conducive, nonthreatening environment in which to conduct decision-making deliberations.							

Part VI: Open-Ended Feedback Questions

1. Principals of large high schools face unique challenges in their attempts to create highly collaborative cultures that foster organizational learning. Please describe below the strategies, activities, or processes that you have used to foster collaboration and collaborative learning in your school. These responses will help us understand **HOW we organize and run our schools in a collaborative way. (Sample response below)**

For example, as a principal of a 2000+ student populated high school, our faculty studied key issues in cross-discipline small study groups, our department chairs met regularly as an Interdisciplinary Council, and we had smaller departmental teams who focused on student academic results. As would normally be the case, some of these efforts were highly productive at times, and others less so, but those were our efforts to use collaborative structure to address building goals.

In this study we want to learn what efforts you have in place with the hope that such insight will allow us to tease from this study some "recommended strategies" that will be valuable to all principals of large high schools. Please keep your descriptions under one hundred words and you may use bulleted phrases your response.

2. To what degree do you believe this school has made significant progress (positive or negative) in better serving the needs of students over the past five years? Please respond

[1   2   3   4   5   6   7   ]

Collaborative practices did not   Collaborative practices did   Collaborative practices
make a significant impact   have some impact.   did make a significant
                                                                              impact

Please provide one or more examples of change, data, or anecdotes that will support your rating of the change on the above scale.

Thank you very much for taking the time to respond to this survey. Upon completion of the study, I will email you a PDF copy of the study so that you can review the findings. Hopefully, the study will provide you with some important insights about how we, as large high school principals, foster collaborative cultures and collaborative learning in our roles as leaders of such complex schools. Have a great summer.

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Appendix C

Table of Survey Questions

Distribution of questions by source

Source	Section	Question Number
Culture & Practices (Valentine)	Part III	1, 2, 3, 4, 5, 6, 7, 8, 9, 10
Leadership Beliefs(Glanz)	Part IV	1, 2, 3, 4, 5, 6
Demographic Questions	Part 1	1-6
Open-Ended Questions (Researcher)	Part II,V	1, 2, 3

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VITA

Michael Phillip Jeffers was born on May 22, 1961 in Kansas City, Missouri. He was raised in Liberty and North Kansas City, Missouri where he attended public school and went on to graduate from North Kansas City High School in 1979. Michael received his Bachelor of Science degree in Speech and Theatre as well as his teaching certification from Northwest Missouri State University in Maryville, Missouri in 1984, a Masters of Educational Administration from University of Missouri, Kansas City in 1996, an Educational Specialist in Educational Leadership from the University of Missouri-Kansas City in 2001, and an Educational Doctorate from the University of Missouri-Columbia in 2013.

Michael taught high school speech and debate for twelve years, served as an Assistant Principal for five years, and as Principal for four years at Truman High School, Independence Missouri. While a graduate student pursing his doctorate at the University of Missouri-Columbia, Michael served as Principal at David H. Hickman High School in Columbia Missouri for five years. Michael is currently the Deputy Director of Secondary Education in the North Kansas City School District. Michael is married to Gail, his supportive wife, and currently lives in Kansas City, Missouri.