District-school leadership for organizational learning: finding the balance

Umekubo, Lisa Ann

2012

Peer reviewed|Thesis/dissertation
District-School Leadership for Organizational Learning:
Finding the Balance

A dissertation submitted in partial satisfaction of the requirements for the degree Doctor of Education in Educational Leadership by Lisa Ann Umekubo

Committee in charge:

University of California, San Diego
Professor Janet Chrispeels, Chair
Professor Alan Daly
Professor Amanda Datnow

California State University, San Marcos
Professor Jennifer Jeffries
Professor Carol Van Vooren

2012
The Dissertation of Lisa Ann Umekubo is approved, and it is acceptable in quality and form for publication on microfilm and electronically:

________________________________________

________________________________________

________________________________________

________________________________________

Chair

University of California, San Diego
California State University, San Marcos
2012
DEDICATION

This dissertation is dedicated to my parents and role models, Peter and Shirley, who taught me the value of hard work and the importance of being a lifelong learner.

And to Nick, Matteo, and Monty, for providing the love, support, and patience needed to complete this journey.

Thank you, Katie, Michelle, Todd, Andreia, Gabi and Peter, for your guidance and inspiration—I encourage you to pursue your dreams.
EPIGRAPH

“In organizations, real power and energy is generated through relationships. The patterns of relationships and the capacities to form them are more important than tasks, functions, roles, and positions.”

*Margaret Wheatley*
# TABLE OF CONTENTS

SIGNATURE PAGE ........................................................................................................ iii

DEDICATION .................................................................................................................. iv

EPIGRAPH ...................................................................................................................... v

TABLE OF CONTENTS ................................................................................................. vi

LIST OF TABLES .......................................................................................................... xiii

ACKNOWLEDGEMENTS ............................................................................................... xiv

VITA .............................................................................................................................. xvi

ABSTRACT OF THE DISSERTATION .............................................................................. xvii

CHAPTER 1: INTRODUCTION ......................................................................................... 1
  Statement of the Problem .......................................................................................... 1
  Purpose of the Study ............................................................................................... 4
  Rationale for Selection of the Study Site ............................................................... 5
  Frameworks ............................................................................................................ 6
  District Reform ....................................................................................................... 7
  Organizational Learning ......................................................................................... 8
  Social Network Theory ......................................................................................... 8
  Social Capital and Intellectual Capital ............................................................... 9
  Study Methodology ............................................................................................... 10
  Significance of Study ........................................................................................... 11

CHAPTER 2: REVIEW OF RELATED LITERATURE ................................................... 12
Introduction to the Literature .................................................................................................................. 12
School Based Management and Comprehensive School Reform ......................................................... 13
District Reform ....................................................................................................................................... 18
  Studies of District Reform ..................................................................................................................... 19
  Summary ................................................................................................................................................ 27
Sociocultural Learning Theory .................................................................................................................. 29
  Assistance relationships ......................................................................................................................... 30
  Communities of practice ....................................................................................................................... 31
  Vygotsky Space ...................................................................................................................................... 32
  Applying Sociocultural Learning Theory to District Reform ............................................................... 33
  Summary ................................................................................................................................................ 37
Organizational Learning ............................................................................................................................ 38
  Types of Knowledge .............................................................................................................................. 39
  Types of Learning ................................................................................................................................... 39
  Learning Organizations .......................................................................................................................... 40
  Organizational Learning in Districts ....................................................................................................... 43
  Summary ................................................................................................................................................ 44
Social Network Theory ............................................................................................................................ 45
  Network Structure ............................................................................................................................... 47
  Social Capital .......................................................................................................................................... 49
  Intellectual Capital ............................................................................................................................... 52
  Summary and Conclusions ..................................................................................................................... 54
CHAPTER 3: STRONG TIES IN A DECENTRALIZED DISTRICT: A CASE STUDY OF ONE DISTRICT THAT HAS INCREASED STUDENT ACHIEVEMENT OVER THE PAST 10 YEARS .......................................................... 57

District Context and Background ................................................................. 61
History of Study District ............................................................................. 62

Literature Review and Conceptual Framework ........................................... 65
District Reform .......................................................................................... 65
Studies of District Reform ......................................................................... 66
Social Network Theory ............................................................................. 67
Network Structure .................................................................................... 69
Social Capital Theory .............................................................................. 71

Methods .................................................................................................... 74
Survey Participants .................................................................................... 75
Interview Participants ............................................................................... 77

Instruments and Data Collection ............................................................... 77
Social Network Survey ............................................................................ 77
Trust ......................................................................................................... 78
Interviews ................................................................................................. 79

Data Analysis ........................................................................................... 79
Social Network Data Analysis ................................................................. 79
Interview Data Analysis .......................................................................... 82

Results ...................................................................................................... 83
Collaboration on Work Related Issues ..................................................... 83
CHAPTER 4: THE COHORT MODEL: LESSONS LEARNED WHEN PRINCIPALS COLLABORATE
LIST OF FIGURES

Figure 2.1. *Vygotsky Space* ................................................................. 32

Figure 3.1. *District Reorganization* .................................................. 63

Figure 3.2. *Collaboration Network* ................................................. 86

Figure 3.3. *Expertise Network* ................................................................. 88

Figure 3.4. *Advice Network* ................................................................. 91

Figure 3.5. *Innovation EL Network* .................................................. 96

Figure 4.1. *Social Network Map of Cohorts* .................................... 113
LIST OF TABLES

Table 2.1. Comparison of Factors Found in Studies of Effective Districts ................. 20
Table 3.1. Sample Demographics ................................................................................ 76
Table 4.1. Comparison of Demographics, API, and Similar Schools Rankings........... 115
Table 5.1. Summary of First Set of Findings ............................................................... 174
Table 5.2. Cohort Comparison Using the 5 Disciplines of a Learning Organization.... 176
Table 5.3. Summary of Second Set of Findings ........................................................... 177
ACKNOWLEDGEMENTS

First and foremost, I would like to thank my chair, Dr. Janet Chrispeels, for being an amazing mentor and role model. Your guidance, encouragement, kindness and constant support have truly made this journey a wonderful lesson in life.

My committee members, Dr. Alan Daly, Dr. Amanda Datnow, Dr. Jennifer Jeffries, Dr. Lorri Santamaria, and Dr. Carol Van Vooren have been an incredible team. Your assistance, feedback, and insights truly helped shape my dissertation and made this process an unparalleled learning experience. Dr. Daly, thank you for your words of wisdom as well as your unwavering support and encouragement. I appreciated how you always answered my questions with grace and humor.

Dr. Lowell Billings, thank you for giving me an opportunity to pursue my dreams. Dr. John Nelson, thank you for backing my decision and supporting me throughout. Dr. Olga West, thank you for encouraging me to apply to the JDP and being there for me. I would also like to thank all of the participants who graciously volunteered many hours to help me with this research project. Your contributions were instrumental in the completion of this study. And to Yi-Hwa Liou, your assistance with the social network analysis data was invaluable.

I would like to acknowledge my colleagues in Cohort 5 and especially would like to thank “The Carpool”—Barbara, Patty, and Paul—we did it! It was a great journey! Finally, to my family and friends, thank you for your steadfast support and positive motivation. Mom and dad, thank you for believing in me and always being there. Katie and Michelle, thank you for editing my work and for your words of encouragement. Nick, thank you for all of your support and encouragement.
Chapter 3, in part is currently being prepared for submission for publication of the material. Umekubo, Lisa; Chrispeels, Janet; Daly, Alan. The dissertation author was the primary investigator and author of this material.

Chapter 4, in part is currently being prepared for submission for publication of the material. Umekubo, Lisa; Chrispeels, Janet; Daly, Alan. The dissertation author was the primary investigator and author of this material.
VITA

EDUCATION

2012 Doctor of Education in Educational Leadership, University of California, San Diego and California State University, San Marcos

2006 Administrative Services Credential, Tier I, University of California, Irvine

2005 National Board Certified Teacher, Early Childhood Generalist

2002 English as a Second Language Certificate, University of California, Irvine

2000 Educational Technology Certificate, University of California, Irvine

1996 Clear Multiple Subject Teaching Credential with Cultural and Linguistic Diversity (CLAD) Emphasis, Pepperdine University

1996 Master of Arts in Education, Pepperdine University

1995 Bachelor of Arts in Liberal Studies, University of California, Riverside

WORK EXPERIENCE

2007-Present Projects Specialist, Research and Evaluation, Chula Vista Elementary School District

2006 Elementary English Teacher, Northlands Primary Bilingual School, Buenos Aires, Argentina

2005-2006 Beginning Teacher Support and Assessment Lead Teacher, Tustin Unified School District

2004-2006 Elementary Teaching Assistant Principal, Tustin Unified School District

2004-2005 GATE Lead Teacher, Tustin Unified School District

1997-2006 Elementary Teacher (Grades 1-5), Tustin Unified School District

1996-1997 Elementary and Middle School English Teacher, Funabashi, Japan
ABSTRACT OF THE DISSERTATION

District-School Leadership for Organizational Learning

Finding the Balance

by

Lisa Ann Umekubo

Doctor of Education in Educational Leadership

University of California, San Diego, 2012
California State University, San Marcos, 2012

Professor Janet Chrispeels, Chair

No Child Left Behind (NCLB) set a challenging goal of 100% proficiency for all students, prompting schools and districts across the nation to implement major reform initiatives to meet increasing federal achievement targets. Some schools and a few districts have been successful, however, the majority are still failing. The primary purpose of this study is to identify and examine the role of one high achieving school district’s central office in supporting or constraining learning initiatives of schools within the district. In particular, this study explores the informal and formal relationships and
structures that foster collaboration between central office and school principals. Lastly, the study investigates the conditions and structures that allow leaders to be innovative and creative with the goal of increasing student achievement.

To explore district/school relationships, this study drew on the theory and method of social network analysis, and its related and supporting theories of social and intellectual capital, and organizational learning. The concept underlying social network analysis is the more dense the relationships in an organization, the greater the potential for collaboration and creation of social capital. Collaborating, exchanging and combining knowledge among members leads to intellectual capital, which is essential for organizational learning.

The research design of this study was a descriptive, embedded, single-case study that used quantitative extant data and qualitative methods to answer five main research questions. In addition to the social network analysis of central office/principal relations, a cross-case analysis of two embedded cohorts within one district was also conducted using evidence from surveys, semi-structured interviews, focus group interviews, and document analysis to examine how the district and schools worked together to negotiate, communicate, and implement reform initiatives.

The study showed that there were dense networks of collaboration, communication, and innovation supported by high levels of trust among administrators at all levels. The qualitative data revealed that principals appreciated considerable autonomy to implement programs of their choice at the school site as long as they could show learning gains. Thus, the results presented a pattern of high levels of site-based decision-making autonomy coupled with high levels of accountability for student
achievement — a finding not shown in most other studies of effective district reform. This district, serving a high percentage of English learners and socio-economically disadvantaged students, seems to have found a way to balance accountability with professionalism by focusing on student results rather than program mandates.
CHAPTER 1: INTRODUCTION

Inspiring phrases such as, “we are going to turn around every failing school” or “every child in America deserves a world-class education” have been murmured over and over again by many leaders over the past decade. However, low student achievement has been the recurring trend across the nation. Despite all of the reform efforts that have been implemented, the current reality is that education in the 21st century still poses an alarming crisis in terms of equity in achievement across sub-groups and more broadly, when U.S. students are compared with similar students in other developed countries.

Over the past four decades policy-makers and researches have placed a spotlight on the problems of the American educational system. This increased attention has resulted in escalated accountability demands across our nation. In 1983, Ronald Reagan’s National Commission on Excellence in Educational published *A Nation at Risk: The Imperative For Educational Reform*, which is considered a landmark event that touched off a wave of local, state, and federal reform efforts to respond to the report’s critique of American schools.

*Statement of the Problem*

*A Nation at Risk* prompted large-scale governmental action in the early 1980’s and top-down initiatives started taking place across the globe (Fullan, 1993). In the United States mandated curricula as well as establishing minimum competencies for students, teachers, and administrators were created (Fullan, 1993). At about the same time another change initiative—namely the restructuring movement—started to occur
(Elmore, 1990; Murphy, 1991) where decentralization and school-based management became the new buzz. As schools were given more autonomy, many different innovations were implemented simultaneously and eventually provoked confusion as to what practices were best. Simply providing schools with opportunities to reorganize and implement site-based management did not consistently raise achievement (Leithwood & Menzies, 1998; Smylie, Lazarus, Brownlee-Conyers, 1994). To support increasing the programmatic and content focus of reform, the federal government reshaped Title I legislation for low-income schools and initiated the Comprehensive School Reform (CSR) program. The CSR approach provided funding for schools to research and select from a variety of individual school reform models that had shown some evidence of effectiveness based on research. Research from this era showed that fidelity to implementation regardless of the model was key and that in many schools this fidelity was not achieved (Murphy & Datnow, 2003). When fidelity was achieved, a number of these models showed that they could raise student achievement (e.g., Success for All — Borman, Hughes, Overman & Brown, 2003; Herman, 1999; Accelerated Schools — Ross, Alberg, & McNelis, 1997; Ross, Sanders, & Stringfiled, 1999).

In spite of moderate gains, schools were generally still considered by many to be failing. The reauthorization of Title I legislation in 2000, led to the bi-partisan enactment of the now famous and infamous No Child Left Behind (NCLB, 2001). An important shift in policy reflected in this legislation is the increased role of the federal government in pushing standards based reform, requiring states to use standardized tests to measure progress, setting clear achievement targets, and imposing sanctions if schools do not meet targets. Although states still retained the right to determine the standards and the tests
they would use to measure them, NCLB asserted a level of federal control of education that had not been experienced before. NCLB is based on the belief that by setting high standards and establishing measurable goals, individual outcomes in education will improve. It is also assumed that sanctions are the best way to force schools and districts that do not meet federal benchmark targets to enact reforms that will get results.

The federal NCLB Act of 2001 states that 100% of all students in the United States must be proficient or competent at grade level skills in the areas of English language arts and mathematics by the year 2014. This challenging goal has put schools and districts across the nation in the limelight due to their successes (or failures) in moving toward this goal. The goal has been very challenging for districts in California that have established very high standards for mathematics and language arts (e.g., 37 and 39 states respectively are considered to have lower standards) and because of the test cut off point that defines proficiency. Student proficiency levels have slowly risen each year in California; data from the 2009 statewide assessments show that 52.4% of students in grades two through eleven were proficient or competent in English language arts and 54.5% were proficient in mathematics (California Department of Education, 2009). Nevertheless, these levels fall below the growth needed to reach the 2014 goal of 100% proficiency.

In 2009, 298 districts and 2,796 schools in California serving over one million students were in Program Improvement (PI). In 2010, California’s proficiency targets for schools and districts will rise to 64.6% in English language arts and 68.5% in mathematics. It is predicted that by 2011 nearly fifty percent of all California schools will fail Adequate Yearly Progress (AYP) goals set forth by NCLB legislation. Furthermore,
Bryant, Hammond, Bocian, Retting, Miller, & Cardullo (2008) suggest that “nearly all elementary schools in California will fail to meet the AYP requirements for proficiency by 2014” (p. 1782). Escalating accountability measures of NCLB create a sense of urgency for schools and districts, leading to districts grasping for quick-fix solutions to improve student achievement in order to meet increasing Annual Yearly Progress (AYP) targets. These desires and demands suggest the need for continued research into districtwide approaches that yield strong improvement results, especially for students who have typically been underserved and are underachievers in our educational systems.

**Purpose of the Study**

Over the years, most federal legislation for underperforming schools focused on the school as the unit of change. However, NCLB also brought attention to the need for improvements, at both the district and school level. Districts could be labeled “in need of improvement” just as individual schools could. This shift in federal legislation to include the district was in response to a growing body of research that suggested that districts could play a critical role in individual school improvement. As will be discussed later, researchers have identified a number of practices of effective districts. However, less extensively studied are the inner workings of how district leaders support principals or how schools have implemented and sustained district initiatives over time. Therefore, the purpose of this study is to identify and examine the role of one school district office in supporting or constraining learning initiatives of schools within the district. Furthermore, district policy will be explored to see how it affects the informal and formal collaborative structures in the district. Lastly, the conditions and structures that allow leaders to be
innovative and creative with the goal of increased student achievement will be explored. Examining the strengths in a successful district will allow us to describe optimal organizational conditions that support student performance over time.

**Rationale for Selection of the Study Site**

The Montague Elementary School District (MESD—a pseudonym) offers an excellent site for this study because it serves many Hispanic students who represent the type of student most often is underperforming in the state of California. Yet, this district has continued to make increasing gains in student achievement over the past ten years according to NCLB (see Appendix B). In fact, this district is one of a few districts in California that has continued to increase student achievement in all schools over the past decade. Therefore, what can be learned from this district make it an important “telling case” (Van Maanen, 1988) that could inform both research and practice. Second, in the early 1990s, vigorously embraced site-based decision-making and the adoption of a Comprehensive School Reform model of the school’s choosing. Thus this site presents an excellent opportunity to explore how the district implemented a decentralized approach and interfaced it with the more centralized mandates imposed by the state—such as standards, testing, and textbook adoptions. The following research questions guided this study:

1. In what ways do district and site leaders perceive the district’s organizational structure?

2. In what ways do the formal and informal network structures of a district support or constrain the transmission of resources (knowledge, information,
and innovation)?

3. How do two selected clusters of schools (cohorts) within the district vary in terms of their response to district policy, practices, and procedures? What are the similarities and differences? What are the student outcomes for each cohort?

4. In what ways did two selected cohorts exhibit the qualities of organizational learning?

5. What behaviors and practices of the principals within two selected cohorts support organizational learning and the creation of social and intellectual capital?

Rethinking the interworking of district reform is essential if we are going to adequately prepare students to be productive citizens of society. This study explores key conditions for sustainable systemic reform by drawing on three bodies of literature: district reform, organizational learning and social network theory and analysis, which will form the conceptual and theoretical basis for the study.

*Frameworks*

The research on district reform identifies the five factors that seem to be key to district development, leadership and school change. These factors form a skeleton on which to more deeply explore the concept of organizational learning, the second literature base that will be used to frame this study. In order for an organization to continue to thrive, new knowledge and learning needs to occur at all levels. Yet that learning can be constrained or supported by the underlying social relations among members. Therefore,
an important part of understanding today’s complex organizations is to draw on the
corcepts of social network theory. Social network analysis (SNA) as it is often referred to
is based on two key theories, which are relevant to this study: social capital and
intellectual capital.

District Reform

A growing body of literature on systemwide reform states districts, more than
individual schools alone, are able to serve as catalysts for closing the achievement gap
and increasing student achievement (McLaughlin & Talbert, 2003). Studies have shown
that districts are an essential part of implementing as well as sustaining reform efforts. A
variety of factors that are connected with successful district reform initiatives include
strong leadership at all levels, systemwide vision, and focus on student achievement,
district guided curriculum and aligned assessment, data-driven decisions, and coherent
professional development (Elmore & Burney, 1997; Hightower, 2002; Murphy &
Hallinger, 1988; Massell & Goertz, 2002; Snipes et al. 2002; Togneri & Anderson, 2003)

Although the aforementioned factors have been found to be essential for
successful district reform, what is less understood is the importance of relationships
between district and site administrators as well as systemic support structures. A few
scholars have recently tapped into this area by looking through the lens of the
sociocultural learning theory. The sociocultural learning theory provides insight on the
importance of relationships across all levels of the organization. Their research shows
how all district and site administrators as well as teacher leaders are able to learn and
work together to improve their practice and ultimately, the organization (Honig, 2008).
The sociocultural learning theory shows that relationships across all levels are important and can have positive effects on increasing student achievement. This perspective also suggests that reform must be co-constructed between the central office and the school sites (Hubbard, Mehan & Stein, 2006). Through this co-construction process, the district and its schools open up the possibility for organizational learning.

Organizational Learning

Organizational learning theorists argue that it is through the process of interaction between and among the members of an organization that there is an opportunity for organizational productivity (learning) that is greater than the sum of individual learning (Senge, 1990). Organizational learning can be described as the ways firms build, supplement and organize knowledge and routines around their activities and within their cultures, and adapt and develop organizational efficiency by improving the use of the broad skills of their workforces (Dodgson, 1993). In order for organizations to thrive, they must continually adapt and change. The ways organizations organize knowledge and routines and develop strong learning cultures is closely related to the levels of trust and structures for interaction among members, which suggests a need to also explore social network theory and analysis as a tool for understanding organizational learning and achievement.

Social Network Theory

Districts and schools have realized that educators need more opportunities for networking in an effort to increase their professional learning (Edge & Mylopoulos, 2008). Consequently, different types of organizational structures have
been implemented to allow for more collaboration within schools and districts (Mullen & Kochan, 2000). Traditionally these structures are formal or hierarchical. However, research indicates that communication flows more freely among colleagues through informal relationships as opposed to relationships that are more formally structured (Cross, Borgatti, & Parker, 2002; Deal, Purinton, & Waetjen, 2009). People are sources of important information and oftentimes, influential individuals can positively or negatively influence a decision through informal networks (Deal et al, 2009). Furthermore, individuals in an organization bring strengths and specific expertise in a variety of areas. Social networking or collaboration is a way for people to build social capital by sharing their ideas, reflecting on their practice, as well as learning about new ideas. Social network analysis, a relatively new concept in education, can allow educators to assess informal relations or ties within an organization. Literature will be investigated to show how to measure collaboration and the importance of building social capital.

**Social Capital and Intellectual Capital**

By drawing on social network theory, scholars have identified social capital as an underlying asset gained through relational ties. The amount of social capital in an organization is based on networks within the organization. When people establish relationships and have opportunities to collaborate they gain knowledge and resources from others that may influence their work. So, “who you know defines what you know” (Daly & Finnigan, 2009, p. 7). A key component to building social capital is the notion of trust. Trusting relationships will foster more collaboration and the sharing of ideas more
regularly (Chhuon, Gilkey, Daly & Chrispeels, 2008). If there are high levels of trust in an organization such as a school district, more knowledge will be generated and student achievement will increase (Byrk & Schneider, 2002).

The importance of building social capital lies in the idea that an organization with higher levels of social capital will lead to creating intellectual capital. Research on intellectual capital suggests the importance of combining knowledge from several people or groups in an effort to co-construct explicit as well as tacit knowledge, and finally to create an action plan.

Study Methodology

The research design of this study was a descriptive, embedded, single-case study that used multiple methods to answer five main research questions. The research questions in this study focused on exploring how district policies, structures, and procedures affect organizational learning. This study explored one unique unit of analysis (Yin, 2003), a large con-urban district that has been closing the achievement gap by continuously increasing student achievement over the past ten years. Furthermore, two embedded units within the district were explored at a deeper level.

In order to “understand phenomena deeply and in detail” (Richards & Morse, 2007, p. 30) data were collected from a survey, interviews, focus groups, and documents. The instruments provided quantitative and qualitative information about the district as well as a sample of individual school sites. A cross-unit analysis was conducted to further investigate how two embedded subunits or cohorts of schools operate within district policies and procedures, possibly resulting in the development of more sophisticated
descriptions and more powerful explanations of the process of organizational learning (Miles and Huberman, 1994).

**Significance of Study**

The results of this study contribute to the larger field of education in several ways. First, by showing how district policy and practice support or constrain creativity and innovation at the district and school sites. Second, by informing the work of school and district leadership as to how knowledge, information and innovation can be moved throughout a system in support of increased performance. Finally, by identifying organizational structures that support improved student performance.

The next chapter presents four bodies of literature that informed the design of the data collection and the analysis. Chapter three presents an article that is guided by the first two research questions and draws primarily on the quantitative data. Chapter four presents an article that is guided by the last three research questions and draws primarily on the qualitative data. The first article provides an overview of the larger context of the district while the second article provides a more in-depth analysis of two cohorts of schools. Chapter five provides an overview as well as a discussion of both articles and includes implications for practice and future research.
CHAPTER 2: REVIEW OF RELATED LITERATURE

Introduction to the Literature

The previous chapter discussed, *A Nation at Risk: The Imperative for Educational Reform* released by the National Commission on Excellence in Education in 1983, which initiated one of the longest periods of educational reform movements in American history. The federal NCLB reform is the latest public policy initiative to address the failure of public education, especially among low-income, Hispanic, and African American students (US Department of Education, 2001). As NCLB proficiency targets continue to increase each year and shifts in demographics evolve, educators will continue to try and figure out “what works” in terms of increasing student achievement at both the school and district levels. Since 1983, the ideas of how to reform and improve America’s schools have gone through several cycles and have attended to different parts of the system. Relevant to my study are two areas of policy-practitioner and research focus: the school as the unit of change and the district as the center of reform to bring about systemic change.

This literature review begins by exploring the conceptual basis and research literature of these two foci. Second, I explore the theoretical constructs of socio-cultural learning theory and organizational learning, which underlie many current studies of district and school reform and help to frame my study. Sociocultural learning theory also provides an important rationale for using social network analysis to explore district school relations. Finally in this review, I present two important theoretical constructs which frame SNA: social capital and intellectual capital.
School Based Management and Comprehensive School Reform

After 1983, there was a flurry of national and state initiatives attempted to shore up standards, raise graduation requirements, set higher standards for teachers, and institute new more rigorous high school courses. At the same there was also a growing interest in the school as the unit of change, which in large part was driven by effective schools research (Edmonds, 1979; Levine & Lezotte, 1990; Lezotte, 1984; Mortimore, Sammons, Stoll, Lewis, & Ecob, 1988). Effective schools research suggested schools that had a clear vision, focused on instructional leadership, set high expectations for students and staff, created a safe and orderly learning environment, monitored student achievement, increased opportunities for learning and time on task, and attended to positive home school relations were more likely to have higher achievement gains for low-income diverse students than schools that did not engage in these practices. The effective schools research focus on the school as the unit of change spurred the development by the federal government of the Comprehensive School Reform legislation\(^1\) which required schools to choose schoolwide reform models from several that had received federal endorsements (e.g. Success for All, Coalition of Essential Schools, and Comer School Development Model).

A parallel movement during this restructuring era, called site- or school-based management, was initiated in the mid 1980’s to facilitate improvement, innovation, and continuous professional growth (Leithwood & Menzies, 1998). Decentralization shifted

---

\(^1\) The Comprehensive School Reform program began in 1998 and was authorized as Title I, Part F of the Elementary and Secondary Education Act, which was signed into law on January 8, 2002. Over 1,800 schools in all 50 states, the District of Columbia, Puerto Rico & schools funded by the Bureau of Indian Affairs (BIA) received grants as part of the original 1998 cohort. An additional 1,000 schools were funded through the FY 2000 funding increase.
power and decision making to the school site. As schools were given more autonomy the district office had to change how it operated as well as how it was organized (Elmore, 1988). The press for decentralization was in part a response to the issues that emerged within centralized districts that had occurred after the release of a *Nation at Risk*, such as diminished teacher morale and effort (Corcoran, Walker, & White, 1988) and the lack of flexibility or limited resources that site leaders needed to do their jobs. In an effort to address this problem, many schools and districts jumped on the bandwagon and implemented site-based management (SBM). SBM allowed districts to decentralize by disbursing more decision making power to the schools so they could make decisions based on their unique needs (Leithwood & Menzies, 1998). The purpose of SBM was to improve student achievement by making those closest to the delivery of services—teachers and principals—more independent and therefore more responsible for the results of their school’s operations (Hill & Bonan, 1991). Participatory decision making was a key to site-based management and students, parents, teachers and administrators worked together to decide what was best for the school. It was assumed that participatory democracy would lead to greater efficiency, effectiveness, and better outcomes (Clune & White, 1988; David, 1989; Mojkowski & Fleming, 1988). According to proponents, another key advantage of SBM was the flexibility to innovate, as exemplified by a teacher’s comments in a study by Togneri & Anderson (2003),

The district leaves us open to be innovative. We can be as innovative as we are willing to be…I believe that it has been instrumental to our success….Our school board and our superintendent have worked with us to ensure that we have that flexibility. If a principal thinks a certain strategy is going to work…[t]he administration will let them go for it (p. 22).
The body of literature on SBM mainly focused on the school site and the implementation of this reform varied considerably (Brown, 1990; Hill & Bonan, 1991; Murphy & Beck, 1995). An extensive meta-analysis comparing 83 empirical studies by Leithwood and Menzies (1998) found certain factors such as the superintendent’s vision, district’s culture, student demographics, and community perceptions of effectiveness influenced the form SBM took within a district. They also found site leaders were key to implementing SBM, and it took a significant amount of time and effort by the principals and teachers to successfully implement SBM. The most daunting conclusion from this research was SBM showed no effect on student achievement. However, the authors contend SBM is a promising approach to reducing central administrative costs, democratizing school workplace, creating more opportunity for teacher development, and increasing school accountability—though they did not address the inner working of the district office in terms of support or district-school relationships.

A more recent study by Briggs and Wohlstetter (2003) on the other hand, showed site-based management can increase student achievement if schools have the following elements in place: (a) an active living vision focused on teaching and learning connected to district and state standards, (b) authority to make decisions regarding budget, curriculum and personnel, as well as authority to make changes in teaching and learning, (c) distributed leadership by creating networks for decision making teams, (d) professional development and professional learning communities, (e) a variety of ways to collect data related to school priorities and communicate it to all stakeholders, (f) acknowledgement of individual and group progress toward school goals, (g) distributed leadership, and (h) resources from outside the school. The researchers also contended,
“when done effectively, [SBM] constituted a redesign of the whole school organization” (p. 353).

In an attempt to break the chronic pattern of school failure, in 1988, the state legislature of Illinois implemented the largest and boldest experiment in site-based management.

Reformers brought the fight to the Illinois legislature, which passed a landmark bill in 1988 creating elected, empowered parent-majority local school councils (LSCs) at each CPS school (Phase I reform). Many LSCs became effective change agents, particularly through their ability to replace poor-performing principals and direct the spending of poverty funds for new programs. Principals gained new authority as well, such as the ability to select teachers and other staff, and to have keys to their school buildings. School improvement planning was redesigned to address the full range of components effective schools need, but also to reflect each school’s particular strengths and challenges (Woestehoff & Neill, 2007, p. 9).

Chicago school reform is an example of SBM that focused purely on the schools, as opposed to the system as a whole (Hess, 1999). According to Sebring and Bryk (2000) the districts did not provide the necessary supports for schools to be effective and student achievement overall continued to decline even as some schools were being highly successful in implementing improvements. About six years later the legislation was modified and the central office stepped in and created a systemwide infrastructure with more accountability. Student achievement started to increase. According to Hess (1999) what they learned from the Chicago school reform is that “whether it is strategic management or balanced governance, urban school systems need some combination of bottom-up and top-down governance” (p. 514). The Chicago experience raises the issue of what should be the mix between centralization and decentralization and how power should be distributed in order to obtain optimal student achievement (Slater, 1993).
After an extensive analysis of five school districts that implemented site-based management, Hill and Bonan (1991) assert the role of the district is a key factor for successful implementation of SBM. They identified five principles on decentralization and accountability: (a) though site-based management focuses on individual schools, it is in fact a reform of the entire school system, (b) site-based management will lead to real changes at the school level only if it is the fundamental reform strategy, not just one among several reform projects, (c) site-managed schools are likely to evolve over time and to develop distinctive characters, goals, and operating styles, (d) a system of distinctive, site-managed schools requires a rethinking of accountability, and (e) the ultimate accountability mechanism for site-managed schools is parental choice. Thus, in order for districts to successfully decentralize and implement SBM they must think about their implementation plan beforehand.

