

An Exploratory Study of Teacher Leaders Who Work Between the Central Office
and Schools

A Dissertation
SUBMITTED TO THE FACULTY OF
UNIVERSITY OF MINNESOTA
BY

Audrey L. Murray

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

Jennifer York-Barr, Advisor

April, 2014

© Audrey L. Murray 2014

Acknowledgements

I was fortunate to have the advice, insight, and feedback of many people during the development and writing of this dissertation. I am deeply grateful to the faculty and staff of the University of Minnesota, Department of Organizational Leadership, Policy, and Development. I owe a special thanks to Jennifer York-Barr, my advisor, for inspiring me throughout my journey, and patiently guiding me through the painstaking process of conceptualizing this research. Karen Seashore has persistently challenged me to think in new ways about my work as an educator and the relationship of research to practice. Jean King and Cryss Brunner have generously given their time to read and comment on this work, and to offer encouragement. My daughter, Jesse, and my son, Aaron, kept me going with their unwavering encouragement and humbling belief in me. And, finally, the study would not have happened if it weren't for the generosity of the teacher leaders who took time out of impossibly busy schedules to sit down and talk with me about their inspiring work.

*This dissertation is dedicated to my grandmothers,
who could never have imagined this for themselves, but always dreamed it for me.*

Abstract

This study describes the work of central office teacher leaders, and identifies ways they carry out their work in different parts of their school district. The author uses a qualitative interview approach to explore how central office teacher leaders enact their work as they move between the school district central office and schools. Data for the study were gathered through in-depth qualitative interviews with twelve central office teacher leaders from five Midwestern school districts. Participants perceived themselves as sensemakers who help others understand new ideas in teaching and learning, and what is going on in various parts of the school district structure. Participants engaged in a wide variety of work throughout their school districts. In their view, four core professional practices mediate the effect of central office teacher leadership, including the continuous deepening of professional expertise, gathering and sharing information, making sense of teaching and learning, and making sense of the organization. In addition, central office teacher leaders rely on critical organizational supports to increase district capacities for teaching and learning, including systemic commitment, a well-articulated plan for professional learning, time and ongoing interactions with teachers and principals, and a dual presence in schools and in the central office. The study makes three unique contributions. First, it integrates three fields of research, school district reform, teacher leadership, and job crafting. Second, this study is an early attempt to understand the day-to-day work of school district reform. Third, it examines teacher leadership in a new context, the boundary between schools and the school district central office.

TABLE OF CONTENTS

LIST OF TABLES	viii
LIST OF FIGURES	ix
CHAPTER 1 – INTRODUCTION	1
Study Purpose and Research Questions	2
Design	3
Definitions of Terms	4
Conceptual Framework - A Brief Introduction	6
The Basic Parts of Complex Organizations	7
Job Crafting Theory	11
The Role of Mid-level Central Office Staff in School District Reform	11
Limitations	12
Overview of the Study	13
CHAPTER 2 – LITERATURE REVIEW	14
Conceptual Framework	14
Mintzberg’s Theory of Structuring Organizations	14
Mintazberg’s Theory Adapted for School Districts	18
Job Crafting Theory	19
School District Reform Literature	22
Background	22
Sociocultural Perspectives on District Reform	24
Institutional Perspectives on District Reform	26

Summary of District Reform Literature.....	27
Teacher Leadership Literature	29
Background.....	28
The Influence of Content Knowledge.....	32
Systemic and Structural Relationships.....	34
Summary of Teacher Leadership Literature	36
Implications for Research	37
Proximity as a Means of Influence	38
District Reform, Teacher Leadership, and Learning	39
Recursive, Reciprocal Interactions	40
Summary	43
CHAPTER 3 – METHODOLOGY	45
Sampling	46
Data Collection	52
Data Analysis	55
Methodological Integrity	55
CHAPTER 4 – FINDINGS.....	57
The Work of Central Office Teacher Leaders	57
Work Within the Technostructure	58
Assistance Work	60
Supervisory Work	61
Coordination Work	63

Work With Schools.....	64
Development Work That Supports District Objectives	65
<i>Supporting District Objectives by Developing Teacher Leadership</i>	66
<i>Supporting District Objectives Through Action Research</i>	67
Development Work That Supports School Objectives	68
The Critical Nature of Relationships With Principals	69
The Meaning of Development Work With Schools	70
Work With Mid-level Administration	71
Assistance Work With District Directors	72
Development Work With District Principals.....	73
Tasks and Interactions Involving Top-level Administration	73
The Experience of Spanning Between Schools and the Central Office.....	76
Shaping Practice by Helping Others Make Sense of Change.....	78
Core Professional Practices.....	79
Continuous Deepening of Professional Expertise.....	80
Gathering and Sharing Information	82
Making Sense of Teaching and Learning	83
Making Sense of the Organization.....	85
Critical Organizational Supports.....	86
Systemic Commitment.....	87
A Well-Articulated Plan for Professional Learning.....	89
Time and Ongoing Opportunities for Learning	90

A Dual Presence in Schools and in the Central Office	92
Examples of Job Crafting by Central Office Teacher Leaders	94
Task Crafting	95
Relational Crafting	96
Cognitive Crafting	97
Summary	100
CHAPTER 5 – CONCLUSIONS AND IMPLICATIONS	102
Conclusions	102
Implications for Research	104
Implications for Practice	107
Implications for Development	110
Summary	112
REFERENCES	113
Appendix A – Summary of District Reform Literature	123
Appendix B – Summary of Teacher Leadership Literature	129
Appendix C – Nomination Form	134
Appendix D – Invitation and Consent Form	135
Appendix E – Interview Protocol	138
Appendix F – Coding Scheme	143

LIST OF TABLES

TABLE 1	
Exemplar of the shaping influence of mid-level central office staff in one Midwestern school district.	20
TABLE 2	
A comparison of participants' tenure as classroom teachers with their tenure as central office teacher leaders.	51
TABLE 3	
Work done by study participants in different parts of a school district structure.	59
TABLE 4	
Examples of task crafting by study participants.	96
TABLE 5	
Examples of relational crafting by study participants.	98
TABLE 6	
Examples of cognitive crafting by study participants.	99

LIST OF FIGURES

FIGURE 1

Mintzberg’s (1979) model, “Five Basic Parts of Organizations” (p. 20) 8

FIGURE 2

Conceptual framework for situating central office teacher leaders’ work in relationship to other work, responsibilities, and authority within a school district structure. Adapted from Mintzberg’s (1979) model, “Five Basic Parts of Organizations” (p. 20)..... 10

FIGURE 3

The intersection between schools and central office, and administrative and teaching roles—a social space for arranging and negotiating school district reform through brokered interaction. 25

FIGURE 4

Conceptual framework for central office teacher leaders’ approach to boundary spanning and brokering activity. 77

CHAPTER 1 – INTRODUCTION

Pushed by federal education policies, such as the No Child Left Behind Act (U.S. Department of Education, 2002) and the American Recovery and Reinvestment Act (U.S. Department of Education, 2009), the focus of work done in school district central offices has shifted from managerial functions to improving instruction in schools. Many school districts respond to these policies by creating centrally orchestrated support systems that are staffed with instructional leaders who are teachers. However, there is a relatively limited base of knowledge about teacher leadership beyond schools, or about teacher leadership as a phenomenon associated with districtwide instructional improvement (Firestone & Martinez, 2007; Wells, Maxfield, Klocko, & Feun, 2010; York-Barr & Duke, 2004). Moreover, there is an implication in most central office literature that the individuals who work as districtwide instructional leaders are, uniformly, administrators (Burch & Spillane, 2004; Honig, 2008; Stein & Coburn, 2008).

The invisibility of teacher leaders in discussions of the central office role in instructional improvement is worthy of attention because teachers and administrators are positioned differently in relationship to school district power structures. Teachers serving as districtwide instructional leaders do so as “mid-level central office staff” (Burch & Spillane, 2004, p. 3). It is through their interactions with teachers and principals that “school staff largely encounter and make sense of district reforms” (p. 29). While superintendents, school boards, and other policy makers adopt broad stroke visions of change, central office teacher leaders are among those who operationalize the visions for teachers and principals in schools. In order to fully understand the dynamics of the relationship between the central office and schools, we need to know who is doing what

in the central office and how these individuals influence the implementation of policies and practices at the school level. The study described in this thesis is an attempt to selectively identify the work done by teacher leaders who are hired for central office positions to support instructional improvement in schools.

The study seeks to contribute new knowledge in two distinct fields of research—district reform and teacher leadership. In particular, this study endeavors to help us understand the daily work and practices of a particular community of educators within the central office: central office teacher leaders. These community members work alongside central office administrators and school principals to impact how school staff understand districtwide efforts to improve teaching and learning. In addition, this study attempts to broaden the concept of teacher leadership by examining it in a new setting—the boundary between schools and the school district central office.

Study Purpose and Research Questions

Given the limited base of knowledge about central office teacher leadership, the purpose of this qualitative study is (a) describe the work of central office teacher leaders, and (b) identify ways they carry out their work in different parts of their school district. The aim of the study is to contribute new knowledge in two fields of research: district reform and teacher leadership. First, the study aims to provide new information about the day-to-day work of districtwide instructional improvement. In addition, the study aims to develop a deeper understanding of the contexts and implications of leadership by teachers.

The primary research question is: How do central office teacher leaders perceive and enact their work in different parts of a school district structure? The inquiry is also guided by the following secondary research questions:

1. What is the work of central office teacher leaders?
 - a. What tasks, or pieces of work, do they do?
 - b. With whom do they interact to accomplish these tasks?
 - c. What is the nature of the work?
 - d. What parts of the school district structure are involved?
2. How do central office teacher leaders approach boundary spanning and brokering activity?
 - a. How do they perceive their roles within and between the central office and schools?
 - b. What conditions help or hinder them?
3. How do central office teacher leaders shape their work?

Design

The study has a qualitative interview design. Two purposive sampling strategies—positional sampling and reputational sampling—were used to identify participants for the study. The positional sampling strategy supported the identification of participants who are licensed teachers serving as instructional leaders in their respective school district central offices. This condition is fundamental to the research questions. The reputational strategy supported the identification of participants who are perceived as positive examples of central office teacher leadership in the eyes of other

educational leaders. This condition is warranted by the newness of the topic and the aims of the study.

The sample was constructed in three phases. In the first phase, members of the board of directors for a state affiliate of an international educational association were invited to nominate potential participants for the study. The nominations were made anonymously by means of an online survey tool at the University of Minnesota. In phase two a panel of experienced researchers at the University of Minnesota evaluated the nominations according to a set of previously established criteria, and recommended that all but one nominee, an individual who was new to a central office position, be invited to participate in the study. In the third phase of the sample construction, personal invitations were sent to the twenty-two nominees approved by the panel. Twelve nominees accepted the invitation and became participants in the study.

Data, in the form of audio records and field notes, were collected during a single, in-depth interview with each of the twelve participants. The audio records were transcribed, and the transcriptions and field notes were analyzed in three stages (Merriam, 2009). First, relevant concepts and themes were coded and categorized according to the research question illustrated in the passage. Next, the coded passages were reread, and relationships between categories were identified. Finally, the relationships between categories were used to construct models that conceptualize the study findings.

Definitions of Terms

To clarify the meaning of significant terminology used in this study, definitions are provided next, preceding a brief introduction to the conceptual framework in which some of the terms are used.

1. **boundary spanning** the essential function of linking parts of the school district structure to external information (Tushman, 1977). For example, linking schools to information and expertise in the central office or in other schools, and vice versa.
2. **brokering** facilitating the exchange of information and expertise to mediate professional learning (Burch & Spillane, 2004; Wenger, 1998). Brokering activity is fundamental to boundary spanning.
3. **central office** administrative center for a school district; locus of districtwide functions, including top-level administration, the technostructure, mid-level administration, and support services.
4. **central office teacher leader** a licensed teacher who works in the central office and in multiple schools, and is an instructional leader who provides professional development to schools. Central office teacher leaders are members of the school district's technostructure.
5. **job crafting** "...the ways in which employees utilize opportunities to customize their jobs by actively changing their tasks and relationships with others at work" (Berg, Dutton, & Wrzesniewski, 2008, p. 1).

6. **mid-level administrators** the directors of district departments or programs, and school principals. This part of the school district structure is comparable to Mintzberg's (1979) "middle line".
7. **school district structure** collectively refers to the following functional parts of the school district: top-level administration, the technostructure, mid-level administration, and schools.
8. **top-level administrators** the school board, superintendent of schools, associate superintendents, and officers of the school district. This part of the school district structure is comparable to Mintzberg's (1979) "strategic apex".
9. **technostructure** centrally positioned educators with technical expertise in areas related to teaching and learning, such as directors of teaching and learning, and central office teacher leaders, who are responsible for improving teaching and learning districtwide.
10. **work** "...the tasks and relationships that compose a job" (Wrzesniewski & Dutton, 2001, p. 179).

Conceptual Framework – A Brief Introduction

The study is structured according to three assumptions that are grounded in significant theories of organization and learning. The assumptions are: 1) Complex organizations, such as school districts, structure themselves according to the division of

labor within the organization (Mintzberg, 1979); 2) Employees actively adjust their work for themselves, in order to improve their job satisfaction and performance (Wrzesniewski & Dutton, 2001); 3) Mid-level central office staff play a critical role in school district reform by engaging in boundary spanning and brokering activity (Burch & Spillane, 2004).

The first two assumptions are derived from organizational theories about work (Wrzesniewski & Dutton, 2001), and the relationship of work to organizational structure (Mintzberg, 1979). Because the study reported here is primarily a study of work—the work of central office teacher leaders—these assumptions are fundamental to the design of the study, the analysis of data, and the organization of the study findings. The third assumption is derived from sociocultural learning theory (Wenger, 1998). It defines the critical role of mid-level central office staff in school district reform (Burch & Spillane, 2004). A brief overview of the theory underlying each assumption follows.

The Basic Parts of Complex Organizations

Mintzberg (1979) distinguishes five components, or parts, of an organization: the strategic apex, the technostructure, an operational core, the supporting staff, and the middle line. Although Mintzberg refers to the sum of parts as a structure, the concept is not structural in the administrative sense. It is functional. Each part represents a division of labor and has specific tasks, responsibilities, and authority within the organization. The configuration of these functional parts, as described by Mintzberg, (1979) is replicated in Figure 1. A brief description of the function of each part follows:

- The *strategic apex* defines the general priorities of the organization, allocates and obtains resources, and develops strategies to address external factors.

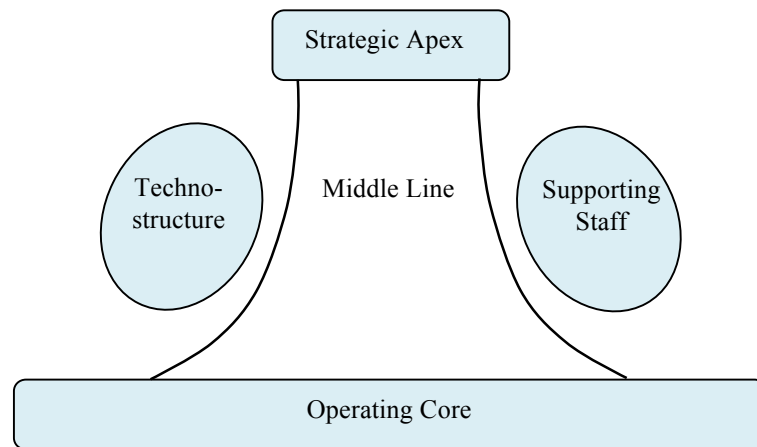


Figure 1: Mintzberg's (1979) model, "Five Basic Parts of Organizations" (p. 20).

- The *technostructure* evaluates the organization and gives expert advice, whereas other parts of the organization make decisions. The technostructure provides training and conducts research relevant to the operating core, middle line, and strategic apex.
- The *operating core* produces the product, or performs the service, of the organization.
- The *supporting staff* provides logistical backup and administrative support. These services are not directly related to the product or service provided by the organization.
- The *middle line* links the strategic apex to the operating core and provides direct supervision in the operating core and technostructure.

In this study, the adaptation of Mintzberg's (1979) model depicted in Figure 2, is used to situate central office teacher leaders' work in relationship to other work, responsibilities, and authority within a school district structure. The function of each part of the adapted model is described next:

- ***Top-level administration*** ensures the school district operates efficiently, manages the district's relationships with the community it serves, and develop strategies that help the district address the demands of state and federal education policy.
- ***The technostructure*** provides technical expertise and professional development related to teaching and learning. While other parts of the adapted model bear more contemporary names, the term *technostructure* has been retained for lack of a meaningful replacement. An important distinction in this study is that some members of the technostructure are teachers. The teachers who serve in the school district technostructure are the focus of this study.
- Within ***Schools***, the service of education is provided for students. Teachers are direct providers of the service. Mid-level administrators (i.e., school principals) supervise the work of teachers in schools.
- ***Supporting staff*** provide administrative support that is not directly related to teaching and learning. The supporting staff function is tangential to the research questions, and is not considered in this thesis.
- ***Mid-level administration*** functions as the lynchpin in the line of authority between top-level administration and schools. Mid-level administrators supervise the work of schools (i.e., school principals) and the technostructure (i.e., district directors).

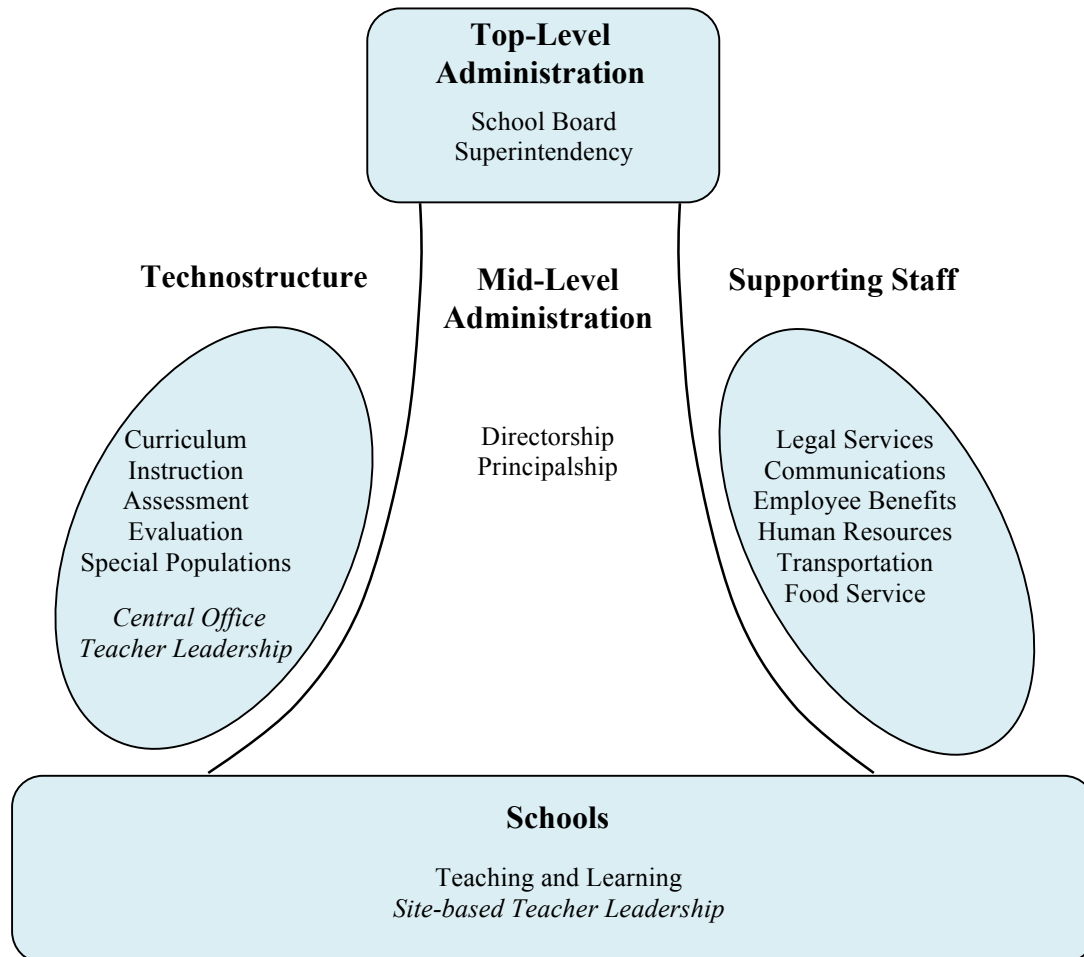


Figure 2: Conceptual framework for situating central office teacher leaders' work in relationship to other work, responsibilities, and authority within a school district structure. Adapted from Mintzberg's (1979) model, "Five Basic Parts of Organizations" (p. 20).

Job Crafting Theory

“Job crafting” theory (Wrzesniewski & Dutton, 2001) is a variant of traditional job design theories that seek to describe how employees experience work in organizations (Hackman & Oldham, 1980). “Whereas job design addresses structural features of jobs that are created and enforced by managers, job crafting focuses on the proactive changes employees make to their own job boundaries” (Berg, Wrzesniewski, & Dutton, 2010, p. 158). Taking a proactive, bottom-up view, job crafting theorists propose that employees actively “alter their jobs and use the feedback from these alterations to further motivate job crafting” (Wrzesniewski & Dutton, 2001, p. 193).

A major finding of research in this area is that the motives for job crafting are similar from one organization to another. Common motivations include the need to have some degree of control over the context and meaning of the work, the need for a positive self-image, the need for social interaction with other people, the need for personal fulfillment, and the need to cope with adversity (Berg, Dutton & Wrzesniewski, 2008; Wrzesniewski & Dutton, 2001). In order to address these needs, employees alter the tasks and interactions that constitute their work. In the present study, the notion of job crafting is used to analyze data that describe how, and under what circumstances, central office teacher leaders may be motivated to make changes in the tasks and interactions that make up their work in different parts of a school district structure.

The Role of Mid-level Central Office Staff in School District Reform

The research reported in this thesis is also grounded in a finding from a three-year qualitative study that examines central office relationships with schools during district led instructional improvement efforts (Burch & Spillane, 2004). These researchers found

that mid-level central office staff act as information brokers, and play a critical leadership role in the implementation of districtwide instructional improvements. Mid-level central office staff function as “important policy players who translate, coordinate, and work to align superintendents’ reform agendas and district reform activities within schools” (Burch & Spillane, 2004, p. 9). Drawing from the work of sociocultural theorist Etienne Wenger (1998), Burch & Spillane (2004) refer to the “brokering role” (p. 12) of mid-level central office staff, and note that “brokering activity” (p. 12) takes place during interactions between mid-level central office staff and individuals from various parts of the school district.

In this thesis, the conclusion that mid-level central office staff are a critical link between district reform agendas and instructional improvement (Burch & Spillane, 2004) is used to focus the interview protocol and data analysis on work that takes place between the central office and schools. Burch and Spillane define mid-level central office staff as managers, directors, and specialists “who administer and manage programs or services but are not in top cabinet positions” (p. 3). In the study reported here the definition is amended—on the basis of my own experience working in school districts—to note that some mid-level central office staff members are administrators while others are teachers. This definition is used as a rationale for the study topic, and to establish the conditions for sampling.

Limitations

The study has a number of limitations. First, it relies on reported information, rather than direct observations of central office teacher leaders at work. While observation of study participants would have improved the quality of the data,

observation is a highly intrusive method that would have compromised the anonymity of study participants. Second, the study sample was constructed through the application of a theoretical sampling method designed to identify positive examples of central office teacher leadership, rather than a representative sample of the population. In addition, all of the participants were central office teacher leaders, making it impossible to triangulate data from participants in different positions throughout a school district, such as teachers, principals, directors, or superintendents. An implication of the small sample size and membership is that the findings from the study are illustrative, but not generalizable. Third, data for the study was collected during a single interview with each study participant. Thus the data represents one point in time during the career of each participant, and does not describe participants' changing perspectives over time.

Overview of the Study

The remainder of this thesis has four major sections. Chapter two describes the conceptual framework in more detail and presents a review and synthesis of two bodies of literature: school district reform and teacher leadership. Chapter three describes the qualitative interview research design and methods used in the study. Chapter four presents the research findings and implications of the findings for future research, practice, and development related to central office teacher leadership. These four major sections are followed by six appendices of supplemental matter used during the course of the research.

CHAPTER 2 – LITERATURE REVIEW

The literature review is divided into four sections. The first part presents an in-depth description of the conceptual framework, which was briefly introduced in Chapter 1. The conceptual framework includes Mintzberg's (1979) theory of structuring organizations, an adaptation of Mintzberg's model that includes units typically found in school district organizations, and Wrzesniewski and Dutton's (2001) job crafting theory. The second and third sections are reviews of two distinct areas of literature: district reform literature and teacher leadership literature. The final section presents a synthesis of the reviewed literatures. Two appendices accompany the chapter. Appendix A offers brief summaries of the district reform literature reviewed here, while Appendix B presents summaries of the teacher leadership literature.

Conceptual Framework

Mintzberg's Theory of Structuring Organizations

This subsection reviews Mintzberg's (1979) theory of the structure of complex organizations, uses the theory to conceptualize school districts as organizations, and situates the concept of mid-level central office staff within the school district organizational structure. First, Mintzberg's model, "The Five Basic Parts of Organizations" is described. Then, functions typically found in school district organizations are aligned to Mintzberg's model, with particular attention to the location and role of mid-level central office staff.

Mintzberg's model, "Five Basic Parts of Organizations" (1979, p. 20), illustrated in Figure 1, conceptualizes the components of complex organizational structures. The model is an outgrowth of Mintzberg's effort to answer the question, "How do

organizations structure themselves?" (Mintzberg, 1979, p. xi). Mintzberg (1979) used the model to argue that the structure of organizations is determined by "the division of labor into various tasks to be performed and the coordination of these tasks to accomplish the activity" (p. 2). The model consists of an "operating core" (p. 24) that produces products and services, three administrative parts that coordinate the operating core—the "strategic apex", the "middle line", and the "technostructure"— and "support staff" (p. 31) that indirectly support the operating core. Support staff functions are important in organizations, but "outside the basic flow of operating work" (p. 19). For that reason, the support staff component is not elaborated here. Four parts of Mintzberg's (1979) model are discussed in this section. The section concludes with a brief overview of Mintzberg's (1979) concept of "work constellations" (p. 53)—work relationships that connect the parts of the organization.

The base of organizational structures is an "operating core" that "encompasses those members—the operators—who perform the basic work related directly to the production of products and services" (Mintzberg, 1979, p. 24). In Mintzberg's (1979) model, the "operating core" is insulated by an "administrative component of managers and analysts, who take some of the responsibility for coordinating their work" (p. 19). This administrative component consists of three parts: the "strategic apex" (p. 24), the "middle line" (p. 26), and the "technostructure" (p. 29), each of which is described next.

The first administrative part, the "strategic apex" (Mintzberg, 1979, p. 25), is made up of executive officers, top-level managers, and their staffs. These individuals are "charged with ensuring that the organization serves its mission in an effective way, and ... serves the needs of those who control or otherwise have power over the organization"

(Mintzberg, 1979, p. 25). These individuals ensure the organization operates efficiently. They manage the organization's relationship with its environment, and they develop a strategy that helps the organization address the demands of its environment.

The second administrative part in Mintzberg's (1979) model is the "middle line" (p. 26). "Middle line" members of organizations are managers who provide direct supervision to units within the operating core. In Mintzberg's model, the operating core, the strategic apex, and the middle line "are shown in one uninterrupted sequence to indicate that they are typically connected through a single line of formal authority" (p. 20). The "middle line" is the linchpin in the line of formal authority, ensuring that there is congruence in the work of the strategic apex and the operating core. A corollary of the linchpin function is that members of the "middle line" receive input from the other four parts of the organization—the "strategic apex", the "operating core", "support staff", and the "technostructure". The input takes many forms, including direction, authority, advice, and information, and it is both formal and informal. Mintzberg narrows the "Five Basic Parts of Organizations" graphic at the "middle line" (see Figure 1) to illustrate that it is situated "in the middle of a field of forces" (p. 29).

The third administrative part, the "technostructure," (Mintzberg, 1979) is made up of "analysts" (whose role is to help the organization adapt to its environment by improving the products and services of the organization and the skills and work of its members. "These analysts are removed from the operating work flow—they may design it, plan it, change it, or train the people who do it, but they do not do it themselves. Thus, the technostructure is effective only when it can use its analytical techniques to make the work of others more effective" (p. 29). To this end, the technostructure is unique in that

its members are active within the other parts of the organization. Within the operating core, analysts work to improve operating methods and institute systems of accountability. At the middle line, the technostructure "seek[s] to standardize the intellectual work of the organization" (p. 31). When top-level administrators formulate strategies for the organization, members of the technostructure design and plan processes that put the strategies into use. In Mintzberg's model, the technostructure is positioned at the side of the figure (see Figure 1) to illustrate three aspects of its relationship with other parts of the organization: 1) the technostructure is outside of the line of formal authority, 2) the technostructure acts as an interface between the organization's environment and the middle line and operating core, and 3) the technostructure exerts a shaping influence on the organization.

The shaping influence of the technostructure occurs through a complex system of formal and informal relationships that Mintzberg (1979) refers to as "work constellations" (p. 53). Work constellations are clusters of horizontal work relationships, i.e., "quasi-independent cliques of individuals who work on decisions appropriate to their own level in the hierarchy" (p. 54). "Work constellations can range from the formal to the informal, from work groups shown as distinct units on an [organizational chart] ... to those in which individuals from different parts of the organization ... deal with certain kinds of decisions" (p. 55). Recalling that members of the technostructure are active at all levels of the school district organization, we can deduce that they realize their purpose—making the work of others more effective—by spanning boundaries within the organization to engage in "work constellations" in the operating core, the middle line, and the strategic apex.

Mintzberg's Theory Adapted For School Districts

In this review, Mintzberg's (1979) theory that organizational structure is a reflection of the division and coordination of labor is applied to school districts. Figure 2 aligns units typically found in school district organizations with the "Five Basic Parts of Organizations" (Mintzberg, 1979, p. 20), shown in Figure 1. As illustrated in Figure 2, the base, or operating core, of a school district organization is made up of organizational units (i.e., schools) that provide educational services. Teachers working in these units are direct providers of the basic work of the district organization—the provision of educational services. At the other end of the organization is the top-level administration, or strategic apex: including the school board, the superintendent of schools, associate superintendents, and officers of the district. These individuals ensure the school district organization operates efficiently; they manage the organization's relationship with the community it serves; and they develop strategies that help the organization address the demands of state and federal education policy. Top-level administrators are connected to teachers' work by school principals, or middle line managers, who directly supervise the work of teachers. As with top-level administrators, each principal ensures a school unit operates efficiently; manages the schools' relationship with the community it serves; and develops strategies that align the school with the strategies developed by top-level administrators for the district organization. These parts—the top-level school district administration, principals, and teachers—are the formal line of authority in a school district organization.

The topic of this review, mid-level central office staff, is the organizational part Mintzberg refers to as the technostructure. It is made up of educators with technical

expertise in areas such as curriculum, instruction, student assessment, evaluation, program management, and special student populations. The technostructure is outside of the formal line of authority in a school district organization. The function of the technostructure is to analyze the school district organization's continually changing policy and community environment and advise top-level administrators, principals, and teachers how to improve educational services (Burch & Spillane, 2004, p. 3). An exemplar of the shaping influence of mid-level central office staff in a Midwestern school district is outlined in Table 1.

Mintzberg's notion of a technostructure and its shaping influence is at the heart of the literature review that follows. The synthesis examines current knowledge of the processes and relationships that characterize reform-based interactions between mid-level central office staff and other parts of school district organizations.

Job Crafting Theory

Job crafting theory (Berg, Dutton, & Wrezniewski, 2008; Berg, Wrezniewski, & Dutton, 2010; Wrezniewski & Dutton, 2001), briefly introduced in Chapter 1 of this thesis, is an emergent theoretical perspective that offers insight into how and why employees in any field make alterations to their work. The theory is a variant of traditional job design theories that seek to describe how employees experience work in organizations (Hackman & Oldham, 1980). Whereas work design focuses on the role of managers in planning work for their employees, job crafting theory focuses on individual employees and how they adjust their work for themselves. The theory takes a proactive, bottom-up view on work, and proposes that job crafting is an ongoing and creative

Table 1: *Exemplar of the shaping influence of mid-level central office staff in one Midwestern school district.*

Work Constellation	Mid-level Central Office Staff Role	Actions
Chief Academic Officer ^a ; Deputy Superintendents ^a ; and the Directors of Instructional Services, Federal Entitlements, and Assessment ^d	Review data and contribute expertise to the development and refinement of the organizational strategy. Receive direction regarding implementation of the strategy.	Superintendent's strategy: Raise expectations and academic rigor for <u>all</u> students
Chief Academic Officer ^a ; Director of Instruction; Director of IT Services ^d ; Content and Assessment Specialists ^d	Design and implement a plan to develop principals' and teachers' knowledge of the strategy.	Create an online curriculum guide that communicates raised expectations and academic rigor to the superintendent, principals and teachers.
School Principals ^b ; Director of Teaching and Learning ^d ; Content and Assessment Specialists ^d	Provide professional development and technical support.	Focus professional development for principals on assessing rigor and fostering instructional effectiveness in the classroom.
Director of Instruction; Content Specialists ^d ; Teachers ^c	Work with select teachers to write rigorous formative and summative assessments of the state academic standards.	Focus teachers' attention on raised expectations and academic rigor by requiring use of common formative and summative assessments.