Previous studies on decentralization included ideas on what schools needed to have in place when implementing SBM as well as the benefits and drawbacks of school autonomy. The minimal research that has been done on the district’s role with SBM shows systemwide support structures are needed where districts and schools are able to work together. Little guidance was provided in the SBM literature on sustainability or more explicitly, how to go about implementing change within a district. Research needs to be done on how districts create buy-in and build capacity so central office leaders or teacher leaders are able to better support principals. Knapp (2008) asserts district leaders face daunting challenges: (a) pursuing ambitious goals, with limited and uneven capacity, (b) maintaining a singular reform focus in the midst of multiple, competing agendas and logics, (c) undertaking new tasks within old structures and routines, (d) developing grand
plans, guided by incomplete theories of action, and (e) confronting unanswered questions, with limited information and understanding (p. 523). Central office leaders must confront these issues in order to better support all communities in the district. A different approach that utilizes and enhances the strengths of our current system is needed to address the challenges of the 21st century.

Some current studies have elaborated on the benefits of districts creating collaborative structures for learning to support schools and principals. In addition, as practitioners and scholars came to recognize that schools—especially in urban and urban fringe districts—are embedded in districts that vary in their ability to support school reform, there has been increased attention to district structures and districtwide reform efforts that have yielded results. Similar to the effective schools studies, scholars began to look to factors that distinguished districts serving challenging populations with higher than expected achievement.

**District Reform**

A school district or central office is a legal entity that provides fiscal, technical, and instructional support for individual schools that are geographically located within the district boundary (Hightower, 2002). Districts acting as change agents by implementing an initiative or change within the entire system is referred to as districtwide or systemwide reform. In their pioneering study of New York District #2, Elmore & Burney (1997) identified one of the first lists of qualities of a district engaged in successful reform. They concluded that district reform could serve as a catalyst for increasing student achievement across multiple sites. School districts, especially those serving large
urban areas are complex systems involving many actors and thus, many competing
agendas may be present (Sykes, O’Day, & Ford, 2009). What Elmore and Burney (1997)
and now other scholars have documented is how such a system can act in a more coherent
way. The next section discusses the history of district reform as well as suggestions from
early studies.

Studies of District Reform

American school districts over the past half-century have had a negative
reputation (Sykes et al., 2009) and oftentimes the central office was ignored or blamed
for inadequacy of individual schools (Chubb & Moe, 1990; Spillane, 1996). Reform
initiatives related to improving teaching and learning focused solely on individual
schools or at the state level leaving the district out of the picture (Cuban, 1984; Spillane,
1996). District offices had a reputation for being bureaucratic organizations, not
connected to teaching and learning (Hightower, 2002). However, the importance of
school districts has slowly emerged, beginning with a pioneering study by Murphy and
Hallinger (1988), and continuing in earnest into the late 1990s. The policies of NCLB
that hold schools and now districts accountable for student achievement has accelerated
the interest in district reform.
Table 2.1. Comparison of Factors Found in Studies of Effective Districts

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong Instructional Leadership</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>District-guided curriculum &amp; aligned assessment</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>System focus on achievement, consistency of instruction</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Frequent monitoring &amp; use of data for decision making</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Balance of district control and support</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Climate of Urgency</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Shared vision, responsibility</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Coherent professional development</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Collegiality and respect</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Overhaul of district practices</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Classroom focus, targeted interventions</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Involvement of multiple stakeholders</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

Adapted from the work of Johnson, 2008

A growing number of qualitative studies have emerged within the past decade on districts engaged in the process of reform. However, empirical studies on districtwide reform have been limited (McLaughlin & Talbert, 2003). The studies on district reform
discussed the benefits (or failures) of large-scale change and find key factors and conditions (see Table 2.1) that appear necessary for successful systemic reform (Chrispeels & Pollack, 1989; Elmore & Burney, 1997; Hightower, 2002; Murphy & Hallinger, 1988; Togneri & Anderson, 2003; Massell & Goertz, 2002; Snipes et al., 2002).

Although there are over a dozen accepted factors and conditions defining successful district reform as shown in Table 2.1, the central focus of this review concentrates on the five most influential factors fostering successful district reform: (a) strong leadership at all levels, (b) systemwide vision and focus on student achievement, (c) district guided curriculum and (d) aligned assessment, data-driven decisions, and (e) coherent professional development.

*Strong leadership at all levels.* A fundamental aspect of successful districtwide reform lies in strong leadership across the district. A case study with five high poverty districts found it was crucial to have effective leaders who could guide districts and schools in positive systemwide change (Togneri & Anderson, 2003). Central office leaders have the potential to positively (or negatively) influence principals, teachers, parents, community members, and students (Elmore & Burney, 1997; Hightower, 2002; Murphy & Hallinger, 1988; Togneri & Anderson, 2003). In fact, in New York’s District #2 the superintendent had very high expectations for principals being instructional leaders and 20 out of the 30 site leaders that could not meet his expectations were “counseled out” and found other jobs or retired (Elmore & Burney, 1997). Snipes et al. (2002) in their comparative case study reported central office leaders used a strategy termed “existence proofs” to offset negative beliefs that high poverty African American
and Hispanic students were not able to achieve at the same level of other students. By taking district leaders, the school board, principals, and teachers to another district with similar demographics and introducing them to what “high quality instruction” looks like, their beliefs regarding student achievement drastically changed. For the first time, these educators were able to remove a complacent acceptance of underachievement and adopt a more optimistic view concerning the potential for their students. Without effective leadership an organization would have a difficult time understanding and implementing a plan for improvement.

District leaders also expressed that systemwide reform efforts could not be tackled alone. Togneri and Anderson (2003) stated central office leaders refined leadership roles by including other actors—such as assistant principals, teacher leaders, central office staff, union leaders, and school board members. Through the distribution of leadership responsibilities, teachers were able to build capacity and support other teachers in their classrooms as well as principals with administrative duties. Research suggests effective leaders share their work by distributing leadership across all levels (Chrispeels & Gonzalez, 2006; Spillane, 2006).

Elmore and Burney (1997) as well as Hightower (2002) found principals to be the crux of instructional improvement by acting as change agents in schools. Principals are instructional role models and mentors for future teacher leaders and administrators (Togneri & Anderson, 2003). In fact, the role of the principal is so important that one school district evaluated principals on their ability to build teacher leader capacity (Togneri & Anderson, 2003). Effective principals initiate support from all stakeholders (Togneri & Anderson, 2003) because they cannot lead alone. Teacher leaders can provide
additional support to teachers and principals by serving as a bridge between administration and the classroom. Specifically teacher leaders act in conjunction with colleagues to relay instructional information concerning the implementation of district reform initiatives, therefore increasing capacity (Togneri & Anderson, 2003). In addition, central office policies mandated by many schools dictate the presence of coaches or resource teachers to build capacity and support classroom staff. In essence, “instructional leadership is equivalent to the holy grail in educational administration” (Elmore, 2000, p. 7).

**Systemwide vision and focus on student achievement.** A second critical aspect that guides successful instructional reform efforts in many districts is a unified vision shared by all stakeholders (Togneri & Anderson, 2003), which gives educators (Elmore, 2000) a “laser like focus” for success. Systemwide visions and shared beliefs were thoughtfully created by input from all stakeholders and were visible across the district (Togneri & Anderson, 2003). Central office personnel and school staff used it to guide decisions. As an example, principles in New York District #2 internalized the district goal of high quality teaching and learning, and even though their schools served different populations, principals were able to consistently articulate the district vision (Elmore & Burney, 1997).

In contrast, the superintendent of the San Diego City Schools announced the district vision of improving student achievement by supporting teaching and learning to all stakeholders (Hightower, 2002). The leaders believed the system needed to be shaken up and for this reason a top-down approach was used. As a result, improvement in student achievement occurred, however some principals, teachers, and board members
questioned the reform initiative and the superintendent was forced to leave before the reforms were fully implemented.

Many studies elaborated on a vision of systemwide focus in order to increase student achievement (Togneri & Anderson, 2003; Elmore & Burney, 1997). In an exploratory comparative case study, Snipes et al. (2002) found that school boards took on a different role compared to other large urban district boards; instead of solely concentrating on operations and administration, they focused on improving student achievement. In turn, this belief helped guide the board in choosing a superintendent with a similar vision. Togneri and Anderson (2003) stated the school board held the superintendent accountable for increasing student achievement. Consequently, when superintendents visited schools they focused their agenda on improving student achievement.

Furthermore, in a case study of four Texas school districts studied by Skrla, Scheurich, and Johnson (2000), teachers felt they had a moral duty to increase student achievement. One high school teacher’s perspective portrayed this by saying, “…we have been working hard on improving the belief that every kid will be successful. And it is our job as a whole team…I’m talking about administration, teachers, everyone that’s involved in providing education for the child and their environment…” (p.20). This is an example of a teacher that clearly embraced the vision of focusing on student achievement.

*District guided curriculum and assessment.* In order to raise student achievement districtwide, superintendents have publically admitted weaknesses and problems of poorly aligned curricula. These issues were addressed by creating a districtwide
curriculum based on state standards (Snipes et al., 2002; Togneri & Anderson, 2003). The common curriculum provided teachers across the district with specific expectations regarding lesson plans. Even though student achievement is the focus of these changes it is possible that such an approach may backfire based on its authoritative implementation. As an example, although the leaders in San Diego City Schools realigned curriculum to better meet the needs of all students districtwide, the top-down manner in which district leaders implemented it proved to be counterproductive (Hightower, 2002).

According to Snipes et al. (2002) district leaders created accountability systems that were more rigorous than their states. These systems helped teachers and principals know if students were learning what they were being taught. Multi-measure accountability systems were created and used by district leaders to hold principals accountable for increasing student achievement (Snipes et al., 2002; Togneri & Anderson, 2003). Less well understood is how principals and teachers used these systems to drive their decisions and how classroom is affected instruction. This study will addresses this issue.

Coherent professional development. The district office can play a critical role in improving teaching and learning by creating opportunities for districtwide professional development, but it must be extensively and intensively aligned with the district’s goals (Togneri & Anderson, 2003; Elmore & Burney, 1997). In fact, in a qualitative study by Togneri and Anderson (2003), one significant factor they found essential for improvement was district adoption of new approaches to professional development that involved a coherent and district organized set of strategies to improve instruction. McLaughlin and Talbert (2003) also examine reforming districts use of cutting-edge
practices for professional development. The two districts in their study focused on improving literacy instruction and found teachers, especially those just beginning, needed more support in this area. So they reallocated resources and were able to hire a literacy coach for each school. The teachers were extremely satisfied to have extra support and they felt more confident teaching literacy. The superintendent commented on how the conversations he heard from teachers were at a higher level than his previous district and he attributed it to the staff development provided by the literacy coaches. A key factor in the previous example is the teachers in these two districts had ongoing literacy support because the literacy coach worked full time on their campus. Many districts see professional development as a one time, isolated activity delivered by the central office (Elmore & Burney, 1997); however, just like the example, teachers need ongoing support where they can frequently discuss what they are doing in the classroom.

Elmore and Burney (1997) concur professional development is the key to improving instruction and it must be consistent and ongoing districtwide. In their study of District #2 in New York, they exemplify a coherent professional development model. The district has implemented several types of professional development opportunities for teachers and administrators: (a) professional development laboratory where teachers can get assistance from a coach, (b) instructional consulting services where consultants work directly with teachers at their school sites, (c) inter-visitation and peer networks that consist of school walkthroughs and principal peer groups, (d) off-site training offered throughout the school year and in the summer for teachers, and (e) oversight and principal visits consisting of a the superintendent and assistant superintendent visiting each school both informally and formally throughout the year. District #2 believes the
key to improving student achievement is improving the knowledge required for teachers and administrators to be on the cutting edge, which is why the district has invested in a plethora of resources in the area of professional development. Elmore and Burney (1997) posit, “professional development is the main link connecting policy to practice” (p. 2).

*Data-driven decisions.* Data from assessments can be an objective tool to help diagnose specific instructional needs at the district, school, grade level, or individual student level (Snipes et al, 2002). At the district level, data were used to hold schools accountable for student progress (Togneri & Anderson, 2003). Additionally, since data-driven decisions were part of the district’s shared vision, administrators and teachers used data to drive their goals, monitor progress, and guide decisions.

Several studies discussed the notion of using data to pinpoint weaknesses. For example, Snipes et al. (2002) elaborated on the use of ongoing assessments and using the data to diagnose both teacher and student weaknesses. One teacher explained since their reading scores did not improve, they are going to focus on the area of reading (Togneri & Anderson, 2003). What is not known is if they used the results to focus on teacher and student strengths so they could use strategies that were working or if a deficit model was used to primarily focus on what was wrong.

*Summary*

A growing body of literature on district reform within the past two decades states that districts, serving as liaisons between schools and the state (Supovitz, 2006), have the potential to support and positively affect more schools as well as increase achievement for more students than just single schools alone (Elmore & Burney, 1997; Togneri &
Anderson, 2003; Snipes et al., 2002). The early literature on district reform sheds some light on elements districts need to have in place to implement reform initiatives successfully. It focused on exploring more top-down or hierarchical structures that were more tightly coupled between the district and its schools, but left more loosely coupled between the school and classroom (Sykes et al., 2009). However, there is increasing attention to how centralized mandates or policies can penetrate the classroom. This centralization in California has been manifested most starkly in the District Assistance and Intervention Team (DAIT) approach, which more tightly coupled the district to the classroom. The attempt to couple reform demands from the state to the classroom is achieved through regular walkthroughs by DAIT team and central office administrators.

This review of both site-based management and characteristics of district reform provides an interesting juxtaposition of bottom-up and top-down reform models that are relevant to my study. The case district involved in this study enthusiastically embraced Comprehensive Reform Models and encouraged site-based decision-making, while at the same time, adopted many attributes identified in the literature on district reform (Gill, 2001 & Togneri & Anderson, 2003). More current research of district reform and school changes drawing on sociocultural learning theory, however, also provides useful insights to inform the study. Sociocultural learning theory allows a more fine-grained analysis of district reform by focusing on school and district relationships and the process by which DAIT is one example of a centralized state mandated district reform model. It evolved in 2006 from an increase of Title 1 schools in Program Improvement (PI). If Title 1 districts do not meet their AYP targets in the same area for two consecutive years, they will be labeled as PI. Once they are classified as PI, DAIT, a provider of fiscal, human, and technical assistance to district leaders, is required to intervene and support the district in making systemwide changes. DAIT assists district leaders in improving teaching and learning practices districtwide (California Department of Education, 2007).
increased collaboration may create a culture of learning and in turn increase student achievement (Gallucci, 2008; Honig, 2008; Stein & Coburn, 2008).

**Sociocultural Learning Theory**

Tharp & Gallimore (1988, p.6-7) argue that the sociocultural perspective “…has profound implications for teaching, schooling, and education”. One reason for this assertion is that although many previous studies elaborated on factors that were essential to successful district reform, they neglected to explain the interworking of how to go about improving teaching and learning systemwide (Gallucci, 2008). For example, the focus on factors failed to fully illuminate the challenges or issues of implementing a reform initiative at the classroom level, or sustaining reform efforts, or dealing with uncertainty or change. Furthermore, district leaders and researchers have often addressed technical elements—such as data, test scores, grades, finance, or evaluations (Supovitz, 2006)—as opposed to the softer aspects related to teaching and learning such as relationships, attitude, and trust. Gallucci, (2008), Honig, (2008), and Stein and Coburn (2008) have thus turned to sociocultural learning theory as a lens to provide insights on the processes involved to achieve successful school reform. In particular, they explored relationships and how all stakeholders learned and worked together to improve their practice and ultimately the organization (Honig, 2008).

Sociocultural learning theory, first introduced by Lev Vygotsky almost a century ago (Steiner & Mahn, 1996), is defined as collaborative learning embedded in social, cultural, and institutional contexts (Knapp, 2008). Boreham and Morgan (2004) further elaborate on the sociocultural perspective by asserting that it is “best understood as a
form of participation in those contexts” (p.308). In other words, individuals learn through interaction and exchanges with others. For example, Tharp and Gallimore (1988) draw on Vygotsky’s Zone of Proximal Development to show how a novice is able to learn from a mentor who scaffolds learning through inquiry by asserting “…assisted performance of apprentices in joint activity with experts becomes the vehicle through which the interactions of society are internalized and become mind” (p. 8). Still other sociocultural learning scholars believe co-constructed learning requires the engagement of artifacts or tools (Honig, 2008). A variety of scholars have defined the sociocultural learning theory and a few researchers have shown how it has helped leaders think differently about the ways in which new learning occurs in schools or districts. Three strategies on how relationships and learning can be fostered will be discussed in the next section.

Assistance relationships

The type of relationship mentioned in the previous paragraph is referred to as an “assistance relationship,” or a partnership between expert and novice individuals or groups, that is designed to support both parties by modeling, creating, and sustaining social engagement using tools to reinforce models, or brokering ideas; thus, assistance relationships help foster “joint work” (Honig, 2008). Joint work consists of meaningful and valuable experiences of a collective group or communities of practice (Honig, 2008; Stein & Coburn, 2007). It is through joint work that individuals work through complex ideas together, further new ideas, take action, and then come back together again to discuss and clarify ideas. Assistance relationships thereby foster joint work and are dynamic and continually evolving (Honig, 2008). Joint work has been shown to be
particularly important to achieve changes in teacher practices (Andrews, 2005; Chrispeels, Andrews, & Gonzalez, 2007; Little, 1990).

Communities of practice

A critical structure that supports joint work is the development of communities of practice (Lave & Wenger, 1991). Stein and Coburn (2007, p. 3) define “community of practice” (Lave & Wenger, 1991) as “a group of individuals who, through the pursuit of a joint enterprise have developed shared practices, historical and social resources, and common perspectives.” Some communities reside within a formal structure such as a particular grade level or subject matter department but others consist of a more informal group where members already have established relationships, mutual values, and a shared repertoire. Individuals within a community of practice negotiate meaning through participation and reification. A reification, according to Stein and Coburn (2007, p. 3) is a “concrete object that embodies a set of ideas or processes,” such as a pacing guide. It is through reification and participation that meaning is negotiated and new learning can occur. When reification is passed through multiple groups, such as from the central office to the teachers, it is called a boundary object. The process of an object traveling to different groups may cause the meaning to take different forms depending on how each community interprets it within their unique contexts. The concept of how communities of practice develop, function, and increase capability through interaction, joint work and reification is particularly relevant to the proposed study’s intent to investigate the relationships between central office and schools. Furthermore, the concept of communities of practices provides a frame for the proposed exploration of clusters or
cohorts of schools within the district and the way they create meaning from boundary objects.

**Vygotsky Space**

Another key concept in sociocultural learning theory as developed and explored by Vygotsky is what is now called *Vygotsky space*. Gallucci (2008, p. 548) states the Vygotsky Space “represents learning in terms of relationships between collective and individual actions and between public and private domains of action” (see Figure 1). The Vygotsky Space Theory consists of four phases (Gallucci, 2008, p. 549) in both public and private settings: (a) individual appropriation of particular ways of thinking through interaction with others, (b) individual transformation and ownership of that thinking in the context of one’s own work, (c) publication of new learning through talk or action, and (d) process whereby those public acts become conventionalized in the practice of that individual, in the work of others, or both.

![Figure 2.1. Vygotsky Space (adapted from Gavelek and Raphael 1996; Harre, 1984; McVee et al., 2005)](image)

Figure 2.1. *Vygotsky Space* (adapted from Gavelek and Raphael 1996; Harre, 1984; McVee et al., 2005)
The sociocultural lens can help policy makers as well as school and district leaders think about different avenues when implementing change. The next section will describe research from qualitative studies to show why sociocultural learning theory has important implications for district reform.

*Applying Sociocultural Learning Theory to District Reform*

The sociocultural learning theory gives researchers a new way to think about change in districts and schools (Honig, 2008; Gallucci, 2008). By drawing on qualitative studies that use the sociocultural learning theory to guide their studies, scholars have initiated a new perspective on leadership and learning. Studies have exemplified the notion that increasing knowledge at all levels leads to increased student achievement (Herrenkohl, 2008; Honig, 2008; Gallucci, 2008; Stein & Coburn, 2008). Research also stresses the importance of strong leadership with open communication across boundaries. By looking through the lens of the sociocultural learning theory, researchers have shown how assistance relationships, communities of practice, and the ideas from the Vygotsky Space are able to help foster relationships, create buy-in, increase new learning, and build capacity at both the district and site levels. Some studies have also shown that by focusing on what was happening (or not happening) in the classroom, district administrators realized they needed to change the way they were delivering professional development. As teachers, coaches, principals, and central office administrators are exposed to new initiatives, they need better ways to help them learn and successfully implement change.

New learning is an overarching theme in the current research on district reform.
The sociocultural learning perspective can have major implications on new learning in both districts and schools by the way professional development is conducted. For example, Gallucci (2008) introduced the Vygotsky Space framework as a way to explain how an innovative professional development idea called the “studio/residency model” helped teachers, coaches, principals, and district administrators learn new reading strategies collaboratively through on-going observation, dialogue and inquiry. More importantly, the teacher was able to learn new strategies at a deeper level by working with a consultant who used inquiry to guide her learning. Another study by Honig (2008) drew on ideas from the sociocultural learning theory to frame assistance relationships to help build capacity in a school district through modeling. Modeling was shown to also be reciprocal in the case of a school district administrator working with a teacher. This relationship entailed a partnership that constantly evolved over time and increased capacity for all involved. Her study showed that assistance relationships do not have to be one-way, from district to school; district central office administrators with limited curricular knowledge were temporarily paired up with a master teacher, principal, or an external partner so they were able to increase their understanding of teaching and learning through dialogue on an ongoing basis.

The result of district office administrators building capacity is twofold. First, they are able to broker knowledge to new or inexperienced teachers. Second, they are able to make better decisions related to curriculum or professional development at the district level, as they are able to gain knowledge about current practice. Assistance relationships do not have to be comprised of just two people, they can also entail relationships within groups such as communities of practice.
As identified previously, relationships are important in fostering learning because it is through dialogue that people negotiate meaning and make sense of ideas. In a comparative case study, Stein and Coburn (2008) found districts that planned strategically and successfully established communities of practice were able to foster more open lines of communication between schools and the district. For example, coaches in one district acted as liaisons and delivered information to the district and principals and were able to establish better relationships with district personnel. Furthermore, in another comparative case study, Gallucci (2008) used the lens of the sociocultural learning theory and applied it to the Vygotsky Space framework to describe an innovative professional development model that led to systemwide learning across a district. A key component of this study was the district-created opportunities and structures for teachers and administrators to establish trusting relationships. It took time for the group composed of a teacher, principal, coach, and district administrator to work together in a safe environment. However, once trust was established, the collective group was able to grapple with new concepts and continually evolve, individually, as well as in a group.

Collaborative groups not only wrestle with learning through dialogue, but they can also use tools to help cultivate learning. Tools such as inquiry questions and videos can be used as talking points to negotiate meaning (Werch, 1998) as exemplified in a study by Gallucci (2008)—where she reported the use of videos and inquiry questions to help spark meaningful discussion around the teaching of reading, which directly affected instruction, and ultimately affected student achievement. In an additional study by Stein and Coburn (2008) a type of tool called a boundary object was used to help connect
learning between different communities of practice. Another type of tool called reification was important in fostering learning. Stein and Coburn (2008) described a math curriculum called “Investigations” that provided more opportunities for discussion because activities were more open-ended as opposed to “Everyday Mathematics,” which focused on math drills and rote memory. The teachers working with Investigations were able to make their own meaning regarding student thinking and learning, whereas the teachers using Everyday Mathematics did not. This had huge implications on teaching and learning. The class using Investigations learned how to problem solve whereas the class using Everyday Mathematics merely did low level drills, a significant difference in learning. This example shows the difference when district and site administrators truly understand current practices and curriculum related to teaching and learning.

By drawing on sociocultural learning theory and the Vygotsky Space framework, Gallucci (2008) showed how a school district used the “studio/residency model” to build systemwide capacity through dialogue, participation, collaboration, tools such as books and videos, and the help of an outside consultant. The promising results of this study implies that new learning requires some sort of social interaction so individuals can have multiple opportunities to negotiate meaning, practice, and reflect on an ongoing basis. They also need support systems, such as outside consultants or experts to help them scaffold more tacit knowledge. The Vygotsky Space framework exemplifies a process where deep learning will occur and have a transformational effect as demonstrated in this study. Furthermore, this study exemplifies how organizations such as districts can build systemwide capacity and successfully implement new reform initiatives.
Summary

As exemplified by the previous studies, the sociocultural learning theory has major implications for districtwide reform. District leaders must think differently about how to implement change districtwide in order to continue increasing student achievement as summarized by a district leader in a study by Gallucci (2008):

One of my big take-aways is what we’ve seen in the schools that are being really successful. They are the schools that own the work. They’ve made it their own by the way they lead it. They’re not deferring to the district. It’s their work, but they’re fitting it within the system, so that our arrows are all pointing in the same direction…So, without micromanaging, how do we build the support systems for people who need support in how to lead this work? (p. 566).

These studies suggest that for district reform to be successful there may need to be a shifted from a prescriptive approach to a more collaborative, shared meaning-making and joint learning approach. The concept of sociocultural learning theory could assist proactive districts with change by surfacing the kind of culture of learning that will positively affect student achievement (Gallucci, 2008; Honig, 2008; Stein & Coburn, 2008). A common theme in each study was that leaders at all levels learned together through ongoing relationships and negotiating meaning with others. By using strategies such as assistance relationships, communities of practice or the Vygotsky Space framework, collaboration was encouraged. Furthermore, a variety of tools were used to mediate negotiation amongst group members. A key component of learning oftentimes focused on how to grapple with new or uncertain ideas. Educators used inquiry as a means to foster relationships, develop trust, clarify ideas, provoke thought, and initiate changes. Leaders supported and encouraged practitioners through actions and feedback, focusing on the process of interactions. The literature has shown the importance of using
the lens of the sociocultural learning theory to understand how new learning might be fostered across all levels within a school district or to highlight this notion of organizational learning.

**Organizational Learning**

NCLB has prompted a plethora of new and ambitious reform initiatives that have required both schools and districts to change and adapt, creating the need for organizational learning (Fullan, 1995; Leithwood, Leonard & Sharratt, 1998; Leithwood and Louis, 1999; Stevenson, 2001). Organizations need to be able to adapt on an ongoing basis as technology, new programs or demographics continue to evolve and change (Dodgson, 1993). Furthermore, new knowledge fosters innovative and creative ideas necessary to be on the cutting edge as well as competitive within the global economy.

The concept of organizational learning has been generating interest for over four decades, especially in the business world (Levitt & March, 1988). In education, the research connects organizational learning to reform, leadership and change (Cousins, 1996; Fullan, 1995; Leithwood, Aitkin & Jantzi, 2001). A variety of definitions has been generated to explain the concept or idea of organizational learning:

1. Organizational learning is a process of detecting and correcting error (Argyris, 1977, p. 113).
2. Organizational learning means the process of improving actions through better knowledge and understanding (Fiol & Lyles, 1985, p.203).
3. Organizations are seen as “learning by encoding inferences from history into routines that guide behavior” (Levitt & March, 1988, p. 320).
Thus, organizational learning can be described as the way an organization such as a school district continuously learns and adapts. Some key terms related to learning, the process of learning, and conditions necessary for systemwide learning will be examined in this section.

*Types of Knowledge*

One of the most important resources in an organization is knowledge. There are two types of knowledge, explicit and tacit (Lam, 2000). Explicit knowledge can be codified, articulated, stored, and readily transmitted to others (Lam, 2000). Tacit knowledge on the other hand is “intuitive and unarticulated” (Lam, 2000). Tacit knowledge requires hands-on practical experience to truly understand it (Lam, 2000). The creation of new knowledge, especially in education involves and generates tacit knowledge, which requires interacting with others (Stein & Coburn, 2007; Gallucci, 2008). However, learning requires understanding both, explicit and tacit knowledge interchangeably.

*Types of Learning*

Learning is present in all organizations, however it varies considerably in terms of content, direction, speed, and use (Watkins & Marsick, 1993; Cousins, & Bradely, 1999). There are two types of learning, single-loop learning and double-loop learning (Argyris & Schone, 1976). Single-loop learning refers to “minor adjustments and fine tuning of existing organizational decision-making processes” (Argyris & Schone, 1976), which tends to occur regularly and is essential to day-to-day organizational survival. Double-loop learning on the other hand, is a higher level of learning and “is reflected in the
alteration of the overall decision rules, norms, and beliefs of the organization” (Argyris & Schone, 1976). It is the latter that will propel organizations to get ahead of others and survive in the long-term. The concept of organizational learning suggests that organizations need to instill a culture of inquiry through policies, structures, and an environment that promotes double-loop learning. Hence, organizations should strive to be what Senge (1990) calls a learning organization where continuous learning becomes embedded in the culture of the organization.

**Learning Organizations**

In order for an organization to learn, the people in the organization must be motivated to learn new knowledge, both individually and collectively. However, just because an organization learns, does not mean the organization is going to be successful. Organizational learning takes time, leadership, embedded structures, a culture of reflecting, relearning, and goals to create successful learning organizations or “organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together” (Senge, 1990, p. 3). Senge discusses five learning disciplines that provide a framework for building innovative learning organizations that can truly “learn”: (a) personal mastery, (b) mental models, (c) building a shared vision, (d) team learning, and (e) systems thinking.

Personal mastery is marked as the cornerstone of a learning organization and is an act of lifelong learning, individually and collectively. In order for an organization to
learn, individuals must continue to learn. Mental models are deeply ingrained assumptions, generalizations, or even pictures or images, which affect how members understand the world and take action. (Senge, 1990). Building a shared vision consists of the capacity to hold a shared picture of the future the people in the organization seek to create. A genuine vision (as opposed to a “vision statement”) propels people to excel and learn on their own. Team learning consists of collaboration and is vital for a learning organization because it helps to align the capacity of a team to create desired results (Senge, 1990). The dimensions of team learning include: (a) the need to think insightfully about complex issues, (b) the need for innovative, coordinated action, and (c) the need to identify roles that foster other teams through inculcating the practices and skills of team learning more broadly (p. 237). Systems thinking is marked as the conceptual cornerstone, the fifth discipline that underlies all five learning disciplines. It consists of the ability to step back and view an organization holistically. However, the essence of the discipline of systems thinking lies in a shift of mind regarding seeing interrelationships rather than linear cause-effect chains and seeing processes of change rather than snapshots (Senge, 1990, p. 73). A key component of systems thinking is feedback, which helps illuminate deeper patterns lying behind events and details (Senge, 1990).

These five components of a learning organization will provide useful codes for exploring the data in this study and will help to illustrate the degree to which the district as a whole and the cohorts of schools within the district reflect characteristics or qualities of a learning organization.

Learning is a continuous cycle and even though collective learning does not consist of the sum of individual learning, individual learning is an important part of
collective learning (Leithwood et al, 1998). At both levels, a response can be stimulated by feedback and then depending on their understanding of the surprise or challenge, a strategy or action can be implemented. It either works or does not work, and the cycle begins all over again.

A recent longitudinal case study by Giles and Hargreaves (2006) focused on a high school that was from the onset labeled as a learning organization. In addition to support from the district, this school had all of the key components of a learning organization including Senge’s main discipline, system’s thinking, as noted by the principal,

All of our meetings started with systems issues where people were free to identify problems they were having at a systems level so that we could deal with them and remove fear from the organization. To say there’s something not working is what we wanted to promote so that we could deal with it as opposed to hiding it for fear you might be blamed for it (p.138).