^aIndicates member of the strategic apex (top-level district administration)

^bIndicates member of the middle line (school principal)

^cIndicates member of the operating core (teacher)

^dIndicates member of the technostructure (mid-level central office staff)

process in which employees actively “alter their jobs and use the feedback from these alterations to further motivate job crafting” (Wrzesniewski & Dutton, 2001, p. 193).

Job crafting, then, is process that individuals engage in over time, not a onetime event. Researchers define the job crafting process in terms of three general stages (Berg, Dutton & Wrzesniewski, 2008). In the first stage employees are motivated by personal needs or desires to make changes to their work. Researchers (Wrzesniewski & Dutton, 2001) note that the motivation to engage in job crafting is tempered by the range of job crafting opportunities that employees believe are open to them. Hence, employees in highly ambiguous work settings perceive more opportunities for job crafting, while employees in more prescriptive jobs perceive fewer opportunities. During the second stage, employees act on the motivation by making a change that is within their control. The change involves actively altering a task and/or relationship that is part of their work. The third stage of job crafting represents the outcome(s) of the job crafting move. Documented outcomes include changes to the meaning of work, changes to an individual's work identity, and increased resilience, as well as the intended positive, or unintended negative outcomes of the job crafting move.

The overall premise of job crafting theory is that work consists of tasks and relationships that can be thought of as "a flexible set of building blocks that can be reorganized, restructured, and reframed to construct a customized job” (Berg, Dutton, & Wrezniewski, 2008, p. 5). "Job crafters draw and redraw the task and relational boundaries of a job to make it a more positive and meaningful experience" (Wrezniewski & Dutton, 2001, p. 197). Work is defined as “the tasks and relationships that compose a job” (Wrzesniewski & Dutton, 2001, p. 179). Tasks and relationships are interdependent

in this definition of work. While “tasks represent the most basic building blocks of the relationship between employees and the organization ... interactions with others help employees define and bound tasks by shaping impressions of what is and is not part of the job” (p. 179).

District reform literature is reviewed in the next section. The section is divided into four subsections: 1) Background; 2) Sociocultural Perspectives on District Reform; 3) Institutional Perspectives on District Reform; and, 4) Summary.

School District Reform Literature

The role of school district central offices in reform is a fairly recent policy and research interest. During the 1980s and 90s, researchers explored the role of school districts in supporting specific school effectiveness programs, such as site-based management and comprehensive school reform (Leithwood, Louis, Anderson, & Wahlstrom, 2004). During that time district organizations, "specifically [the] central office and system-wide leadership" (Knapp, 2008, p. 521), were often viewed as obstacles to school reform (Firestone & Martinez, 2007). Although school districts continued to exist in the United States, similar structures were discontinued or made optional in England, New Zealand, and Canada (Anderson, 2003). "This fact alone serves to remind us that the school district is a political and organizational invention, not a natural and inevitable phenomenon, and that it is therefore quite reasonable to question and critique the role that districts can play in promoting and sustaining quality education" (Anderson, 2003, p. 3).

Background

Reports of successful district reform initiatives (Elmore & Burney, 1997; Fuhrman,

1990; Spillane, 1998) in the 1990s stimulated interest in school district central offices as potential agents of reform. In 2002 the federal policies commonly referred to as NCLB required states to hold school districts accountable for coordinating, monitoring, and reporting yearly improvements in teaching and learning. Since 2002 there has been increasing interest in how school district organizations function as mechanisms of education policy. One area of research explores the role of the school district's central office in reforming teaching and learning. In a three-year study of the role districts play in instructional reform, Burch and Spillane (2004) examined the "role and importance of district/school interactions in the implementation of local instructional improvements" (p. 2). They concluded that "mid-level central office staff" (p. 3) have a significant impact on how reform policies are understood and acted on by school personnel.

Burch and Spillane (2004) located the work of midlevel central office staff in "the intersection" (p. 3) between schools and districts. Now there is an accumulation of evidence that the intersection is a position of individual and collective learning (Chrispeels, Burke, Johnson & Daly, 2008; Gallucci, 2008; Stein & Coburn, 2008). We know the intersection brings people together across roles (Chrispeels et al., 2008; Stein & Coburn, 2008) and across units within the school district organization (Burch, 2007; Honig, 2009). For example, bilingual and ESL teachers may work with mid-level central office staff and an outside expert to discuss the nuances of interpreting students' responses on a new assessment for students identified as ESL. Similarly, an assistant superintendent, midlevel central office staff, and principals may share evidence of progress toward a reform objective, then revise the professional development plan in response to the evidence. In each situation educators engage with professionals outside

of their own setting and responsibility. Learning occurs as they interact with one another and engage in “joint work” (Honig, 2008, p. 640)—work that is useful to them and related to the desired reform.

The overall focus of recent district reform literature is on processes and relationships that function as pathways to reform. Burch and Spillane (2004) provide evidence that mid-level central office staff play a critical role in these pathways, as stated below. Other researchers focus on the work of superintendents and their relationships with school principals. Generally speaking, recent district reform literature “see[s] the problem of educational reform as one of learning” (Stein & Coburn, 2008, p. 583), and finds that learning is both the purpose and the consequence of central office influence. Thus we now have some understanding of the meaning and objective of district office reform work. On the other hand, the functions and sources of central office leadership remain largely unexplored. At issue is “who is doing what” (Louis, 2008, p.683) in reform pathways, and the day-to-day substance of mid-level central office work.

Sociocultural Perspectives on District Reform

One line of district reform research uses sociocultural and organizational learning theories to interpret reform activity. From this perspective, the intersection (see Figure 3), between schools and districts is a social space where participants interact with one another to make sense of reforms (Burch & Spillane, 2004; Gallucci, 2008; Honig, 2008; Stein & Coburn, 2008). A pivotal task is brokering—the arrangement and negotiation of the reform. Brokers are individuals who mediate learning by arranging learning activity, interpreting and translating information, and deepening participants involvement with the reform (Burch & Spillane, 2004; Daly, Moolenaar, Bolivar, & Burke, 2009; Honig, 2008,

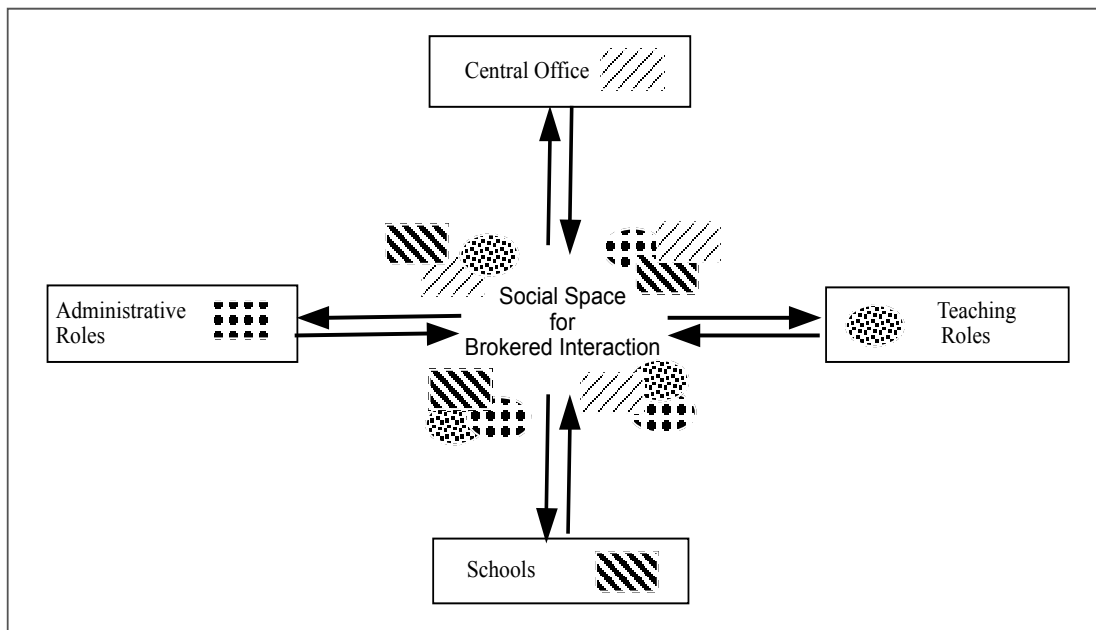


Figure 3: The intersection between schools and central office, and administrative and teaching roles—a social space for arranging and negotiating school district reform through brokered interaction.

Stein & Coburn, 2008). Social spaces are realized in ongoing gatherings of individuals from different parts of the district, or experienced vicariously when designated individuals move between organizational units, gathering and sharing information, and learning as they go. Either way, the outcome of brokering activity is the growing alignment of reform goals, district structures, and learning (Honig, 2008; Stein & Coburn, 2008). Honig (2009) goes so far as to suggest that the success of reform initiatives may be contingent on the level of investment a district makes a brokering activity.

The approach a district takes toward brokering may have implications for reform. Stein and Coburn (2008) studied reform curriculum implementations in two school districts. In one district, teachers, administrators, and district staff learned about the

reform through collaborative interaction among roles (i.e., teaching and administrative) while the other district communicated reform ideas through directives and role-alike groups. Collaborative interaction correlated with deeper understanding of the new curriculum, whereas the directive approach was associated with superficial understanding of the new curriculum. Their finding confirms a conclusion of the Burch and Spillane (2004) study: collaborative approaches promote reform, while directive approaches are a barrier. “A primary goal of brokering for central office administrators who use a collaborative approach is to help district staff learn from schools' expertise and reform experiences” (p. 13). A directive approach limits opportunities for participants to learn from one another and thereby create shared meaning that strengthens the reform effort.

Institutional Perspectives on District Reform

A second line of district reform research draws on new institutional theories to describe the intersection between districts and schools as a system of interlinked mechanisms with potential to support or inhibit reform (Burch, 2007; Chrispeels et al., 2008; Daly, Moolenaar, Bolivar, & Burke, 2009; Daly & Finnegan, 2011; Johnson & Chrispeels, 2010; Rorrer, Skrla, & Scheurich, 2008). Contributors challenge the long-held assumption that school districts are loosely coupled organizations. Loosely coupled school districts may not be able to respond readily when complex reform issues arise (Chrispeels et al., 2008; Rorrer et al., 2008). On the other hand, adaptable mechanisms provide differentiated support, and are more easily adjusted to provide support when and where it is needed. Designers of reform efforts must determine “what needs to be loose and what needs to be tight to achieve optimal system performance” (Johnson & Chrispeels, 2010, p. 741).

The systems perspective assumes a rich information network sustained by “collective dialogue and co-construction of the reforms” (Chrispeels et al., 2008, p. 744). Finding the right configuration of couplings depends on information sharing between parts of the system. Adjustments are guided by shared, recurring communication and serve to refine the alignment of reform mechanisms and the consistency of reform implementation. Rorrer et al., (2008) describe the consequence of ongoing adjustment as “an ‘almost completely constant’ system of change” (p. 341), adopting a phrase astronomers use “to explain why we do not feel the earth spinning, although it is in perpetual motion” (p. 341). While many educators may find it difficult to recognize their own uneven reform efforts in this portrayal, most will likely agree that dialogue and co-construction are indeed fundamental to successful change.

Summary of District Reform Literature

Researchers from both orientations—learning theory and new institutional theory— theorize that interdependence may be a natural consequence of the interactions they document (Burch, 2007; Burch & Spillane, 2004; Gallucci, 2008, Honig, 2008; Johnson & Chrispeels, 2010). Interdependence is realized when parts of the organization look to one another to create adaptive responses to issues that inevitably crop up during reform implementation. This is an extension of the ongoing construction of meaning that takes place in the intersection between schools and district. As reciprocal communication deepens knowledge at all levels, local adaptations and innovations begin to arise. Innovations successful in one part of the district become public in the intersection and spread to other parts of the district (Burch, 2007; Chrispeels et al., 2008; Gallucci, 2008). An innovation may be discarded by new users, or brought back to the intersection to be

legitimized “by linking the innovation to established policy objectives and criteria” (Burch, 2007, p. 90). Burch asserts that innovations may be “incubated and tested in the field, then spread across schools and become adopted at a system level” (p. 88). The intersection between school and district is a place where the district engages in generative learning, producing and reproducing new knowledge from within.

This is a body of literature grounded in substantive theories of organization and learning. The district reform researchers whose works are cited above (Burch, 2007; Burch & Spillane, 2004; Chrispeels et al., Daly et al., 2010; Gallucci, 2008; Honig, 2008; Honig, 2009; Honig et al., 2010; Johnson & Chrispeels, 2010; Rorrer et al, 2008; Stein & Coburn, 2008) have advanced our understanding of the relationships and processes that foster school district reform. Core understandings in this literature include:

- Reforming education is a matter of professional learning and the development of new structures and opportunities for professional interaction;
- Recursive, reciprocal interactions are more effective reform drivers than hierarchical approaches; and,
- Interaction among key personnel at multiple levels in school district organizations has the potential to support shared meaning, create interdependence, and foster innovation.

These understandings contribute to the aim of this review by offering insight into the objectives, means, and potential impact of midlevel central office staff.

Three questions pertaining to the role of midlevel central office staff in school district reform remain largely unexplored: What constitutes the everyday work of preparing, organizing, and facilitating school district reform? Who is involved in the

design, preparation, and coordination of the work? As noted previously in this review (see Table 1, p. 12), Mintzberg (1979) asserts that an organization's technostructure (i.e., midlevel central office staff) exerts a "shaping influence" (p. 31) on an organization. How does their work "shape" the school district organization? We need to examine these aspects of mid-level central office work if we are to fully understand school district reform. The review now turns to teacher leadership literature, as many mid-level central office staff are licensed teachers. The next section is organized into four subsections: 1) Background; 2) The Influence of Content Knowledge; 3) Systemic and Structural Relationships; and, 4) Summary.

Teacher Leadership Literature

Teacher leadership has been "a prominent element of [education] reform strategy and policy" (Little, 2003, p. 401) for several decades. During the 1980s, education reformers called for increased opportunities for teachers to participate in decisions related to teaching and learning (Carnegie Forum on Education and the Economy, 1986; Holmes Group, 1986; National Commission on Excellence in Education, 1983). By the 1990s, Smylie and Denny (1990) reported an "increased recognition of teacher leadership, visions of expanded teacher leadership roles, and new hope for the contributions these expanded roles might make in improving schools" p. 237).

Background

Expanded teacher leadership roles were apparent in large-scale reform efforts such as the National Science Foundation's Urban Systemic Initiatives (USI) and Local Systemic Change (LSC) programs. Between 1995 and 2001, the NSF funded 81 USI and LSC programs across the United States (Kim, Crasco, Smith, Johnson, Karantonis, &

Leavitt, 2001; Weiss, Gellatly, Montgomery, Ridgway, Templeton, & Whittington, 1999). The ambitious vision was to improve science, mathematics, and technology teaching by providing all educators in a school, or school district, with one hundred to one hundred thirty hours of professional development over the course of a year. Approximately 90% of the programs engaged teacher leaders to train, mentor, coach, and support curriculum implementation within their school or district (Kim et al., 2001; Weiss et al., 1999). Participating schools and districts were advised that a “large and strong group of teacher leaders, alongside a well designed and tested professional development curriculum, will help the project to scale up its efforts so that the district can provide support to an increasing number of teachers and schools” (Weiss et al., 1999, p. 76). These teacher leaders were charged with increasing educators' knowledge of exemplary instructional materials, pedagogic skills for inquiry-based teaching, methods of assessment, and critical content issues.

More recently, other large scale reform programs such as Comprehensive School Reform (Camburn, Rowan & Taylor, 2003), Reading First (Deussen, Coskie, Robinson & Autio, 2007), and the National Writing Project (Stokes, Hirabayashi, Murray & Senauke, 2011), as well as prominent local reform initiatives (Burch & Spillane, 2004; Elmore & Burney, 1997; Hightower, 2002; Stoelinga, 2012), have continued to rely on teacher leaders to influence professional learning. A critical part of the teacher leadership element of these reform efforts has been the development of teacher leaders in schools and central offices. This reform strategy rests on the assumption that teacher leadership provides districts with expanded capacity for improvement and that teacher leaders' experience with teaching and learning is critical to “sustaining the [reform] work,

grounding it in the realities of practice, and legitimating it for other teachers” (Riordan, 2003, p. 2).