The principal was a leader of learning and did not mandate change; instead he used learning organization principles to facilitate learning through social interactions (Senge, 1990). A new teacher shares her experience of working in this school:

My philosophy is not only supported by administration, but that is the way they see education as well. I think my ability to integrate my philosophy into my classroom has sped up. I’ve been able to accelerate my own professional development because I am sitting around a community of teachers that all share my philosophy and that have a philosophy of sharing materials and talking about lesson plans. And in a lot of schools you don’t see that…” (p. 140).

This school was a true learning organization that was able to overcome threats from the outside, many more than other schools in the district. However, ever increasing pressure from state mandated reform created less time for teachers to collaborate and the
learning community slowly started becoming more and more fragmented. The problem with this school did not lie in the people, but rather the unintended consequences of top-down state mandated reforms, which diminished time for collaboration and overloaded the system with required changes.

Senge (2006) also places an emphasis on dialogue in organizations – especially with regard to the discipline of team learning. Dialogue (or conversation) is a process of two people understanding each other by questioning beliefs and assumptions. Senge (1990) has argued that team learning entails the capacity of members of a team to suspend assumptions and enter into a genuine “thinking together”.

Organizational Learning in Districts

The sociocultural learning theory shed light on the importance of districts facilitating relationships and creating structures for more collaboration, dialogue, and ultimately more learning to occur systemwide. The previous section discussed the importance of being a learning organization. This section draws on organizational learning to show how systemwide processes and structures are important in creating opportunities for learning.

A qualitative multi-case study by Leithwood, Leonard, and Sharratt (1998) highlights conditions that foster organizational learning in a school. By comparing three studies, they found the district as the most important factor influencing organizational learning at schools. Several of the disciplines highlighted by Senge (1990) showed a positive influence on schools. For example, a district’s shared visions guided school staffs and proved to be an excellent source of learning for them. Additionally, districts
that were “collaborative and harmonious” helped to create a sense of community, instead of a “we versus them” attitude. The district is essential for fostering organizational learning in schools. Leithwood, Jantzi, and Steinbach (1995) assert that districts are able to help foster organizational learning in schools through five conditions: district vision and mission, district culture, structure, strategy, and policy and resources.

The stages of learning in an organization are similar to individual learning, however it is a collective experience. In order to successfully implement any new reform, organizations need to assess their current situation. According to a study by Marsick and Watkins (2003) using an instrument called the Dimensions of the Learning Organization Questionnaire (DLOQ) organizations were able to gain feedback from the survey and the researchers were able to make comparisons between different organizations. They found a positive correlation between learning organization dimensions and knowledge as well as performance. However, the people, especially leaders, influenced change in performance of the organization. If an organization had systems and structures in place that allowed for knowledge sharing, they most likely had better performance. One of the most significant findings this research showed was organizations that had leaders who understood the value of learning performed better than those who did not.

Summary

Tomorrow’s organizations will: (a) accomplish their work through multi-disciplinary teams, (b) have permeable boundaries, (c) be focused on mental tasks, (d) be participative, diverse, and innovative, (e) support a professional culture of commitment and results, and (f) value peer-to-peer relationships (Preskill & Torres, 1999). However,
what is less known is if a centralized structure will be adequate to foster the relationships and learning needed when implementing reform in schools and districts. Lam (2000) posits, “Organizations characterized by an explicit knowledge base tend to have formal structures of control and coordination, and exhibit highly standardized tasks and work roles… In contrast, organizations with a tacit knowledge base will exhibit a decentralized structure and use informal coordination mechanisms. This is because tacit knowledge is dispersed and subjective; it cannot be standardized, disembodied or pre-determined. Its mobilization requires autonomy and commitment on the part of the knowing subject. (p. 493). However, as stated earlier, learning organizations draw on both explicit and tacit knowledge and, in fact, learning becomes more likely when tacit knowledge is made explicit. This study will explore the explicit knowledge that tend to frame and coordinate district-school relationships as well as the tacit knowledge that may serve as a support for decentralized structures and school autonomy. One way of understanding how information is moved and knowledge generated within a system is through social network analysis. The next section explores this emerging field and its importance to understanding underlying organizational relationships in the process of district reform.

Social Network Theory

“It is the interactions between and among individuals that compose the culture and structure of an organization” (Daly & Finnigin, 2010, p. 6). Organizations have multiple network systems, some are formal and others are more informal. It is easy to depict the more formal hierarchical structures, however the informal structures are oftentimes invisible. In either case, all actors can be positively or negatively affected by
the flow of information and webs of relationships within social networks depending on where they lie in the network (Cross & Parker, 2004). As shown in the previous sections of this chapter, relationships are critical for the success of an organization. By drawing on social network theory scholars have shown how social network analysis can be used as a framework for better understanding how the flow of information between formal and informal networks affects organizational life and performance.

Social network theory uses nodes and ties to depict social relationships. Nodes are the individual actors within the networks, and ties signify the relationships between the actors. There can be many kinds of ties between the nodes and a social network can be mapped out to show relevant ties between the nodes. These concepts can be displayed in a social network diagram (see Appendix A), where nodes are the points and ties are the lines.

A social network diagram based on a social network survey (Daly & Finnigan, 2010) can give organizations feedback consisting of a broad overview of the more invisible informal relationships to examine communication and knowledge networks. Nodes and ties can be displayed according to the following (Deal, Purinton, & Waetjen, 2009): (a) density or how connected the entire network is, (b) in-degree or the amount of times people get information from an individual, (c) out-degree or the amount of times an individual seeks information from other people, and (d) centrality or the people in the center of the network whom people go to for information.

The network diagram or map may also show four key network players: (a) star or a person(s) in the middle with lots of connections, (b) bridges or someone who connects two groups together, (c) bottlenecks, or bridges or stars, who hold on to information, and
(d) isolates or people who do not have any connections. Analyzing network structures using a social network map could help organizations such as districts assess their informal networks in terms of collaboration and knowledge sharing.

**Network Structure**

Social network analysis (SNA) is being increasingly used as a method and a theory to understand and assess informal connections or ties amongst staff in an organization and show which individuals or teams play critical roles in change efforts (Cross et al., 2002; Penuel et al., 2009). A study by Cross et al. (2002) analyzed an organization’s network that showed two separate subgroups working in isolation. Even though opportunities for engagement were created, individuals in each group did not have anything in common to discuss and thus remained separate entities. Management shared the information with these two groups and facilitated a discussion that included intervention strategies. As a result, several changes were made over nine months to help increase collaboration. The result of the interventions showed an increase in sales, and a post-intervention network analysis showed a more cohesive group that was sharing information more effectively. This study is particularly important because it demonstrates how SNA can be used to inform practice.

A concept important to SNA is the idea of centrality in a network. Team performance is positively influenced when leaders or lead teams are located more centrally within a network (Balkundi & Harrison, 2006). A centrally located individual directly tied to others by expertise or friendship has an advantage of accessing more information and support (Balkundi & Harrison, 2006) and distributing it to their team.
members. In a qualitative study, Penuel et al. (2009) analyzed a school’s network and revealed:

The coach at Crosswinds was a bridge between different groups in the school, and her expertise served as a source of genuine normative authority for teachers, a person who motivated them to succeed and provided them with useful and valuable resources they could use to improve their practice. (p. 157)

In other words, a mentor who has a significant amount of social capital or knowledge from others is more likely to benefit the school if she or he is able to occupy a central place in an organization because others perceive him or her to have expertise.

Such a central locale enables valuable knowledge and resources to be distributed amongst the entire institution. A contrasting idea by Cross et al. (2002) stated that it is also important to find out who central individuals are via a social network map so they do not hinder an organization’s effectiveness by hoarding information or becoming burnt out.

When analyzing networks, structural inadequacies as well as important people or teams can be identified to further enhance an organization (Cross et al., 2002). School or district administrators would be able to use network analyses to make internal changes that could positively benefit the entire organization. For example, key people could be strategically placed in positions where more knowledge exchange takes place.

Additionally, encouraging collaboration within teams, and between individuals and teams will enhance their practice ultimately increasing student achievement. It is through informal discussions that individuals share ideas, learn from others, and establish leadership skills. Cross et al. (2002) stated the following:

People rely heavily on their network of relationships to find information and solve problems—one of the most consistent findings in the social
science literature is that who you know often has a great deal to do with what you came to know. (p. 25)

The power of social networking lies in the knowledge, experience, and expertise of the individuals who make up the network. Focusing on the knowledge within the network is one of the reasons why the concept of social capital goes hand in hand with network analysis.

Social Capital

The concept of social capital is central to network analysis and yet has a variety of definitions. Bourdieu’s definition focuses on social relationships that allow members to gain knowledge or resources, as well as the amount and quality of the resources (Portes, 1998). Similarly, Coleman (1988) states that social capital is intangible resources that can be obtained through relationships or ties. “Unlike other forms of capital, social capital inheres in the structure of relations between and among actors” (Coleman, 1988, p. 98). Structure of ties, trust, access to expertise, and content and norms of interactions are all important aspects that create social capital (Coburn & Russell, 2008). Lin (2001) presents a definition of social capital that captures the common theme found in all these definitions: social capital consists of “the resources embedded in social relations and social structure which can be mobilized when an actor wishes to increase the likelihood of success in purposive action” (p. 24). Thus, people obtain social capital through relationships and by interacting within and between different networks to leverage resources. “Social capital can be operationalized as the resources embedded in social systems, accessed and used by actors for action” (Daly & Finnigan, 2010, p. 116). A major focus of school districts, as the literature on district reform highlighted, has often
been on enhancing individual teacher human capital through professional development rather than attending to the social ties in the district and within schools that could be leveraged to enhance mutual learning and sharing of knowledge and expertise (Daly & Finnigan, 2010).

Social capital is a valuable asset for successful networking. Knowledge, experiences, and resources are obtained through relational ties (Penuel et al., 2009). Individuals serve as informational channels by sharing their ideas and expertise. In a qualitative study by Mullen and Kochan (2000) evidence stated participants’ perspectives were broadened because they had been exposed to peers with multiple ideas and different strengths. Additionally, in another case social network data showed a company’s relational ties were weak. As a result, one aspect of intervention was building social capital to help employees learn about others’ expertise (Cross et al., 2002) to strengthen their connections.

In education, the limited studies show that schools with higher levels of social capital are more successful regardless of socioeconomic status (Goddard, 2003; Gonzalez, Stonar, & Jovel, 2003). Goddard’s (2003) mixed methods study showed that schools characterized by high levels of social capital were more successful. By measuring social capital in different forms—such as: networks that connected parents and the community; social trust among students, teachers, and parents; and norms that encourage student academic success—the authors found that socioeconomic status was not correlated with social capital and confirmed that socioeconomically disadvantaged students with more social capital had higher scores on high-stakes math and writing assessments. Similarly, teachers with rich social capital can make a positive difference in
the classroom regardless of students’ socioeconomic status. Monkman, Ronald, & Theramene’s (2005) qualitative study shows how a teacher in a low socioeconomic urban school helped increase her students’ social and cultural capital by embedding social skills, typically seen in more elite schools in her classroom.

Principals can also help influence higher levels of social capital as shown in a qualitative study by Penuel, Riel, Krause, & Frank (2009) where they compared two low performing and very diverse schools, each with similar resources. Each school chose to use their resources in different ways. Teachers’ social capital helped facilitate positive change and increased student achievement in one school. Whereas the other school tried to pull in resources from the outside to help with change efforts, but was not as successful. This study set forth the importance of using the resources and expertise of teachers to help build social capital within a school or district, ultimately helping to increase student achievement.

These studies suggest the need to explore more deeply the formal and informal network structures in districts and schools that facilitate or hinder the flow and exchange of resources. Particularly important to a school or district reform strategy may be the density of the communication and knowledge transfer networks (Daly & Finnigan, 2010, p. 117). Teachers not only share knowledge with their students, but can also be an asset by sharing information with other colleagues. In a qualitative study by Mullen and Kochan (2000) evidence stated participants’ perspectives were broadened because they had been exposed to peers with multiple ideas and different strengths. When educators learn about new ideas from someone they trust they are more willing to try them in their classroom as opposed to using new ideas learned at a conference. The notion of trust in
an organization is a valuable asset and if team members trust one another, they will not only be more willing to share ideas with their team, but they may also be willing to take more risks and share information with other groups (Chhuon et al., 2008; Daly & Finnigan under review, 2010). Thus, if a district creates structures that allow for more opportunities to collaborate, people may be more likely to establish trusting relationships and build social capital, which has the possibility to lead to intellectual capital.

**Intellectual Capital**

The creation of social capital influences the development of intellectual capital. “Intellectual capital” refers to the knowledge created from a social collectivity such as an organization (Nahapiet & Ghoshal, 1998) that propels action based on the new knowledge. When structures are created in an organization for people to interact amongst colleagues, they have opportunities to build relationships and establish trust. These are two essential building blocks to creating more social capital leading to intellectual capital. When groups of people who trust each other have opportunities to collaborate not only amongst their own group but also with other groups, the knowledge generated enables people to act in new ways. Thus, intellectual capital is created through the combination and exchange of knowledge in a group setting leading to new knowledge and action (Bolivar & Chrispeels, 2010; Nahapiet & Ghoshal, 1998). In order for groups to create intellectual capital there must be opportunities for valuable interaction, people must be motivated to participate, and the new knowledge or information must be synthesized and used (Nahapiet & Ghoshal, 1998).

A case study by Bolivar and Chrispeels (2010) conducted at two elementary
schools showed that a group of parents that worked with a nonprofit organization were able to build capacity, take collective action, and make change regarding issues at their children’s schools. Three salient points emerged regarding the development of intellectual capital: (a) commitment to participate and structures created for collaboration, (b) relationships and trust were evident, and (c) collective action. First, the parents were committed to participate on a weekly basis. An efficient and stable network configuration (Bolivar & Chrispeels, 2010) was set up where parents met on an ongoing basis for twelve consecutive weeks. Second, this structure allowed parents to establish relationships by collaborating with program leaders and other parents who had similar concerns. This eventually led to the creation of trusting relationships. And, finally as parents learned more about the school system and had opportunities to interact with each other, groups came together and created action plans based on their combined knowledge. When parents shared and exchanged knowledge and took collective action to address a common concern, they were able to transfer their social capital into intellectual capital. Furthermore, the process of working together, grappling with ideas and creating an action plan led to more informal groups working together outside of the program. The leadership, support systems, and facilitator helped create more awareness for parents as well as sustainability in regards to increasing parent support. The authors contend, “intellectual capital as a theoretical construct, but distinct from social capital, explains the potential of bounded groups to engage in meaningful collective action” (p. 22).

Social capital is the basis for creating intellectual capital. The notion of social capital lies in the opportunities individuals have to collaborate with others based on trust, a flow of information within the organization and structures and norms that facilitate
information exchange. With new reforms, comes new learning, which will usually require surfacing more tacit knowledge and making it more explicit to organizational members. However, in order for intellectual capital to flourish, structures need to be created that allow ample opportunities for collaboration as well as procedures that foster the sharing, exchange and combined of knowledge of all members leading to collective actions that were not previously possible by individual members or units alone.

Summary and Conclusions

Districtwide reform is necessary to meet the increasing accountability targets of the federal No Child Left Behind Act of 2001. The goal of NCLB is for all students in the nation to be proficient in English language arts and mathematics by the year 2014. Last year, the California Department of Education reported that 298 districts or 2,796 schools serving over one million students did not meet proficiency targets and were designated as PI. This number will only increase as the target for the number of students required to reach proficiency increases. California’s need to raise achievement makes it imperative to investigate districts that have demonstrated exemplary achievement for English learners and low-income students. Therefore, in this literature review, I explore research on school and district reform.

In the beginning of the review, I outlined some of the early history on school improvement and showed that more recent work has focused on the district. Recent research on districts suggests that the central office plays a critical role in the success (or failure) of student achievement (Snipes et al., 2002). A growing number of empirical studies have found several factors associated with successful district reform: strong
leadership at all levels, systemwide vision and focus on student achievement, district guided curriculum, data-driven decisions, and coherent professional development. Studies indicated that all five factors were necessary for districts to increase student achievement. Additionally, early studies showed districts favored a more centralized approach, as exemplified by mandated reforms that tightly coupled districts and their schools. Though many previous studies elaborated on factors that were essential to successful district reform, they neglected to explain the interworking of how to effectively improve teaching and learning systemwide (Gallucci, 2008).

Current studies on district reform have shifted from identifying factors of effective districts to a more theoretical approach that highlights the role of relationships and learning as part of the reform process (Gallucci, 2008; Honig, 2008; Hubbard, Mehan, & Stein, 2006; Stein & Coburn, 2008). To understand district-school relationships these scholars drew on the sociocultural learning theory. The concept that learning is situated in a social context and influenced by the organizational culture is critical to understand what the members of the organization are doing that support the case study district’s reform efforts. The review of the literature showed that a construct closely related to sociocultural learning theory is organizational learning, which brings to the surface structures and processes that may facilitate or hinder learning by the collective. Establishing structures that foster relationships is important, however, it is essential to understand what is happening within those structures in terms of collaboration. As the most recent literature demonstrates, one way to measure relational ties is to conduct a social network survey.

Social network analysis is a way to help understand the underlying relationships
within an organization. By drawing on external social network data within the study
district, I will be able to gain a broad picture of the district’s leadership network and the
ties that bind it together. As the literature implies, I will be able to analyze nodes and ties
to assess connections within the district, and which will give further insight into the
notion of social capital and intellectual capital. Theoretically, the more connected a
network is, the more social capital is generated. The literature states that social capital is
the basis for generating intellectual capital. However, in order to gain more in-depth
information regarding the knowledge that is being shared and if any intellectual capital is
being generated, it will be imperative to conduct semi-structured interviews with
purposefully selected groups of district, site, and teacher leaders regarding how they
communicate, negotiate, and implement reform strategies and to link this to existing
network data. The next chapter presents the method of social network analysis and the
qualitative component of the study.
CHAPTER 3: STRONG TIES IN A DECENTRALIZED DISTRICT: A CASE STUDY OF ONE DISTRICT THAT HAS INCREASED STUDENT ACHIEVEMENT OVER THE PAST 10 YEARS

“Strong ties related to reform resources (expertise, knowledge, skills) between educators in a subgroup (i.e., grade level, school, district) may be instrumental in developing depth of interaction and trust building necessary for exchanging tacit information and innovation related to improvement” (Daly, 2010, p. 267).

Educational reform has been a constant theme for the past half century as schools and districts strive to find new ways to increase student achievement. Inspiring phrases such as, “we are going to turn around every failing school” or “every child in America deserves a world-class education” have been uttered over and over again by many leaders. Notwithstanding good intentions and considerable reform efforts, the current reality is education in the 21st century still poses an alarming crisis in terms of equity in achievement across sub-groups, especially African-American, Hispanic, and disadvantaged students.

The reauthorization of Title I legislation in 2000 led to the bi-partisan enactment of the now famous and infamous No Child Left Behind Act of 2001 (NCLB, 2001). An important shift in policy reflected in this legislation is the increased role of the federal government in pushing standards-based reform, which requires states to use standardized tests to measure progress, set clear achievement targets, and impose sanctions if schools and districts do not meet targets. Although states still retained the right to determine the standards and the tests they would use to measure them, NCLB asserted a level of federal control of education and accountability (e.g. 100% of students are to be proficient in
English language arts and mathematics by the year 2014) that had not been previously experienced. It is further assumed that implementing a new set of reforms, close monitoring, and sanctions are the best ways to force schools and districts that do not meet federal benchmark targets to enact reforms that may yield better results.

Another important component of NCLB is holding districts accountable, not just individual schools. This shift in accountability focus was based on a growing body of research that found that districts have an effect on school achievement. This research identified characteristics and actions of high performing or improving districts such as a common vision, coherent and coordinated curriculum, assessment, and professional development (Elmore & Burney, 1997; Hightower, 2002; Sykes, O’Day, & Ford, 2009). Drawing on this literature and the NCLB focus on districts, California and many other states developed programs to assist districts labeled as “In Need of Improvement” (INI). Districts designated as INI are required to participate with state reform teams. These teams work to bring about greater coordination and coherence in district practices and procedures and can mandate the implementation of specific reforms. Often the intervention team and district leaders conduct structured school walkthroughs to determine if new instructional processes and programs are faithfully being followed.

Through these considerable efforts some schools and districts have improved and moved out of PI status. However, many others are still struggling. For example, in 2009, 298 of California’s 1131 districts and 2,796 schools serving over one million students were in PI. In 2010, California’s proficiency targets for schools and districts will rise to 64.6% in English language arts and 68.5% in mathematics. It is predicted that by 2011 nearly fifty percent of all California schools will fail Adequate Yearly Progress (AYP)
goals set forth by NCLB legislation. Furthermore, Bryant, Hammond, Bocian, Retting, Miller, & Cardullo (2008) suggest that “nearly all elementary schools in California will fail to meet the AYP requirements for proficiency by 2014” (p. 1782).

To better understand the role that the district plays in the school reform process and the interaction in that process between the central office and its schools, more studies are warranted. As Honig, Copland, Rainey, Lorton, and Newton (2010) suggest, we know “far more about how central offices fail to participate productively in districtwide teaching and learning improvement than about what they do when they create conditions that might help realize desired results” (p. 5). One promising new area of investigation is to look at relationships within schools and districts as forces that also influence school and district outcomes (Daly & Finnigan, 2010; Johnson & Chrispeels, 2010). These studies suggest that exploring relationships among central office and school administrators and/or among school leaders and teachers within schools could yield valuable insights on factors that constrain and or support reform. Research also indicates that communication flows more freely among colleagues through informal relationships as opposed to relationships that are more formally structured (Cross, Borgatti, & Parker, 2002; Deal, Purinton, & Waetjen, 2009). People are sources of important information and oftentimes, influential individuals can positively or negatively influence a decision through informal networks (Deal et al., 2009).

Furthermore, individuals, not necessarily in positions of authority in an organization, can bring strengths and specific expertise in a variety of areas through their informal networking to support a reform process. Without knowledge of the informal relationships in an organization, the implementation of well-grounded and research-based
formal structures and procedures may be of little effect.

Social network analysis (SNA), a relatively new approach in educational research, allows educators to assess informal relations or ties within their organization. SNA provides a tool for exploring who is talking to whom, how information flows through the system, how expertise is shared and how relationships may be supporting or impeding innovation. SNA is also a theory, grounded in the concept of social capital. Through social networking or collaboration people build trust and social capital by sharing their ideas, reflecting on their practice as well as learning from each other. If relationships are strong, the system is likely to have more social capital. The study reported here adds to a limited body of research on district reform by using SNA as method and theory to investigate central office and school level administrators relationships. In addition, this study, through SNA, explores issues of centralization and decentralization, accountability, professionalism, and autonomy. Are centrality and coherence the only ways for a district to ensure school reform and high performance as some of the district reform literature suggests? What needs to be centralized and what decisions and approaches can be left to the discretion of schools? How might understanding underlying relationship patterns inform the decisions central offices make in guiding school reform?

Thus, the overarching purpose of this study is to explore how one district’s formal structures and informal networks have influenced the process of reform and student outcomes. The following research questions guided this study:

1. In what ways do district and site leaders perceive the district’s organizational structure?
2. In what ways do the formal and informal network structures of a district support or constrain the transmission of resources (knowledge, information, and innovation) to support school improvement?

*District Context and Background*

Montague Elementary School District (MESD—a pseudonym) was selected for this study because it represents as a unique case in which to explore central office/school relationships in a high performing district. This district serves many Hispanic students who represent they type of student most often underperforming in the state of California; and yet, it is one of a few large con-urban school districts in the state that has continued to increase student achievement and meet NCLB criteria (see Appendix B). Located on the urban fringes of a large city in Southern California, it serves 27,500 students in kindergarten through grade eight. The ethnic breakdown of the students is as follows: 65.4% Hispanic, 12.1% White, 9.8% Filipino, 4.2% African American, 2.5% Asian, 0.6% Pacific Islander, 0.4% American Indian/Alaskan Native, and 5% other/declined to state. 40.8% of the students are considered socioeconomically disadvantaged and 36.5% are English learners.

Another unusual aspect of this district is the relationship between the district and its schools. Although recent research studies on districts that have improved achievement stress the need for greater centralization and administrative controls, as well as coordination of curriculum, assessment and professional development, this district has over a 12-year period where they implemented and maintained considerable site autonomy. MESD has allowed its schools to implement instructional programs that the
staff and community felt would best meet their student needs.

**History of Study District**

A new era for the study district started in the fall of 1993 in which a grassroots community-wide strategic planning process, led by the Board and superintendent, engaged hundreds of school/community stakeholders in an intense process for reorganizing the District governance structure. From the 12-month process, a new organizational structure emerged in which the Board rethought its role and authority for the benefit of students, parents and the community. For example, they allowed for more site-based decision making in terms of curriculum and program focus. The district also established a new Shared Vision, Shared Values, Strategic Goals and a Student-Based Decision Making framework (Gill, 2001) that is still used today to guide the district and its schools in increasing student achievement.

The new formal organizational structure of student-based decision making placed students at the top instead of the Board, thus the traditional “top-down central office” structure was inverted (see Figure 3.1) to accommodate a more decentralized approach (Gill, 2001). Principals are viewed as CEOs for their sites and are held accountable for increasing student achievement and overall school success. Principals are expected to be true instructional leaders and change agents, a shift from traditional leadership values of authoritarian leader or site managers to a more collaborative leader.
This unique model, which still exists to this day, represents “a context of collaboration, communication, and parent and community involvement between the district and principals” (Gil, 2001, p.12) focused on student achievement.

The district supported the new formal organizational structure in three important ways. First, the central office encouraged schools, especially those that were underperforming, to select and implement one of the Comprehensive School Reform models that was being federally supported during the years 1993-2000. There was not to be a one-size-fits-all approach to reform. While this approach by districts was not uncommon during this time frame (Datnow, Borman, Stringfield, Overman, & Castellano, 2003), the staying power is unique. Second, the district formed a partnership with the Ball Foundation to provide extensive school leadership team development for teachers and principals to provide the support they needed to be leaders (Escobedo, 2008). Over a period of ten years, schools were grouped into cohorts and a three-year cycle of training was made available to them. Third, the district adopted a Student-Based Decision Making framework where decisions were made in the best interest of students.
The critical point of this decision frame was to ensure that principals and their staff were clear that the district’s goal was improved student learning. It is against this historical context that the current study set out to explore the relationships among key decision-makers at the central office and site levels using social network analysis tools.

Formal District Structure

The study district’s administration was comprised of administrators in formal positions, both at school sites and at the central office. The superintendent, two assistant superintendents, five executive directors, and one communications officer make up Cabinet, which is tasked with reviewing or making decisions at the district level guided by the district’s Student-Based Decision Making framework. The assistant superintendents and executive directors support specific departments within the district. The executive directors and the assistant superintendent of instruction are also tasked with supporting a group of schools within the district. Although the district’s schools are grouped into cohorts and there are opportunities for the principals in each cohort to work together, each school still has considerable autonomy in decision-making at their site. In 2006, the district pursued a major districtwide initiative, a research-based instructional model called the Gradual Release of Responsibility (GRR) (Fisher, & Frey, 2008). The district hired a consultant to conduct ongoing professional development for principals and leadership teams. However as will be seen, sites had the autonomy to implement GRR in ways they felt would best support the students at their school, a strategy quite different from that recorded in most research on high performing districts.

This case district offers a unique opportunity to study how district administrative leaders have worked to maintain a balance between centralization and decentralization.
The case also enables an exploration of those policies and practices that were loosely coupled to allow site autonomy and teacher professionalism as well as those that were tightly coupled to ensure accountability for student learning results. Thus, this site presents an excellent opportunity to explore how one district balanced a decentralized approach and interfaced it with the more centralized mandates imposed by the state such as standards, testing, and textbook adoptions. What can be learned from this district makes it an important “telling case” (Van Maanen, 1988) that informs both research and practice.

**Literature Review and Conceptual Framework**

This study explores both, formal and informal relationships to better understand how information, new knowledge, and innovation are transferred within and across a district. Three bodies of literature are explored—district reform, social capital, and social network theory and analysis—which form the conceptual and theoretical basis for the study. This literature review is followed by a presentation of the methodology, results, discussion, and conclusions.

**District Reform**

A school district or central office is a legal entity that provides fiscal, technical, and instructional support for individual schools that are geographically located within the district boundary (Hightower, 2002). Districts acting as change agents by implementing an initiative or change within the entire system is referred to as districtwide or systemwide reform. In their pioneering study of New York District #2, Elmore and Burney (1997) generated one of the first lists of qualities of a district engaged in
successful reform. They concluded that district reform could serve as a catalyst for increasing student achievement across multiple sites. School districts, especially those serving large urban areas are complex systems involving many actors and thus, many competing agendas may be present (Sykes, O’Day, & Ford, 2009). What Elmore and Burney and now other scholars have documented is how such a system can act in a more coherent way. The next section will discuss the history as well as what the early studies suggest about district reform.

Studies of District Reform

American school districts over the past half-century have had a negative reputation (Sykes et al., 2009) and oftentimes the central office was ignored or blamed for their schools inadequacy (Chubb & Moe, 1990; Spillane, 1996). Therefore, most federal and state reform initiatives related to improving teaching and learning focused solely on individual schools or in some cases, at the state level leaving the district out of the picture (Cuban, 1984; Spillane, 1996). District offices had a reputation for being bureaucratic organizations not connected to teaching and learning (Hightower, 2002, Honig, 2008). However, the importance of school districts has slowly emerged, beginning with a pioneering study by Murphy and Hallinger (1988), and continuing in earnest to the present. The policies of NCLB that hold schools and now districts accountable for student achievement has accelerated the interest in district reform.

A growing number of qualitative studies have emerged within the past decade on districts engaged in the process of reform as well as a few large-scale quantitative studies (Carlson, Borman, & Robinson, 2011; McLaughlin & Talbert, 2003). Studies of district
reform discuss the benefits (or failures) of large-scale change and have found key factors and conditions that appear necessary for successful systemic reform (Chrispeels & Pollack, 1989; Elmore & Burney, 1997; Hightower, 2002; Honig, et al., 2010; Johnson & Chrispeels, 2010; Massell & Goertz, 2002; Murphy & Hallinger, 1988; Snipes et al. 2002; Supovitz, 2006; Togneri & Anderson, 2003). Although there are over a dozen accepted factors and conditions defining successful district reform (Johnson, 2008), these five are the most influential: (a) strong leadership at all levels, (b) systemwide vision and focus on student achievement, (c) district guided curriculum and (d) aligned assessment, data-driven decisions, and (e) coherent professional development. Still missing in the literature is a full understanding of formal and informal relationships, and networks among central office personnel, between central office and school leaders, and among school level leaders and teachers (Daly & Finnigan, 2010; Honig, et al., 2010). A critical research tool that has emerged that can help to illuminate these underlying relationships is social network analysis, which the present study used to dig deeper into the process of district reform. Although there are a few studies using social network analysis to explore district and school relations, most have focused on districts that are failing and labeled as PI or INI (Daly & Finnigan, 2010; Daly & Finnigan, 2011). In contrast, this study investigates a district that currently is not in PI and has, in fact, increased student achievement significantly over the past decade.

Social Network Theory

“It is the interactions between and among individuals that compose the culture and structure of an organization” (Daly & Finnigan, 2010, p. 6). Organizations have
multiple network systems, some are formal and others are more informal. It is easy to
depict the more formal hierarchical structures of an organization, whereas the informal
structures are oftentimes invisible. In either case, actors can be positively or negatively
affected by the flow of information and webs of relationships within social networks
depending on where they lie in the formal structure or informal network (Cross & Parker,
2004). Relationships are critical for the success of an organization (Coburn & Russell,
2008; Moolenaar, Daly, & Sleeers, 2011; Ahuja, 2000; Tsai & Ghoshal, 1998). By
drawing on social network theory scholars have shown how social network analysis
(SNA) can be used as a framework for better understanding how the flow of information
between formal and informal networks affects organizational life and performance.

A social network diagram based on a social network survey (Daly & Finnigan,
2010) can give organizations feedback such as a broad overview of more invisible
informal relationships to examine communication and knowledge networks. Nodes and
ties can be displayed according to the following: (a) density or how connected the entire
network is, (b) in-degree or the amount of times people get information from one or more
individual(s), (c) out-degree or the amount of times an individual seeks information from
other people, and (d) centrality or the people in the center of the network whom people
go to for information (Deal, Purinton, & Waetjen, 2009). The network diagram or map
may also show four key network players: (a) star or person(s) in the middle with the
largest number of connections, (b) bridges or an actor who connects two groups or two
disconnected actors together, (c) bottlenecks, or bridges or stars who hold on to
information, and (d) isolates or people who do not have any connections. Analyzing
network structures using a social network map can help organizations such as districts
assess their informal networks in terms of collaboration and knowledge sharing.

Network Structure

The formal structure of almost all school districts in the United States can be easily mapped out as a hierarchy with a governing board and appointed superintendent at the top, and students, parents, and the community at the bottom; however, what is less known is the informal structure or the relationships that are taking place among actors at all levels. These informal networks are not easily depicted or captured in a district’s organizational chart, yet knowledge of them are essential to understanding organizational relationships and processes of interactions. One way to map out an informal network is to conduct a social network survey (Daly & Finnigan, 2010) asking participants about specific work-related relationships.

Social network analysis is being increasingly used as a method and a theory to understand and assess informal connections or ties amongst staff in an organization and show which individuals or teams play critical roles in change efforts (Cross et al., 2002; Penuel, Riel, Krause, & Frank, 2009; Pil, 2006). A study by Cross et al. (2002) analyzed an organization’s network that showed two separate subgroups working in isolation. Even though opportunities for engagement were created, individuals in each group did not have anything in common to discuss, and thus remained separate entities. Management shared the information with these two groups and facilitated a discussion that included intervention strategies. As a result, several changes were made over nine months to help increase collaboration. The result of the interventions showed an increase in sales, and a post-intervention network analysis showed a more cohesive group that was sharing
information more effectively. This study is particularly important because it shows how SNA can be used to inform practice.

A concept important to SNA is the idea of centrality in a network. Team performance is positively influenced when leaders or lead teams are located more centrally within a network (Balkundi & Harrison, 2006). A centrally located individual directly tied to others by expertise or friendship has an advantage of accessing more information and support (Balkundi & Harrison, 2006), and distributing it to their team members. In a qualitative study, Penuel et al. (2009) analyzed a school’s network and revealed:

The coach at Crosswinds was a bridge between different groups in the school, and her expertise served as a source of genuine normative authority for teachers, a person who motivated them to succeed and provided them with useful and valuable resources they could use to improve their practice. (p. 157)

In other words, a mentor who has a significant amount of social capital or knowledge from others is more likely to benefit the school if she or he is able to occupy a central place in an organization because others perceive him or her to have expertise. Such a central locale enables valuable knowledge and resources to be distributed amongst the entire institution. A contrasting idea by Cross et al. (2002) stated that it is also important to find out who central individuals are via a social network map so they do not hinder an organization’s effectiveness by hoarding information or becoming burnt out.

When analyzing networks, structural inadequacies as well as important people or teams can be identified, with the information used to further enhance an organization (Cross et al., 2002). School or district administrators could use network analyses to make
internal changes that can positively benefit the entire organization. For example, key people could be strategically placed in positions where more knowledge exchange needs to take place. Additionally, encouraging collaboration within teams, and between individuals and teams will enhance their practice ultimately increasing student achievement. It is through informal discussions that individuals share ideas, learn from others, and establish leadership skills. Cross et al. (2002) stated the following:

People rely heavily on their network of relationships to find information and solve problems—one of the most consistent findings in the social science literature is that who you know often has a great deal to do with what you came to know. (p. 25)

The power of social networking lies in the knowledge, experience, and expertise of the individuals who make up the network. Focusing on the knowledge within the network is one of the reasons why the concept of social capital goes hand in hand with network analysis.

*Social Capital Theory*

The concept of social capital is central to network analysis and serves as the theory that undergirds SNA. Bourdieu’s definition focuses on social relationships that allow members to gain knowledge or resources as well as the amount and quality of the resources (Portes, 1998). Similarly, Coleman (1988) states that social capital is an intangible resource that can be obtained through relationships or ties. “Unlike other forms of capital, social capital inheres in the structure of relations between and among actors” (Coleman, 1988, p. 98). Structure of ties, trust, access to expertise and content, and norms of interactions are all important aspects that create social capital (Coburn & Russell, 2008). Lin (2001) presents a definition of social capital that captures the common theme
found in all these definitions: social capital consists of “The resources embedded in social relations and social structures which can be mobilized when an actor wishes to increase the likelihood of success in purposive action” (p. 24). Thus, people obtain social capital through relationships and by interacting within and between different networks to leverage resources. “Social capital can be operationalized as the resources embedded in social systems, accessed and used by actors for action” (Daly & Finnigan, 2010, p. 116).

A major focus of school districts, as the literature on district reform highlighted, has often been on enhancing individual teacher human capital through professional development rather than attending to the social ties in the district and within schools that could be leveraged to enhance mutual learning and sharing of knowledge and expertise (Daly & Finnigan, 2010).

Social capital is a valuable asset for successful networking. Knowledge, experiences, and resources are obtained through relational ties (Penuel et al., 2009). Individuals serve as informational channels by sharing their ideas and expertise. In a qualitative study by Mullen and Kochan (2000) the evidence indicated participants’ perspectives were broadened because they had been exposed to peers with multiple ideas and different strengths. Additionally, in another case social network data showed a company’s relational ties were weak. As a result, one aspect of intervention was creating opportunities for employees to learn about others’ expertise and to strengthen their connections, thus fostering their social capital (Cross et al., 2002).

In education, some studies show that schools with higher levels of social capital are more successful regardless of socioeconomic status (Goddard, 2003; Gonzalez, Stonar, & Jovel, 2003; Byrk et al., 2010). Goddard’s (2003) mixed methods study
showed that schools characterized by high levels of social capital were more successful. By measuring social capital in different forms such as networks that connected parents and the community; social trust among students, teachers, and parents; and norms that encourage student academic success, the authors found that socioeconomic status was not correlated with social capital and confirmed that socioeconomically disadvantaged students with more social capital had higher scores on high-stakes math and writing assessments. Similarly, teachers with rich social capital can make a positive difference in the classroom regardless of students’ socioeconomic status. Monkman, Ronald, & Theramene (2005) qualitative study shows how a teacher in a low socioeconomic urban school helped increase her students’ social and cultural capital by embedding social skills, typically seen in more elite schools in her classroom.

Principals can also help influence higher levels of social capital as shown in a qualitative study by Penuel et al. (2009) where they compared two low performing and very diverse schools, each with similar resources. Each school chose to use their resources in different ways. Teachers’ social capital helped facilitate positive change and increased student achievement in one school. Whereas the other school tried to pull in resources from the outside to help with change efforts, but was not as successful. This study shows the importance of using the resources and expertise of teachers to help build social capital within a school or district, ultimately helping to increase student achievement.

These studies suggest the need to explore more deeply the formal and informal network structures in districts and schools that facilitate or hinder the flow and exchange of resources. Particularly important to a school or district reform strategy may be the
density of the communication and knowledge transfer networks (Daly & Finnigan, 2010, p. 117). Teachers not only share knowledge with their students, but can also be an asset by sharing information with other colleagues. In a qualitative study by Mullen and Kochan (2000) evidence stated participants’ perspectives were broadened because they had been exposed to peers with multiple ideas and different strengths. When educators learn about new ideas from someone they trust they are more willing to try them in their classroom as opposed to using new ideas learned at a conference. The notion of trust in an organization is a valuable asset and if team members trust one another, they will not only be more willing to share ideas with their team, but they may also be willing to take more risks and share information with other groups (Chhuon et al., 2008; Daly & Finnigan 2011; Olsen & Chrispeels, 2009). Thus, if a district creates structures that allow for more opportunities to collaborate, people may be more likely to establish trusting relationships, and build social capital which has the possibility to leading to intellectual capital.

Methods

Through an exploratory case study design, relying predominately on social network analysis (SNA) (Scott, 2000; Wasserman & Faust, 1998), and supported by semi-structured interviews and document analysis (Patton, 1990), four leadership networks in the Montague Elementary School District (MESD) were examined. This study focused on exploring one unique unit of analysis (Yin, 2003), a selected large con-urban elementary school district in Southern California that has been closing the achievement gap by continuously increasing student achievement over the past decade.
Participants

For this study two groups of participants were selected: central office certificated and classified administrators, and school principals.

Survey Participants

All central office administrators (48) and all school principals (45) were informed of the study and invited to participate. They were asked to voluntarily complete an online social network survey. The return of the completed survey signified their consent. Most of the leadership team members in MESD were White or Hispanic as shown in table 3.1. More than half had been in the district for more than ten years as well as about half had been administrators for more than ten years. However, there seemed to be a lot of movement within the system as more than fifty percent had only been at their current site for less than four years.
Table 3.1. *Sample Demographics*

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Percentage of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>43</td>
</tr>
<tr>
<td>Latino</td>
<td>41</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>10</td>
</tr>
<tr>
<td>African American</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Years in district</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>25+</td>
<td>9</td>
</tr>
<tr>
<td>20-24</td>
<td>9</td>
</tr>
<tr>
<td>15-19</td>
<td>14</td>
</tr>
<tr>
<td>10-14</td>
<td>21</td>
</tr>
<tr>
<td>5-9</td>
<td>24</td>
</tr>
<tr>
<td>&lt;4</td>
<td>23</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Years as an administrator</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>25+</td>
<td>5</td>
</tr>
<tr>
<td>20-24</td>
<td>12</td>
</tr>
<tr>
<td>15-19</td>
<td>12</td>
</tr>
<tr>
<td>10-14</td>
<td>18</td>
</tr>
<tr>
<td>5-9</td>
<td>38</td>
</tr>
<tr>
<td>&lt;4</td>
<td>14</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Years at current site (school/central office)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>25+</td>
<td>2</td>
</tr>
<tr>
<td>20-24</td>
<td>2</td>
</tr>
<tr>
<td>15-19</td>
<td>8</td>
</tr>
<tr>
<td>10-14</td>
<td>10</td>
</tr>
<tr>
<td>5-9</td>
<td>21</td>
</tr>
<tr>
<td>&lt;4</td>
<td>57</td>
</tr>
</tbody>
</table>
Interview Participants

One demographic question on the social network survey asked principals to indentify which cohort (T-Z) they were affiliated with. With this information we were able to identify seven cohorts of principals. Using the SNA survey results, we identified two cohorts that had similar demographics as well as the greatest contrast in the survey responses in regard to factors such as density, reciprocity and centrality. Thus these eleven principals represented the diversity of perspectives and were invited to participate. They all agreed to be interviewed. Interviews with central office administrators in formal leadership positions were conducted. Six central office administrators volunteered to be interviewed: the superintendant, one assistant superintendant, and four executive directors. Before each interview, the purpose of the study was reviewed and interviewees signed a written consent form to participate in the study as well as to be audiotaped.

Instruments and Data Collection

Social Network Survey

A social network survey comprised of 20 distinct networks as well as some demographic questions was designed to assess the underlying social networks in MESD. The survey questions were developed from previous network research (Cross & Parker, 2004; Daly & Finnigan, 2010). Specifically, formal district and site leaders were asked to quantitatively assess their relationships with each of the site and district administrators within the district on a frequency basis ranging from 0 (no interaction) to 4 (1-2 times per week). For the purpose of this study, the following networks were assessed: collaboration
around work topics, advice seeking from experts, assistance with district initiated reform strategy, and innovation and risk-taking in regards to English learners.

The first step in the collection of data consisted of an online SNA survey that was sent to all administrators (certificated and classified) in the study district in the spring of 2010. A 10-minute session around the concepts to be studied and the data collection methods that would be used was presented to all administrators at a regular district meeting. Participants were informed how their anonymity would be protected and that the survey would take approximately 45 minutes to complete and could be done at a time convenient to them. At the end of the session, voluntary participation was requested. The survey was sent electronically to all site and district administrators via a URL link in the month of June 2010. Follow-up emails were periodically sent by the third party to encourage full participation. 88 central and site leaders completed the survey, which represents a 95% participation rate. By completing the online survey through the Survey Monkey website guaranteed confidentiality under a password only known to an external third party (UCSD professor). Two types of data were collected on the survey for this study: social network data and typical survey questionnaire items on trust, innovation and organizational learning. For purposes of this article only the trust measures were analyzed.

Trust

The trust measure was adapted from the ‘trust in colleagues’ scale of Hoy and Tschannen-Moran (2003). The items were scored on a four-point scale, ranging from 1 (strongly disagree) to 4 (strongly agree). The scale was comprised of nine items that were
modified to fit the district context as well as to examine specific roles in the district. A sample item is, “Administrators are open with each other” (see Appendix C).

The survey was based on a bounded/saturated approach to network data collection to secure a more complete picture of the network and more valid results (Scott, 2000). A bounded network survey provides the respondents with a list of individuals in their organization - as opposed to relying on participant memory for them to check the frequency of different types of interactions with colleagues. For purposes of this article, the focus will be on the social network survey with some triangulating data drawn from the trust survey and interview data.

**Interviews**

Social network maps depicted the communication patterns as well as the overall structure of the networks in the study district, whereas interview data offered more in-depth information such as the type of information that was flowing through the networks. The interview protocol paralleled the SNA survey and was designed to flesh out the survey responses by exploring questions regarding student achievement, collaboration, innovation, district reform initiative, and district policies and practices that supported or hindered the improvement process (Appendices G-I).

**Data Analysis**

**Social Network Data Analysis**

The UCINET software (Borgatti, Everett & Freeman, 2002) was used to conduct a series of network measures to better understand the relationships among administrators in four key areas. These four networks were selected for detailed analysis as they
represent key areas of contact between central office and site administrators as well as focus areas for district and school reform. The level of analysis for the four social network maps (Figures 4.2-4.6) included the most frequent interactions (GT2) between actors, which means actors would have communicated once every two weeks to a couple of times a week (4 and 5 on the rating scale).

Social network analysis uses nodes and ties to depict social relationships. Nodes represent the individual actors within the networks, and ties signify the relationships between the actors. There can be many kinds of ties between actors or nodes and a social network can be mapped out to show relevant ties between the nodes. These concepts can be displayed in a social network map or diagram where nodes are depicted by points and ties by lines. Social network maps often use different colored nodes to reflect different administrative roles. In this study, the black nodes indicate district administrators and the grey nodes signify site administrators. The size of the node is also important and indicates the number of people who go to that person for information (i.e., the more people who go to someone, the larger their node).

The density of a network is another key focus of SNA analysis and can be thought of as a measure of network connectedness or cohesion (Blau, 1977). Density is calculated as the number of connections between participants divided by the number of total possible connections in the network. The greater the proportion of ties between actors, the more dense the network. Density was scaled between 0, indicating no relationships between administrators, to 4 where all administrators are connected to one another. The concept of density is an important measure, but poses some challenges in interpreting what an appropriate level of density should be considered dense. In other words, clearly
people in a network cannot be meeting all the time especially in a complex system as a school district because other tasks that constitute the real work of schooling could not be carried out.

Reciprocity between site administrators and district administrators was measured to establish the percentage of reciprocal relationships with the network. Higher levels of reciprocity have been associated with increased organizational performance and complex knowledge exchange (Kilduff & Tsai, 2003). Reciprocity was calculated using a scale of 0 to 4, with 0 representing no mutual relationship present between administrators, and 4 representing a relationship in which all relationships are reciprocated controlling for the size of the network.

For each of the individual participants, their normalized centrality in the social networks was calculated by determining the relative amount of ties a participant received and sent in each of the networks divided by the size of the network. Network centrality measures can be used as an index of an individual’s activity and role within the group. Highly central participants in a network have increased access to resources and a high potential to create new linkages that may enhance capacity building (Stuart, 1998; Tsai, 2000). Those who are less central may be on the periphery and receive less access to knowledge, and often do not have the opportunities to gain from the resources and information held by those in the more central positions (Burt, 2000).

An External/Internal ratio analysis or E-I index was conducted to assess the relationship between external and internal ties based on a specific actor attribute (i.e., in this case work location, meaning either central office or site) by comparing the numbers of ties within groups and between groups. The scale ranged from -1 completely internal
(intraunit) ties to +1 completely external (interunit). Externally focused relationships are considered more dense over the entire network (interunit) and internally focused relationships consist of a small dense core of relationships within the network (intraunit). Organizations with high E-I indexes (more externally focused) have greater unit cooperation (Nelson, 1989) and have been more successful with large-scale change (Krackhardt & Stern, 1988; McGrath & Krackhardt, 2003) whereas those with lower E-I scores show limitations in how well the organization negotiates external pressures (McGrath & Krackhardt, 2003).

**Interview Data Analysis**

Interview data from the twelve principals and six central office administrators provided a deeper understanding of the characteristics and the structure of the networks in the district and was used to triangulate the quantitative results. The interview instrument for principals and central office administrators consisted of sixteen questions related to student achievement, collaboration, innovation and risk taking in regard to English learners, the district initiative, as well as district policies and practices. See Appendices G and H for questions.

All of the interviews were audio-recorded and transcribed by a transcription service. The interview data was analyzed by reading and rereading interview transcripts. I checked and rechecked emerging themes (Miles & Huberman, 1994) and then compared the interview data with the network data. Interview data was drawn on to help give meaning and substance to the network maps. Similarities and differences between the two cohorts will be addressed in future articles.
Results

In this study four social network maps around a general or specific topic of interest were analyzed: collaboration around work topics, sharing of work related expertise, advice seeking regarding the district initiative, and risks taken on innovation with English learners. The maps represent instrumental social relations, which reflect the flow of information, resources, and assistance patterns between and among district and site administrators.

Collaboration on Work Related Issues

The first map, Figure 4.2, represents perceptions of collaboration around work topics in the study district at the most frequent level (anywhere between once every two weeks to a couple of times a week). The map and the measures suggest it is very dense network with principals collaborating with other principals or central office leaders as well as central office leaders collaborating with each other. According to the network measures there are relatively frequent connections among district administrators and principals within this district (Density=0.12). This network measure indicates that out of a possible 8,556 ties between individuals that could occur weekly or bi-monthly, these leaders engaged in 1,027 ties (or 12% of possible ties). While it is difficult to fully interpret the meaning of this density figure, D = 0.12 is considered dense because of the limited time in an administrators day for regular collaboration. Perhaps more importantly, the centrality measures (61%) indicate that, on average, leaders at the school and central office levels had ties with seventeen other leaders (SD=13), suggesting that collaboration
was occurring hierarchically (central office-school), laterally (school-school or central office-central office), or both ways.

Three interesting aspects of relationships can be observed in this map. First, the central office administrators are playing a key role in the collaborative process as illustrated by the large black nodes. As might be expected and found in other studies (Daly & Finnigan, 2010), many central office administrators are collaborating with each other. This is shown by findings from the External-Internal (E-I) index, which ranges from -1 completely internal (meaning within work location) ties to +1 completely external (between work locations) connections. These findings are based on an actor’s primary work location (central office or school site). The E-I index for this network was -0.146 suggesting that this network is more internally than externally connected—meaning principals go to principals and central office staff go to central office staff. When breaking this number down further, the E-I index for the central office staff was -0.39 meaning they are internally connected and collaborating more with each other rather than with principals. No doubt the physical proximity to each other in the district office facilitates this collaboration.

Second, it is noteworthy that the density of collaboration involved not only central office administrators collaborating with each other, which has been observed before in other studies, but also collaboration among principals and central office leaders, which has been less frequently seen (Daly & Finnegan, 2010). As one executive director said, “I would say members of Cabinet and my principals that I work closely with, my 13 principals. I think I'm closer with them than I am the other ones and so I consider them colleagues. I'm learning from them just as much as I hope I'm contributing to them
(D31).” The overall reciprocity of the leadership team was 0.3639. When breaking the two groups apart the reciprocity for principals was 0.3108 (14 out of 44 had reciprocal ties) and the reciprocity for central office administrators was 0.4605 (23 out of 49 had reciprocal ties).

Third, there is a dense web of principal connections in this district as shown by the clusters of grey nodes (i.e., P5). The E-I index for principals was 0.39, signifying that principals are externally connected and seek to collaborate with both the central office staff and other principals. This finding of principal collaboration is an interesting observation suggesting that schools are not as isolated in this district as other studies have found. While principals are not as central to the collaboration network compared to central office, they are actively engaging with each other as well as district administrators. This finding is supported by interview data, as one principal states, “My closest professional colleagues are my cohort group of principals [including a principal] who was part of our cohort a couple of years back…. Those are the ones that were able to really work. We are able to talk with each other about the reality of what we do on a daily basis and what are some possible solutions to problems that we currently are facing (P39).” Several principals agree that they feel comfortable getting advice from other principals as well as the executive directors. Another principal added,

My executive directors, each school site is assigned an executive director, but I feel comfortable talking to all three of them. One of them is the assistant superintendent. We've established that working relationship. It's funny because my executive director and the assistant superintendent were part of my first cohort. They were administrators. So now it's more of that relationship and trust that I was talking about, it's at another level now. There's more understanding, rather than wanting to get to know why you're doing certain things. They trust and believe, they are more like a colleague than a hierarchy (P29)
These findings are further supported by the trust data as it shows that administrators as a whole “somewhat agree” that there is trust in this district. However, when breaking this number down even further principals (mean=4.58) perceive a higher amount of trust compared to central office administrators (mean=4.06). It is also important to note that central office administrators go to principals to collaborate as shown by the out-degree out-going ties of 317.

Figure 3.2. Collaboration Network (nodes are sized by indegree and colored by role—black/district administrator; grey/principal)
**Expert Advice Network**

While the first network was specifically focused on collaboration around work related topics, a somewhat similar pattern was found with a more specific question focused on expertise. As can be seen in Figure 4.3, the expertise network is half as dense (Density=0.06) as the collaboration network. Principals and central office administrators indicate they share expertise with each other, by connecting on average, with 10 other leaders (SD=11). Some central office administrators are key players in this network as shown by the larger black nodes. However, there are also some principals who people turn to for their expertise as noted by the larger grey nodes surrounded by arrows. This finding can be triangulated by qualitative data as one principal states, “There are a couple of principals that are not in my cohort…I definitely would not hesitate to call them if there’s an issue that I knew they had an expertise on (P42).” The same principal goes on to say

I contact my ED [executive director], not just because she’s my ED, but it can be issue specific. If it’s about language learners, I would probably contact her. [Executive Director] would be one I would contact if it had to do with some elements of instruction because I know his expertise, especially in standards. He’s really one of the biggest experts in our district on standard implementation (P42)

In comparison with the first map, two points are worth noting. The expertise network among principals shows some principals are more tightly connected with each other whereas others turn only to central office administrators for help. This observation is supported by the lower density and the greater number of grey nodes on the periphery with minimal connections to others.
Figure 3.3. Expertise Network (nodes are sized by indegree and colored by role—black/district administrator; grey/principal)

Compared to Figure 4.2, Figure 4.3 shows the networks of principals and central office leaders is sparser (Density = 0.06). Close examination of the two maps show that some central office administrators (i.e., D5, D13, D20, D24, D34, D40, D44) are active collaborators and are sought out for their expertise. Unlike Figure 4.2, Figure 4.3 shows a few of the principals (i.e., P8, P29, P38, P39, P40) are also sought out for expertise. Although central office leaders are sought by principals for their expertise, fewer expertise connections exist between principals and central office staff compared to what might be expected given the size of the black nodes. The E-I index of -0.157 suggests a more internally connected (they collaborate more amongst themselves) structure than the previous network. Interestingly, similar to Figure 4.2, when breaking these groups apart,
central office staff is more internally connected, as noted by an E-I index of -0.41. However, principals are more externally connected (they collaborate more frequently with both principals and central office staff) as in the previous collaboration network, signified by an E-I index of 0.48. Finally, this more specific expertise network has a lower degree of reciprocity (.2108), with 32 network members including 23 district leaders and 9 principals exhibiting reciprocal relationships.

Advice on District Reform Initiative

Figure 3.4 stands in marked contrast to the previous two figures. According to the network measurements (Density=0.01), this social network is extremely sparse with few principals turning to other principals or central office leaders for advice regarding the district initiative, the Gradual Release of Responsibility (GRR). All of the nodes in the top left corner of the figure represent individuals in the network who do not seek out anyone for information regarding the gradual release of responsibility, nor does anyone seek them out. A possible reason for this lack of communication is principals in this district have the autonomy to do what is best for their schools. As long as they have a plan and are getting results, principals and their leadership teams have flexibility in deciding what they will focus on at their individual schools. As one principals states,

If I could prove what I was doing was working, and I did it through data, then it was supported. I think there was a lot of autonomy given to school site administration. A lot. If you had a plan and you could back that plan up with data and goals and how you were doing and it was evident, it was supported. That's been my experience with it. I remember the superintendent telling me, "Get the results or I'll find somebody who will." OK, I'll do it. I said, "Hey, this is how I'm going to get the results." I laid the map out. Every time he would come through I'd say, "Here's where we are. Look at the growth or look at the non-growth." If it was non-growth, here's where we're going with it. If it was growth, we're going to continue
doing this, and we're going to tweak this. I love the autonomy. I love that (P37).

Ten out of the eleven principals that were interviewed stated they liked having autonomy to make their own decisions at their sites. Another principal shares his view on decentralization in this district, 

I think what the district does that is contributing (to student achievement) is that (it) is site-based. I think it helps that they're very decentralized, and lets each school determine what they need to do, based on their needs, based on their community, based on their school culture…so there’s not that one size fits all for 44 schools. Rather, you know what, each school is different. Do what you have to do...and so you find a way to get the achievement you want (P8)

When asked about unique things being done in this district that may help explain the positive achievement trend, one principal explains, “I think that the top down approach now will never work here. People are too loose now, but that has been their strength if you have good strong leaders that can do that (P42).”
In contrast to the collaboration and expertise network, the GRR network measurements indicate that only one percent of all possible information exchange ties are present when considering the most frequent relationships (86 out of a possible 8,556 ties between individuals exist). Furthermore, thirty-seven percent of the administrators (twenty-three central office staff and eleven principals) were isolates in this network, meaning that they did not seek (nor were sought for) information related to the gradual release of responsibility on a frequent basis. As previously stated, principals have the autonomy to tailor the instruction at their site and as a result, they have the flexibility to implement the district initiative however they believe will improve academic achievement. This principal explains why he has chosen not to implement GRR at his school by stating,
We stay very focused on those best practices that we know can make a difference... Even when the district comes up with initiatives that are good, solid, but we don't add those to what we're doing at our site... gradual release of responsibility (GRR) as being one big piece from the district that has not been implemented here... we have our own model and we stayed focused with that. GRR has always been a back burner when it comes to me (P38)

The centrality measures indicate that, on average, leaders at the school and central office levels had ties primarily with two district leaders (D31 and D41) (SD=3) with a centrality measurement of 15% indicating very little interaction. The centrality measure for GRR is much lower than the collaboration (61%) and expertise (61%) networks. This suggests that the information flow in the network was extremely limited when compared with Figures 4.2 and 4.3. The overall network tended toward centralization with two district leaders (D31 and D41) in the study district serving central roles in the GRR information network. People are seeking information from the two largest nodes which happen to be executive directors, who spearheaded the initiative and who appear to be the most knowledgeable.

Interestingly, principals did not play central roles in the system despite the fact that the network was about the exchange of information directly related to the district’s GRR initiative. This information network suggests that there are very few reciprocal relationships in terms of people who seek out each other, versus one-way information flows. Only seven percent of the relationships in the network were reciprocated. This is much lower than the collaboration (36%) and expertise (21%) networks.

Both hierarchical (central office-school) and lateral (school-school or central office-central office) relationships are rare. Furthermore, this division between central office and school administrators is triangulated by findings from the External-Internal (E-
I) index, which ranges from -1 completely internal (meaning within work location) ties to +1 completely external (between work locations) connections. The data are based on an actor’s primary work location (central office or school site). The E-I index for this network was -.122 suggesting that this network is more internally than externally connected—meaning principals go to principals and central office staff go to central office staff, but they rarely cross groups for information regarding the gradual release of responsibility. This is further shown when breaking down the E-I index between central office administrators (-0.13) and principals (-0.11), signifying both groups are internally connected and communicate more within their own group. However, D31 and D41 play important ‘bridging’ roles, serving as brokers between different parts of the system. Additionally, in the inner ring of the network map, there is also a cluster of principals that appear to interact with each other and P29 plays a “connector” role seeking out information from both principals and central office leaders. It is also noteworthy in the small network of principals that there is a two-way exchange of information as shown by the two-way arrows, whereas for much of the rest of the network, the flow of information is unidirectional.

Taking a Risk on Innovation to Support English Learners

Figure 3.5 shows the network regarding innovation around English learners. Similar to figures 3.2 and 3.3 and in contrast to figure 4.4, this is a dense network (Density = 0.09 contrasted with D=.01 for GRR network) signifying that site and district administrators communicate on a regular and frequent basis about “taking a risk on innovative ideas around English Learners.” The map reveals a different pattern from the
other three in two ways. First, the map shows that principals, as shown by the size of grey nodes as well as compactness in relationship to the center of the map and to a few large black nodes, are key players in this area of innovation. Second, more central office administrators/classified managers, as might be expected in regard to innovation for English learners, are on the periphery of the map.

Similar to previous maps, the large black nodes in this map signify that both site and other central office administrators are seeking knowledge from several key central office administrators. However, unlike the other network maps, this network shows several large grey nodes, close to black nodes, indicating that other administrators are seeking information from principals as well. As exemplified by the large number of grey nodes (i.e., P4, P5, P8, P29, P37, P38, P39), dominating the figure, leaders connect, on average, with 15 other leaders (SD=16) compared to only two in the GRR network. It is interesting to note that that these principals consistently have the larger nodes across the networks, suggesting that they are important information sources and support for their colleagues. Interview data supports this finding as one executive director discusses practices and actions that have increased achievement for English learners, “The walkthroughs have been very powerful in our district. Our principals work together in these cohort groups and they go and visit each other's schools…(D34).” A principal further supports this point and when asked about practices or supports that contribute to increased achievement for English learners, this principal states:

I also think that, once again, a focus on student achievement obviously lends itself to looking at data. When principals are able to access data, look at data and say, "OK. Very effective. Very effective. Very effective." Then because you've got relationships with your cohort, you say, "Hey. I got this teacher. Second grade. She rocks. Come check her out." Which,
because they've got the data, right, to prove the achievement, then you have the relationships amongst the system. Then you can say, "Hey, come check this teacher out." You come and check the teacher out and go, "Hey, I'd love for my three second grade teachers to come see what she's doing." You have that conversation with those teachers before they go in there and say, "I want you to specifically look at the questioning techniques, or the cooperative group strategies." They get in there and they observe that. That, I think has been a huge reason why English learners have started to do so well in [district]. When you look at the comparison throughout the state, yeah, ELs are doing pretty darn well in [district]. I think that has a big impact when you have those relationships and you have that focus on achievement (P37)

When another principal is asked about the types of conversations he has with his colleagues around English learners, he states, “We have had more discussions about what goes into ELD in particular with the side-by-side training. It helped facilitate that conversation more about the pieces of ELD and what it looks like. But there hasn't been a lot of discussion about specifically how to help English learners. I just can't think of a context where that's been the focus. It's like they're always in the background because there's such a large portion in this district, and it's always assumed that every conversation includes ELs (P42).” Three other principals concur that they plan everything with their English learners in mind because the majority of their students are English learners. The pattern of principal centrality has not been shown in other district network studies. The centrality measure of 58% is very similar to the expertise network map of 61%.