The relationship of principals and teacher leaders is at the core of recent efforts to elaborate the conditions that support or limit teacher leadership in school organizations. Principal support of teacher leadership is viewed as a model for the critical relationship between teachers and teacher leaders. Active principal support is informed by a carefully defined and articulated purpose—one that conveys a “clear vision of school reform and situates the teacher leader's work within that vision” (Weiner, 2011, p. 37). Supportive principals “set expectations for teachers to improve instruction and to interact with the teacher leader” (Mangin, 2005, p. 53). They also provide unambiguous management structures and attend to teacher leadership development (Lord, Cress, & Miller, 2008; Muijs & Harris, 2007; Steel & Craig, 2006).

Traditional school norms such as teacher autonomy, egalitarianism, and seniority influence teacher leaders’ interpretation and enactment of their leadership and relationships with their colleagues. When principals downplay the effect of norms on teacher leadership, resistance to teacher leadership is reinforced (Mangin, 2008; Weiner, 2011). In addition, teacher leaders who work in ambiguous or unsupportive contexts attempt to “symbolically lower their status and ‘serve’ other teachers” (Weiner, 2011, p. 19). While this move is intended to win the acceptance of their colleagues, it works against leaders’ ability to affect change in their colleagues’ classroom practice (Donaldson, Johnson, Kirkpatrick, Marinell, Steele, & Szczesiul, 2008; Lord, Cress, & Miller, 2008; Mangin, 2008). These findings complement an observation made by Angelle and Schmid (2007) in their study of teacher leader identity: “...the concept of

teacher leadership was defined in terms of how it was lived in the context of the individual school” (p. 795). Collectively, these examples demonstrate the importance of the principal having a thorough understanding of challenges teacher leaders experience in the face of traditional school norms (Donaldson et al., 2008; Firestone & Martinez, 2007; Murphy, 2005).

In a comprehensive review of teacher leadership literature, York-Barr and Duke (2004) synthesized existing knowledge about teacher leadership into a conceptual framework connecting teacher leadership with student achievement. The foundation of their theory comprises three components: the qualities of teacher leaders, relational attributes of leadership work, and the conditions that move the work of teacher leadership forward or hold it back. The relationship between this foundation and student learning is explained in terms of the means and targets of teacher leaders' influence (York-Barr & Duke, 2004, p. 289). Since the publication of the “teacher leadership for student learning” conceptual framework (York-Barr & Duke, 2004, p. 289), two new themes have emerged—the role of content knowledge in teacher leaders' influence, and the relationship of teacher leadership to systems and structures beyond schools. These emergent themes are described next.

The Influence of Content Knowledge

One emergent topic in recent teacher leadership literature is the role of subject-specific content in teacher leaders' influence. A common assumption in teacher leadership literature is the idea that classroom-based expertise is an asset to teacher leadership (Angelle & Schmid, 2007; Camburn, 2009; Manno & Firestone, 2007; Muijs & Harris, 2007; Scribner & Bradley-Levine, 2010; Weiner, 2011; Wells, Maxfield,

Klocko, & Feun, 2010; York-Barr & Duke, 2004). “[It] is mainly by virtue of who teacher leaders are and what they know *as teachers* that they aim to help their colleagues change practice” (Lord, Cress, & Miller, 2008, p. 55). Some recent research disturbs this notion by suggesting that reliance on classroom-based knowledge can be problematic. Teacher leaders tend to use “show and tell” to share their own past practices, a strategy that is “seldom sufficient for establishing the kind of collegial critique or reflection that serve as engines of continuous improvement” (Lord, Cress, & Miller, 2008, p. 56). The perception that teacher leaders’ expertise derives from classroom experience also tends to channel them into professional development for classroom practitioners, rather than learning opportunities that address their needs as leaders. Mangin (2008) found that this “delivery strategy compromised teachers’ perception of the teacher leaders as experts” (p. 86).

These findings suggest that content expertise may be an undervalued asset to teacher leaders. In a case study of teacher leadership in a math and science reform initiative, Manno and Firestone, (2008) found that "specialized knowledge helped content experts develop trust and rapport with colleagues and limited [teacher leaders'] needs for professional development related to that content” (p. 37). Other researchers note that a lack of content expertise compromises reform efforts (Firestone & Martinez, 2007; Mangin, 2008). However, as with classroom expertise, content expertise alone may not be a sufficient leadership asset (Manno & Firestone, 2008). In a discussion of what is known and as yet unknown about instructional coaching, one form of teacher leadership, Boatright and Gallucci (2012, p. 5) suggest that more is known about coaching models and processes than about the content knowledge that is required to coach teachers.

Despite the need for teacher leaders to have expertise, principals tend to base their hiring decisions on the personal attributes of individuals, rather than content knowledge or classroom proficiencies (Mangin, 2008; Weiner, 2011).

Systemic and Structural Relationships

A second emergent topic in teacher leadership literature acknowledges that teacher leadership is connected to reform efforts that are embedded within a larger context than the school (e.g., the school district), and that this context may have a direct impact on the success of improvement efforts. Studies that look beyond schools to examine teacher leadership as an embedded component of district efforts to improve instruction suggest that proximity is a means of teacher leadership influence (Firestone & Martinez, 2007; Scribner & Bradley-Levine, 2010; Wells et al., 2010). In a study of math and science reform initiatives, Firestone and Martinez observed (2007):

In these districts, teacher leaders complemented district leaders efforts. They [teacher leaders] participated in some of the same leadership tasks as the district—procuring and distributing resources, monitoring progress, and developing people—but did so in a different way. The district often operated at a distance by setting rules and mandates and by procuring materials. It tended to be impersonal and distant, using formal authority as dispassionate substitutes for leadership, like the curriculum and testing to exercise influence. Teacher leaders moderated that distance by being more personal and closer and they deliberately did so, in part to compensate their lack of formal authority. Some supervisors also sought to cultivate personal relationships too, but even more than teacher leaders, they lacked the time to do so. (p. 25)

This finding is in agreement with the definition of teacher leadership proposed by York-Barr and Duke (2004): “Teacher leadership is the process by which teachers, individually or collectively, influence their colleagues, principals, and other members of school communities to improve teaching and learning” (p. 287).

Wells et al., (2010) make the point that the York-Barr and Duke (2004) definition considers connections among structures and people: “influence is a systems approach to change that allows for us to review how people within districts function together to ... increase their capacity to lead” (p. 672). When cast in this light, influential teacher leadership requires additional conditions—visions, structures, and processes that have their origin in district policy (Wells et al., 2010; Lord, Cress, & Miller, 2008; Vernon-Dotson et al., 2009). Two studies that examine teacher leadership in district contexts suggest that the central office can serve as a support system or as a delimiter of teacher leadership. In one study, Wells et al. (2010) conducted a unique inquiry into the role superintendents play in advancing teacher leadership. Participating principals wanted superintendents to take an active role in creating a supportive district context for teacher leadership by: 1) providing financial support for teacher leadership programs, 2) providing assistance in developing their role as leaders of teacher leadership programs, and 3) creating a level of trust that “would serve as a foundation for teacher leadership growth” (p. 685). Principals perceived such behavior to be uncharacteristic of most superintendents (Wells et al., 2010).

The contrast between what principals in the Wells et al., (2010) study desired and what they perceived to be the norm may be related to the finding of a second study of teacher leadership in district context. Scribner and Bradley-Levine (2010) found that “the

taken-for-granted value of PLCs [i.e., professional learning communities] and other spaces of teacher empowerment often mask the cultural rules that limit this empowerment [and] undermine teachers' ability to influence organizational activities in sustainable ways" (p. 516). They also note that: 1) teachers in the study believed that district administrators and "a pattern of administrative practices" (p. 514) prevented them from fulfilling the leadership role assigned to them, and 2) teachers "lacked the cultural capital to properly and effectively act on the newfound responsibilities brought on by the autonomy the reform model created"(p. 514).

Summary of Teacher Leadership Literature

Overall, recent teacher leadership literature related to teacher leaders' relationships with principals, and to the impact of traditional school norms on teacher leaders, lacks the coherence that could make it useful to policy makers, researchers in related fields, and practitioners. It is not uncommon for studies to lack theoretical grounding, or for study findings to reiterate existing knowledge. In addition, small-scale descriptive studies are the norm. That said, the literature reviewed here develops two emergent themes:

- Content expertise is a necessary, but insufficient, quality of effective teacher leadership (Boatright & Gallucci, 2008; Firestone & Martinez, 2007; Mangin, 2008; Manno & Firestone, 2008; Weiner, 2007).
- As an embedded component of systemic efforts to improve instruction, teacher leadership requires visions, structures, and processes that originate in district policy (Lord, Cress, & Miller, 2008; Scribner & Bradley-Levine, 2010; Vernon-Dotson et al., 2009; Wells et al., 2010).

There is general agreement that teacher leadership "includes a wide variety of work at multiple levels in educational systems, including work with students, colleagues, and administrators, and work that is focused on instructional, professional, and organizational development" (York-Barr & Duke, 2004, p. 288). In contrast, the literature reviewed here explores school-based forms of teacher leadership, perhaps because the concept of teacher leadership is easier to study within the bounds of a school.

This body of literature does, however, provide a basis for inquiry into teacher leadership beyond school settings. We need to know about the prevalence, functions, and interpretations of teacher leadership at all levels of the educational system. And as investment in teacher leadership continues, policy makers, researchers, and practitioners will all benefit from inquiries into how, when, and where teacher expertise is a useful leadership perspective at the school and district levels, as well as at the intersection of these levels. The final section of this review considers the implications of district reform and teacher leadership literatures for future research and proposes a research problem with related questions.

Implications for Research

A perception that teacher leaders are among the cadre of reform agents serving in school district central offices is notably absent from the reviewed literature. However, district reform and teacher leadership literatures do help us understand the context of midlevel central office reform work by describing processes and relationships that take place in the interactive space Mintzberg (1979) refers to as "work constellations" (p. 53) and Burch and Spillane (2004) call "the intersection" (p. 3) between schools and districts. These literatures pave the way for future research that inquires into the nature

of midlevel central office work in school district reform, and the experience of the teacher leaders and administrators who serve in that level of the district organization. Three aspects of the literature have implications for future research: 1) proximity as a means of teacher leaders' influence; 2) the relationship between district reform, teacher leadership, and learning; and 3) the importance of recursive and reciprocal interaction between central office staff, school staff, teaching roles and administrative roles, as illustrated earlier in this review (see Figure 2, p. 16).

Proximity as a Means of Influence

Systemic perspectives in the literature allude to the significance of teacher leaders' proximity to reform objectives, ideas, and contexts. For example, Firestone and Martinez (2007) describe how teacher leaders in a math and science reform were able to "shape teaching practice" (p. 26) in ways other leaders could not, because they were close to both the content of the reform and the practice of teaching. Conversely, Daly et al., (2010) observe that principals' "differing levels of skills, knowledge, and understanding" of literacy content and practices may have affected their ability to develop teachers' understanding and, ultimately, "the consistency and coherence of reform district-wide" (p. 373). And Scribner and Bradley-Levine (2010) observe that a lack of relational and experiential proximity to district processes and procedures limited teacher leaders' work in a small schools reform.

The notion that proximity contributes to teacher leaders' influence suggests that the knowledge, attitude, and disposition of teacher leaders may be fundamentally different than that of administrators. It is common practice for school districts to "depend on teacher leaders to improve teaching practice and support [reform] initiatives"

(Firestone & Martinez, 2007, p. 7). Unlike administrators, teacher leaders' first-line relationships are with other teachers. In addition, one basis of teacher leaders' influence is expertise in content and teaching practice (Firestone & Martinez, 2007; Lord, Cress, & Miller, 2008; Mangin, 2008; Manno & Firestone, 2008). If, as this literature suggests, teacher leaders' proximity to district reform objectives, ideas, and contexts is a factor in district reform, investigation into central office teacher leadership is warranted.

District Reform, Teacher Leadership, and Learning

Learning is the unifying thread in district reform and teacher leadership literatures. Professional learning aimed at improved student learning is the purpose, and the intended consequence, of both district reform (Burch & Spillane, 2004) and teacher leadership (York-Barr & Duke, 2004). The literature reviewed here situates learning in interactions that occur between roles (Chrispeels et al., 2008; Stein & Coburn, 2008; Vernon-Dotson et al, 2009; Wells et al., 2010), and between units within the organization (Burch, 2007; Honig, 2009; Muijs & Harris, 2007; Scribner & Bradley-Levine, 2010). The result is a collection of powerful illustrations of the systemic processes and relationships that influence professional learning in district reform.

Inquiry into the day-to-day experience of leading professional learning in district reform is one next step. Thinking back to "Mintzberg's Theory of Structuring Organizations" (Figure 1 in this thesis) it seems appropriate to emphasize the day-to-day work of the school district's technostructure (Mintzberg, 1979, p. 29), or mid-level central office staff. In Mintzberg's (1979) view, the technostructure constantly shapes (i.e., reforms) the organization through formal and informal relationships referred to as work constellations. The processes and relationships described in the district reform and

teacher leadership literatures illustrate pathways by which mid-level central office staff shape teaching and learning through carefully developed work constellations. Yet not much is known about the work of designing, arranging, and negotiating change within these constellations. In the words of Burch and Spillane (2004), "... this is problematic because school staff largely encounter and make sense of district reforms via activities and tools developed at this level. Further, school staff view mid-level staff as relatively permanent fixtures in systems that otherwise appear to be in a constant state of flux" (p. 29). Inquiry into the everyday work of mid-level central office staff will make a fresh contribution to both the district reform and teacher leadership literatures.

Recursive, Reciprocal Interactions

A third implication stems from the finding that recursive and reciprocal interaction between roles and among organizational units is a predictor of successful school district reform (Burch & Spillane, 2004; Honig, 2008; Gallucci, 2008; Stein & Coburn, 2008). Utilizing the constructivist view that meaning is negotiated between individuals and groups during ongoing social activity, these researchers suggest that educators who function as brokers of relationships and information often facilitate reform-based interactions. Brokers form connections through which experience in one part of the district organization influences the reform in other parts, and participation extends beyond traditional boundaries between roles and organizational units (Wenger, 1998). In other words, a broker translates reform ideas and experiences and arranges relationships and purposeful social interaction that help others understand the reform (Burch & Spillane, 2004; Honig, 2008; Swinnerton, 2007).

Successful boundary spanning requires specialized skills and knowledge.

"Boundaries can be spanned effectively only by individuals who understand the coding schemes are attuned to the context on both sides of the boundary, enabling them to search out relevant information on one side and disseminate it on the other ... boundary spanning, then, must be a two part process: obtaining information ... and disseminating information..." (Tushman & Scanlon, 1981, p. 292). Central office teacher leaders are uniquely prepared to obtain and disseminate information in district reform contexts. They are both "creatures of the district" (Firestone & Martinez, 2007, p. 23) and "respected as teachers" (York-Barr & Duke, 2004, p. 289). Central office teacher leaders are, in effect, bilingual. They speak the language of the central office and the language of the classroom. Perhaps more importantly, they are able translate between the two perspectives.

We get a sense of what this looks like from a unique study of brokering and boundary spanning activity during a district literacy reform. Swinnerton (2007) describes the work of "district-level instructional coaches" (p. 208), who are, presumably, teacher leaders serving as mid-level central office staff:

[They] were not simply deployed from the central office to work in schools; they constantly moved between locations, sharing, translating, and gathering information as they engaged with members through the system. In a sense, they were system travelers. Such movement required [them] to negotiate boundaries and adjust to the changing contexts they faced in each community and at each level of the system. (p. 208).

Swinnerton (2007) later writes:

Rather than be only a resource provided to schools, instructional coaches and other central office staff who move between layers of a system can be understood as resources for systemwide reform. Their work becomes bidirectional, informing work at both school and central office levels. (p. 219)

These descriptions illustrate the role of mid-level central office staff in each of the aspects with implications for future research: 1) proximity is a means of teacher leaders' influence; 2) the relationship between district reform, teacher leadership and learning; and 3) the importance of recursive and reciprocal interaction between roles and organizational units.

While Swinnerton's work focuses on emerging instructional leadership (2006) and the role central office leaders play in "prompting and supporting systemwide instructional improvement" (p. 195, 2007), illustrations of midlevel central office work are evident in quotes shared from interviews (Swinnerton, 2006; 2007) with central office instructional coaches. Of particular interest are descriptions of how mid-level central office staff address everyday challenges by making small changes to their work. These descriptions are similar to examples presented in research literature from a wide array of other organizations and occupations that "call attention to the efforts employees make to craft their jobs, and the importance of these actions" (Berg, Dutton, & Wrzesniewski, 2008, p.1).