Unlike the previous three networks, the E-I index for central office staff (0.06) indicates they have more external connections with both central office staff and principals, whereas the E-I index for principals (-0.07) signifies principals are more internally connected. Finally, this information network has a significantly higher degree
of reciprocity (0.16) with 54 network members including 22 district leaders and 32 principals exhibiting reciprocal relationships. Since English learners are a significant subgroup in this district and under No Child Left Behind (NCLB), principals are held accountable for meeting the increasing targets for this group each year, they seem to be seeking better ways to help increase student achievement from each other as well as from a central office administrators perceived to have expertise in this area.

Figure 3.5. Innovation EL Network (nodes are sized by indegree and colored by role—black/district administrator; grey/principal)

Discussion and Implications

Through this single case study the relationships of central office administrators and principals in a district that has increased student achievement over the past ten years were examined. After analyzing the data, it is suggested that there are strong underlying relationships among district and site leaders in this large Southern California District. In
this section the key findings and implications for policy and practice will be discussed.

The broader literature of social capital and social network theory as a foundation has been drawn upon to suggest that underlying social networks may enable an understanding of facilitative or constrictive conditions for change in a high performing district. The analysis of data suggests three key findings:

1. There were dense ties between central office administrators and principals in a district that is considered decentralized.
2. District administrators in formal positions helped facilitate ties in an informal network.
3. Principals played key roles in the district especially around innovations to support English learners.

**Dense Ties in a Decentralized District**

An interesting and unique aspect of this district is the density shown in the network maps. As previously presented, three of the maps show considerable density of network ties. Even though principals in this district have site autonomy, collaboration is highly valued. This is shown by the collaboration network map that illustrates a dense network showing that central office administrators and principals collaborate very frequently. Furthermore, both the expertise network and the innovation regarding EL innovation also showed a high density of relationships. The density of networks seems counterintuitive given that district leaders perceive themselves to be decentralized and having considerable autonomy to decide how best to achieve the district goal of improved student learning. Interestingly, the least dense map showing the district initiative, the
gradual release of responsibility, illustrates well the centralization and autonomy/decentralization paradox: GRR is a district reform initiative but principals can choose to implement the initiative or not. The interview data shared above confirmed this dualism of autonomy, and cross-system closeness and collaboration.

The dense network structures suggest that large-scale complex change is likely to occur in this district because dense social ties support the development of coordinated solutions to complex problems (Finnigan & Daly, 2010). The dense connections between central office administrators and principals suggest that organizational change is possible in this district without a one-size-fits-all approach. Since schools have autonomy to make decisions at their schools, principals often look to their peers to problem solve and discuss what is working or not working in terms of increasing student achievement. The superintendent and the executive directors further support principal collaboration by acting as brokers and sharing best practices across the district. The significant number of connections in this district as suggested by the high density measures indicate that complex information necessary for increasing student achievement can be easily spread throughout the leadership network.

The study district has managed to build strong peer relationships through collaborative structures that have been in place for the past decade. For example, starting in 2001 the Ball Foundation provided funds for professional development through a consulting agency for a cohort of principals and their leadership teams where they were able to learn and collaborate about best practices around the inquiry process (Escobedo, 2008). As schools saw the benefits (i.e., professional development and peer collaboration) of being part of a cohort, new cohorts of schools formed and eventually, all
schools were part of a cohort. In 2006, the district rolled out a new initiative, the gradual release of responsibility (GRR), which is considered a research-based instructional model (Fisher & Frey, 2008). The district has continued to provide ongoing professional development for cohorts of principals and their leadership teams around GRR. However, since the district focus is student achievement, the district allows principals and leadership teams the freedom to decide how they are going to implement GRR at their individual schools.

Thus, the study district is taking a different approach to implementing reform initiatives. This district presents a picture, which is in contrast to the literature on district reform that stresses the need for greater coherence, centralization, and commonalities in curriculum and assessment practices across the district (Elmore & Burney, 1997; Hightower, 2002; Murphy & Hallinger, 1988; Massell & Goertz, 2002; Snipes et al. 2002; Togneri & Anderson, 2003). Although this district has a systemwide initiative, they have chosen a different path to success. First, the District is providing professional development and support around an instructional model, not a specific program. Supovitz (2006) states, “Programs may come and go, but reform must persist in order for meaningful change to occur” (p. 237). Secondly, the district is focused on one main initiative and has supported principals and teacher since 2006. Principals and teachers have gained deeper knowledge of GRR each year. Finally, the district has allowed for site autonomy and differentiation on the implementation of the district reform initiative as long as they are focused on supporting student achievement and are getting results. This allows sites that are succeeding to continue with their own initiatives, and sites that are
not succeeding an opportunity to try a different approach (with the support of the district) that the district has identified through research as an effective teaching model.

This district has created a culture of support at the district level, so principals know they can turn to anyone in the district office (which is actually called the Educational Support and Services Center [ESSC]) for help when needed. The professional development that the district provides creates a structure where principals, teachers, and central office administrators come together on regular basis every other month or so. It is during professional development or walkthroughs at school sites where teachers, principals, and central office administrators have the opportunity to collaborate and build relationships.

In contrast to the study district, Daly & Finnegan’s (2010) exploratory case study of a district that was failing showed sparse connections between their leadership team. Their findings showed a centralized network structure as well as weak ties between principals and central office administrators. These findings suggest that sparse ties may inhibit the transfer of best practices amongst schools within the district. Furthermore, implications from this study suggested that structures needed to be put in place to help support the development of more collaborative relationships between administrators. Thus, it is imperative that districts have strong network connections to help them disseminate information quickly as well as to help them solve complex problems.

Even though these data indicate telling schools what to do or how to implement a reform initiative may not yield expected results, the data shows that schools need support to help them establish relationships and collaborate. This concept is further supported by Copeland’s (2003) study on the Bay Area School Reform Collective (BASRC), where he
states that the work of improving schools must be accomplished collectively. It is through strong network connections and personal relationships where information and new ideas can be diffused, and principals and teachers are able to figure out how to solve complex issues at their sites. These connections also allow for novel and non-redundant information to flow between and among different sites.

Formal Administrative Positions are Key to Initiating Ties

The large black nodes shown in all the four network maps signify key central office administrators who for the most part represent executive directors that support principals and their schools directly. They serve as a liaison providing support and brokering services to their assigned cluster of schools. In addition, principals can contact an ED to work with them in their area of expertise. For example, principals who have questions regarding their ELs would most likely contact the ED of language acquisition who has expertise with second language learners. The indegree for most of the executive directors is high signifying that principals as well as other central office administrators go to them for important information. The executive directors who have a high indegree serve as important resources and principals perceive that they have critical knowledge that they need to be successful at their schools.

Principals and schools need support. The study district’s central office is known as the Educational Services and Support Center (ESSC) where the culture is to support principals and schools in any way possible. Principals know they can contact anyone in the ESSC for help and this built social capital within the entire district. For example, by sharing best practices, principals have been able to identify concepts or best practices
from GRR that would best support their school without having to implement the entire model. Furthermore, when visiting schools, executive directors are able to broker information by sharing successful ideas they have learned about from talking to principals or visiting other schools.

The key to social capital is building relationships and the flow of information. This study suggests that decentralization does not mean that the central office is not important, but instead a key component to schools being successful. Supovitz (2006) states, “If we are to improve the quality of education for our citizenry in the twenty-first century, the capacity to do this must come from local educational support organizations” [such as districts] (p.6). Chicago discovered that the central office needed to support principals and schools and as a result their system went from total decentralization to eliciting more support from the central office (Bryk et al., 2010). What they learned from the Chicago school reform according to Hess (1999) is “whether it is strategic management or balanced governance, urban school systems need some combination of bottom-up and top-down governance” (p.514). The Chicago experience raises the issue of what should be the mix between centralization and decentralization and how power and decision-making authority should be distributed in order to obtain optimal student achievement (Slater, 1993). This study confirms the findings from these other scholars that even in a decentralized district there is a critical role for central office administrators. These leaders need to be seen as available and accessible so people can go to them for support. For example, one of the large black nodes is the Assistant Superintendent for business services who is seen as a key person by principals.
Principals as Key Players in the District Network

The network maps show that principals are important players in this district, particularly as providers of advice and expertise to their colleagues and as collaborators with their colleagues and with central office leaders. As shown by the network map (Figure 4.5), principals are also critical components of district social capital in regard to English Learners. When asking principals to whom they turn to for support, many of them mentioned their peers. Bryk et al. (2010) states that an effective district “must blend a coherent theory for improving schools (and establishing new ones) with a relationship building strategy that expands social resources for individual schools, and builds trust up and down the system as well as out into the larger community.” The cohort model in this district has allowed principals the opportunity to create relationships with one another and if they have questions or an issue, they can quickly contact a colleague for support.

Since 1995, long before NCLB accountability measures were adopted, the district’s guiding policy has been to increase student achievement and make critical decisions in the best interest of students. In exchange for autonomy and choosing their own reform path, principals are held accountable by the superintendent for increasing student achievement at their schools each year. Furthermore, this district supports professionalization as principals and their leadership teams are perceived as being able to find a path for raising achievement (Thompson, Sykes & Skrla, 2008). The district has realized the importance of increasing principal and teacher capacity, and has seemed to find a balance between centralized controls and supporting principals and teachers as professionals (Johnson & Chrispeels, 2010).
Principals in this district not only turn to central office administrators, but also turn to other principals for support in increasing student achievement, especially in regards to ELs. Principals are used to supporting each other through the cohort model, which has been in place for the past decade. The structure of this district has contributed to expanding the social capital among principals because they are brought together to work together. If organizations knew who their key players were, they would be able to leverage that information to help facilitate change initiatives. Social network maps can help districts map out their key players as well as give them a picture of how they collaborate around certain work topics.

Compared to other districts, perhaps one of the great reasons for this district’s success is the level of density of network ties. The implication is districts need to create avenues for building relationships between central office administrators and principals as well as among principals. The history of this district offers a pathway for doing this through the efforts they have pursued through the cohort work.

Conclusions

The primary purpose of this study was to understand how surfacing underlying informal relationships between central office and school level leaders using social network analysis could provide insights into the process of successful district reform. This study is important because the district has pursued a path that differs from those identified in some other studies of district reform: less centralization and more site autonomy. The result has been steady growth in student achievement over a ten-year period for its largely Hispanic student population. The evidence shows that trusting
relationships among administrators and dense network ties allowed administrators both vertically and horizontally to collaborate and share expertise within clusters of schools and across the whole system in ways that supported school autonomy and decision-making, and at the same time kept all leaders accountable for student outcomes. The early adoption by the school board of a student-center decision-making framework established a clear goal for all leaders: improve student learning and achievement. The path to achieving that goal, however, was to a considerable degree left to the discretion of the school sites as long as they were getting results.

A second conclusion from this study is that although given site autonomy, the central office still provided considerable support through formal structures such as regular principal meetings focus on professional development and problem solving, assigning executive directors to clusters of schools in addition to their other central office duties and grouping schools into cohorts to facilitate professional development and peer support. The central office also reoriented itself to be a service center to the schools as opposed to a compliance enforcer. All district office employees, from maintenance to business, to IT, are there to help students achieve. These shifts in central office operating procedures are similar to that identified by Honig et al. (2010) in their pioneering qualitative study of three central offices engaged in the process of transformation, and what the authors argue must be done by more districts if they are to improve student learning.

Third, this study shows the power of a simple district policy that put students first. The student-centered decision making framework signaled to schools that there would be tight coupling around increasing student achievement, which was monitored by the
superintendent. How they were to achieve this goal, however, was to be loosely coupled, allowing schools the freedom to choose programs and resources that worked for them. This study provides one example of the type of centralization/decentralization balance that needs to be struck between the central office and its schools that can lead to high student achievement. It is not a question of autonomous schools versus centralized control (Honig et al., 2010), but rather determining the roles and responsibilities of each. A clear district policy that stresses student achievement is the goal is an excellent place to begin and will move the district from accountability to program fidelity to accountability for learning.

Fourth, the close collaboration between central office and principals and among principals as revealed in the SNA maps and interview data show that administrators at both levels saw their colleagues as important resources for improving teaching and learning. In other words, there is considerable social capital in the district. The cohort model for providing professional development, especially in the first ten years, seems to have laid the foundation for shared learning and collegial support. Finally, this study illustrates a strong interaction effect between formal structures that bring administrators together to learn and the development of dense and productive informal learning networks. Similar to the centralization/decentralization issue, it is not a question of dichotomy in regard to formal and informal structures and relationships, but rather a question of what types of formal structures best support and promote strong informal collaborative learning relationships.
Delimiters and Areas for Future Research

This exploratory case study has several limitations. First, the generalizability of the findings is limited because it is a study of one district at one point in time. Looking at longitudinal data would show if there is consistency in network patterns. Furthermore, only instrumental ties were measured. It would have been a stronger case if expressive ties were looked at as well (Burt, 1997; Marsden & Campbell, 1984). This is one of the first studies to portray network maps in a district that has been increasing student achievement. Although the four social network maps in the study district show different patterns than districts that are in need of improvement, more research is needed in a variety of districts. There is congruence in this district between the organizational chart of how central office and schools are connected and the informal network maps. This coherence suggests both have played a role in increasing achievement. It would be worth investigating other high achieving districts to see if there are similar patterns.

Chapter 3, in part is currently being prepared for submission for publication of the material. Umekubo, Lisa; Chrispeels, Janet; Daly, Alan. The dissertation author was the primary investigator and author of this material.
CHAPTER 4: THE COHORT MODEL: LESSONS LEARNED WHEN PRINCIPALS COLLABORATE

“Successful change efforts are a combination of exploring and exploiting existing resources. Providing opportunities to connect, leverage, and make explicit existing expertise is an important activity in support of change efforts” (Daly, 2010, p. 265).

“If we truly want learning by all, then we will need to change our mental model of what education looks like in a democratic society. It will require us to learn to lead together” (Chrispeels, 2004, p. 375).

“In organizations, real power and energy is generated through relationships. The patterns of relationships and the capacities to form them are more important than tasks, functions, roles, and positions.” Margaret Wheatley

Over the past four decades policy-makers and researches have placed a spotlight on the problems of the American educational system. This increased attention has resulted in escalated accountability demands across our nation. In 1983, Ronald Reagan’s National Commission on Excellence in Educational published A Nation at Risk: The Imperative For Educational Reform, which is considered a landmark event that touched off a quarter century of local, state, and federal reform efforts to respond to the report’s critique of American schools. A Nation at Risk prompted large-scale governmental action in the early 1980’s and top-down initiatives started taking place across the globe (Fullan, 1993). In the United States mandated curricula as well as establishing minimum competencies for students, teachers, and administrators were created (Fullan, 1993). At about the same time another change initiative called the restructuring movement emerged (Elmore, 1990; Murphy, 1991) where decentralization and school-based management (SBM) became the new buzz.

As schools were given more autonomy, many different innovations were
implemented simultaneously and eventually provoked confusion as to what practices were best. Just providing schools with opportunities to reorganize and implement site-based management, however, did not consistently raise achievement (Leithwood & Menzies, 1998; Smylie, Lazarus, Brownlee-Conyers, 1994). To support increasing the programmatic and content focus of reform, the federal government reshaped the Title I legislation for low-income schools and initiated the Comprehensive School Reform (CSR) program. The CSR approach provided funding for schools to research and select from a variety of individual school reform models that had shown some evidence of effectiveness based on research. Research from this era showed that fidelity to implementation regardless of the model was key and that in many schools this fidelity was not achieved (Murphy & Datnow, 2003). When fidelity was achieved, a number of these models showed that they could raise student achievement (e.g., *Success for All* — Borman, Hughes, Overman & Brown, 2003; Herman, 1999; *Accelerated Schools* — Ross, Alberg, & McNelis, 1997; Ross, Sanders, & Stringfield, 1999).

Over the years, most federal legislation for underperforming schools focused on the school as the unit of change. However, the No Child Left Behind Act of 2001 (NCLB, 2001) brought attention to the need for district as well as school improvement. Districts could be labeled as in need of improvement just as their schools could. This shift in federal legislation to include the district was in response to a growing body of research that suggested districts could play a critical role in individual school improvement. Researchers have identified a number of practices of effective districts such as a common vision, coherent and coordinated curriculum, assessment, and professional development (Elmore & Burney, 1997; Hightower, 2002; Sykes, O’Day, & Ford, 2009), but what was
less understood were the district and school policies and practices, as well as the adult actions it took for the successful reform initiatives to be sustained overtime. Furthermore, how do midsize to large districts organize for improvement and ensure all of their schools are successful?

A few scholars have recently identified the importance of relationships in the reform process by looking through the lens of sociocultural learning theory. Sociocultural learning theory provides insight on the importance of relationships across all levels of the organization. Their research shows how district and site administrators as well as teacher leaders are able to learn and work together to improve their practice and ultimately, the organization (Honig, 2008). The sociocultural learning theory shows that relationships across all levels are important and can have positive effects on increasing student achievement. This perspective also suggests that reform must be co-constructed between the central office and the school sites (Hubbard, Mehan & Stein, 2006). Through this co-construction process, the district and its schools open up the possibility for organizational learning. Organizational learning theorists argue that it is through the process of interaction between and among the members of an organization there is an opportunity for organizational productivity (learning) that is greater than the sum of individual learning (Senge, 2006). Organizational learning can be described as the ways organizations build, supplement, and organize knowledge and routines around their activities and within their cultures, and adapt and develop organizational efficiency by improving the use of the broad skills of their workforces (Dodgson, 1993). In order for organizations to thrive, they must continually adapt and change. The ways organizations construct knowledge and routines as well as develop strong learning cultures is closely
related to the levels of trust and structures for interaction among members, which suggests a need to also explore social network theory and analysis as a tool for understanding organizational learning and achievement.

Districts and schools have realized that educators need more opportunities for networking in an effort to increase their professional learning (Edge & Mylopoulos, 2008). Consequently, different types of organizational structures have been implemented to allow for more collaboration within schools and districts (Mullen & Kochan, 2000). Traditionally these structures are formal or hierarchical. However, research indicates that communication flows more freely among colleagues through informal relationships as opposed to relationships that are more formally structured (Cross, Borgatti, & Parker, 2002; Deal, Purinton, & Waetjen, 2009). People are sources of important information and oftentimes, influential individuals can positively or negatively influence a decision through informal networks (Deal et al, 2009). So, “who you know defines what you know” (Daly & Finnigan, 2009, p. 7). Furthermore, individuals in an organization bring strengths and specific expertise in a variety of areas. Social networking or collaboration is a way for people to build social capital by sharing their ideas, reflecting on their practice, as well as learning about new ideas.

By drawing on social network theory, scholars have identified social capital as an underlying asset gained through relational ties. The amount of social capital in an organization is based on networks within the organization. When people establish relationships, build trust, and have opportunities to collaborate they gain knowledge and resources from others that may influence their work. A key component to building social capital is this notion of trust. Trusting relationships will foster more collaboration and the
sharing of ideas more regularly (Chhuon, Gilkey, Daly & Chrispeels, 2008). If there are high levels of trust in an organization more social capital will be generated and student achievement will increase (Byrk & Schneider, 2002). The importance of building social capital lies in the idea that an organization with higher levels of social capital will lead to creating intellectual capital. Research on intellectual capital suggests the importance of combining knowledge from several people or groups in an effort to co-construct explicit as well as tacit knowledge, and finally using that knowledge to act in ways that enhance the organization (Naphiet & Ghoshal, 1998).

This study sheds light on a relatively large district with 44 schools that has been making great strides in increasing student achievement despite having a significant percentage of English learners and students who are considered socioeconomically disadvantaged. How has a district like this been able to increase student achievement over the past decade? When looking at the study district as a whole, social network analysis maps show very dense connections between central office administrators and principals suggesting lots of communication and collaboration between these two groups of leaders (discussed in Chapter 3).

The purpose of this study was to explore more deeply a cohort model that the district put in to place over a decade ago to help facilitate professional development for leadership teams for all 44 schools. Social network analysis was used to depict principal connections within each cohort. What emerged was one group of principals tightly connected and the other six cohorts as much more loosely connected. Figure 4.1 shows a social network map at the most frequent interactions (discussed in Chapter 3) for the seven cohorts. The lines connecting the red administrator nodes show the close
interconnection of the principals in Cohort Z. In contrast, the other six cohorts show far fewer connecting lines among principals.

![Social Network Map of Cohorts]

**Figure 4.1. Social Network Map of Cohorts**

One of the less connected cohorts (Cohort Y) was selected to represent the other six. The similarities and differences between Cohort Y and Cohort Z will be examined,
trying to understand how the cohort model helped facilitate learning and ultimately how this model assisted this district in operating as a learning organization.

**District Context and Background**

Montague Elementary School District (MESD—a pseudonym) was selected for study because it represents a unique case in which to explore central office/school relationships in a high performing district. It serves many Hispanic students who represent the type of student who is most often underperforming in the state of California; and yet, it is one of a few large con-urban school districts in the state that has continued to increase student achievement over the past decade according to NCLB criteria.

Located on the urban fringes of a large city in Southern California, it serves 27,500 students in kindergarten through grade eight. The ethnic breakdown of the students is as follows: 65.4% Hispanic, 12.1% White, 9.8% Filipino, 4.2% African American, 2.5% Asian, 0.6% Pacific Islander, 0.4% American Indian/Alaskan Native, and 5% other/declined to state. 47% of the students are considered socioeconomically disadvantaged and 35% are English learners.

Table 4.1 compares demographics and achievement data between Cohort Y and Cohort Z. As can be seen in Table 4.1, Cohort Y includes a mix of schools in terms of socio-economic status (SES) and English learners (ELs), with two schools having a low percentage English learners (EL) and students considered socio-economically disadvantaged (SED), and two serving a large percentage of students considered SED and ELs. More than half of the schools in Cohort Y serve a small percentage of socio-economically disadvantaged students (SED) and do not receive Title 1 funding. It is also
important to note how well all schools in this cohort are doing overall as shown by their high API scores, but at the same time, even with this high level of performance, the two schools with the lowest percentage of students considered SED are not at the top of performance when compared to other similar schools in the state (a ranking of a “10” is the highest and a “1” is the lowest). Cohort Z includes schools where the majority of students are ELs and SED. All of these schools receive Title 1 funding due to the high percentage of students who are considered SED. Given the high percentage of students who are considered ELs and SED at these schools, their achievement is extremely high when ranked among other similar schools in the state. It is also important to note that the schools in Cohort Z have sustained their high rankings for three years.

Table 4.1. *Comparison of Demographics, API, and Similar Schools Rankings*

<table>
<thead>
<tr>
<th>COHORT Y</th>
<th>% English Learner (CDE, 2011)</th>
<th>% Socio-economically Disadvantaged (CDE, 2011)</th>
<th>2011 API</th>
<th>2008 Similar Schools Ranking</th>
<th>2009 Similar Schools Ranking</th>
<th>2010 Similar Schools Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y10</td>
<td>66%</td>
<td>82%</td>
<td>846</td>
<td>8</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Y12</td>
<td>16%</td>
<td>13%</td>
<td>882</td>
<td>5</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Y8</td>
<td>26%</td>
<td>19%</td>
<td>860</td>
<td>7</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Y6</td>
<td>47%</td>
<td>76%</td>
<td>829</td>
<td>9</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Y13</td>
<td>26%</td>
<td>23%</td>
<td>918</td>
<td>9</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Y9</td>
<td>24%</td>
<td>41%</td>
<td>795</td>
<td>3</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Y11</td>
<td>24%</td>
<td>10%</td>
<td>912</td>
<td>4</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

| COHORT Z |
|----------|-----------------------------------------------|---------|-------------------------------|-------------------------------|-------------------------------|
| Z2       | 46%                                           | 54%     | 880                           | 10                             | 10                            |
| Z3       | 62%                                           | 81%     | 858                           | 10                             | 10                            |
| Z4       | 73%                                           | 86%     | 873                           | 6                              | 9                             |
| Z5       | 64%                                           | 78%     | 874                           | 10                             | 10                            |
| Z1       | 48%                                           | 67%     | 843                           | 6                              | 8                             | 10                            |
Another unusual aspect of this district is the relationship between the district and its schools. Although recent research studies of districts that have improved achievement stress the need for greater centralization and administrative controls and coordination of curriculum, assessment, and professional development, this district over a 12-year period has implemented and maintained considerable site autonomy (discussed in Chapter 3; Escobedo, 2009). The district has allowed its schools to implement instructional programs that the staff and community felt would best meet the needs of their students.

History of Study District

A new era for the study district started in the fall of 1993 in which a grassroots community-wide strategic planning process, led by the Board and Superintendent, engaged hundreds of school/community stakeholders in an intense process for reorganizing the District governance structure. From the 12-month process, a new organizational structure (discussed in Chapter 3) emerged in which the Board rethought its role and authority for the benefit of students, parents, and community. For example, they allowed for more site-based decision making in terms of curriculum and program focus. The district also established a new Shared Vision, Shared Values, Strategic Goals, and a Student-Based Decision Making framework (Gil, 2001) that is still used today to guide the district and its schools in increasing student achievement.

The district supported the new organizational structure in three important ways. First, the central office encouraged schools, especially those that were underperforming, to select and implement one of the Comprehensive School Reform models that was being federally supported during the years 1993-2000. There was not to be a one-size-fits-all
approach to reform. While this approach by districts was not uncommon in this time frame (Datnow, Borman, Stringfield, Overman, & Castellano, 2003), the staying power is unique. Second, the district formed a partnership with the Ball Foundation to provide extensive school leadership team development for teachers and principals to provide the support they needed to be leaders (Escobedo, 2008). Over a period of ten years, schools were grouped into cohorts and the three-year cycle of training was made available to them. Third, the district adopted a Student-Based Decision Making framework where decisions were made in the best interests of students. The critical point of this decision framework was to ensure that principals and the staff were clear that the district’s goal was improved student learning. It is against this historical context that the current study set out to explore the relationships and actions of two cohorts of principals and teacher leaders using qualitative interviews.

Formal District Structure

As stated above, over a decade ago the district supported schools by providing professional development through the Ball Foundation. Principals were asked if they would like to participate and five schools volunteered. The following year five more schools wanted to participate and another cohort was formed. Year after year more schools wanted to join a cohort and six years later all 44 schools in the district were part of cohort groups that consisted of about 5-7 schools. The district tried to balance cohorts by including a mix of east side (more affluent schools) and west side (lower SES) schools in each cohort. The same ongoing professional development was provided to each cohort four times throughout the year. Although the district’s schools were grouped into cohorts
and there were opportunities for the principals in each cohort to work together, each school still had considerable autonomy in decision-making at their site, guided by the student-centered decision making framework.

In 2006, the district pursued a major districtwide initiative, a research-based instructional model called the Gradual Release of Responsibility (GRR) (Fisher, & Frey, 2008). The district hired a consultant to conduct professional development for each cohort comprised of principals and teacher leaders. However, sites had the autonomy to implement GRR in any way they felt it would best support the students at their school, a strategy quite different from that recorded in most research on high performing districts (Massell, & Goertz, 2002; Murphy & Hallinger, 1998; Skrla, Scheurich, & Johnson, 2000; Snipes, Doolittle, & Herlihy, 2002).

**Literature Review and Conceptual Framework**

Several bodies of literature were reviewed in order to understand how a relatively large district was able to successfully implement changes that lead to increased student achievement across the majority of its schools. The first body of literature on organizational learning laid the foundation of the importance of school districts being learning organizations. Then, two theoretical constructs were drawn upon to explore why a cohort of principals was successful in significantly raising student achievement at each of their schools and sustaining this achievement over time. These concepts are: (a) social capital theory, and (b) intellectual capital theory. By drawing on social network theory scholars have shown how social network analysis can be used as a framework for better understanding how the flow of information between formal and informal networks affects
organizational life and performance. Furthermore, a high degree of collaboration suggests there is a high amount of social capital, which in turn can lead to intellectual capital. These concepts will be reviewed and will show how social network analysis is one way to figuring out the degree of social capital in an organization. This literature review is followed by a presentation of the methodology, results, discussion, and conclusions.

Learning Organizations

For an organization to learn, the people in the organization must be motivated to learn new knowledge, both individually and collectively. However, just because an organization learns, does not mean the organization is going to be successful. Organizational learning takes time, leadership, embedded structures, a culture of reflecting, relearning, and goals to become a successful learning organization or an “organization where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together” (Senge, 2006, p. 3). Learning is a continuous cycle and even though collective learning does not consist of the sum of individual learning, individual learning is an important part of collective learning (Leithwood et al, 1998). At both levels, a response can be stimulated by feedback and then depending on their understanding of the surprise or challenge, a strategy or action can be implemented. It either works or does not work, and the cycle begins all over again.

Senge discusses five learning disciplines that provide a framework for building innovative learning organizations that can truly “learn”: (a) personal mastery, (b) mental
models, (c) building a shared vision, (d) team learning, and (e) systems thinking. Personal mastery is marked as the cornerstone of a learning organization and is an act of lifelong learning, individually and collectively. In order for an organization to learn, individuals must continue to learn. Mental models are deeply ingrained assumptions, generalizations, or even pictures or images, which affect how members understand the world and take action (Senge, 2006). Building a shared vision consists of the capacity to hold a shared picture of the future the people in the organization seek to create. A genuine vision (as opposed to a “vision statement”) propels people to excel and learn on their own. Team learning consists of collaboration and is vital for a learning organization because it helps to align the capacity of a team to create desired results (Senge, 2006). The dimensions of team learning include (a) the need to think insightfully about complex issues, (b) the need for innovative and coordinated action, and (c) the need to identify roles that foster other teams through inculcating the practices and skills of team learning more broadly (p. 237).

Systems thinking is marked as the conceptual cornerstone; it is the fifth discipline that underlies the other four learning disciplines. It consists of the ability to step back and view an organization holistically. However, the essence of the discipline of systems thinking lies in a shift of mind regarding seeing interrelationships rather than linear cause-effect chains and seeing processes of change rather than snapshots (Senge, 2006, p. 73). A key component of systems thinking is feedback, which helps illuminate deeper patterns lying behind events and details (Senge, 2006). These five components of a learning organization will provide useful codes for exploring the data in this study and will help to illustrate the degree to which the district as a whole and the cohorts of schools within the district reflect characteristics or qualities of a learning organization.
A recent longitudinal case study by Giles and Hargreaves (2006) focused on a high school that was from the onset labeled as a learning organization. In addition to support from the district, this school had all of the key components of a learning organization including Senge’s main discipline, system’s thinking, as noted by the principal,

All of our meetings started with systems issues where people were free to identify problems they were having at a systems level so that we could deal with them and remove fear from the organization. To say there’s something not working is what we wanted to promote so that we could deal with it as opposed to hiding it for fear you might be blamed for it (p.138).

The principal was a leader of learning and did not mandate change; instead he used learning organization principles to facilitate learning through social interactions (Senge, 2006). A new teacher shares her experience of working in this school:

My philosophy is not only supported by administration, but that is the way they see education as well. I think my ability to integrate my philosophy into my classroom has sped up. I’ve been able to accelerate my own professional development because I am sitting around a community of teachers that all share my philosophy and that have a philosophy of sharing materials and talking about lesson plans. And in a lot of schools you don’t see that…” (p. 140)

This school was a true learning organization that was able to overcome many threats from the outside, much more than other schools in the district. However, ever increasing pressure from state mandated reform created less time for teachers to collaborate and the learning community slowly started becoming more and more fragmented. The problem encountered in this school did not lie in the people, but rather the unintended consequences of top-down state mandated reforms, which diminished time for collaboration and overloaded the system with required changes. The findings
from this study are relevant because they suggest that understanding school-district relations is critical to individual schools developing as learning organization.

Peter Senge also places an emphasis on dialogue in organizations – especially with regard to the discipline of team learning. Dialogue (or conversation) is a process of two people understanding each other by questioning beliefs and assumptions. Senge (2006) has argued that team learning entails the capacity of members of a team to suspend assumptions and enter into a genuine “thinking together”. Senge’s five disciplines of learning organizations will be used as a framework for analyzing the data in this study.

**Organizational Learning in Districts**

Sociocultural learning theory sheds light on the importance of districts facilitating relationships and creating structures for more collaboration, dialogue, and ultimately more learning to occur systemwide. The previous section discussed the importance of being a learning organization. This section draws on organizational learning to show how systemwide processes and structures are important in creating opportunities for learning, which emerges as a critical factor in understanding district/school relations in the process of reform.

A qualitative multi-case study by Leithwood, Leonard, and Sharratt (1998) highlights conditions that foster organizational learning in a school. By comparing three studies they found the district as the most important factor influencing organizational learning at schools. Several of the disciplines highlighted by Senge (2006) showed a positive influence on schools. For example, a district’s shared visions guided school
staffs and proved to be an excellent source of learning for them. Additionally, districts that were “collaborative and harmonious” helped to create a sense of community, instead of a we-them attitude. The district is essential for fostering organizational learning in schools argue Leithwood, Jantzi, and Steinbach (1995). They assert districts are able to help foster organizational learning in schools through five conditions: district vision and mission, district culture, structure, strategy, and policy and resources.

The stages of learning in an organization are similar to individual learning, however it is a collective experience. In order to successfully implement any new reform, organizations need to assess their current situation. According to a study by Marsick and Watkins (2003) on an instrument called the Dimensions of the Learning Organization Questionnaire (DLOQ) organizations were able to gain feedback from the survey and the researchers were able to make comparisons between different organizations. They found a positive correlation between learning organization dimensions and knowledge and performance. However, the people, especially leaders, influenced change in performance of the organization. If an organization had systems and structures in place that allowed for knowledge sharing, they most likely had better performance. One of the most significant findings this research showed was organizations that had leaders who understood the value of learning, performed better than those who did not.

Tomorrow’s organizations will: (a) accomplish their work through multi-disciplinary teams, (b) have permeable boundaries, (c) be focused on mental tasks, (d) be participative, diverse, and innovative, (e) support a professional culture of commitment and results, and (f) value peer-to-peer relationships (Preskill & Torres, 1999). Lam (2000) posits, “Organizations characterized by an explicit knowledge base tend to have
formal structures of control and coordination, and exhibit highly standardized tasks and work roles. In contrast, organizations with a tacit knowledge base will exhibit a decentralized structure and use informal coordination mechanisms. This is because tacit knowledge is dispersed and subjective; it cannot be standardized, disembodied or pre-determined. Its mobilization requires autonomy and commitment on the part of the knowing subject.” However, as stated earlier, learning organizations draw on both explicit and tacit knowledge and in fact, learning becomes more likely when tacit knowledge is made explicit. This study will explore the explicit knowledge that tend to frame and coordinate district-school relationships as well as the tacit knowledge that may serve as a support for decentralized structures and school autonomy.

**Social Capital Theory**

The concept of social capital is central to learning organizations. Without social capital it is unlikely that an organization can learn. Bourdieu’s definition focuses on social relationships that allow members to gain knowledge or resources as well as the amount and quality of the resources (Portes, 1998). Similarly, Coleman (1988) states that social capital is an intangible resource that can be obtained through relationships or ties. “Unlike other forms of capital, social capital inheres in the structure of relations between and among actors” (Coleman, 1988, p. 98). Structure of ties, trust, access to expertise and content, and norms of interactions are all important aspects that create social capital (Coburn & Russell, 2008). Lin (2001) presents a definition of social capital that captures the common theme found in all these definitions: social capital consists of “The resources embedded in social relations and social structures which can be mobilized when an actor
wishes to increase the likelihood of success in purposive action” (p. 24). Thus, people obtain social capital through relationships and by interacting within and between different networks to leverage resources. “Social capital can be operationalized as the resources embedded in social systems, accessed and used by actors for action” (Daly & Finnigan, 2010, p. 116). A major focus of school districts, as the literature on district reform highlighted, has often been on enhancing individual teacher human capital through professional development rather than attending to the social ties in the district and within schools that could be leveraged to enhance mutual learning and sharing of knowledge and expertise (Daly & Finnigan, 2010). It is through trusting relationships that foster mutual learning and sharing of knowledge that an organization opens up the possibility for organizational learning.

Social capital is a valuable asset for successful networking. Knowledge, experiences, and resources are obtained through relational ties (Penuel et al., 2009). Individuals serve as informational channels by sharing their ideas and expertise. In a qualitative study by Mullen and Kochan (2000) the evidence indicated participants’ perspectives were broadened because they had been exposed to peers with multiple ideas and different strengths. Additionally, in another case social network data showed a company’s relational ties were weak. As a result, one aspect of intervention was creating opportunities for employees to learn about others’ expertise and to strengthen their connections, thus fostering their social capital (Cross et al., 2002).

In education, some studies show that schools with higher levels of social capital are more successful regardless of socioeconomic status (Goddard, 2003; Gonzalez, Stonar, & Jovel, 2003; Byrk et al., 2010). Goddard’s (2003) mixed methods study
showed that schools characterized by high levels of social capital were more successful. By measuring social capital in different forms such as networks that connected parents and the community; social trust among students, teachers, and parents; and norms that encourage student academic success, the authors found that socioeconomic status was not correlated with social capital and confirmed that socioeconomically disadvantaged students with more social capital had higher scores on high-stakes math and writing assessments. Similarly, teachers with rich social capital can make a positive difference in the classroom regardless of students’ socioeconomic status. Monkman, Ronald, & Theramene (2005) qualitative study shows how a teacher in a low socioeconomic urban school helped increase her students’ social and cultural capital by embedding social skills, typically seen in more elite schools in her classroom.

Principals can also help influence higher levels of social capital as shown in a qualitative study by Penuel et al. (2009) where they compared two low performing and very diverse schools, each with similar resources. Each school chose to use their resources in different ways. Teachers’ social capital helped facilitate positive change and increased student achievement in one school. Whereas the other school tried to pull in resources from the outside to help with change efforts, but was not as successful. This study shows the importance of using the resources and expertise of teachers to help build social capital within a school or district, ultimately helping to increase student achievement.

These studies suggest the need to explore more deeply the formal and informal network structures in districts and schools that facilitate or hinder the flow and exchange of resources. Particularly important to a school or district reform strategy may be the
density of the communication and knowledge transfer networks (Daly & Finnigan, 2010). Teachers not only share knowledge with their students, but can also be an asset by sharing information with other colleagues. In a qualitative study by Mullen and Kochan (2000) evidence stated participants’ perspectives were broadened because they had been exposed to peers with multiple ideas and different strengths. When educators learn about new ideas from someone they trust they are more willing to try them in their classroom as opposed to using new ideas learned at a conference. The notion of trust in an organization is a valuable asset and if team members trust one another, they will not only be more willing to share ideas with their team, but they may also be willing to take more risks and share information with other groups (Chhuon et al., 2008; Daly & Finnigan 2011; Olsen & Chrispeels, 2009). Thus, if a district creates structures that allow for more opportunities to collaborate, people may be more likely to establish trusting relationships, and build social capital which has the possibility of leading to intellectual capital.

**Intellectual Capital**

The creation of social capital influences the development of intellectual capital. Intellectual capital refers to the knowledge created from a social collectivity such as an organization (Nahapiet & Ghoshal, 1998) that propels action based on the new knowledge. When structures are created in an organization for people to interact amongst colleagues, they have opportunities to build relationships and establish trust. These are two essential building blocks to creating more social capital, which could lead to creating intellectual capital. When groups of people who trust each other have opportunities to collaborate not only amongst their own group, but also with other groups, the knowledge
generated enables people to act in new ways. Thus, intellectual capital is created through the combination and exchange of knowledge in a group setting leading to new knowledge and action (Bolivar & Chrispeels, 2010; Nahapiet & Ghoshal, 1998). In order for groups to create intellectual capital there must be opportunities for valuable interaction, people must be motivated to collaborate, and the new knowledge or information must be synthesized and used (Nahapiet & Ghoshal, 1998).

A case study by Bolivar and Chrispeels (2010) conducted at two elementary schools showed a group of parents that worked with a nonprofit organization were able to build capacity, take collective action, and make change regarding issues at their children’s schools. First, the parents were committed to participate on a weekly basis. An efficient and stable network configuration (Bolivar & Chrispeels, 2010) was set up where parents met on an ongoing basis for twelve consecutive weeks. Second, this structure allowed parents to establish relationships by collaborating with program leaders and other parents who had similar concerns. This eventually led to the creation of trusting relationships. And, finally as parents learned more about the school system and had opportunities to interact with each other, groups came together and created action plans based on their combined knowledge. When parents shared and exchanged knowledge, as well as took collective action to address a common concern, they were able to transfer their social capital into intellectual capital.

Furthermore, the process of working together, grappling with ideas, and creating an action plan led to more informal groups working together outside of the program. The leadership, support systems, and going through the process with a facilitator helped create more awareness for parents as well as sustainability in regards to increasing parent
support. The authors contend, “intellectual capital as a theoretical construct, but distinct from social capital, explains the potential of bounded groups to engage in meaningful collective action” (p. 22). Thus, three salient points from this study emerged regarding the development of intellectual capital: (a) commitment to participate and structures created for collaboration, (b) relationships and trust were evident, and (c) collective action served as a pathway to improvement. These three dimensions also are relevant to the conditions that support organizational learning.

Another study by Olsen and Chrispeels (2009) further concurs that the aforementioned points regarding the development of intellectual capital was evident when a principal and his school leadership team worked together to implement a change to their bell schedule. All members on the school leadership team worked together to change the bell schedule to give students more time in their classes. First, individual members of the team learned about different bell schedules and then they all came together and discussed what they learned. Additionally, the team analyzed schoolwide data and asked for advice from district leaders. Finally, pulling all of their resources together, the leadership team came up with a master schedule that they eventually shared with the rest of the teachers at their school. The important pieces to building social capital within the school leadership team were the principal’s support, development of trust, access to information, creation of social norms, time and structures for team collaboration, and a team goal or focus. The increase in social capital within the team led to intellectual capital as the team was able to successfully change their school’s bell schedule.
As portrayed above, social capital is the basis for creating intellectual capital. The notion of social capital lies in the opportunities individuals have to collaborate with others based on trust, a flow of information within the organization as well as structures and norms that facilitate information exchange. With new reform initiatives, comes new learning, which will usually require surfacing more tacit knowledge and making it more explicit to organizational members. However, in order for intellectual capital to flourish, structures need to be created that allow ample opportunities for collaboration. Procedures need to be implemented that foster the sharing and exchange as well as the combination of knowledge of all members that can lead to collective actions that were not previously possible by individual members or units alone.

Methods

This study explores how principals collaborated in a decentralized district and what actions they took to improve student achievement and learning. In Chapter 3, social network analysis was used to explore central office-school relations (Scott, 2000; Wasserman & Faust, 1998). More analysis of the social network data surfaced two different patterns of principal collaboration that indicated a further in-depth study was warranted to address the last three research questions:

3. How do two selected clusters of schools (cohorts) within the district vary in terms of their response to district policy, practices, and procedures? What are the similarities and differences? What are the student outcomes for each cohort?
4. In what ways did two selected cohorts exhibit the qualities of organizational learning?

5. What behaviors and practices of the principals within two selected cohorts support organizational learning and the creation of social and intellectual capital?

To address these questions, a single case study design with two embedded units was used to gain an in-depth understanding of how a district created opportunities for organizational learning through the cohort model. Miles and Huberman (1994) define a case as a “phenomenon of some sort occurring in a bounded context” (p.25).

Furthermore, Yin (2003) describes case study as “the preferred strategy when ‘how’ or ‘why’ questions are being posed, when the investigator has little control over events, and when the focus is on a contemporary phenomenon within some real-life context” (p. 1). Stake (1995) added, “case study is the study of the particularity and complexity of a single case, coming to understand its activity within important circumstances” (p. xi). An embedded design was appropriate because interactions of multiple units, in this case two cohorts, within the larger study could be examined (Yin, 2003). As is typical of case studies, a rich variety of data sources were used including semi-structured interviews with principals, focus group interviews with teacher leaders including instructional leadership team members, a survey completed by central office and school site administrators, and document analysis (Patton, 1990). The instruments provided both quantitative and qualitative information about the district as well as individual school sites. A cross-unit analysis was conducted to further investigate how two embedded cohorts consisting of five to seven schools operated within district policies and
procedures, possibly resulting in the development of more sophisticated descriptions and more powerful explanations of the process of organizational learning and district reform (Miles & Huberman, 1994).

Data Collection

In order to “understand phenomena deeply and in detail” (Morse, 2007, p. 30) data were collected from different sources: central office leaders, school principals, teacher leaders (including ILT members), an outside consultant, and documents, using a variety of methods: semi-structured one-on-one and focus group interviews, document evidence, and a survey. This multi-pronged approach has provided qualitative and quantitative information about the district as well as individual school sites. The use of multiple methods helped strengthen the findings and portray a comprehensive picture of how one district created a learning organization through the cohort model.

Interviews

As stated above, a variety or participants were invited to participate in this study. An outside consultant who provided professional development to the cohorts was interviewed as well as six central office formal leaders: the superintendent, one assistant superintendent, and four executive directors. See Appendix G for a sample of the interview protocol for central office administrators. Principals were purposefully selected based on one demographic question on a social network survey that asked principals to indentify which cohort (T-Z) they were affiliated with. With this information seven cohorts of principals were identified. According to Merriam (1998), “Purposeful sampling is based on the assumption that the investigator wants to discover, understand,
and gain insight and therefore must select a sample from which the most can be learned“ (p. 61). Using the SNA survey results (discussed in Chapter 3), two cohorts (Cohort Y and Cohort Z) were purposefully selected. As shown previously in Figure 4.1, the principal interactions for Cohort Y were very similar to Cohorts T through X. Cohort Y was selected as a sample to represent the six district cohorts. Cohort Z was selected because there was a stark difference in their interactions compared to Cohorts T through Y. Furthermore, Cohort Z and Cohort Y also had similar demographics and the greatest contrast in the survey responses in regard to factors such as density, reciprocity and centrality (discussed in Chapter 3). The twelve principals from Cohort Y and Cohort Z represented a diversity of perspectives and were invited to participate. They all agreed to be interviewed using the interview protocol in Appendix H. Furthermore, focus group interviews were conducted with a sample of two to three teacher leaders (primary and upper) who volunteered from Cohort Y and Cohort Z to gain another perspective. The researcher personally contacted all prospective participants through email or over the phone and asked them if they would like to volunteer to participate in this study. The purpose of these interviews was to gain a broad perspective regarding the implementation of district and school policies, practices, and reform initiatives. Interview data also provided a deeper understanding of administrators’ perspectives regarding their relationships with colleagues.

The interview protocol paralleled the social network survey (discussed in Chapter 3) and was designed to flesh out the survey responses by exploring questions regarding student achievement, collaboration, innovation, district reform initiative, and district policies and practices that supported or hindered the improvement process (See
Appendices G-I). The interview data offered more in-depth information such as the type of information that was flowing through the different networks (discussed in Chapter 3). 60-90 minute semi-structured one-on-one or focus group interviews were conducted in either the administrator’s office, in a conference room, or in a classroom, and used an appreciative inquiry approach (Preskill & Catsambas, 2006). Participants were engaged in dialogue that elicited responses about the “nature, worth, quality, and significance” of their experiences (Preskill & Catsambas, 2006). “The role of appreciative questions is not to learn what respondents like, but rather to focus on the study of successful moments that can be used to grow and improve the program in the future” (Preskill & Catsambas, 2006, p. 77).

Two graduate students assisted in conducting the interviews. Before each interview, participants were informed about the purpose of the study, the methods for maintaining confidentiality, and the right to not participate in this study (see consent forms, Appendices D-E). The interviewees signed two written consent forms: one to participate in the study (Appendices D-E) and one for permission to be audiotaped (Appendix F).

Documents

A variety of documents were collected and analyzed including student achievement data from multiple sources such as API, AYP, and district assessments, the state required Local Education Agency Plan, School Single Plans for Student Achievement, as well as the District’s Shared Vision, Shared Values, Student-Based Decision Making framework, and Strategic Goals. Majority of these documents were
publicly available, however, permission was obtained from the district to see student achievement results from district assessments.

Data Analysis

With permission, interviews were recorded and then sent to a transcription service. The strategies used to analyze interviews, and document data will be described in this section. Qualitative data analysis involved preparing the data for analysis, analyzing data for deeper insight, determining how to represent data, and “…making an interpretation of the larger meaning of the data” (Creswell, 2003, p. 190). The process of data analysis should be done in three concurrent flows according to Miles and Huberman (1994): (a) data reduction or sorting the collected data into themes by “selecting, focusing, simplifying, abstracting, and transforming the data that appear in written-up field notes or transcriptions” (p. 10), (b) conducting data displays or condensing information to draw initial conclusions, and (c) conclusion drawing and verification by rereading interviews and continuously reevaluating judgments to avoid bias.

All interviews were coded numerically and no names or identifying marks were used other than the code known to the researcher. Interview transcripts and documents were analyzed by reading and rereading them to identify potential themes that emerged from the data. Emerging themes were checked and rechecked (Miles & Huberman, 1994). Data was coded using Senge’s (2006) five components of a learning organization as a framework to explore and analyze how the cohort model facilitated organizational learning, and social and intellectual capital in one district. The codes were also based on extant literature regarding organizational learning, social capital, and intellectual capital.
Results

The main purpose of this study is to identify, describe, and understand how an organizational structure of grouping schools into cohorts in one district helped facilitate organizational learning. Interview data was analyzed and the similarities and differences between the two cohorts within the larger context of the district will be discussed first. Then, Senge’s (2006) five disciplines of a learning organizations will be used as a framework to structure the presentation of the findings: (a) personal mastery, (b) mental models, (c) building a shared vision, (d) team learning, and (e) systems thinking.

Similarities and Differences around District Policies, Practices, and Procedures

After analyzing the interview data, Cohort Y and Cohort Z exhibited several similarities and a few differences regarding district policies, procedures, and practices. The district’s Shared Vision, Shared Values, Student-Based Decision Making framework, and Strategic Goals provided a foundation for all stakeholders. The study district’s focus on students being the priority was clearly evident in the interview data as all twelve principals from both cohorts articulated that their main goal was to increase student achievement. The superintendent held principals accountable for increasing student achievement at their sites each year by evaluating them using data and the principal standards. One principal from Cohort Z posited, “I think that, in my opinion, the culture is absolutely accountability. Student achievement is first…ask any principal in [district] what the number one priority in this district is and every single one of them will tell you student achievement. Every single one of them” (Z3). A principal from Cohort Y also stated, “It's an expectation that all schools will do well and keep increasing student
achievement” (Y8). Another principal from the same cohort concurred, “I think there's just been the constant push to achieve more and more and more each year” (Y6). These principal voices exemplify what all of the principals articulated about increasing student achievement and their accountability for that task. This data is further supported through teacher focus group interviews as one hundred percent of the focus groups mentioned something about student achievement. For example, a teacher from a Cohort Z school stated, “Everyone came to the conclusion that they wanted to be here for student achievement so everything that we did was focused on student achievement” (Z3).

Another teacher from another school in Cohort Z describes how they increased student achievement, “The student monitoring…we're seeing where they are. ‘OK, are we still going to monitor this student? Are they out of this monitoring?’ So, I think monitoring the students has been very effective for us” (Z2). Furthermore, as teacher from Cohort Y explains what they do to increase student achievement, “…our multiage classes really help to make sure that the students are prepared for the next grade. I think that's been helping our student achievement. I think our target groups, we have a target group after school and we keep some students who are not proficient to give them a little extra small group instructional time” (Y6). The district mission of increasing student achievement clearly has been permeated throughout the entire system.

The bottom line according to the superintendent is “about getting results and doing what's best for children” and he made sure that was happening at every school by holding principals accountable. A principal from Cohort Y stated, “Well, I think that the emphasis on increasing academic achievement and it being pushed by the superintendent was a major factor. His goal was to ensure that students across the system, despite which
school they came from and which social economic background they came from, achieved” (Y10). Another principal from Cohort Z reflected, “I remember the superintendent telling me, ‘Get the results or I'll find somebody who will.’ OK, I'll do it. I said, ‘Hey, this is how I'm going to get the results.’ I laid the map out. Every time he [superintendent] would come through I'd say, ‘Here's where we are. Look at the growth or look at the non-growth.’ If it was non-growth, here's where we're going with it. If it was growth, we're going to continue doing this, and we're going to tweak this. I love the autonomy. I love that” (Z3). A principal from Cohort Y further articulated his view on getting results, “One of the other things that this district has done is that level of expectation is non-negotiable. You either get results or you find something else to do or somebody else will tell you to find something else to do. That level of expectation, that analysis of data kind of confirms whether or not you're moving in that direction is another big contributing factor as to why our students are achieving the way they have been” (Y8). The high accountability environment set by the superintendent and the decentralized system created a system where all students were expected to achieve. A principal from Cohort Y sums up these points by stating:

But I think having that pressure from the superintendent...not so much pressure, but an expectation that kids were going to be learning, no matter what...and you were given the leeway to implement any type of professional development that you found necessary at your particular site. Because everybody pretty much was doing their own thing, a decentralized system. For me, there were a lot of pros in that regard, because I could tailor the professional development to the needs of my staff. So, in that sense I felt it also had an impact. Because I knew my teachers best and I could design the professional development program that we needed, versus where in other areas there's a particular curriculum, a set of particular standards that you have to teach or expect your teachers to teach. So, I would say the superintendent's direction had a lot to do with it. (Y10)
Schools were held accountable for increasing student achievement, however, the path each school chose to take to get results was up to each school. All principals talked about the district as being site-based or decentralized, and having the autonomy to make instructional decisions at their schools. One principal from Cohort Y stated, “Generally speaking, the decentralization piece of it is a big part of it. We have school-based decision making policies in place that allow the principals to work within their school and the leadership team in their school, to do things that they feel are going to be successful or steps in the right direction, in the direction of student achievement.” (Y8). Another principal from Cohort Z also agreed and stated, “I think this district…being decentralized, I think it's a good district to work at. I don't see myself wanting to work at another district because I feel that I do have professional autonomy within certain parameters, of course, to make decisions that are going to be effective and that are going to provide results” (Z5). The district has clearly instilled a culture of autonomy and accountability according to the site administrators’ perspectives.

Teacher focus group data also showed that some teachers, too, understand the district policy of site-based management or decentralization. The data showed one hundred percent of the focus group teachers in Cohort Z understood and liked that the district was decentralized and their school was site-based as this teacher explained, “I just feel here in this district a little more flexible but I think it's a big help because…not every school is the same, because if every school is the same and we're using the same program and it's not working…the entire district is not working” (Z4). In contrast, there was a mix of responses from the Cohort Y focus groups regarding decentralization or site-based
management. Teachers from one Cohort Y school stated that the district is “very
decentralized,” but they thought there was too much flexibility and not enough “structure
across the schools” (Y12). Whereas teachers from another Cohort Y school stated that the
district “wants to have that control and they want to be pushing things…” and these
teachers wanted “a little more freedom” instead of having to do things because “our
district is telling us that…” (Y11). Furthermore, yet another perspective from teachers
from another Cohort Y school was that it depends on the leader whether the school is
decentralized or centralized (Y8).

Collaboration and support were also part of the district’s culture as all of the
principals talked about working together with teachers, principals, district administrators,
and outside consultants. Principals understand they cannot do this job alone and need the
support of their colleagues. One way the district has supported schools was creating
cohorts for five to seven schools and providing professional development to principals
and their instructional leadership teams (ILT) throughout the year. When asked about
unique things going on in this district, several principals mentioned the cohort model. A
principal in Cohort Y stated, “Just from talking to people who work in other districts I do
think a unique piece was the training with the Gradual Release and that professional
development for teachers” (Y6). One difference between Cohort Y and Cohort Z was the
fact that Cohort Y was a district- selected cohort and Cohort Z was a self-selected cohort.
Cohort Z broke away from the district cohorts and were on their own. The former
superintendent endorsed Cohort Z as a “band of pirates” and held them accountable for
getting results. Another difference between these two cohorts was the duration they
worked together and the demographics of their cohort members. Cohort Z principals had
established relationships with each other and worked together for five years. The members of Cohort Z were similar in age, majority were the same gender and ethnicity. Whereas the members of Cohort Y had a mix of different ages, gender, ethnicity. This cohort also had some principal mobility within the past five years, which affected the dynamics of this cohort. This is exemplified the following statement by a Cohort Y principle,

I've been here since 2000…I was in Cohorts for many years, where my group just did not hit it off right, for whatever reason….And you'd hear about these other ones who went out to dinner…go out to lunch to discuss things. And we would try it and it would not work!...for many years my cohort was the one that would lose one principal every year. So, everybody would be wondering, "Who's next? Who's next?" It just wasn't tight. I don't know why. (Y7)

Furthermore, another difference between the two cohorts was Cohort Y participated in the professional development provided by the district, whereas, Cohort Z did not. Instead, the principals of Cohort Z organized their own professional development for their cohort because they wanted to be in charge of creating the agenda for their schools as opposed to the district creating it for them. The first couple of years they were together, at first, Cohort Z used the same consultant as the district to deliver professional development to their cohort. The principals made it a point to plan the agendas with the consultant beforehand. Eventually, the principals started planning and delivering their own professional development for their cohort.

To summarize, the goal of all of the principals in both cohorts was to increase student achievement and they all believed they had the autonomy to make instructional decisions at their school sites, but were held accountable by the superintendent for getting results. All twelve principals received professional development during the monthly
principal meetings. However, the self-selected Cohort Z opted to create their own cohort agendas and eventually facilitate their own professional development for their ILTs.

*Learning Organization Characteristics: Similarities and Differences*

In this next section, Senge’s five disciplines will be used as a framework to help draw out the qualities of a learning organization from the interview data. Furthermore, the behaviors and practices of principals that support organizational learning as well as the creation of social and intellectual capital will be examined. Research questions 4 and 5 will be answered in this section.

*Personal Mastery*

The first component of a learning organization according to Senge is personal mastery which is individuals constantly trying to become better at their craft, which in this case, for educators, is teaching and learning. People who exhibit personal mastery are always trying to improve and take time to learn from their mistakes as well as learn new concepts. Additionally, in order for an organization to become the best they can, they need to create a culture where all members have opportunities to grow and learn. In the case of this study district, ongoing professional development has been provided to both principals and teachers for the past decade. However, that is not enough to gain personal mastery. According to Senge (2006), individuals need to take it upon themselves to continue growing.

Principals receive ongoing professional development around the district initiative, the Gradual Release of Responsibility, at monthly principal meetings throughout the year. During these sessions, principals are exposed to new ideas and concepts and have time to
discuss ideas with colleagues. Once principals are trained, it was up to them to decide how they were going to take the information back to their sites. Many principals take ideas back to their site and share them with their teachers. One principal from Cohort Z shared what he did at his site, “The only thing that I can say is that at a principal training, we get trained on the model. That Friday, my staff is trained and the expectation is that it is implemented immediately” (Z2). The fact that principals get trained and then they train their teachers shows the culture of learning in the district, as one principal from Cohort Y shared:

I feel like it is truly a learning organization….people still want to learn. There are still kids that we haven't got to. There are still schools that are low performing like this one. It's 900 [API]. It's underperforming in my opinion. It's a free and reduced lunch of eight percent. Of course, it's 900. I think there are people with that attitude, that there's still room to learn and there's enough expertise here that, as we learn from each other, that we can keep growing….I think that two things that stand up for me are the professional culture. The learning culture is truly really not just lip service. People are always trying to learn and get better. (Y11)

The principals in Cohort Y were all trying to improve individually and move their schools forward. They participated in professional development sessions with their ILTs and were expected to take the information back and train the rest of the teachers at their sites. Many of the Cohort Y ILTs exhibited personal mastery at an individual level as well as with their school ILTs as they worked together to train their staff, as evidenced by steadily rising test scores and interview comments.

In contrast, the principals in Cohort Z took it upon themselves not only to learn individually and with their schools, but they also learned together as a team in a more systematic and sustained way. These principals were constantly trying to improve both, individually and collectively. They pushed each other to excel through inquiry, coaching
each other, giving each other feedback, and holding each other accountable. When asked how they hold each accountable, one principal shared:

We do what we call surprise drive-by walk through. I belong to a cohort of five administrators and one day four will show up and they will just say, “hey we are here” and they walk through classrooms and come back and sit down and give me feedback. The good thing about it is at that point I am asked to give next steps about what I am going to do and then they will come again. Sometimes they will come the next day or within a week or two weeks to check and see that I am following through with what I am going to do. That has been very powerful. (Z2)

Another principal shared how they coached each other:

He and I bounce a lot of ideas off each other and really pushed each other a lot. As an example of that I knew I was having some issues with one of my teachers and this teacher was one of the ones that I was going to not reelect and I was really trying to coach her and I was trying to help her get better. I said, "Look man, I'm kind of at a wall. Do I see evidence of some of the things we talked about?" "Yes, but I need your help." So when I went in to observe this teacher he observed me. So he observed how I observed her. Then the feedback I gave her, I had him look at it and I said give me a critique. What do you think? Was I clear; was I concise, could I have done something differently? Give me some direction, let me know what you think, am I thinking correctly? Those are the relationships that I had. Those are the people that I really put a lot of trust and faith into. Why I liked [principal], why I like him, is because he wasn't complacent. He always was pushing and he was always saying hey what about this? Have you thought about this? Maybe this is what I would do. Never like, “do this” but he made you think and I appreciated that. So he was able to coach me on how I was coaching her. That was incredible… We had about a six-month run of that and then I was doing the same thing to him. It was awesome. It was awesome. (Z3)

Although all principals expressed that they were being pushed and given opportunities to develop personal mastery, it is clear that Cohort Z has pushed themselves a bit further. The interview data supports the SNA map that showed this cohort of principals tightly connected. In contrast, Cohort Y principals showed little evidence from the interviews that they were helping each other as a cohort of principals to develop
personal mastery.

As previously explained, the study district provided professional development opportunities for both principals and cohort ILTs. The professional development provided for cohorts helped build teacher capacity, as teacher leaders were expected to bring back the learning from the cohort meetings and train the rest of the teachers at their individual sites. Similar to the principals in Cohort Z, the teacher leaders also took on more responsibility to help each other. The teachers in Cohort Z not only learned as a cohort, but they built teacher capacity as they created opportunities for their teachers to collaborate with teachers from other sites within their cohort as one principal stated:

I think the interesting thing that we have pushed ourselves as a cohort group now is that we are systematically having our teachers dialogue with other teachers at other sites and we have created what we call world cafés where the teachers go and take student work and they talk to other teachers from other school sites in our cohort and they start talking about instruction for a specific standard or a specific theme and they begin to have those conversations. We have taken that to what we call our institutes; we have four throughout the year, where we push our sites to think differently. Right now we are pushing the rigor relevance framework where the types of questions that you ask during instruction and the level of responses that you should be getting from kids, whether they are basic or high quality. (Z2)

As previously mentioned, Instructional Leadership Teams were expected to take back the information they learned at the cohort trainings and share what they learned with the rest of their staff. The idea was to help build teacher capacity at each school. The data showed that each of the cohorts shared the information with the staff in different ways. Cohort Y teachers from one school shared, “…then with our own schools we [ILT members] would come back to our grade level about what we learned, also we did a couple of full staff little mini in-services” (Y6). Some Cohort Y schools shared the
information with individual grade levels and some rolled out pieces to the entire staff.