Teachers and administrators employed as midlevel central office staff need pragmatic examples of work in other districts to help them anticipate and understand situations that can compromise or fortify their reform efforts as they "move between layers of a system" (Swinnerton, 2007, p. 219). These cases should be role specific,

because attributes of position and licensure affect the menu of moves available to each midlevel central office staff member. Finally, researchers seeking to contribute to the fields of teacher leadership and district reform will benefit from a broader perspective on teacher leadership, and a more nuanced understanding of reform work.

Summary

The purpose of this review was to explore the question: How do recent district reform and teacher leadership literatures help us understand the role of mid-level central office staff in school district reform? The review found aspects of reform that help us understand the processes and relationships that form pathways for mid-level central office work. The review also revealed that the everyday work experience of mid-level central office staff, some of whom are teacher leaders, is largely unexplored.

This literature has three interrelated implications for the study of central office teacher leaders. First, school-based teacher leaders' proximity to reform objectives, ideas, and contexts plays a significant role in reform implementation and outcomes. Second, professional learning aimed at improved student learning is the purpose, and the intended consequence, of both district reform (Burch & Spillane, 2004) and teacher leadership (York-Barr & Duke, 2004). Third, two types of activity—brokering and boundary spanning—have been identified as typifying the reform work of the central office, and are believed to have a significant impact on district efforts to change teaching practices.

The rigorous search of literature failed to identify published research about central office teacher leadership per se. However, two closely related studies were located. The first study— *Leading from the Middle: Mid-level District Staff and Instructional*

Improvement—explores the role and importance of central office/school relationships in district reform (Burch & Spillane, 2004). The authors find that “mid-level central office staff ... are pivotal actors in the two-way translation and communication between top district leadership and school-level staff” during education reform efforts (Burch & Spillane, 2004, p. 3). The second study, “Brokers and Boundary Crossers in an Urban School District: Understanding Central-Office Coaches as Instructional Leaders” (Swinnerton, 2007), describes the roles coaches “play in promoting and supporting system wide reform efforts” (p. 195). The author finds that central-office coaches “did not primarily reside in one level of the district system but instead traveled regularly between classrooms, schools, and the central office, ... as they engaged various issues related to instructional improvement and school reform efforts” (p. 219).

Both studies find that mid-level central office staff operate as brokers and boundary spanners, working between the central office and schools, for the purpose of arranging and negotiating the meaning of district reforms. At a time when central offices are increasingly held accountable for improving teaching and learning, the work experience of teacher leaders who serve as mid-level central office staff remains unexplored. In light of these findings, the research described in the next chapter explores the nature of central office teacher leadership.

CHAPTER 3 – METHODOLOGY

The purpose of this study is to (a) describe the work of central office teacher leaders, and (b) identify ways they carry out their work in different parts of their school district. The overarching research question is: How do central office teacher leaders perceive and enact their work in different parts of a school district structure? The teacher leaders who participated in this study were hired for central office allocated positions, but their work included engaging with educators in the central office and in district schools. A qualitative interpretive approach is taken (Creswell, 2009; Rubin & Rubin, 2005; Warren, 2001) to provide insight into the meaning of participants' perceptions of their work and how they move their work forward. The overarching question is explored through the following sub-questions:

1. What is the work of central office teacher leaders?
 - a. What tasks, or assignments, do they do?
 - b. With whom do they interact to accomplish these tasks?
 - c. What is the nature of the work?
 - d. What parts of the school district structure are involved?
2. How do central office teacher leaders approach boundary spanning and brokering activity?
 - a. How do they perceive their roles within and between the central office and schools?
 - b. What conditions help or hinder them?
3. How do central office teacher leaders shape their work?

Work studies scholars Barley and Kunda (2001) write, “Interviews are especially useful for understanding how people make sense of their work and issues they believe are important” (p. 84). On the basis of this premise, the study utilizes a qualitative interview design. Qualitative interviews provide a strong footing for interpretive research (Gubrium & Holstein, 2001; Rubin & Rubin, 2005). Patton (2002) writes:

The purpose of interviewing, then, is to allow us to enter into the other person’s perspective. Qualitative interviewing begins with the assumption that the perspective of others is meaningful, knowable, and able to be made explicit. We interview to find out what is in and on someone else’s mind, to gather their stories. (p. 341)

The qualitative methods used to explore the study questions are described in the next section, including: 1) sampling; 2) data collection 3) data management and analysis; and 4) methodological integrity.

Sampling

Central office teacher leaders, the study population, are a low-incidence, dispersed, and difficult to locate population suited to nonprobability sampling methods. Similarly, the emergent nature of the topic suggested the use of a purposive sampling strategy to allow some control over the participant selection process (Cohen, Manion, & Morrison, 2009). The strategy used to select participants for the study was a hybrid of two purposive sampling strategies—positional and reputational sampling.

In the first sampling type, positional sampling, the position, or occupation, of study participants was defined. According to Tansey (2007): “The central characteristic

of this approach is that the researcher has sufficient knowledge of their area of interest, and sufficient knowledge of the political structures of relevance, to identify *ex ante* the *type* of actor that will be of interest.” (p. 19). In the study reported here, the condition of position (i.e., central office teacher leadership) is fundamental to the central research question and warranted in the literature review.

The second type of sampling, reputational sampling, identified participants “according to the extent to which they are deemed influential in a particular political arena by their own peers” (Tansey, 2007, p. 20). In the study reported here, reputational sampling was used to identify participants who are perceived as positive examples of central office teacher leadership in the view of other educational leaders. Taken together, the conditions of position and reputation for selecting study participants were:

- Nominee is a licensed teacher
- Nominee is not seeking a principal’s license
- Nominee is not a licensed school principal
- Nominee has several years of classroom teaching experience
- Nominee has more than 2 years of central office experience
- Nominee works with multiple schools
- Nominee’s primary work is to increase teaching capacities
- Nominee provides professional development to district schools
- Nominee is recommended as an excellent candidate for the study

The sample was constructed in three phases. In the first phase, an invitation for nominations was made. In the second phase, the nominations were screened. In the third

phase the remaining nominees were invited to participate in the study. The specific procedures used at each stage of the sampling process are described next.

In phase one, an invitation for nominations was made. During phase one, an expert panel was invited to nominate central office teacher leaders known to them. The panel consisted of the board of directors for a state affiliate of an international education association, and a former board member who was present during the invitation presentation. Members of the board are educators with in-depth knowledge and experience with the advancement of teaching and learning in educational systems. The group is unique because members worked in a variety of state and local educational organizations (i.e., schools, school districts, teacher education centers, and the state Department of Education).

The board was introduced to the study by means of a presentation that described the concepts of boundary spanning, brokering, and job crafting. These concepts were presented as practices likely to be demonstrated by Central Office Teacher Leaders. The presentation concluded with an invitation to nominate potential participants for the study. To support board members thinking about possible nominations, the conditions of position and reputation stated above were displayed and discussed. The presentation also included instructions for accessing the online nomination form, and a preview of the form, which is described next.

The nomination form was available on the University of Minnesota survey tool, UMSurvey, to assure the anonymity of the nominators. The nomination form is located in Appendix C. The form described the purpose of the study as, “to develop a deeper understanding of how teacher leaders support school improvement”. Nominators were

invited to nominate as many teacher leaders as they liked. The nomination form prompted the nominator to complete a checklist for each nomination made. The checklist included the conditions of position and reputation stated above. The nomination form was available online for two weeks following the presentation to the board members.

At the end of the two-week window, fewer than half of the forty anticipated nominations had been received. Board members were sent an email reminder, and the nomination form was made available for one additional week. A total of twenty-three nominations had been received by the end of the third week. The nominations were collected from the survey tool and entered into a spreadsheet. All personal names were replaced with pseudonyms, and school district names were deleted from the spreadsheet. The spreadsheet was then forwarded to a second expert panel, my thesis committee.

In phase two, the second expert panel also evaluated the nominations according to the conditions of position and reputation stated above. The research proposal called for the second panel to create a ranked list of nominees through application of a ranking process similar to that used by Hunter (1953, as described in Brunner, 1996). Nominees were to be ranked according to their proximity to the nomination criteria. Invitations to participate in the study were to be made in the order nominees appeared on the ranked list. However, the panel determined that the plan to invite participants by ranked order was no longer advisable because there were seventeen fewer nominations than expected. To preserve the size of the participant pool, the panel recommended that all of the nominees be invited to participate in the study, with the single exception of one individual who had been in a central office position for only a few months. In their view, the individual did not have sufficient experience to be included in the study.

In phase three the specific study participants were identified. During phase three, invitations were sent to the twenty-two nominees approved by the second expert panel. Each of the nominees was personally invited to participate in the study. Invitations were sent via email, along with a copy of the University of Minnesota Internal Review Board approved consent form. The invitation letter and consent form are located in Appendix D. Three nominees declined to participate, citing pressing personal schedules. Eight nominees did not respond to the invitation or to a follow-up sent three weeks later. Of the eight non-respondents, five were located in urban districts, and three in suburban districts.

Twelve nominees accepted the invitation and became the study sample. The study sample was distributed across five Midwestern school districts that ranged in size from more than 5,000 students to fewer than 40,000. Two of the school districts were urban districts and three were suburban districts. Half of the participants were drawn from the two urban districts, and half were drawn from suburban districts. Of the twelve participants, four were males and eight were females. A comparison of participants' tenure as teachers and central office teacher leaders is shown in Table 2.

For the most part the sample reflected the conditions established by the purposive sampling strategy. All of the participants had more than two years of central office experience, worked in multiple schools, worked primarily to increase teaching capacities in their respective school districts, and were reputed to be positive examples of central office teacher leadership. Of the twelve study participants, eleven were licensed teachers with several years of teaching experience. One participant was not a licensed teacher. This individual was a licensed professional in a related field and had practiced for many

Table 2: *A comparison of participants' tenure as classroom teachers with their tenure as central office teacher leaders.*

	Less than 2 years	2 to 5 years	6 to 10 years	More than 10 years	Total
Central Office Experience	0	5	4	3	12
Teaching Experience	0	0	4	7	11*

*One participant was not a licensed teacher.

years in schools. The individual was included in the study because the focus of her recent work was to increase teaching capacity in multiple schools, she was an experienced professional development facilitator, and highly recommended as a participant in the study because of her reputation as a boundary spanner. During the interviews I became aware that two participants were seeking a principal's license, and two others had the license, but were working on teacher contracts. I decided to keep these participants in the study sample because they had considerable depth of experience as central office teacher leaders.

Participants held various types of central office positions. The official title of each participant was replaced with a categorical pseudonym (i.e., coach, program leader, or unit leader) to group similar positions, to clarify the participants' role within the central office, and to maintain the anonymity of participants. Among the twelve participants, four were coaches, seven were program leaders, and one was a unit leader. Participants categorized as coaches worked most closely with teachers, teacher leaders, and school-based coaches. Participants categorized as program leaders were in charge of a program or content area and worked most closely with teacher leaders, school-based coaches, and principals. One participant led multiple programs and content areas. This

individual worked most closely with coaches, program leaders, and principals, and was categorized as a unit leader.

Taken together participants represented several areas of academic expertise. Of the twelve participants, four worked in the area of literacy, three in the area of mathematics, one in social studies, one in multi-tiered instruction, one in language arts, one in special education, and one in the more general area of instruction. Of the participants, seven worked with grades K-6, one participant worked with grades 6-12, and four participants worked with grades K-12. The primary responsibility of all study participants was to work with teachers, teacher leaders, school-based coaches, and principals to improve teaching and learning in schools.

Data Collection

Data for the study were collected through in-depth interviews. The decision to employ interviews as the sole data collection strategy was based on the limited time and resources available to complete the study (Gubrium & Holstein, 2001), issues of access to respondents (Rubin & Rubin, 2005), and the newness of the topic (Maxwell, 2005). Although observations would have offered first hand information about participants' work, the method is intrusive, and the anonymity of participants would have been compromised.

A sample of 12 central office teacher leaders provided data for the study. Each participant took part in an in-depth interview with the researcher. The interviews ranged from 95 to 130 minutes. Each interview was audio recorded, with the consent of the participant, and later transcribed to facilitate data analysis. During the transcription process, information that could potentially identify a participant, individuals mentioned

by a participant, a school, or a school district was replaced with a pseudonym or a generic substitution. All audio records were erased upon completion of the data analysis phase of the study.

Following Creswell (2009), the interview questions were phenomenological and ethnographic in nature, reflecting both the purpose (i.e., to describe the work of participating central office teacher leaders) and the aim (i.e., to develop a deeper understanding of the role teacher leaders play in education reform) of the inquiry. The interview protocol, located in Appendix E, includes four categories of questions designed to explore the research topic through the mutually influencing ideas of tasks and interactions that define work, boundary spanning and brokering, and job crafting. The first category—background questions—was introductory. It provided an opportunity to establish rapport with the participant and gather demographic information about the participants. The second category of questions, tasks and relationships, drew out descriptions that situated each participant's work within their school district organization. Questions about boundary spanning and brokering made up the third category. These questions evoked stories about the experience of central office teacher leadership. The final category, questions about job crafting, explored how participants adjusted the tasks and relationships that make up their work.

Two pilot interviews were conducted with volunteers who had previously worked as central office teacher leaders and are professional acquaintances of mine. Both volunteers worked in a district that was not included in the study. Feedback from the pilot sessions was used to gauge how effectively the questions elicited rich responses, to

assess the relevance of responses to the research questions, and to guide the revision of the protocol.

Given feedback from the pilot interviews, two supplements were added to the interview protocol. The first addition was the “Participant’s Interview Guide”, included with the Interview Protocol, Appendix E. The guide was intended to put participants at ease by giving them an idea of the course the interview would take. The guide defined the categories of questions asked in the interview, and it included simplified versions of key questions in each category. The second addition was a graphic, “Working Between Schools and the Central Office”, that is also included with the Interview Protocol, Appendix E. This reference was designed to get participants thinking about the boundary spanning nature of their work. It was also used during the interview to help the participant refocus when responses drifted off track. During the data collection process, I presented these supplements at the outset of each interview and made them available to the participant throughout the interview.

The interviews were conducted between April and September of 2013. With one exception, the interviews took place away from the participant’s workplace at a time and location convenient for the participant. An exception was made for one individual who preferred to meet in her office during a lull in office activity. The interviews ranged from 95 to 130 minutes. Field notes were taken during each interview. Immediately following the interview, the field notes were reviewed, portions that seemed significant were highlighted, and post interview reflections were added. The field notes and reflections were used to guide subsequent interviews and to verify the accuracy of information throughout the process of analysis.

Data Analysis

Analysis of the data proceeded in three stages—open coding, axial coding, and selective coding—as described in Merriam (2009). An iterative process of analysis was applied within each stage. As new categories of data arose, previously coded transcripts were re-examined for evidence of the new category, as suggested by Rubin and Rubin (2005). The coding scheme is located in Appendix F. In the first stage, open coding, each transcript was read to identify concepts and themes closely related to the research questions. Relevant passages were labeled with codes that emerged during the reading process, then classified according to the research question, or questions, illustrated in that passage. The open coding phase resulted in nineteen categories of data. During the second stage, axial coding, previously coded passages were read again to identify relationships between categories. The following questions were used to guide the analysis: “How might these categories be related? Might they be part of a causal chain? Do they interact? Are they instances of a broader context?” (Merriam, 2009, p. 180). As relationships became apparent, they were mapped with visual mapping software, and axial codes were assigned to the relationships. The axial coding phase resulted in the identification of twenty-three relationships between categories of data. In the third phase of analysis, selective coding, nineteen concepts were coded and used to create models that conceptualize the study findings.

Methodological Integrity

To enhance the integrity of findings from this study, every effort was made to conduct the data collection and analysis with accuracy and rigor. A pilot of the interview protocol was conducted. The anonymity of participants was protected throughout the

transcription, analysis, and reporting process. All names of participants, individuals mentioned by participants, positional titles, and locations were replaced by pseudonyms during the transcription of audio records. Referencing the verbatim interview transcripts and field notes throughout the analysis process served to protect the accuracy of the information during the analytical process. During the writing of the thesis, courtesy edits were made to passages taken from the interview transcripts and presented as quotes by participants. The courtesy edits were made to ensure participants' anonymity, and to accommodate the differences in spoken and written language and increase the ease of reading the thesis.

It is important to note my own relationship to the topic. I am a former central office teacher leader and my interpretation of participant responses will be different from that of a nonparticipant researcher. The use of verbatim transcripts from in-depth interviews proved to be an important counter balance to my personal perceptions of the role played by central office teacher leaders. Gubrium and Holstein (2001) write: "If the interviewer happens to be a current or former member or participant in this activity, he or she may use in-depth interviews to explore or check his or her understandings, to see if they are shared by other members or participants" (p. 106). They go on to say, "Veterans with actual lived experience may already possess member knowledge, but they may also take that knowledge for granted. Additionally their current or former status as members may constitute a barrier when they interview others" (p. 109). With that warning in mind, every effort was made to conduct the interviews and analysis with an open and reflective mind.

CHAPTER 4 – FINDINGS

This chapter presents an overview of the teacher leadership work done by study participants, specifically the tasks and interactions that make up their work, the ways in which they approach the work of spanning between schools and the central office, and examples of how and why they craft their work. It is not a comprehensive presentation of the work described by these central office teacher leaders. Rather, it is a portrait of their practices, drawn across participants, along with their perceptions of roles within their respective school districts.

The chapter is divided into four sections. The first section presents how participants' work is situated within a school district structure. It also presents an analysis of the nature of participants' relationship to each part of the structure. The second section describes participants' experiences working between schools and the central office. This section includes an analysis of the function of participants' work and presents a model of the conditions they perceive to be mediators of their work. The third section offers examples of job crafting, a guiding idea in this thesis. This includes the motivations, moves, and results of participants' job crafting efforts. The chapter concludes with a brief summary of the findings.

The Work of Central Office Teacher Leaders

Findings related to the first research question—What is the work of central office teacher leaders—are presented in this section. Two complementary perspectives guide the discussion. First, job crafting theory provides a definition of work: “the tasks and relationships that compose a job” (Wrzesniewski & Dutton, 2001, p. 179). Tasks and relationships are interdependent in this definition of work. While “tasks represent the

most basic building blocks of the relationship between employees and the organization ... interactions with others help employees define and bound tasks by shaping impressions of what is and is not part of the job” (p. 179). Second, the adaptation of Mintzberg’s (1979) model, presented in Figure 2, p. 9 of this thesis, provides a means of situating specific tasks and interactions within a school district structure. While the Wrzesniewski & Dutton (2001) definition guides the identification of participants’ work, the adapted Mintzberg model supports analysis of their work with, or for, different parts of the school district structure (that is, the technostructure, schools, mid-level administration, or top-level administration).

The section is organized into four subsections, each of which represents work done with, or for, a different part of the school district structure. Each subsection (a) supports the reader by revisiting the function of that part of the district structure; (b) reports the tasks and interactions through which study participants engage with that part of the district structure; and (c) considers the nature of the work that results from the tasks and interactions. The findings related to each of the four subsections are compared in Table 7.

Work Within the Technostructure

The role of a school district's technostructure is to improve student learning by increasing teaching effectiveness. Units within the technostructure are often identified by their districtwide function (e.g., curriculum, instruction, assessment, evaluation), or by program name (e.g., Special Education, Title I, ELL). A director, who is a licensed administrator, usually leads each unit. Unit members include instructional leaders who are licensed teachers. In this study, these instructional leaders are referred to as central

Table 3: *Work Done by Study Participants in Different Parts of a School District Structure.*

Part of the structure	Tasks	Nature of work
Technostructure	<ul style="list-style-type: none"> • Planning professional development events • Designing professional learning materials • Participating in professional development events • Developing tools: curriculum & pacing guides, teaching materials, assessments, protocols, rubrics • Sharing and analyzing information • Managing materials adoption, purchase, and distribution • Providing technical assistance • Responding to requests, complaints, and inquiries 	Assistance Supervision Coordination
Schools	<ul style="list-style-type: none"> • Leading professional development events • Monitoring implementation efforts • Coaching teams and individuals • Observing in classrooms • Facilitating meetings and PLCs • Consulting with principals and teachers • Modeling instructional practices • Providing teaching materials • Collecting and analyze information • Presenting information • Responding to requests, complaints, and inquiries 	Development
Mid-Level Administration	<ul style="list-style-type: none"> • Leading professional development events • Participating in professional development events • Providing technical assistance • Collecting and analyze information • Presenting information • Responding to requests, complaints, and inquiries 	Development Assistance
Top-Level Administration	<ul style="list-style-type: none"> • Presenting information • Responding to requests, complaints, and inquiries • Collecting and analyzing information 	<i>(insufficient data)</i>

office teacher leaders, even though they work in both the central office and at school sites. The technostructure, then, is the structural home of the participants in this study, and this subsection describes their work with other central office teacher leaders.

Participants described eight tasks that form the basis of their interactions with other central office teacher leaders. The tasks are:

- Planning professional development events,
- Designing professional learning materials,
- Participating in professional development events,
- Developing tools (e.g., curriculum & pacing guides, teaching materials, assessments, protocols, rubrics, progress reports, etc.),
- Sharing and analyzing information,
- Managing materials adoption, purchase, and distribution,
- Providing technical assistance, and
- Responding to requests, complaints, and inquiries.

These tasks cluster into three types of work—assistance, supervision, and coordination. A description of each type of work follows.

Assistance work. Assistance work occurs when one central office teacher leader relies on another in order to complete a task. One participant described assistance work in which other central office teacher leaders provide information for a revision of the district’s student progress report: “[I] take information from them and compile the information” to revise the student progress report. Another participant described seeking assistance to prepare for a professional development event: “I needed [our data specialist] to get me up to date with our data warehouse system, so I could show the

teachers how they can get data in their classrooms.” A third participant reported engaging colleagues in assistance work to write a grant proposal:

There were so many pieces to it that I probably relied on 25 or 30 people [in the central office and schools]. So it’s nice to be able to go to people ... and say, I know this is your job. Can you help me with this little piece?

Assistance work is evident when one central office teacher leader, who is responsible for a task, consults with other central office teacher leaders. These consultants provide a missing piece, such as information, or a section of the product.

Supervisory work. Supervisory work occurs when a central office teacher leader observes and directs the work (i.e., tasks and interactions) of other central office teacher leaders. A representative description of supervisory work follows:

I am their supervisor. ... I am on the interview team when they are hired. I oversee their work in schools, like what schools, what teachers, what kind of work they do with the teachers, that sort of thing. ... I organize all of the professional develop for [our content area], and I’m in charge of making the assignments ... to get that work done. It’s my job to oversee how my team does their work and to make sure it’s top notch. When they have a problem, I’m the ‘go to’ person for how to deal with that. ... I keep a close eye on their work, because I have to be able to explain it...

Four participants described supervisory work. Taken as a whole, their descriptions suggest that supervisory work is defined and bounded by the content expertise of the central office teacher leaders they supervise (e.g., teams of literacy coaches, mathematics specialists, special education experts).

Because supervision is usually the responsibility of licensed administrators, participants were asked if they aspire to be licensed administrators. Their responses were mixed. One participant described reluctantly pursuing an administrative license:

I'm [enrolled in a program for administrative licensure] because in my school district you can't be in leadership positions, even in curriculum and instruction, if you don't have an administrative license ... I just wish there were alternative pathways because, you know, when you go through administrative courses, it's all on administrative leadership at the school level, and school budgets, and school systems, which is great, but there isn't a kind of curriculum leadership path.

A second participant feared reassignment:

No, [I don't aspire to be an administrator.] I have avoided getting an administrator's license because it would mean I could be reassigned to a school. ... I don't want to do that kind of work. [The license] would make it harder for me to have the effect I have now.

A third participant alluded to incompatible goals: "Sometimes. But when I see the craziness of it, ... that's not what I'm in it for. I'm not in it to build up my resume. I'm not in it to kind of carve out a niche for myself ...". And, finally, the fourth participant suggested administrative licensure is not necessary:

No. ... As a teacher you are closer to what it's really about. To be an administrator would probably give me the power to make some of this happen. But none of it really happens with power. It all happens with influence, and I have that. Why would I want to be an administrator?

Of these four participants, one was actively seeking an administrative license, and three were not. These responses are interesting in light of a common perception among educators that teachers do not supervise one another. The four participants who described supervising other central office teacher leaders did not see themselves in terms of the traditional teacher/principal relationship.

Coordination work. Coordination is the final type of work identified in the analysis of tasks, and interactions around tasks, that form the basis of work with other central office teacher leaders. Coordination work occurs to increase the efficiency of tasks. Sometimes the purpose is to foster coherent work in schools, as in the following example. Explaining that coordination was the purpose of a weekly meeting of central office teacher leaders, one participant said:

That meeting is our time to connect with each other, share what's going on in the buildings—projects that are going on, and how can we best support each other. So, if my job tends to overlap with somebody else, or if I'm working with a teacher and they are also working with that teacher, we kind of know what's going on there.

Other coordination work increases the efficiency of teaching and learning, as in the next example. Regarding the coordination of student learning objectives in two content areas, one participant said:

I work quite a bit with the [literacy team] ... What we are doing is aligning ... our work. ... So, how do we teach [the same objective] in [two content areas] without having the kids do the same thing over again, or use the exact same resources in the exact same way.

Finally, some coordination work accommodates the needs of other central office teacher leaders. A participant described being the focus of coordination work when other central office teacher leaders plan a professional development event:

We had all the teachers for that day, but they were at several different locations. I had to make a presentation about the new materials to each group of teachers.

The other [central office teacher leaders] were very supportive ... They worked the schedule for that entire day around me, just because I am the only person in my content area, and I couldn't be everywhere at once.

Coordination work adds value to the central office relationships with schools by fostering coherent work in schools and increasing the efficiency of teaching and learning. In addition, coordination work accommodates the needs of central office teacher leaders.

Work With Schools

Schools are the “operating core” (Mintzberg, 1979) of a school district structure. The role of schools is to perform the complex work of teaching students. For the most part, the interactions described by participants in this study are with teachers and principals in their schools. It is important to make a distinction here between principals as a group (i.e., midlevel administrators across the school district) and principals in their schools (i.e. supervisors of work within one school). Participants’ descriptions of work with principals as a group are considered in the next subsection—Work with Midlevel Administrators. In this subsection—Work with Schools—principals are thought of as leaders of a particular school site.

Participants described eleven tasks in which they interacted with teachers and principals in schools. The tasks are:

- Leading professional development events,
- Monitoring implementation efforts,
- Coaching teams and individuals,
- Observing in classrooms,
- Facilitating meetings and PLCs,
- Consulting with principals and teachers,
- Modeling instructional practices,
- Providing teaching materials,
- Collecting and analyzing information,
- Presenting information, and
- Responding to requests, complaints, and inquiries.

These tasks, and the interactions that take place around them, form the basis of participants' development work with schools. Development work is apparent in participants' descriptions of processes (e.g., data analysis, planning, implementation, coaching, evaluation) and events (e.g., professional learning communities, training, informational meetings) that were intended to improve teaching and learning. These processes and events fall into three categories: development work that supports district objectives; development work that supports the objectives of specific schools; and action research.

Development work that supports district objectives. Development work that supports district objectives takes place during events and processes that bring teachers together from various schools in the district. Participants' descriptions include examples of short courses on academic content, training on district procedures, training on

standards and curriculum, and regularly scheduled informational meetings. One participant described such events as “opportunities to keep [teachers] up to date with changes in the big picture.” Another participant commented,

[Districtwide] professional development is all about clear, coherent communication that is very targeted. It’s more about getting everyone on board than anything else ... on board with things like standards, assessments, current teaching strategies ... things like that. It’s about things that every teacher has to know.

These statements suggest development work that supports district objectives serves to keep teachers abreast of changes in their context.

Supporting district objectives by developing teacher leadership. Several participants used development work that supports district objectives as an opportunity to develop teacher leadership. Although none of the twelve participants described formal responsibility for leadership development, seven participants stated they actively seek to develop teacher leadership in schools. In their view, developing teacher leaders magnifies the impact of their own leadership. One participant noted that teacher leaders in schools are more accessible than central office teacher leaders:

[My strategy] for helping schools ... is to develop as many teacher leaders as I can. ... The principal really drives the whole [change] process, but teacher leaders make it happen. ... [Teachers who lead] will reach people that will never even talk to me. ... Every building has teachers that want to lead—people who want to take responsibility for work beyond their classroom.

Another participant explained developing teacher leadership as a capacity building strategy:

I try to develop teacher leadership in each school because I can't work with everyone as closely as I would like to. So, if I can focus on building [teacher leaders] to support [data analysis] in each building, then there will always be someone there who knows what to do with the student data and whether [our intervention for that student] is working or not.

Expressing concern that leadership development is not as highly valued as other forms of development work, a third participant argued:

The farther you are removed from the actual teachers ... the less likely it is that you will see the importance of teacher leadership. Principals are really close and often can see the importance of teacher leadership. But in the layers you get beyond that, I don't think they see the importance of teacher leadership because they start ... thinking that there's some person on high who can just make a decision and then it happens. It's the teachers who make it happen. If you can build them up and help them understand what needs to be done, then it will happen. That's how I know I've left the capacity to [change teaching practice] in the schools I work with.

Supporting district objectives through action research. The final category of development work—action research—occurs during the process of developing tools (e.g., curriculum and pacing guides, teaching materials, assessments, protocols, rubrics, etc.) to support teaching in schools. In action research, schools become laboratories where central office teacher leaders evaluate and adjust tools to support learning and

development prior to distributing the tools to teachers across the district. One participant described meeting with teachers who were piloting a new district curriculum: “[I meet with the pilot teachers] and hear what’s going on with the [curriculum] units—what are the teachers noticing ... and what questions do they have.” Another participant recounted a different approach to action research:

I tried it all out [myself] ... I went in and I tested out [the curriculum] to see if it was really going to connect. Just making lesson plans and not trying it out with kids, you don’t know if it is going to work or not. So I wanted to ... try it out before I put it out for all of the ... teachers to use.

A third participant explained how a team of central office teachers used action research to refine an observation protocol for district principals.

“[The superintendent] wanted principals to use [the protocol] as a guide for observing lessons. [The protocol] was from another school system ... so we had to make some changes to it. A group of [central office teacher leaders] went into classrooms together. We would watch a lesson then talk about the lesson and the rubric. We did this four or five times ... making changes to the protocol after each lesson observation. Then we were comfortable teaching principals how to do the observations.”

In each instance, action research was used to identify and solve problems with tools intended to support district objectives for schools.

Development work that supports school objectives. Development work that supports the objectives of specific schools takes place during events initiated and conducted at the school site. The events described by participants include meetings of

professional learning communities, visits to classrooms with instructional leaders from the school, meetings to analyze data and plan to act on data, and coaching classroom teachers and school-based instructional coaches. The distinguishing characteristic of development work that supports the objectives of specific schools is that central office teacher leaders supplement existing work at the school by providing specialized expertise about teaching, learning, or academic content.

One participant described developing teachers' knowledge of students' learning. "I was just at one of the elementary buildings to meet with [a team] of teachers there. They ... had some questions about how [to accelerate learning] for kids who need more challenge [in my content area]." Another participant recounted an example of providing content expertise. "Yesterday I went to a school to observe a teacher [that] the principal is concerned about. The principal wanted some input on the accuracy of the lesson content." Several participants shared illustrations of development work in which they participate in conversations about teaching and learning in schools. "Often I get invited by the principal or the instructional coach to go on a walk-through they are doing. They find it useful to have an outside voice in the discussion about what ... feedback to give teachers."

The critical nature of relationships with principals. Without exception, participants described their relationships with principals as a critical factor in their development work with schools. In their experience, the extent to which individual principals support a specific district objective directly affects teachers' willingness to work toward the objective. One participant's comment is representative:

Nothing happens in any building if a principal's actions do not value it. So, if I come to a building with a district plan for [formative assessment] and the principal just doesn't believe in [formative assessment] ... that building will never buy into it. There's no way for me to move people in that school if the principal doesn't value [the district plan]. That is the greatest challenge [in my job]. If the principal is not on board, my work rolls off like rainwater. It doesn't sink in.

Another critical aspect of the relationship between central office teacher leader's and the principal is how teachers perceive it.

I am a teacher like they are. I can't evaluate them in any way ... [But] I think there is a deep suspicion that is what I am—that I have gone to the dark side. And so until [teachers] know I won't go into a classroom, then go running to the principal, they won't ask for help. They won't say, I'm struggling with this. Can you come in?

Participants agreed that principals' support is essential to the success of their work in schools. They also commented that how teachers perceive a central office teacher leader's relationship with the principal is also important.

The meaning of development work with schools. In the view of participants, the purpose of their work with schools is to improve student learning by improving teaching. Three expressions of the relationship between participants' development work and student learning follow. The first participant emphasized the impact of teacher leadership on student learning:

We're making a difference for students, and that's what gets me to work everyday. I know I'm making a difference, and the schools and the central office

give me support to make that happen ... so work with the principals and the teachers—that [makes a difference for] the students.

A second participant highlighted the effect of central office teacher leadership on the quality of teaching and the administration of teaching:

Really, the super definition of my role is to make other people better at their roles. ... When we can create a system of resources and training that allows [principals and teachers] to improve what they do, it's tremendously rewarding.

And, finally, a third participant articulated a representative theory of action for central office teacher leadership: “Our work [as central office teacher leaders] is always about kids ... to make a difference in what kids learn by improving the quality of teaching. The pathway for that to happen is in [our work] with the teachers.”