One Cohort Y teacher from another school had a different opinion and stated, “I would say that the only struggle sometimes teachers have with ILT is, it feels top-down and it feel like we are just giving [information] to them” (Y11). Another Cohort Y teacher from a different school shared, “…some of the professional development that was shared with us, having to come back and share it with your team, and then not understanding why we’re not doing this” (Y12). A few of the Cohort Y schools felt that there was a lack of training from the district and when asked to share one wish to enhance the cohort that they are a part of, teachers from this school answered, “more often, more training” (Y11). However, there was one Cohort Y school that really felt they benefited from the cohort training as “they [ILT] went they learned, they presented, and they even came back and gave us feedback in our classrooms…she questioned me, and not in a demeaning way, but she just said, okay let’s look at your room, and she questioned some of my things, which made me think, and so I fixed it when she came back and looked” (Y8). There was an inconsistency as to how the information from the cohort training was brought back to each school.

The principals from Cohort Z built capacity with their teachers as the data showed that majority of the Cohort Z ILT members were expected to provide professional development from the cohort trainings to their staff as a whole group. One Cohort Z teacher stated, “…that’s another avenue for learning new programs, ILT goes to the cohort meetings, does their professional development, and then we bring it back to the school” (Z4). A teacher from another school shared, “Reflecting and learning. Understanding more about the art of teaching language…and also sharing with teachers.
And I think that’s one thing that I’ve really taken from being in that ILT is being able to teach teachers or tell teacher, ‘this is what it looks like’ or really having a teacher come up to you and go, ‘I don’t know how to teach that. I don’t understand it’ and I love that aspect of it” (Z1). Another teacher from a different Cohort Z school shared, “And we’d like someone to push us too, because we need to be pushed too, and we need to be growing” (Z2). Cohort Z teachers were striving to learn from their peers.

Furthermore, some of Cohort Z’s resource teachers planned and delivered grade level professional development for all teachers from each of the five Cohort Z schools. During these World Café’s as they were called, teachers had a chance to dialogue with other teachers at their same grade level. One teacher explains, “we bounce ideas off each other” and another goes on to say, “I like the opportunity to dialogue with other teachers…from my same grade level” (Z2). The teachers’ from Cohort Z not only learned from teachers at the same school, they also enjoyed learning with teachers from other schools within their cohort.

Mental Models

According to Senge, “Mental models are deeply ingrained assumptions, generalizations, or even pictures or images that influence how we understand the world and how we take action” (2006, p.8). The study district’s core value of student achievement is clearly evident as all twelve principals from both cohorts stated in the interview data was that their priority was to increase academic achievement for all of their students. Furthermore, all principals stated that they liked the fact that the district is site-based and that they have autonomy to make decisions at their schools. A principal
from Cohort Y articulated this perspective of the district:

Generally speaking, the decentralization piece of it is a big part of it. We have school-based decision making policies in placed that allow the principals to work within their school and the leadership team in their school, to do things that they feel are going to be successful or steps in the right direction, in the direction of student achievement. (Y8)

Another principal from Cohort Z stated,

I don't see myself wanting to work at another district because I feel that I do have professional autonomy within certain parameters as, of course, to make decisions that are going to be effective and that are going to provide results. Again, those decisions aren't made lightly. Those decisions, again, are made with the support of my colleagues within the cohort, but I don't see other districts having opportunities for their administrators as we do here. (Z5)

Another principal from Cohort Z articulates these points by stating, “I think that as a district one of the things that I respected the most and that has allowed me and my group of schools to move forward has been the fact that we have not been so restricted, per se. Meaning that we know where we want to go as a district but each of us is allowed to go our (own) ways and I think that that is very good. (Z4)"

The previous statements exemplify what all principals from Cohort Y and Cohort Z believe, which portrays an organization that has created a mental model or district culture of site-based management and autonomy as well as strong individual and collective accountability for student achievement.

Another mental model that this district has built into their culture is the use of data to drive instruction. Several of the principals in each cohort talked about the use of data. A principal from Cohort Y stated, “we're looking at data all of the time.” (Y8) Another principal from Cohort Y reported, “I think with our last superintendent, the accountability was…he would talk to you about your data, your results. I think even each
year as we present to the Board we have to be able to justify where we're at or have a rationale for what our results were and how we're going to move it forward.” (Y6) The superintendent evaluated principals using a variety of data, including state test scores, district test scores, as well as a community survey that evaluated the culture of each school as this principal in Cohort Y explains,

> You need to see, at least, evidence that your processes are working. We do have obviously, not just the CST or AYP/API scores, but we have things called the Harris Interactive Survey, which monitors your culture, parent, students and staff. How do they feel the school is performing? It's not always the just the bottom line of test scores but the Harris Interactive Survey give us a different feel of the school culture. There may be evidence in this school culture that you're creating some change in a positive move toward improvement, which may give you an extra year or two on the end line there, the bottom line results. (Y11)

The principals in Cohort Z also used data to make decisions as one principal stated, “Also, during ILT meetings we brought data and we brought work samples. It wasn't just a subjective, "Oh, we're doing great because I say so." You actually had to have student work and student data to show what you were doing. That's how we held each other accountable. Everybody's school was an open book.” (Z3). As shown by these statements, principals from both Cohort Y and Cohort Z used data to make decisions at their schools. However, principals in Cohort Z shared data with each other as well as with each of their schools.

Both Cohort Y and Cohort Z principals also exhibited a mental model of teamwork. Principals from both cohorts shared how they worked together with teacher leaders who were part of their ILTs to make important decisions at their sites. Cohort Z principals also stated that they worked together with each other. They all articulated that they trusted one another as one principal shared, “…the cohort work is great because
once trust was developed, I think we've been very open about it and about what we do and about how we do it and about sharing” (Z4). The members of Cohort Z were able to support each other as another principal stated, “Most of the ground troops were my cohort members because I could call them and they were there the next day giving me support” (Z3).

Shared Vision

A shared vision or an image that people have within an organization is critical for a learning organization because it “creates a sense of commonality that permeates the organization and gives coherence to diverse activities” (Senge, p. 193). “A shared vision is a vision that many people are truly committed to, because it reflects their own personal vision” (Senge, p. 193). As previously stated, the culture of the study district is students are the top priority and all principals are committed to increasing student achievement at their sites each year. This has clearly been evident in the principal interview data from both cohorts.

The interview data from Cohort Z indicate that the principals have a shared vision of increasing student achievement for every student in each of their schools, especially their English learners. All five principals in this cohort had similar student demographics at their schools, so it was their mission to work together as a cohort to meet the needs of each of their students. As one principal from Cohort Z stated, “There's a common goal that we all have. We really are looking out for these kids. We're invested in this. We see each other and go, "OK." I mean I see [principal] students; they're our kids too. This is our cohort (Z1).” Another principal in Cohort Z said, “We all kind of have the same
vision for learning, we all kind of have the same demographics, we all kind of have the same attitudes and expectations of our teachers so we kind of just gravitated towards each other. That was critical for the success of the school I was at because I trusted the guys."

The same principal went on and explained what they wanted as a cohort, “We all said, "You know, we want to be able to say, “this is the direction we're going. We'd like [the professional development] research-based on English learners. And when we say that, in six weeks when we meet as an ILT, that's what we want (as our focus for professional development)” (Z3). In contrast, although the principals in Cohort Y were also working toward the district goal of increasing student achievement, they did not mention a shared vision for their cohort. They also, in contrast to Cohort Z, did not indicate that they were meeting together as a cohort of principals other than during the set ILT professional development sessions that occurred for times a year. In fact, one of the principals expressed concern about the intense pressure to achieve results. The concern was not disagreement with the shared vision, but in the system’s approach to meeting it. “We were always compared across the board. This cycle, this system, of competition was created where everybody was trying to one up the next one. There was a sense of fear. These comparisons and who is at the top of the list and who was at the bottom. It was embarrassing. It is humiliating. How does that help people grow?” (Y10).

**Team Learning**

Team learning is an essential component of a learning organization. According to Senge (2006) a teams IQ is much higher than an individual IQ. He also believes “when teams are truly learning, not only are they producing extraordinary results, but the
individual members are growing more rapidly than could have occurred otherwise” (p. 9).

“Team learning is vital because teams, not individuals, are the fundamental learning unit in modern organizations. This is where the rubber meets the road; unless teams can learn, the organization cannot learn” (Senge, p. 10).

The cohort model in MESD exemplifies a structure that allows for team learning, not only with teachers, but with principals, too. The principals in both cohorts discussed working together with the teachers at their school as one principal from Cohort Y exemplified, “I work together with the teachers. It's communication because at the beginning of the year, we decide together, the teachers and I, what our goals are going to be in the different subjects and then we work together to make them happen” (Y7).” This is further supported by teacher data as 100% of the focus group data from Cohort Y states that teacher leaders work together with the principal to make important decisions for their sites. Furthermore, teachers are given time to collaborate with their grade levels as this teacher explains, “we have three and a half hours every other week for collaboration so that we can talk as a grade level and discuss what we are going to do. We make our action plans, we plan out activities, lessons, assessments…” (Y8). Another teacher from another school shares that they have collaboration with their grade level teams every “three to four weeks…for a half of a school day” (Y9). As shown in the data, the amount of time Cohort Y teachers got to collaborate was inconsistent. And when asked what would be more beneficial for the cohort experience a Cohort Y teacher stated, “…also collaborate with the other sites, too…if you had collaboration time with grade levels during cohort meetings” (Y8).
However, as shown in the network maps the two cohorts have operated differently when comparing the degree to which principals as well as teachers worked together. The principals in Cohort Z met weekly and have previously mentioned doing frequent walkthroughs of each other’s schools. And, each of the grade level teams were given time each week or every other week to collaborate as one teachers explains, “Three hours, yes, every two weeks…we create focus lessons …and this year it was questions for guided practice using Blooms Taxonomy…and then after school we…meet every week to plan our next week” (Z5). Each of the schools in Cohort Z significantly increased student achievement and produced the highest cumulative gain in student achievement in the district. The principals in Cohort Z collaborated very frequently as one principal exclaims, “Well, we talk as a group at least once a week. Through email we might communicate maybe two or three times a week. Personally, which each individual that could be once, twice, three times a week depending on things that are going on during the calendar year. But we do it as a group talk at least once a week” (Z5). When people collaborate on an ongoing basis, they will form more trusting relationships. All five principals in Cohort Z mentioned they trusted one another and that is why they were able to support each other, push each other, and learn from one another. When asked what the best thing was about his cohort, this principal stated,

I would say probably the best thing was – and I guess it all kind of falls back on the trust that we had with each other. I knew I could rant and rave. I could go off about somebody or something, and I would never be thrown under the bus. As a principal, at many times you need that. You need somebody to trust because in any system, you always have people…who are going to step on your back. It's unfortunate, but it's reality. Being able to really hash something out with somebody – priceless. Also, "Hey I'm thinking about doing this." You have to walk a fine line with your boss. You don't want to present them with a plan without running it by
somebody you really trust, because the boss might be like, "Why the heck
did I hire you? You sound like a moron" (Z3).

A critical component of team learning is dialogue or “the capacity of members of
a team to suspend assumptions…allowing the group to discover insights not attainable
individually” (Senge, p. 10). The principals in Cohort Z bounced ideas off of each other
and challenged each other through dialogue as exemplified by the comments of one
principal:

I think it's just the camaraderie. Once I was asked by the former
superintendent what would be some good advice to give to a new
principal. It's really just finding a peer that you can really communicate
with that you can really just be open and honest about your struggles and
your problems, as well as your successes. We're able to just find common
ground with the difficulty of the job that we have. So, we prop each other
up, but at the same time if we don't follow through on something, which is
kind of rare. When we don't follow through on something, then we don't
give each other a pass. We just insure that there is a fix to that problem
that occurred, the breakdown that occurred, whether it was a breakdown in
communication or just a breakdown in follow-through. We really are just
able to communicate in dialogue honestly about our frustrations that our
successes, our wishes or what we want to do. We're able to really just
throw ideas on the table, and those ideas can either be shot down because
maybe, they truly were not the best ideas or that's where we always learn
from one another. Sometimes, somebody has an idea that we might not
think that it's the best idea on our own, but when as a collective group we
start to talk about it and start to dig deeper into it and maybe to start to
then research it, then we realize we have a good plan in action. (Z5)

The focus group data further supports the principal data as teachers of Cohort Z
also stated that they collaborated with each other as one teacher states, “I think we're all,
the schools that are part of [Cohort Z] are very similar as far as our population of
students. And so when we get together, it's constant sharing of ideas and what's
happening at your school, what's happening at our school. So we get the chance to kind
of play off of each other's ideas and find out what they’re doing at their school that might
work at our school and vice versa” (Z4). Furthermore, another Cohort Z teacher from a different school said,

The biggest advantage to me is being able to hear what other schools are doing. Sometimes it's to get good ideas of something that they're doing. Sometimes it's just to feel like, we're doing OK, because we don't have all that on their plate. Whenever we're feeling like we have too much going on and you hear what someone else is trying to do and you're like, "Oh OK, we're OK." So just to have that communication and checking to see what other people are doing. To be able to talk to other colleagues at your same grade, really comparing notes and really building some resources. Where you're able to go outside of your school and I've been able to do that and really communicate with other teachers who teach my grade in other schools and get ideas and support. I would love to see more of that network being supported. I think that that's the biggest benefit. (Z3)

As shown in the data from both cohorts, collaboration is highly valued in this district.

*Systems Thinking*

The fifth discipline, systems thinking, in the vernacular is being able to see the forest for the trees (Senge, 2006). System thinking is an understanding that organizations are comprised of many components that interact with each other in complex and consequential ways to effect organizational outcomes. Changes in one part of the organization may alleviate one problem, but have unintended beneficial and harmful consequences in other parts of the organization. According to Senge the four disciplines (mental models, shared vision, team learning and personal mastery) help organizations move toward and support systems thinking. After analyzing the interview data, it is evident that the study district has incorporated personal mastery, mental models, a shared vision, and team learning within their system. MESD has created a system where the culture is students first and the mission is to increase academic achievement. A mental model of decentralization or site-based management has permeated the system. The
district also supports learning for principals and teachers as they have provided ongoing professional development for cohort leaders, who in take responsibility for developing the capacity of the rest of the staff.

The data also suggests that both cohorts had evidence of the four disciplines, however, Cohort Z displayed all five disciplines at a deeper level. The intense focus on team learning and personal mastery among the five principals created almost a system within the larger system. Their shared vision of closing the achievement gap and serving the students who have often been least well served has brought them together in ways that was not typical of the other cohorts in the district as shown by Cohort Y. The depth of the collaboration, sharing, pushing thinking, and trying to improve is captured by one Cohort Z principal when he said,

I think the conversations that we have stem... they start off with a lot of questions. We start off with "Tell me what you think," or "Tell me what your clarification is. Tell me what you think this is." ... we start with questions, and we're constantly questioning each other. "But wait a minute, do you really mean that?" I think from there, we learn a lot, because we're just bouncing ideas, and it's like "All right, I can see where you're going, and..." But it's not like "Let me tell you what I know, or let me tell you what I think and this is it." No, it's like a balance, it's weird. Dynamics of just questioning,..."Hey, what are you doing with the modeling piece?" Because I know a couple of them are doing a lot with that, and they can share and question more. And it's not like they're telling me like "This is how we do it."

He goes on to say,

As a cohort we challenge each other. It's funny, because we were at the last group...last principals meeting, one of my cohort peers made a comment to the whole group. And I didn't agree with him, I didn't agree with that comment. And so during our break, it was [principal]. "I went up to him, I go hey [principal], I don't agree with you. I don't think that's true what you just said." And he goes, "Then why didn't you say it in front of everybody?" But you see, he didn't take it like... he was more like "OK, cool! That's what I want, come on and bring it!" No, because I think if I
would've brought it up it would've been too much. I don't think people would have... they wouldn't understand it. They would think it was an attack. It's not. It's a way of me learning, him learning, and just pushing our thinking...that's our dialogue. Our dialogue would never mean we have to agree. It's just like "OK, but even from there I'm going to learn something. And I'll take something away from that. OK, I see where you're going." So advice, I think there's a lot of advice too...again, I take it as advice because I trust them. There're very few people I trust, and I trust them. (Z1)

This closeness of Cohort Z, however, was recognized by principals in other cohorts and not always appreciated by them. When a district leader was asked about the effects of Cohort Z on the whole system he responded,

I think it had some positive things but I also think it had some negative things. The positive thing is they took on the responsibility that they had to prove to everybody that they're not going to play with everybody else so they had to get even better results. I think it put an implied accountability that, okay, you're going to go off on your own but you better make even greater results. So that was positive. Do I think it had a negative effect? I think they became exclusionary. I think they perceived themselves better than, a little arrogance I think. A lot of arrogance on some people's part. That they found the way and they're not going to share...So I think there were some attitude problems.

Interestingly, toward the end of the study, an executive director recognizing the tensions among cohorts and at the same time seeing the outcomes when cohorts, as exemplified by Cohort Z, decided to become a learning team, helped the system rethink the cohort model. The new superintendent allowed principals to have more autonomy in forming cohorts as Z had done. Furthermore, principals chose a principal leader for their cohort who was given an additional stipend for leading their cohort. The principal cohort leaders were provided ongoing professional development and met regularly with the superintendent and other cabinet leaders to share growth and challenges. Additionally, the superintendent is holding cohorts accountable for increasing student achievement as a
group as well as individually. One district office executive director described this new enhanced cohort model that was established during the 2011-2012 school year.

We have such partnerships in this district. Now that we have the principal cohorts and our principal leads, that's just been a phenomenal structure that's come together this year. I'm talking with all of my principals. They gained so much professionally through being able to go through the walkthroughs at their colleagues' schools, led by the other principals. They have their closed trainings where they're specifically focusing on what they want to focus on. I see them making just great leaps professionally. I serve as an assist for anything that they may need at their school sites. It could be from wanting to bring new programs into their schools, attaching them with new agencies if they need different social services, for better or worse, handling the parent dilemmas when things just blow sky high and someone has got to come in and run interference. Really whatever those principals need.

Although this article has focused primarily on similarities and differences between two cohorts within the system, this shift in district policy and practice regarding the cohorts illustrates how the system as a whole is a learning organization. By allowing within system autonomy and flexibility to the schools, a naturally occurring experiment took place. As it became clear that a tighter cohort structure could help all schools within a cohort improve at perhaps an even faster or deeper pace, a change was enacted systemwide.

Discussion

Through this embedded single case study, Senge’s components of organizational learning were used as a framework to compare two cohorts of elementary schools in a district that has increased student achievement over the past ten years. The data suggest that the cohort model was key in helping schools and the district move forward in this
large Southern California District. In this section key findings as well as implications for policy and practice will be discussed.

The broader literature of organizational learning, social capital, and intellectual capital has been drawn upon as a foundation to suggest that strong principal collaboration will lead to gains in student achievement because through collaboration the principals enhance their social and intellectual capital. This analysis suggests three key findings:

1. Site-based management worked because it was coupled with some centralized direction, guidance, and support, which in turn promoted organizational learning.
2. The cohort model provided a structure for principals as well as teachers from different schools to receive professional development and thus enhanced social capital within a large district.
3. Strong collaboration especially in Cohort Z, particularly the sharing and exchange of knowledge and high levels of trust enable the principals to generate intellectual capital.

*Site-based Management Worked When Coupled with Some Centralization to Promote Organizational Learning*

The district’s Shared Vision, Shared Values, Student-Based Decision Making framework, and Strategic Goals that were adopted by the Board nearly two decades ago built a centralized vision for all stakeholders that is still in place today. Senge (2006) states that a shared vision is a vital component of a learning organization. All decisions in the study district are to be guided by what is in the best interest of students; and several
principals in both cohorts indicated that the only district mandate is to increase student achievement or get results. However, how schools increase student achievement is site-based where principals have the autonomy to figure out how they will increase achievement each year. This finding is supported by early site-based management literature that showed when schools focused on student learning they got results of increased academic achievement (Leithwood & Menzies, 1998; Smylie, Lazarus, & Brownlee-Conyers, 1994; Wohlstetter, 1995). Even though principals have flexibility to decide what to do at their site, the superintendent holds them highly accountable for increasing student achievement each year, which puts pressure on principals to perform or they could lose their job. However, schools are not left on their own: the district supported implementing as well as sustaining reform efforts, which was also found by McLaughlin and Talbert (2003) in their study of improving districts.

Another component of a learning organization is building personal mastery (Senge, 2006). This district helped principals and teachers build personal mastery by providing ongoing professional development. Since 2006, principals have received professional development on the district initiative at monthly principals meetings as well as coaching from executive directors. The district further supports schools as they have created cohorts where groups of five to seven schools comprised of teacher leaders and the principal (Instructional Leadership Team) come together four times a year to collaborate and receive professional development on the district initiative. A study of the Bay Area School Reform Collaborative BASRC (1995-2001) also found that “schools are not likely to begin or sustain serious work on education reform in isolation; they need a broader community of schools for developing commitment, vision, and capacity to
reculture their purpose” (McLaughlin & Talbert, et al., p. 2-9). Another key component of a learning organization is teamwork and as shown previously, this district also values teamwork and collaboration.

The district policy of site-based management as well as the district cohort model influenced five principals to come together and create a self-selected cohort, Cohort Z. As the findings showed, the principals in Cohort Z built trusting relationships, and they took it upon themselves to collaborate frequently and learn together, which resulted in much more intense interactions. As table 4.1 showed, all of their schools significantly increased student achievement each year; after five years of working together their schools API’s had all exceeded 800, and they were all on the top when compared to similar schools in the state. The example of Cohort Z suggests that if districts want to maximize the learning potential, principals need much more time to interact, but in a format they structure themselves.

When comparing the district created cohort, Cohort Y, to the self-selected cohort, Cohort Z, there were some similarities that were shaped by common districtwide experiences. However, some uniqueness emerged in Cohort Z because of the steps those principals took that had some positive consequences for students. These principals used their data and specified a need to increase student achievement for their entire cohort, especially for their English learners. They had a focus, then created a plan and took action by planning and delivering professional development sessions for their teachers, walking through each others schools, and holding each other accountable for implementation of best practices. All of these components are critical for successful school change and confirm the findings from the BASRC (1995-2001) study. The work
schools did in the BASRC Collaborative were “comprised of projects that fostered inquiry, accountability, leadership, and the development of content and process standards that were intended to provide the pressure and support to create a norm-based, vision-driven Collaborative…” (p. 2-9). This work that was done in the BASRC is very similar to the work that Cohort Z was doing.

*The Cohort Model Enhances Social Capital*

As stated previously, more than a decade ago the district started creating cohorts comprised of principals and teacher leaders from five to seven different schools who came together multiple times throughout the year to receive professional development on the district initiative. Currently, all schools are part of a cohort. The district cohorts met formally four times a year for professional development and a few times throughout the year for walk-throughs. It was at those professional development sessions and during the walk-throughs at different schools where principals and teachers had the opportunity to collaborate with other schools. The cohort model has created a structure where relationships are being fostered across the district, which in turn has helped develop social capital. However, the amount of social capital generated was dependent on how often the principals or teachers collaborated.

The principals in Cohort Z collaborated more frequently than the principals in Cohort Y. Cohort Z principals took it upon themselves to plan their own professional development agenda for their instructional leadership teams. This required these principals to meet on a more frequent basis and as stated in the data, they met as a group at least once a week. Furthermore, the interview data showed that if someone had an
issue or needed some support, they would contact one of their colleagues to get help immediately. In a sense they served as a support system for each other. They worked as a team by sharing ideas, coming up with new ideas, questioning each other, and solving problems together. All of this communication and collaboration helped these principals establish more trusting relationships, an essential component of teamwork according to Senge (2006). By collaborating on a frequent and regular basis, these principals in Cohort Z were generating more social capital than the principals in Cohort Y. Furthermore, the resource teachers in Cohort Z collaborated frequently to plan professional development sessions for grade level teachers and they were generating more social capital as well.

The importance of building social capital as shown in a qualitative study by Mullen and Kochan (2000) was participants’ perspectives were broadened because they had been exposed to peers with multiple ideas and different strengths. Generating more social capital lead to creating intellectual capital for Cohort Z.

**Strong Collaboration and Trust Among Principals Generated Intellectual Capital**

As previously stated, intellectual capital refers to the knowledge created from a social collectivity that propels action based on the new knowledge (Nahapiet & Ghoshal, 1998). In this case, the principals in Cohort Z built trusting relationships. The notion of trust in an organization is a valuable asset and if team members trust one another, they will not only be more willing to share ideas with their team, but they may also be willing to take more risks and share information with other groups (Chhuon et al., 2008; Daly & Finnigan 2011; Olsen & Chrispeels, 2009). The trusting relationships in Cohort Z
allowed them to share vulnerabilities knowing that their peers would not criticize them, but instead would help them. This allowed for even more sharing as well as problem solving.

With the notion that these principals trusted each other, they communicated either in person or over the phone on a regular basis. If someone had a problem, they knew they could contact one of their colleagues and get help or advice right away. They also exhibited strong collaboration by meeting on a weekly basis and reviewing data, planning professional development, questioning each other, and solving problems together. It was during these meetings where they were able to move beyond just discussing; they were able to generate new knowledge and take action. Since individuals in general have an array of perspectives as well as a variety of strengths, the key to intellectual capital is using the combined knowledge of the group to create new knowledge, or knowledge that they would not be able to generate alone, and then use it to take collective action by planning or creating something the entire group could benefit from. This is exactly what this cohort of principals did. The enhanced intellectual capital allowed the Cohort Z principals to plan and deliver four professional development institutes for their instructional leadership teams. They also planned regular walk-throughs at each others schools to give the principals and teachers an outside perspective.

*Conclusions and Implications for Research and Practice*

Although MESD is a high performing district, there are still things the district can improve to make it even more successful. The purpose of this study was to explore more deeply a cohort model that the district put in to place over ten years ago to help facilitate
professional development for leadership teams for all 44 schools. This study is important because it portrays a district that has created a systemwide structure that has allowed teachers and principals to receive ongoing professional development as well as build relationships across the district. Our evidence shows that trusting relationships and strong collaboration amongst principals in a cohort will lead to higher levels of social capital and in turn more intellectual capital.

First, given the district policy of site-based management, a group of principals were able to break away from the district-created cohorts and create their own self-selected cohort. The fact that the principals in Cohort Z had personal similarities and had already established relationships prior to forming their cohort as well as being able to choose whom they wanted to work with strongly influenced their work. These principals realized they shared the same vision and they were all willing to work together to accomplish their mission of increasing student achievement. The principals of Cohort Z also decided they wanted to work together because they had similar types of students at their schools, and they wanted to plan their own professional development focused on the types of students they had at their schools. With district support, it would be beneficial for principals to be able to choose principals who they think they would work well with.

Secondly, two cohorts within the district were analyzed in order to learn more about how principal collaboration could help an organization thrive. The evidence showed that all twelve principals had a clear understanding of the district site-based management policy, the district vision, district mission of increasing student achievement, as well as the high accountability that was monitored by the superintendent. Furthermore, all twelve principals understood the value of teamwork as they all worked
together with their Instructional Leadership Teams to make important decisions for their schools. However, the principals in Cohort Z clearly collaborated more frequently which resulted in more social capital and intellectual capital. Furthermore, they truly exhibited the qualities of organizational learning which pushed their cohort to obtain extraordinary student achievement results. As portrayed in the data, Cohort Z modeled all five disciplines of a learning organization and in a sense were their own learning organization. Senge states that all five of the disciplines, though developed separately, are “critical to the others success” (2006, p. 6) He goes on to say, “Each provides a vital dimension in building organizations that can truly ‘learn,’ that can continually enhance their capacity to realize their highest aspirations” (2006, p. 6). The result has been increased growth in student achievement over a five-year period for English learners and socioeconomically disadvantaged students.

Third, a key element of the cohort work is the ongoing professional development for both principals and teachers. In order for an organization to move forward, the people need to constantly be learning and growing. Cohort Z exemplified how the principals were constantly pushing each other through inquiry and immediate feedback. They planned and delivered their own cohort institutes, which required several hours of planning and collaborating. They also built capacity as their teacher leaders were expected to deliver professional development to teachers at all five schools. Teachers were also growing and learning as they were given the opportunity to teach their peers. In order for schools and district to move forward everyone in the organization needs to continue to build personal mastery.
Finally, studying the work of this tight network of principals in Cohort Z portrays the flexibility of the district in the sense that they have now restructured their cohort model based on the influence of the self-selected cohort’s success and the new superintendent’s guidance. Principals filled out a survey where they got to self-select principals who they wanted to work with as well as principals that they saw as leaders. So, in addition to self-selection, each cohort now has a team leader. The principal team leaders are expected to give guidance to colleagues in their cohort and have been provided professional development on coaching throughout the year. Cohorts are expected to work together and are being held accountable as a group. This new structure with group accountability has created a new focus for principals and the cohort work. The evolution of this new cohort model shows the flexibility of the system to change when needed, an important aspect of a learning organization.

*Delimiters and Areas for Future Research*

This exploratory case study with two embedded units has several limitations. First, the generalizability of the findings is limited because it is a study of one district at one point in time. By looking at longitudinal data, we would be able to see if there is consistency in network patterns. Furthermore, we only compared two cohorts. It would have been a stronger case if we also looked at other cohorts within the district. This is, however, one of the first studies to portray a cohort model where principals as well as teacher leaders collaborate in a district that has been increasing student achievement. More research is needed in a variety of districts to investigate alternative collaboration structures that are yielding results in terms of student achievement.
Chapter 4, in part is currently being prepared for submission for publication of the material. Umekubo, Lisa; Chrispeels, Janet; Daly, Alan. The dissertation author was the primary investigator and author of this material.
CHAPTER 5: DISCUSSION

School reform to close the achievement gap remains a critical issue in American education 25 years after the publication of *A Nation at Risk* (1983). Although schools are the primary focus of most reform efforts, increasingly attention is being given to the role of districts in the improving instruction and closing the achievement gap. Previous studies have shown how increased centralization and coordination of curriculum, assessment and professional development have led to improved student achievement (Elmore & Burney, 1997; Honig, 2008; Supovitz, 2006; Togneri & Anderson, 2003). Less research, however, has been conducted on the formal and informal relationships between a central office and the schools and the ways these relationships contribute to or constrain the reform process (Daly & Finnigan, 2010).

The primary purpose of this study was to examine the role of a school district central office in supporting or constraining learning initiatives of schools within the district by exploring formal and informal relationships. This large elementary district represents a unique case as it has demonstrated a ten year growth in student achievement and closing the achievement gaps for its largely Latino student population. Using social network analysis (SNA) tools and in-depth interviewing of central office and school administrators, and focus group interviews of teacher leaders in eleven schools, this study investigated relationships among central office administrators, between central office leaders and school principals, and among school principals in four key areas: collaboration around work topics, advice seeking from experts, assistance with the district initiated reform strategy, and innovation and risk-taking in regards to English learners. A key question was to understand how these relationships supported and
constrained efforts to improve student achievement. In addition, district policy was explored to see how it affected the formal and informal collaborative structures in the district. In addition, through the interview data, particular attention was given to investigating the role of a cohort structure for the delivery of professional development in this large con-urban school district and the ways in which it may have facilitated the development of social and intellectual capital.

*Conceptual Framework*

Four interrelated concepts—organizational learning, social network theory, social and intellectual capital—framed this research. Research suggests that for organizations to thrive, new knowledge and learning needs to occur at all levels. According to Senge (1990) shared mental models and vision, personal mastery, team learning, and systems thinking are essential components of learning organizations. Yet that learning can be constrained or supported by the underlying social relations among members. Formal organizational charts provide some insights about lines of communication and authority or reveal structures that may facilitate or limit opportunities for collaboration, but social network theory and analysis surfaces underlying patterns of communication and interaction. It is often in these informal networks that the work of the organization is accomplished and that reveal whether the climate is conducive to collaboration and innovation (Moolenaar & Sleegers, 2010). SNA maps help to show if information is flowing through an organization or if a few individuals control the information flow. Maps also help to illustrate the individuals that members of the organization regard as central or key and whether they are conduits or blockers of information. Frequent
informal ties or the density and reciprocity of a network within an organization also tend to be associated with higher levels of trust, a key component of social capital (Coleman, 1990). As Moolenaar, Daly, and Sleegers (2011) argue, “social capital contributes to organizational goals by facilitating the flow of information between individuals and overcoming problems of coordination” (p. 99). Thus, a key hypothesis tested in this study is that high social capital built through extensive social networks facilitated the sharing, exchange, and combination of knowledge among central office administrators, between central office and school leaders, and among school leaders to generate the intellectual capital needed to improve student learning. Embedded in the concept of intellectual capital (Nahapiet & Ghoshal, 1998) is that the members used this new knowledge to take actions collectively in individual schools and across the district that led to enhanced student outcomes.

**Review of Methods**

This study used a descriptive, embedded, single-case study design to explore central office-school relations. Because the study focused on a single district with two embedded units (two cohorts of schools), a case study design using multiple data collection methods seemed most appropriate. Quantitative data were collected using a social network analysis survey that asked central office and site leaders to indicate the frequency of interactions around a variety of topics. In addition, these leaders responded to typical Likert-scaled questions regarding trust, organizational learning, and innovation. The UCINET software (Borgatti, Everett & Freeman, 2002) was used to conduct a series of network measures to better understand the relationships among administrators in four
key areas: collaboration around work topics, advice seeking from experts, assistance with
district initiated reform strategy, and innovation and risk-taking in regards to English
learners. Each network was analyzed based on measures of density, reciprocity,
centrality, and Internal/External index.

Two types of qualitative data were also collected: (a) individual interviews of
leaders and focus group interviews of teachers from the 11 schools chosen for in-depth
follow-up, and (b) district documents including district organizational charts, district
policies (i.e., Student-Based Decision Making framework, Shared Values, Shared Vision,
Shared Goals), and student achievement data. Qualitative data were used to triangulate
the findings of the social network surveys as well as to explore in greater depth the inner
workings of the two cohorts from both principal and teacher perspectives. A constant
comparative analysis approach was used to identify themes. In addition, the theoretical
lens of organizational learning components was used to structure a comparison of the two
cohorts of schools to surface similarities and differences between the cohorts.

Summary of Findings

The first set of findings from this study were based on social network analysis
data and triangulated with data from the central office administrators and principal
interviews. These data showed that overall the district had dense networks in three of the
four networks examined: collaboration, seeking of expert advice, and innovation in
regard to English learners. Interestingly, the network regarding the district’s initiative on
the Gradual Release of Responsibility showed few network ties. The loose coupling in
regard to the district reform initiative was explained through the interview data. These
data revealed that principals and leadership teams were provided professional development on the initiative, but given much autonomy in terms of how much and how they implemented the reform. It was offered as a service to the schools to support them in increasing student achievement, not as a program mandate requiring implementation.

Another compelling finding the data portrayed was the high level of collaboration in a district that is decentralized. The high density in network ties between district administrators and principals is shown in these social network maps: collaboration, seeking of expert expertise, and innovation in regards to English learners. The qualitative interview data also supports this finding as principals and district administrators stated they have established trusting relationships and go to each other for support. The trust data further triangulates this finding as it shows that administrators trust each other.

A third important finding from the data was the critical role principals played in the innovation network. A number of principal nodes were as large as central office leaders, indicating that many other principals were seeking them out for advice on meeting the needs of English learners. Principals are used to supporting each other through the cohort model, and the interview data further supports the quantitative findings as principals stated they go to colleagues for support with English learners. Table 5.1 summarizes the first set of findings and address research questions 1 and 2.
Table 5.1. *Summary of First Set of Findings*

<table>
<thead>
<tr>
<th>1. In what ways do district and site leaders perceive the district’s organizational structure?</th>
<th>2. In what ways do the formal and informal network structures of a district support or constrain the transmission of resources (knowledge, information, and innovation)?</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Both district and site leaders perceive the following regarding the district:</em></td>
<td><em>Both central office and site leaders perceive dense relationships that facilitate information flow and collaboration that supported rather than constrained schools.</em></td>
</tr>
<tr>
<td>• Focused on students (typical organizational chart flipped with students on top)</td>
<td>• High levels of collaboration even though it is a decentralized district.</td>
</tr>
<tr>
<td>• Decentralized (lots of autonomy for site decision-making)</td>
<td>• District provides support, but schools have autonomy to figure out how to increase student achievement.</td>
</tr>
<tr>
<td>• Collaborative</td>
<td>• Cohort structure, principal meetings focused on PD and executive directors who serve as coaches to clusters of schools all facilitated information flow, advice seeking and giving, and innovation.</td>
</tr>
<tr>
<td>• High support from district office to accomplish site goals</td>
<td>• Principals are key players in the leadership network.</td>
</tr>
<tr>
<td>• High accountability for student results</td>
<td></td>
</tr>
<tr>
<td>• Trusting relationships</td>
<td></td>
</tr>
</tbody>
</table>

The second set of findings from this study was based on qualitative interview data triangulated with data from document analysis and social network map data. There were several similarities and a few differences between two cohorts in regards to district policy, procedures, and practices. In addition to a district collaborative culture, interview and focus group data also showed that principals and teachers from both cohorts agreed that their mission was to increase student achievement. Principal data and some focus group data showed that the district policy of site-based management allowed for more autonomy at each school.

A difference that emerged in the data was a stark contrast in principal
collaboration within each cohort. Principals in Cohort Z who had self-selected to collaborate and requested autonomy in working together exhibited more frequent interactions and collaboration. The principals in Cohort Z had been working together for five years and joined together in part because they all served similar students with similar needs and shared a commitment to help all of their schools move forward. In contrast, principals in Cohort Y, as revealed by the interviews, collaborated only when their cohort met for professional development. The network map revealed that the principals collaborated with other principals in the district and several were sought out as collaborators, but there was minimal collaboration within the cohort among principals. There are at least two possible explanations for this finding. There was a change of two principals in this cohort in the past couple of years, which may have changed the dynamics of this cohort, resulting in less collaboration. Furthermore, it takes time, sometimes years, to establish trusting relationships. In addition, the cohort varied more in terms of the range of student demographics, with two of the schools serving more ELs and lower SES students, and two serving much higher SES students which may have resulted in different schools focusing on different things.

Another finding was portrayed through Senge’s (2006) framework for a learning organization. Principal interview data confirmed that one cohort of principals truly exhibited all five components of a learning organization. All five principals were able to move their schools forward as document analysis data showed their schools as being on top when compared to similar schools in the state. The interview data showed they had built trusting relationships, which allowed them to have critical conversations and support each other. Social network map data further portrayed their cohort as having much denser
connections when compared to the other cohort. Table 5.2 summarizes the findings for research question 4 and Table 5.3 summarizes the findings for research questions 3 and 5.

Table 5.2. *Cohort Comparison Using the 5 Disciplines of a Learning Organization*

<table>
<thead>
<tr>
<th></th>
<th>Cohort Y</th>
<th>Cohort Z</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Personal Mastery</strong></td>
<td>• PD Principal meetings</td>
<td>• PD Principal Meetings</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Planned Cohort PD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Informal Collaboration</td>
</tr>
<tr>
<td><strong>Shared Vision</strong></td>
<td>• Focus on student achievement at their own school</td>
<td>• Focus on student achievement at all 5 schools in cohort</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Learning together</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Closing the achievement gap</td>
</tr>
<tr>
<td><strong>Mental Models</strong></td>
<td>• Decentralization</td>
<td>• Decentralization</td>
</tr>
<tr>
<td></td>
<td>• Data Driven</td>
<td>• Data Driven</td>
</tr>
<tr>
<td></td>
<td>• Teamwork</td>
<td>• Teamwork</td>
</tr>
<tr>
<td><strong>Team Work</strong></td>
<td>• School ILT</td>
<td>• School and Cohort ILT</td>
</tr>
<tr>
<td></td>
<td>• Cohort Walkthroughs</td>
<td>• Frequent collaboration</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Trusting relationships</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Accountability</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Dialogue</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Inquiry</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Challenged each other</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Planned professional development for cohort</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Cohort walkthroughs</td>
</tr>
<tr>
<td><strong>Systems Thinking</strong></td>
<td></td>
<td>• Cohort as a learning community</td>
</tr>
</tbody>
</table>
### Table 5.3. Summary of Second Set of Findings

<table>
<thead>
<tr>
<th>3. How do two selected clusters of schools (cohorts) within the district vary in terms of their response to district policy, practices, and procedures? What are the similarities and differences? What are the student outcomes for each cohort?</th>
<th>4. In what ways did two selected cohorts exhibit the qualities of organizational learning?</th>
<th>5. What behaviors and practices of the principals within two selected cohorts support organizational learning and the creation of social and intellectual capital?</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Principals of both cohorts have a clear understanding of district policy (i.e., vision, focus on student achievement, autonomy).&lt;br&gt;• Teachers views on decentralization varied in Cohort Y whereas Cohort Z teachers unanimously understood the school had decision making authority.&lt;br&gt;• Cohort Z has maintained high levels of student achievement over a 3-year period whereas Cohort Y’s achievement has varied.&lt;br&gt;• Cohort Y was a district-selected cohort whereas Cohort Z was a self-selected cohort.</td>
<td>See Table 5.2. Behaviors and practices of Cohort Z principals that led to enhanced intellectual capital:&lt;br&gt;• Frequent collaboration&lt;br&gt;• Trusting relationships&lt;br&gt;• Inquiry&lt;br&gt;• Exchanged and combined knowledge to take new actions to improve their schools</td>
<td></td>
</tr>
</tbody>
</table>

After analyzing both, quantitative social network data and qualitative interview data, this study has portrayed a district that has clearly established a culture of collaboration and a policy of decentralization coupled with a clear vision of increasing student achievement and strong accountability. The findings have also shown that there can be considerable variability within a district as two cohorts operated very differently.
Conclusions

Several salient conclusions were drawn from this study that provide insights into the significant student gains this district has achieved. First, similar to other studies of succeeding districts (Elmore & Burney, 1997; Togneri & Anderson, 2003) the study district had a clear vision for student learning. This vision permeated the school system because it was reflected not only in the mission statement but also in the district’s student-centered decision making framework, in the organizational chart, and in the principal accountability and evaluation system. This vision was also revealed in practice, when Cohort Z was allowed to self-organize when the principals convinced the central office leaders that this reorganization would allow them to better meet their student needs and increase achievement. This coherence of vision provided clear guidance to principals and teachers about the focus of their work. Senge (2006) stated that a shared vision is essential to a learning organization.

A second insight from the findings is that with a clear vision it is possible to provide guidance and support without programmatic mandates. In other words, the goal of increasing student achievement was clear but the means for achieving the goal allowed considerable flexibility and autonomy to each school to choose the best way to for them to get there. However, the strong accountability for student learning created high stress on school leaders. There is support, but they certainly know the “buck stops with them” and their jobs are on the line if student achievement does not improve.

A third conclusion to be drawn from this study is that autonomy and decentralization are not incompatible with collaboration. The district supported the building of a collaborative culture by creating formal structures, which allowed
opportunities for collaboration and brokering services across the district. Its ten year commitment to grouping schools into cohorts to provide professional development for each school’s Instructional Leadership Team, its regular principal meetings that focused on professional development, the shared walk-through process of principals and teachers visiting each other schools, and the central office flexibility in allowing one cluster of schools to form their own self-selected cohort all facilitated collaboration. The level of collaboration between schools, and between principals and central office leaders fostered trusting relationships. The data also showed that the more frequent the collaboration and intensity of interaction, the greater the trust. Cohort Z was able to take their schools to high levels of learning in part because of the high level of collaboration and trust amongst the principals.

A fourth important insight is the openness of the district to rethinking its role as a service center to schools rather than as monitors of compliance. The assignment of executive directors with content expertise to clusters of schools with no evaluative function seemed to be appreciated by principals. The structure was flexible so that any principal could call on needed expertise. The flexibility however did lead to variability within district cohorts and to somewhat different outcomes. Cohort Z pioneered a different level of collaboration and independence from the district, which was not always appreciated by other principals. However, the ultimate result was the central office chose to learn from their efforts and in 2011 a new cohort structure was implemented based on greater self-selection and a cohort leader chosen by each cohort’s members. Collaboration and communication among these new cohorts was to be facilitated by
regular meetings of the leaders with the superintendent, assistant superintendent, and executive directors.

Finally, by examining two cohorts in detail, it was possible to see that the central office had created the conditions for a learning organization where the whole system is continuously growing, learning and changing. Through sustained professional development in a few key areas (building the capacity of leadership teams to look at data and guide their colleagues, and enhancing capacity in effective instructional practices) the district led the system in increasing their learning capacity, and social and intellectual capital throughout the system. The outcome is continuous improvement and increasing student achievement.

*Implications for Policy and Practice*

With the abundance of districts and schools already in PI and several more that will be facing sanctions, it is time to rethink different ways of increasing student achievement. As this study exemplified, the district office is a key link to school improvement. In this case, the district central office assumed the responsibility of rethinking its role and function, whereas many school reform initiatives focus only on how the schools need to change. This case suggests that a decentralized district coupled with a clear vision of student achievement and high accountability for principal performance can allow schools the autonomy and professionalism to be innovative in meeting the needs of their unique student populations and still get results across the whole district. Findings from this study indicate districts need to be active in providing direction, guidance, and support to help schools increase student achievement, but this
can be done with a focus on the goal of increasing achievement, not on program mandates. It is also important for districts to become learning organizations where the whole system is continuously growing, learning, and changing.

A lesson learned from this study suggests that formal structures, such as the cohort model and walk-throughs, which allow more opportunities for networking, collaborating, and brokering services across the district are necessary. The work of improving schools must be accomplished collectively. It is through strong network connections and personal relationships where information and new ideas can be diffused, and district administrators, principals, and teachers are able to support each other as well as figure out how to work together to increase student achievement. These formal structures promote strong informal collaborative learning relationships as exemplified by Cohort Z.

A final insight from examining this high performing district in detail is that schools and students benefit when principals establish trusting relationships and collaborate on a frequent basis. Principals are too often left to work in isolation wasting valuable district resources. When central offices facilitate principal collaboration, they are able to increase their learning capacity, create intellectual capital, and ultimately increase the learning capacity of the district. When principals are able to build trusting relationships, they are more likely to help one another solve complex problems and tackle new learning. Furthermore, as exemplified by Cohort Z, principals need to have discussions about tough situations, question each other, and work together to build capacity with their teachers. Principals’ working together has the potential to boost their learning to another level by inquiry, challenging each other, and holding each other
accountable. It is through this type of collaborative work where principals will be able to move their schools forward.

Areas for Further Research

This is one of the first studies to portray network maps in a district that has been increasing student achievement. Although the four social network maps in the study district show different patterns than districts that are In Need of Improvement, more research is needed in a variety of districts. There is congruence in this district between the organizational chart of how the central office and schools are connected and the informal social network maps. This coherence suggests both have played a role in increasing achievement. It would be worth investigating other high achieving districts to see if there are similar patterns.

Furthermore, only two cohorts of schools were compared within the district. It would have been a stronger case if other cohorts were looked at. This is, however, one of the first studies to portray a cohort model where teacher leaders as well as principals collaborate in a district that has been increasing student achievement. More research is needed in a variety of districts to investigate alternative collaboration structures that are yielding results in terms of student achievement.

Concluding Remarks

As the federal and state accountability systems change in a couple of years, educators will be expected to learn a new set of standards. The Common Core State Standards that have been adopted are much more rigorous. District administrators, principals, and teachers are going to have to work together to figure out the most
effective ways to teach students how to master these standards so they will be college and career ready upon graduating high school. This study shows one possible model that can help districts be successful on this journey.
APPENDIX A

Social Network Map

Figure 2.3 Relationships

Deal, Purinton, & Waetjen, 2009, p. 18

KEY

○ = node

⇒ = ti
APPENDIX B

Student Achievement Data from Study District

Percent Proficient or Advanced on the CST in Language Arts and Math:

Comparison of 2004 and 2009 (CDE, 2009)

<table>
<thead>
<tr>
<th>Group</th>
<th>English/Language Arts</th>
<th>Math</th>
</tr>
</thead>
<tbody>
<tr>
<td>Districtwide</td>
<td>37%</td>
<td>62%</td>
</tr>
<tr>
<td>African American</td>
<td>33%</td>
<td>62%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>27%</td>
<td>55%</td>
</tr>
<tr>
<td>White</td>
<td>55%</td>
<td>75%</td>
</tr>
<tr>
<td>SED</td>
<td>22%</td>
<td>48%</td>
</tr>
<tr>
<td>English Learners</td>
<td>20%</td>
<td>47%</td>
</tr>
<tr>
<td>SWD</td>
<td>13%</td>
<td>40%</td>
</tr>
</tbody>
</table>

API Growth Score in 2004 and 2009

<table>
<thead>
<tr>
<th>Group</th>
<th>Academic Performance Index (API)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2004</td>
</tr>
<tr>
<td>Districtwide</td>
<td>722</td>
</tr>
<tr>
<td>African American</td>
<td>702</td>
</tr>
<tr>
<td>Hispanic</td>
<td>677</td>
</tr>
<tr>
<td>White</td>
<td>806</td>
</tr>
<tr>
<td>SED</td>
<td>649</td>
</tr>
<tr>
<td>English Learners</td>
<td>N/A</td>
</tr>
<tr>
<td>SWD</td>
<td>N/A</td>
</tr>
</tbody>
</table>
APPENDIX C

Trust, Innovation, and Organizational Learning Scales

Innovation Scale

Principals/District Administrators are continuously learning and seeking new ideas
Principals/District Administrators are generally willing to try new ideas
Principals/District Administrators are constantly trying to improve their leadership
Principals/District Administrators have a positive ‘can-do’ attitude
Principals/District Administrators are willing to take risks to make the district better
Principals/District Administrators are encouraged to ‘stretch and grow’
Principals/District Administrators are continuously developing new approaches to support instruction?

Organizational Learning Scale

CVESD administrators serve as a resource for one another
CVESD experiments with new ways of thinking.
CVESD has a formal process for evaluating programs or practices.
CVESD rarely examines common instructional practices.
CVESD frequently discusses the theory behind instructional practice.
CVESD values authentic professional development.
In CVESD time is made available for education/training activities for school staff.
CVESD has forums for sharing information among staff.

Trust Scale

Administrators typically support each other.
Even in difficult situations, administrators can depend on each other.
Administrators trust each other.
Administrators are open with each other.
Administrators have faith in the integrity of their colleagues.
Administrators are suspicious of each other.
When administrators tell you something you can believe it.
Site administrators do their jobs well.
ESSC administrators do their jobs well.
APPENDIX D

Informed Consent for Individual Participation in Research

District-School Leadership for Organizational Learning: Finding the Balance

Lisa A. Umekubo, a researcher/graduate student in the Joint Doctoral Program (UCSD and CSUSM) in Educational Leadership is conducting a study on how district policies and practices affect organizational learning and student achievement. You are being invited to participate in this study because you are an administrator or teacher leader in a unique district that has continued to increase student achievement over the past five years. A total of 47-50 participants will be included in this research study.

This study has one main objective:

1. To better understand how district policies and practices affect organizational learning and student achievement.

You are being invited to participate in a one-on-one interview that will last approximately one hour. I will be asking your permission to tape record the interview. There will be questions about district policies and practices and how they affect student achievement. There are no right or wrong answers and your candid responses are appreciated. You may decline to answer any of the questions and you may stop the recording at any time. If you would like to participate in the interview over the phone rather than in a face-to-face meeting, arrangements can be made to accommodate your request. Participation in this study will not affect your job in any way. I have no evaluative responsibilities and will not share anything said with other administrators or teachers in this district.

Although there are no direct benefits or compensation paid to you for participating in this study, I believe your responses could provide beneficial information for the larger educational community and provide a district reform model for other districts to emulate.

All information collected in this study is confidential. Responses will be anonymous and kept confidential through the use of pseudonyms for participants and anyone mentioned by a participant. No individual response will be identified in a way that can result in your identification. The researcher and a transcription service will transcribe audiotape recordings. The transcription service will not know your name, but only a code number. Transcripts will be entered in a password protected computer file and both hard and digital copies will be stored in a locked safe. This data will be maintained on a single password protected computer. The researcher is the only individual with access to the safe, computer, and files.

By signing below, you indicate that the researcher has explained this study, answered your questions, and that you voluntarily grant your consent, which can be withdrawn at any time, for participation in this study. If you would like your participation to end, simply state your desire to end. All interviewing and taping will immediately cease. Due to these provisions, there is little personal risk associated with your participation in this study. The researcher also retains the right to withdraw the interview form the final study without the subject’s consent.

If you have any questions regarding this study, I will be happy to answer them now. If you have any questions in the future, please contact me at 619.699.9397 or lumekubo@gmail.com. Additionally, questions can be directed to my advisor, Dr. Janet Chrispeels, at 858.422.1625 or jchrispeels@ucsd.edu. If you have any questions about your rights as a research participant, you may contact the Institutional Review Board at the University of California, San Diego Human Research Protections Program at 858.455.5050.

Participant’s Name
Participant’s Signature
Date
APPENDIX E

Informed Consent for Focus Group Participation in Research

District-School Leadership for Organizational Learning: Finding the Balance

Lisa A. Umekubo, a researcher/graduate student in the Joint Doctoral Program (UCSD and CSUSM) in Educational Leadership is conducting a study on how district policies and practices affect organizational learning and student achievement. You are being invited to participate in this study because you are an administrator or teacher leader in a unique district that has continued to increase student achievement over the past five years. A total of 47-50 participants will be included in this research study.

This study has one main objective:

1. To better understand how district policies and practices affect organizational learning and student achievement.

You are being invited to participate in a focus group interview that will last approximately one hour. I will be asking your permission to tape record the interview. There will be questions about district policies and practices and how they affect student achievement. There are no right or wrong answers and your candid responses are appreciated. You may decline to answer any of the questions and you may stop the recording at any time. If you would like to participate in the interview over the phone rather than in a face-to-face meeting, arrangements can be made to accommodate your request. Participation in this study will not affect your job in any way. I have no evaluative responsibilities and will not share anything said with other administrators or teachers in this district.

Although there are no direct benefits or compensation paid to you for participating in this study, I believe your responses could provide beneficial information for the larger educational community and provide a district reform model for other districts to emulate.

All information collected in this study is confidential. Responses will be anonymous and kept confidential through the use of pseudonyms for participants and anyone mentioned by a participant. No individual response will be identified in a way that can result in your identification. The researcher and a transcription service will transcribe audiotape recordings. The transcription service will not know your name, but only a code number. Transcripts will be entered in a password protected computer file and both hard and digital copies will be stored in a locked safe. This data will be maintained on a single password protected computer. The researcher is the only individual with access to the safe, computer, and files.

By signing below, you indicate that the researcher has explained this study, answered your questions, and that you voluntarily grant your consent, which can be withdrawn at any time, for participation in this study. If you would like your participation to end, simply state your desire to end. All interviewing and taping will immediately cease. Due to these provisions, there is little personal risk associated with your participation in this study. The researcher also retains the right to withdraw the interview form the final study without the subject’s consent.

If you have any questions regarding this study, I will be happy to answer them now. If you have any questions in the future, please contact me at 619.699.9397 or lumekubo@gmail.com. Additionally, questions can be directed to my advisor, Dr. Janet Chrispeels, at 858.422.1625 or jchrispeels@ucsd.edu. If you have any questions about your rights as a research participant, you may contact the Institutional Review Board at the University of California, San Diego Human Research Protections Program at 858.455.5050.

____________________________  ____________________  ____________
Participant’s Name  Participant’s Signature  Date
APPENDIX F

Audiotape Recording Consent Form

District-School Leadership for Organizational Learning: Finding the Balance
Lisa A. Umekubo
Education Studies
UCSD and CSUSM

As part of this project an audiotape recording will be made of you during your participation in this research project. Your participation is completely voluntary. In any use of the audiotapes, your name will not be identified and your identity will be kept completely anonymous. No individual response will be reported in a way that identifies you as the source. This is done to protect you from any possible adverse effects from your participation. Due to this provision, there is relatively little personal risk associated with participation in this study. You may request to stop the taping at any time or to erase any portion of your taped recording. To end the session simply state your desire to end and all interviewing and taping will immediately cease. The researcher retains the right to withdraw the interview from the study without the subject’s consent. Please indicate below the uses of these audiotape recordings to which you are willing to consent by initialing the statements.

_______ 1. The audiotapes can be studied by the researcher for the use in the research project.
Initial

_______ 2. The audiotapes can be used for scientific publications.
Initial

_______ 3. The audiotapes can be reviewed at meetings of scientists interested in the study of education and educational practices.
Initial

________________________________________   __________________________
Signature                                      Date

________________________________________   __________________________
Witness Signature                             Date
APPENDIX G

*Interview Questions for District Administrators*

*District-School Leadership for Organizational Learning: Finding the Balance*

1. CVESD has made an impact by significantly increasing student achievement over the past five years.
   a. What does the district do that you think is contributing to this positive student achievement?
   b. What are some of the practices or actions at school do you see contributing to increased positive growth?

2. Are there things you feel need to be changed at the district that would contribute to positive growth?
   a. Are there things that need to be changed at your school that would contribute to positive growth?

3. You may or may not be familiar with other districts’ practices, but do you think there are any unique things being done at CVESD that may help explain the positive achievement trend?

4. Is there anything that the district mandates or requires schools to do that you think has contributed to student achievement goals?
   a. Are there any mandates that get in the way?

5. What kind of decisions (autonomy) has the district delegated to schools?
   a. What kinds of things do you get to decide that has contributed to your school’s development?

6. In trying to accomplish goals/improve achievement for students, whom do you turn to for support?
   a. Is there anyone at the school sites you turn to for support?
   b. Is there anyone in the district office you turn to for support?

1. Some reports have indicated that districts find it hard to be innovative under NCLB. In the last couple of years can you describe a time in which you feel you and your district implemented an innovation or took a creative risk that you think paid off for students.
   a. What did you do?
   b. Who was involved?
   c. Who supported you from the district? School sites?
   d. What was the outcome?
   e. How did you feel? Your faculty feel?
   f. What could be done to have more innovative moments like that one?

7. Have you done anything innovative in meeting the needs of English learners?
   a. Tell me about the process?
   b. How did you know it was successful?

8. Is the process you used in implementing this innovation typical of how change happens in your school?
   a. If not, tell me how it typically happens.
   b. Is there anything else about the process you’d like to add?

9. What can the district do to encourage innovation?

10. District and schools all over the state are struggling to meet the needs of English learners, what supports/practices in this district do you think have really made a difference? What about District practices that have helped ELs?
APPENDIX H

Interview Questions for Site Administrators

District-School Leadership for Organizational Learning: Finding the Balance

1. CVESD has made an impact by significantly increasing student achievement over the past five years.
   a. What does the district do that you think may be contributing to this positive student achievement?
   b. What do you do at your school to contribute to increasing student achievement?

2. Are there things you feel need to be changed at the district that would contribute to positive growth?
   a. Are there things that need to be changed at your school that would contribute to increased positive growth?

3. You may or may not be familiar with other districts’ practices, but do you think there are any unique things being done at CVESD that may help to explain the positive achievement trend?

4. Is there anything that the district mandates or requires schools to do that you think has contributed to your school’s student achievement goals?
   a. Are there any mandates that get in the way?

5. What kind of decisions (autonomy) has the district delegated to schools?
   a. What kinds of things do you get to decide that has contributed to your school’s development and to student achievement?

6. In trying to accomplish goals/improve achievement for students, whom do you turn to for support?
   a. Is there anyone in your cohort you turn to for support?
   b. Is there anyone in the district office you turn to for support?

7. Some reports have indicated that schools find it hard to be innovative under NCLB. In the last couple of years can you describe a time in which you feel you and your school implemented an innovation or took a creative risk that you think paid off for students.
   a. What did you do?
   b. Who was involved?
   c. Who supported you from the district? School sites?
   d. What was the outcome?
   e. How did you feel? Your faculty feel?
   f. What could be done to have more innovative moments like that one?

8. Have you done anything innovative in meeting the needs of English learners?
   a. Tell me about the process?
   b. How did you know it was successful?

9. Is the process you used in implementing this innovation typical of how change happens in your school?
   a. If not, tell me how it typically happens.
   b. Is there anything else about the process you’d like to add?

10. What can the district do to encourage innovation?

11. District and schools all over the state are struggling to meet the needs of English learners, are there supports/practices in this school that you think have really made a difference? What about District practices that have helped E
APPENDIX I

Interview Questions for Teacher Leader Focus Groups

District-School Leadership for Organizational Learning: Finding the Balance

1. CVESD has made an impact by significantly increasing student achievement over the past five years.
   a. What does the district do that you think may be contributing to this positive student achievement?
   b. What do you do at your school to contribute to increasing student achievement?

2. Are there things you feel need to be changed at the district that would contribute to positive growth?
   a. Are there things that need to be changed at your school that would contribute to increased positive growth?

3. You may or may not be familiar with other districts’ practices, but do you think there are any unique things being done at CVESD that may help to explain the positive achievement trend?

4. Is there anything that the district mandates or requires schools to do that you think has contributed to your school’s student achievement goals?
   a. Are there any mandates that get in the way?

5. What kind of decisions (autonomy) has the district delegated to schools?
   a. What kinds of things do you get to decide that has contributed to your school’s development and to student achievement?

6. In trying to accomplish goals/improve achievement for students, whom do you turn to for support?
   a. Is there anyone in your cohort you turn to for support?
   b. Is there anyone in the district office you turn to for support?

7. Some reports have indicated that schools find it hard to be innovative under NCLB. In the last couple of years can you describe a time in which you feel you and your school implemented an innovation or took a creative risk that you think paid off for students.
   a. What did you do?
   b. Who was involved?
   c. Who supported you from the district? School sites?
   d. What was the outcome?
   e. How did you feel? Your faculty feel?
   f. What could be done to have more innovative moments like that one?

8. Have you done anything innovative in meeting the needs of English learners?
   a. Tell me about the process?
   b. How did you know it was successful?

9. Is the process you used in implementing this innovation typical of how change happens in your school?
   a. If not, tell me how it typically happens.
   b. Is there anything else about the process you’d like to add?

10. What can the district do to encourage innovation?

11. District and schools all over the state are struggling to meet the needs of English learners, are there supports/practices in this school that you think have really made a difference? What about District practices that have helped ELs?
REFERENCES


Thompson, C., Sykes, G., & Skrla, L. (2008). *Coherent Instructionally focused district leadership: toward a theoretical account.* The Education Policy Center at Michigan State University.