Work With Mid-level Administration

In a school district, midlevel administration is the part of an organization that Mintzberg (1979) refers to as the “middle line”. Members of the midlevel administration are school principals and district directors. These licensed administrators are the lynchpin in the line of formal authority between top-level district administrators and schools. While principals directly supervise the work of teaching and learning in schools, directors supervise the work of units within the school district technostructure. The role of a school district's middle line is to ensure that the work of teaching and learning in schools is congruent with top-level administrators' vision for the district.

Participants describe six tasks around which they interact with midlevel administrators (i.e., directors and principals). The tasks are:

- Leading professional development events,

- Participating in professional development events,
- Providing technical assistance,
- Collecting and analyzing information,
- Presenting information, and
- Responding to requests, complaints, and inquiries.

These tasks, and the interactions that take place around them, form the basis of two types of work: assistance work and development work.

Assistance work with district directors. Assistance work is apparent in interactions between participants and directors. In assistance work participants are called upon to contribute to a task for which a director is responsible. One participant described assistance work with a director who was assembling a guide for principals:

[The director] put together [a guide] to show principals how all of our curriculum should be scheduled. ... Part of [the guide] was about lesson pacing. [The director] asked [central office teacher leaders] to write an outline of a model lesson for each content area. The outlines were part of that guide.”

Another participant assisted a director with presentations of data.

Some of our principals are really savvy about data. [The director] will often ask me to come with him when he makes presentations to [the principals]. Then if questions [about data] come up that he doesn't have a strong response for, he pulls me up to join in ... because I have a strong background there.

In these examples of assistance work with department directors, participants provided specialized information, or completed a piece of a larger task.

Development work with district principals. Development work is apparent in interactions between study participants and district principals. In the words of one participant,

... a large part of my work is ... with the principals in the district. So [another central office teacher leader] and I provide all the professional development for all the principals, preK-12. Every month ... we're running professional development sessions for them—designing the sessions, presenting, and creating resources and follow-up.

Other participants described similar development work. “I facilitate PD for the elementary principals and the secondary principals, separate groups ... So we have four meetings [this year] where we're trying to give some kind of PD and training to administration.” A unique relational aspect of participants work with mid-level administrators is the advisory nature of some interactions.

Tasks and Interactions Involving Top-level Administration

Top-level administration is the “strategic apex” (Mintzberg, 1979) of a school district structure. The role of top-level administration is to manage relationships with the community served by the school district, and to develop strategies that help the district address the demands of state and federal education policy. Top-level administrators are the school board, superintendent(s), and district officers.

Interactions between study participants and their respective top-level administrators were infrequent. The limited number of descriptions portraying such interactions is insufficient for analysis of the nature of participants' work with top-level administrators. Participants' descriptions, however, do offer insight into the nature of the

tasks and interactions that take place with top-level administrators. As a group, participants in this study had both direct and indirect interactions with top-level district administrators, and the interactions took place around three tasks:

- Presenting information.
- Responding to requests, complaints, and inquiries.
- Collecting and analyzing information.

When direct interactions between top-level administrators and participants occurred, they were privileged and, usually, fleeting. That is, the interactions occurred at the discretion of the assistant superintendent or school board and were short lived. For example, two participants described being invited to address their respective school boards. In both cases the central office teacher leader presented information about implementation of strategies to address policy requirements.

Two other participants described direct interactions with assistant superintendents that took place over time. In the first instance, the discretionary nature of the interaction is apparent. The participant noted:

Last year I was brought in to facilitate PLCs for high school and for middle school. And that was just because of the relationship I had with [the assistant superintendent]. [The assistant superintendent] really liked how I facilitated [PLCs at a high school] the year before that. ... But then, a new [assistant superintendent] came in and said I couldn't have those meetings anymore with secondary teachers.

In the second instance, an assistant superintendent interacted with a central office teacher leader so as to better understand responses to professional learning in schools.

The participant described:

I work with [the assistant superintendent] to plan staff development for the principals [and] to help [the assistant superintendent] figure out why ... certain things don't happen in buildings in the way they should. ... I have a different idea of what the roadblocks might be. I ask different questions.

In these instances the central office teacher leader was viewed as having an unusual expertise or skill that a top-level administrator found useful at that point in time. The first example illustrates that such relationships are the preference of some top-level administrators and not others. The second example illustrates the potential of relationships between central office teacher leaders and top-level administrators to narrow the distance between such administrators and the classroom. It is significant that both of these examples depict relationships that are outside of the traditional chain of command.

In contrast, other interactions between central office teacher leaders and top-level administrators take place through the traditional chain of command. In these examples, information was indirectly communicated to top-level administrators by a director (i.e., mid-level administrator). For example, one participant described an indirect interaction with a top-level administrator that involved a task of collecting and analyzing information:

There are regular administrative meetings between the assistant superintendent and my boss ... My boss is involved in planning or presenting at the meetings ... I

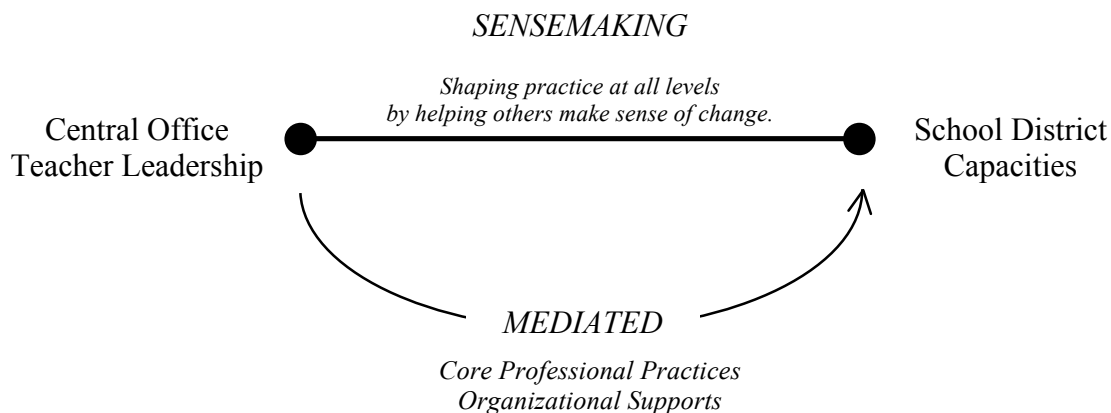
am usually asked to put together some information about our staff development activity. ... So, I help [my boss] prepare for those meetings [with the assistant superintendent].

Most participants described indirect interactions with top-level administrators. In a representative comment, one participant said, “I could not just call up one of the superintendents ... and say, ‘Hey, I need this.’ Or, ‘I was thinking about doing this.’ I would have to go through [the director] ... and then it would go up.”

The Experience of Spanning Between Schools and the Central Office

Findings and discussion related to the second research question—How do central office teacher leaders approach boundary spanning and brokering activity—are presented in this section. Specifically, the section offers an examination of participants’ perceptions of (a) their role between schools and the central office; and (b) the conditions that help or hinder their work.

The findings are presented in four subsections. The first subsection explains participants’ sensemaking approach to their work. It also shows how they interpret their sensemaking approach as both a personal and an organizational responsibility—that is, making sense for themselves and for others. The second subsection presents core professional practices that are evident across the interviews. The third subsection describes organizational supports that participants believe are critical to the success of their work. And, finally, the fourth subsection summarizes the findings about how central office teacher leaders approach boundary spanning and brokering activity. Participants’ sensemaking approach to their work is conceptualized in Figure 4.



Core Professional Practices	Organizational Supports
<ul style="list-style-type: none"> • Continuous deepening of professional expertise by observing, listening, reflecting, field testing, and participating in professional development for central office staff and principals. 	<ul style="list-style-type: none"> • Systemic commitment that includes common messages and financial investment.
<ul style="list-style-type: none"> • Gathering and sharing information to develop understanding, provide a teacher perspective, and complement administrators' networks. 	<ul style="list-style-type: none"> • A well articulated plan for professional learning that assumes a desire to grow and supports learning over time.
<ul style="list-style-type: none"> • Making sense of teaching and learning by situating and taking apart ideas—including policies, teachers' innovations, teaching materials, and academic content. 	<ul style="list-style-type: none"> • Time and ongoing opportunities for learning to support shifts in beliefs, increase capacities throughout the system, and to develop and maintain relationships.
<ul style="list-style-type: none"> • Making sense of the organization by translating and making connections for others, and negotiating meaning over time. 	<ul style="list-style-type: none"> • A dual presence in schools and in the central office to optimize sensemaking for themselves and for others.

Figure 4: Conceptual framework for central office teacher leaders' approach to boundary spanning and brokering activity.

Shaping Practice By Helping Others Make Sense of Change

Central office teacher leaders may be active in all parts of their school district structure (i.e., top-level administration, mid-level administration, the technostructure, and in schools). Their role, then, is enacted as they move back and forth from one part of the school district structure to another. As they move back and forth, central office teacher leaders span boundaries and engage in work that shapes how teachers and administrators interpret and act on new ideas (e.g., policies, tools, practices, research, innovations). The central office teacher leaders who were participants in this study described their work in terms of iterative processes that clarified and deepened understanding of new ideas and practices over time. Sensemaking is at the heart of their descriptions.

According to Weick (1995):

The basic idea of sensemaking is that reality is an ongoing accomplishment that emerges from efforts to create order and make retrospective sense of what occurs. ... Sensemaking emphasizes that people try to make things rationally accountable to themselves and others. (p. 634)

In this study, sensemaking was evident as participants described working with teachers to make connections between their current practice and new district or state education policies. Sensemaking was evident as participants described translating new academic content standards into learning objectives for students. Sensemaking was evident as participants helped top-level administrators understand the challenges teachers and principals face as they implemented new instructional approaches. And, sensemaking was evident in participants' descriptions of visiting classrooms with school leaders to gather information about progress towards school and district objectives.

A representative description of how participants perceive their role between schools and the central office follows: “Teachers see things from the classroom perspective and what's going to be best for kids. The principals see it from what's best for my building, which is involving the teachers and the kids, but ... at a different level. And then you have the people who are outside the building—[top level administrators or directors] who have their own perspective ... We [central office teacher leaders] can help them work together because we are the only people who see what is going on in classrooms [throughout the district.]” By helping teachers and administrators make sense of “what is going on”, central office teacher leaders shape practice throughout their school district.

Core Professional Practices

Across the interview transcripts there is evidence that central office teacher leaders engage in four core professional practices that mediate their efforts to help others make sense of change. The first core professional practice is the continuous deepening of professional expertise. Participants in this study deepened their professional expertise by observing, listening, reflecting, field-testing, and participating in professional development for central office staff and principals. The second core professional practice is gathering and sharing information. As participants crossed boundaries within their respective school districts, they gathered and shared information to develop understanding, provide a teacher perspective beyond the classroom, and complement administrators’ networks. The third core professional practice is making sense of teaching and learning. This practice was apparent in participants’ descriptions of situating and taking apart ideas about teaching and learning to make sense for themselves

and for others. The fourth core professional practice is making sense of the organization. Participants made sense of the organization for themselves, and for others, by translating and making connections, and by negotiating meaning over time.

From the perspective of study participants, the four core professional practices increase the value of their work within the school district and enhance their ability to shape teaching and learning in schools. Evidence from this study suggests that the practices do not function independently of one another. Rather, they overlap so that a participant's description of an event often illustrates more than one core professional practice. A discussion of each of the four core professional practices follows.

Continuous deepening of professional expertise. The first core professional practice is the continuous deepening of professional expertise by observing and listening to teachers and principals, by reflecting on their own practice, by field-testing new ideas, and by participating in professional development. In this core practice, central office teacher leaders make sense of change for themselves. In the following passage, a participant provided a rationale for deepening professional expertise by observing and listening to teachers and principals:

You need to develop deep relationships. You need to move closer to the principals and the teachers. And as you get to know the specifics of the school, you learn how to differentiate for whatever the schools need. ... If you want to be of added value, you need to know more about the school to know how you can best fit in.

Participants also pointed out the importance of deepening professional expertise by reflecting on their practice. In the following description, another participant illustrated deepening professional expertise by reflecting on practice:

“[I] was assuming that schools had structures in place ... that they didn’t have. It was a realization that things I thought were already there and established really weren’t. And so it was really hard for people [in schools] to hook their learning onto [what I was doing]. So there was definitely an ah-ha, and I kind of had to back up ... to understand where the needs really were.”

Several participants noted the importance of deepening professional expertise by field-testing new ideas. Through field-testing, central office teacher leaders make sense for themselves, then revise an idea or tool before sharing it with teachers and administrators.

Many participants reported that they participate in professional development as learners and noted their appreciation for the quality of professional development they receive as central office teacher leaders. Professional development is valued as an opportunity for shared learning, with directors, principals, and central office teacher leaders coming together to make sense of an idea or an initiative. Describing a monthly professional development event, one participant says:

It’s principals, directors, and [central office teacher leaders]. Probably about 30 of us coming together and learning about the achievement gap. We talk about vision and mission, what we’re working on to get there. So we’re learning about work we share, and trying to understand it together ... where we need to be moving and how our work can support those goals.

In these examples, participants took responsibility for deepening their professional expertise by observing and listening to teachers and principals, by reflecting on their own practice, by field-testing new ideas, and by participating in professional development with other instructional leaders in the system.

Gathering and sharing information. As central office teacher leaders cross role and structural boundaries within their school district, they are constantly gathering and sharing information. Through the iterative process of gathering and sharing information central office teacher leaders develop understanding, provide a teacher perspective beyond the classroom, and complement the information shared within administrators' networks. One participant described gathering and sharing information as: "...helping people understand what's going on outside of their own sphere ... cross-pollinating would be one way to say it." Another participant described gathering and sharing information as storytelling:

The director often asks what's going on in the buildings I work with. And teachers ask questions about what's going on in the central office. Who, what, why ... that type of thing. So, I see part of my job as bringing the central office story to schools, and vice versa.

Central office teacher leaders provide a teacher perspective beyond the classroom when they gather information in schools and share the information with others in the central office. Participants expressed pride in being "the teacher voice at the table" as they work with central office administrators. For example, when asked how the central office benefits from central office teacher leaders' work with schools, one participant replied:

The central office needs to hear what's getting in the way, and what concerns the teachers, ... and how [the district plan] is working for kids. What's the actual on the ground experience? Did this work? Did it not work? ... So, if we're really talking about impacting kids ... we are basing the conversation on what the reality is for kids. That's what we contribute ... and it's important. We see the on the ground experience everyday.

Another participant explained how “the teacher voice” increases the value of social networks that connect schools with the central office:

The central office benefits from my work with schools because I work with all of our schools. So what I see is different from what [the principals, directors, and superintendent] see. ... When principals communicate with the central office it is about their school, and their thoughts about their school. In my position, I can compare and contrast schools, and so what I bring to the [central office] conversation is very different than what a principal brings.

By providing a unique perspective—“the teacher voice”—central office teacher leaders complement social networks that connect schools to the central office through school principals. The number and the type of network connections increase and the network is enriched when central office teacher leaders gather information in schools and share it with central office administrators.

Making sense of teaching and learning. The third core professional practice of central office teacher leaders is making sense of teaching and learning by situating and taking apart ideas—including policies, teachers' innovations, teaching materials, and academic content. One participant's account of work with school principals captures the

practice of making sense of teaching and learning by situating ideas. The narrative begins with an exchange between the participant and an elementary principal about the participants' academic content area: "The principal said ... "[Your content area] is nice to know, but it's not necessary. It is not a tested subject". " Because the principal did not value it, teachers in the school did not provide instruction in that content area. The participant went on to describe subsequent work with elementary principals to situate the content area in a larger context—teaching and learning in middle school and high school—where the content area is a "tested subject". By helping principals make sense of the ways testing in middle school and high school builds on teaching and learning in elementary schools, the participant was able to shift beliefs and shape teaching practice across the district.

Another aspect of making sense of teaching and learning is taking apart ideas. In the following description, a participant helped a team of teachers make sense of a new instructional approach by taking apart ideas to make the approach more manageable.

[The teachers] were saying that it wouldn't work. And I said, "I just want to understand where you're coming from. What's going on? Let's talk about this. Let's make the best sense of it." So we kept breaking [the ideas] down ... into manageable pieces that [the teachers] could apply ... pieces they could test out, and they really liked it. They could see it works ... that it's not such a difficult thing.

After noting that teachers and principals tend to compartmentalize ideas about teaching and learning, another participant added that making sense of teaching and learning by situating and taking apart ideas helps "people see what different areas [of content] have in

common ... like where does reading and writing help kids to learn science, or social studies, or math ... because ultimately all these pieces are supposed to work together.”

In these examples, central office teacher leaders make sense of teaching and learning for themselves, and for others, by situating and taking apart ideas.

Making sense of the organization. Central office teacher leaders make sense of the school district organization by translating information, making connections for others, and negotiating meaning over time. In this core practice, central office teachers make sense of the organization for themselves, and for others. The need to make sense of the organization is at the heart of many questions participants field as they span boundaries between parts of the district structure. For example, participants reported questions from teachers, principals, and directors about decisions that affect them, such as: “Who was involved?” “When will the decision be made?” “Why are we being asked to do this?” “We heard that ... Is that accurate?” “What will happen now?” “What does this mean for us?” One participant suggested that questions such as these contribute to sensemaking by establishing “the validity of what is going on” in various parts of the school district structure.

Another participant explained that skill is required in responding to such inquiries because making sense of the organization can be political, and also because “you have to be clear about what you do and don’t know”.

You have to say it just right. You don’t want to give them too much information, but you need to give them just enough that their questions are answered. And you have to be careful not to say things that are confidential. Very quickly I learned to say, “You know, I don’t know the answer to your question, but I will get back

to you with an answer.” That gives me time to figure out what to say, or to find out, if I really don’t know.

A participant described the practice of making sense of the organization in this way:

It's translating. ... The district office is about discussions of big picture pieces.

It's about vision. It's about frameworks. Building work is about instruction. It's about working with kids. To connect [the district vision with instruction] there is a translation and a negotiation you have to participate in. ... You go to schools and ... you deliver the message and ... the outlined process. The first questions are all about what’s going on [in the central office]. Who thinks this is a good idea ... and why.

The participant went on to say that the “translation and negotiation” take place over time, and are critical aspects of “translating vision into practice”.

Other participants noted that making sense of the organization is about helping teachers and principals “see what’s flexible and what’s non-negotiable.”

As one participant explained, “When [principals and teachers] don’t understand what is being asked of them, they can’t decide what’s flexible and what’s nonnegotiable. That’s hard for them. ... So part of it is recognizing that some things come down from the central office that really don’t make sense [to principals and teachers]. So sometimes you just need to say, “Here’s your round hole, you just need to repaint your round peg.

You’re already doing most of it.”

Critical Organizational Supports

As central office teacher leaders engage in the four core professional practices, they rely on organizational supports to provide meaningful learning opportunities for

teachers and principals. Participants in this study described four critical organizational supports that influence their ability to shape work in schools. The first critical organizational support is systemic commitment that includes common messages and financial investment. In the view of study participants, common messages and financial investment are powerful endorsements of their sensemaking role and the goal of increasing capacities. The second critical organizational support is a well-articulated plan for professional learning. This support assumes that teachers and principals desire to grow, brings educators together across roles, and emphasizes learning that is grounded in professional practice. The third critical organizational support is time and ongoing opportunities for learning. Time and ongoing opportunities support shifts in belief, increase capacities throughout the district structure, and encourage the development and maintenance of professional relationships. The fourth critical organizational support is a dual presence. Central office teacher leaders must have a strong presence in schools and in the central office in order to optimize their sensemaking role.

From the perspective of study participants, the presence of these organizational supports increases district capacities for change by promoting sensemaking in all parts of the district structure. The likelihood of increased capacity is diminished when the supports are weak, or absent. Evidence from this study suggests that the mediating influence of the four organizational supports is distributed across the supports. That is, sensemaking that increases district capacities results when all four supports are present and strong. A discussion of each critical organizational support follows.

Systemic commitment. The first critical organizational support is systemic commitment that includes common messages and financial investment. The following

statement by a participant offers a succinct explanation of systemic commitment that includes common messages:

Everyone needs to be connected to the vision and the goals, or teachers don't see it as a priority." This participant goes on to say: "Sometimes what can happen is that the [superintendent, directors, and central office teacher leaders] are on board with the vision and goals, but then we try to go out into schools and [an assistant superintendent or a principal] is not in agreement. ... And so, that's a challenge if you're not all on the same page. ... It's about making a district investment in all of our messaging about how important [the change] is." Another participant clarifies: "Does that mean everybody is on board? Nope, they're not. They are not. ... but if the leadership is in sync we can move ahead and the teachers will come along.

Financial investment is another important aspect of systemic commitment that supports sensemaking in all parts of the district structure. Another participant contributed:

... budgets are a large part of it ... in order to have a coaching [program] you need quite a few bodies. When the budget doesn't support it and a coach is trying to work with too many buildings—well then, teachers can't take it seriously. ... it's about making a financial investment.

The link between financial investment and district policy implementation was mentioned by all of the study participants. In their view, top-level administrators have a tendency to underestimate what is required to implement policies that require changes in the way

things are done. In the following narrative, a participant described the tension that exists when policy implementation is not supported by financial investment.

It's really easy just to tell people to do something ... to tell them change. If you want people to do it and do it well you have to help them understand how ... if we can't pay for training during the school day and we don't have any way to pay them after school, ... how can you change a whole system when you're not able to ... train people during their work day or pay them for their time after work?

From the perspective of participants in this study, common messages and financial support for professional development structures are statements that central office teacher leaders and their sensemaking role are valuable.

A well-articulated plan for professional learning. The second critical organizational support is a well-articulated plan for professional learning that assumes teachers and principals want to grow, brings educators together across roles, and emphasizes learning that is grounded in their professional practice. Participants in this study had confidence that “people really do want to grow”. In addition, they endorsed the notion that meaningful professional learning is grounded in everyday professional practice. In a representative comment, one participant said: “[The plan for professional learning] has to be comfortable for [teachers and principals] and allow them to explore over and over how [new ideas] can be applied to their work.” Another participant explained that bringing together educators with different roles facilitates sensemaking and helps shape work in all parts of the district structure:

People really want to move, so if you can structure it in a way that allows learning to happen, then people move and keep on moving ... With the right structures in

place [the change] is likely to happen. The structure needs to push [teachers and principals] outside of their comfort zone and expose them to what other [teachers and principals] are doing. Otherwise ... they really don't have anything to compare to, and so they don't know what they don't know. ...and their conversation won't change.

One participant described a professional learning plan that included “concentric circles” of support that allowed the exchange of knowledge and expertise across roles—among teachers, principals, and other administrators. In a description of a plan to help teachers, principals, and assistant superintendents make sense of a new approach to teaching literacy, this participant said:

It's a layered system ... you have literacy coaches coming together every month ... then you have literacy coaches and principals and assistant superintendents coming together bimonthly ... and [central office teacher leaders] support at the site level in between each of these [meetings] ... it's almost like concentric circles.

Time and ongoing opportunities for learning. Central office teacher leaders rely on time and ongoing opportunities to support shifts in beliefs, to increase capacities throughout the school district, and to develop and maintain professional relationships. In the view of study participants, the time required for teachers and principals to make sense of a new idea, then put it into practice in schools, is often underestimated. One participant described the following conversation with a superintendent:

[The superintendent] remembers making the decision a year ago and assumes it has been implemented by now. But teachers have proportionally adopted it and

have only gone after one or two pieces of the change. So we really can't say [the] superintendent's decision has been fully implemented.

Another participant described a similar conversation about the relationship between time, shifts in belief, and increased capacities:

[The assistant superintendent and the director] said, "We've working on this for two years. Why hasn't [this change] been implemented?" Well, because it's not easy! There are so many dimensions to it. ... By the time that decision trickles down to the actual training and then the actual classroom, [top level administrators] feel like it's been going on in classrooms for a couple of years, but that was when the decision was made. It's just starting to get into classrooms. ... It's a never-ending story of trying to get people on board. It's even harder when there's a constant shift of staff [in and out of the district].

A third participant noted that the potential for confusion and disappointment is substantial when top-level administrators do not understand the complexity of the changes they expect. "So that's why there has to be a give and take, with information going both ways, and accommodations that have to go both ways."

All of the study participants acknowledged the significance of time and ongoing opportunities in developing relationships within different parts of the school district structure. The following narrative describes how time and ongoing opportunities are significant factors in building and maintaining relationships with teachers and principals, and underscores the importance of relationships in shaping practice:

There is a building ... that literally took me two years of working with them before I was invited ... in the door. ... After a year of just being a listener ... [I

was able to] build trust with the staff. And so the following year then, I had a much more active role ... But it took two years to [establish a relationship] with that building before I could influence the work in classrooms. ... It's a relationship that I cherish now, but doing it was hard earned.

Participants agreed that the time required develop and maintain productive relationships with teachers and principals is often underestimated. In a representative comment, one participant said: "You've just got to be patient. It's water torture—it's drip, drip, drip—and it will always take more time than anyone expects for the people in schools to [make sense] of new methods."

A dual presence in schools and in the central office. Central office teacher leaders' sensemaking role requires a dual presence—a presence in schools and a presence in the central office. Participants in this study argued that too much time spent in the central office or in schools diminished their ability to shape practice in all parts of the district structure and influence district capacities. Several participants described tasks that increased their presence in the central office and diminished it in schools. In the following example a participant described how her ability to shape practice in schools was limited by work in the central office:

Teachers are not demanding of my time. Most of them don't even know who I am. And I think a lot of that is because ... I've been so busy with [a project in the central office]. I go to schools to do presentations sometimes, but I can't follow up because the schedule for work on [the project] is so tight. It's going to take the whole school year to complete.

This participant's ability to develop and maintain relationships with teachers and shape practice in schools was limited by the extent of her presence in the central office.

When asked about balancing competing demands from the central office and schools, one participant said:

If you are not in the central office, you aren't part of the conversation, and the conversation there happens quickly. If you aren't in schools, you aren't part of their conversation either. So it's a bit tricky sometimes, ... It's easy to decide to make schools your priority, but then you ... don't understand the day-to-day goings on the central office, and that has a big influence on your currency in schools over the long stretch.

Some of the participants described personal strategies intended to strengthen their dual presence. In the following narrative a participant described using email and unstructured time to increase his presence in both schools and the central office.

I have learned to be ... in both places, and not just for meetings. A lot of the back and forth happens by just going there and talking to teachers and principals—just to try to keep that relationship going. Often I will go out to schools during lunchtime. Going out and just talking. How can I best support you? Just so they see me in the building. That's the important piece. Or, if I were in the building for a meeting, an 8:00 meeting, I'd send out an email and say, I'm going to be in your building. If you want me to swing by your room for any reason, send me an email. So they knew that I was there. Yes, they may meet me that time, or nope, they don't meet me for a couple of weeks, but all this is kind of keeping that connection open. And the same way for the central office—I have to be there for

meetings and some kinds of work, but I have learned that I need to be there for checking in, just to keep the connections open with [my supervisor] and [other central office teacher leaders].

As they move back and forth across the boundaries between schools and the central office, central office teacher leaders require a presence on both sides of the boundary.

Examples of Job Crafting by Central Office Teacher Leaders

Findings and discussion related to the third research question—How do central office teacher leaders alter their work as they engage in boundary spanning and brokering activity—are presented in this section. Job crafting theory (Wrzesniewski & Dutton, 2001) provides the conceptual framework used to organize and analyze the data presented in this section. Job crafting theory focuses on how individuals adjust their work for themselves, in order to improve job satisfaction and/or performance. Job crafting is an adaptive process wherein “job crafters draw and redraw the task and relational boundaries of a job to make it a more positive and meaningful experience” (Wrzesniewski & Dutton, 2001, p. 197). Job crafting takes place in three basic forms: 1) task crafting; 2) relational crafting; 3) cognitive crafting (Berg, Wrzesniewski, & Dutton, 2010). This section is organized according to these three basic forms of job crafting.

The findings are presented in three subsections. The first subsection presents examples of task crafting by central office teacher leaders. Central office teacher leaders engage in task crafting by taking on more or fewer tasks, expanding or diminishing the scope of tasks, or changing how tasks are performed. The second subsection presents examples of relational crafting by central office teacher leaders. In relational crafting, central office teacher leaders change the nature or extent of interactions with teachers,

administrators, or other central office teacher leaders. The third subsection presents examples of cognitive crafting by central office teacher leaders. Central office teacher leaders engage in cognitive crafting when they change how they think about the purpose of their work.

Task Crafting

Task crafting is evident in participants' descriptions of how they changed the way tasks are done, increased or reduced the number of tasks they performed, or altered the scope of tasks they performed. All of the study participants actively engaged in altering their work through task crafting. Three examples of task crafting taken from the interview transcripts are summarized in Table 5. The following narrative is the full text version of the first example in Table 6. This participant described task crafting by taking on additional work that was personally rewarding to the participant:

I know what I love doing—teaching. I love teaching kids and adults. I love leading PD. I'm pretty good at it, and so even though my supervisor doesn't think that's what I should be doing, I do it anyway, because I know that's what I like to do. And if I didn't get to do that, there wouldn't be very many things about this position I would like. So, even though ... I'm not supposed to be leading the PD sessions, I do it anyway.

This participant was motivated to lead professional development sessions to fulfill a passion for teaching and to make his job more meaningful. Many participants described task crafting that was motivated by a desire to make their job more meaningful. Other motivations for task crafting are evident in the interview transcripts—including the desire

Table 4: *Examples of task crafting by study participants.*

Examples of task crafting	Effect of task crafting
One participant continues to lead professional development sessions, even though it is no longer part of his job description. In the participant's word, "If I didn't get to do that, there wouldn't be very many things about this position I would like."	By taking on additional tasks that he is passionate about, the participant finds his job more meaningful. Other educators may view his leadership as more authentic.
A second participant, who has with experience in elementary schools, persuades another central office teacher leader to take over the coordination of a project when the scope of the project expands to include high schools. In the participant's view, the change of project scope does not match her strengths.	The participant precludes a shift in the focus of her work, keeping the focus on work she believes she does well. In her view the move positively impacts both her own job satisfaction and the effectiveness of her work with others.
A third participant initiates a weekly newsletter to share information with teachers and principals. The newsletter is a change from previous communication practices, which were "annoying" to the participant.	The newsletter organizes information in one place, increasing the likelihood that teachers and principals will find the information when they need it. Work is more efficient, supporting the broader good.

to do work they believe they are good at and the desire to improve the way things are done.

Relational Crafting

Relational crafting was apparent as participants described changing the nature or extent of their relationships with teachers, principals, central office administrators, or other central office teacher leaders. All of the study participants actively engaged in redesigning their work by relational crafting. Three examples of relational crafting taken

from the interview transcripts are summarized in Table 7. The narrative below is the full text version of the first example of relational crafting in Table 7. This participant altered the extent of relationships with schools by initiating and maintaining relationships with nonteaching staff:

I immediately greet the secretaries, because they're really important. You know, they are kind of the go-to people in the building. If I need, I always keep those relationships going because many times I'll need a room reserved in a building. Or, the media people, I'll need the computer lab reserved. So those are really, really key people in a building, so that's the first thing I do—greet the secretary. Then I walk by the principal's office so they know I'm in the building and they have any questions, they know I am there. Then, if I'm not attending a specific meeting, I go down to the teacher's room.

This participant was motivated to increase the extent of her relationships with schools to cope with the details of arranging her work with teachers and principals. Relational crafting is evident when the participant describes initiating and maintaining relationships that were secondary to her work with teachers and principals. Evidence collected in this study indicates that central office teacher leaders are motivated to engage in relational crafting to cope with adversity and to increase the number of meaningful interactions at work.

Cognitive Crafting

Three of the study participants provided accounts of cognitive crafting in which they reframed how they perceived themselves at work—from leaders to individuals who develop leadership in others. This change in self-perception, or cognitive crafting, is the

Table 5. *Examples of relational crafting by study participants.*

Examples of relational crafting	Effect
In addition to relationships with teachers and principals, one participant establishes and maintains relationships with “the go-to people in a [school] building”—people who can help arrange her work in the school.	By increasing the extent of her relationships in schools, the participant improves her job performance.
A second participant initiates relationships with people whose ethnic background is different from his own. In his view, this move improves his understanding of the community in which he lives and works.	The participant experiences personal growth and finds his job more meaningful.
A third participant learns that a confrontational colleague is often hungry during the workday. The participant attempts to change the relationship by bringing food to share when she works with the colleague.	The participant experiences an increased sense of resilience and the relationship is more productive than it has been.

outcome of their engagement in task and relational crafting. These examples are summarized in Table 8. The full text version of the first example of cognitive crafting in Table 8 follows, along with an analysis of how task and relational crafting precipitated the change in self-perception.

In a description of work with nonteaching professionals, the participant says:

I’ve been pretty good at finding ways to give them staff development or training. But I have to do it [outside] of the proper channels ... Going to workshops they wouldn’t otherwise have the opportunity to attend ... then getting together afterward. Asking them, what did you hear? What do you think should happen at your school, and working with them to ... make it happen. So whatever they learn they take back to the school and share it ... they feel a little ownership in it.

Table 6. *Examples of cognitive crafting by study participants.*

Examples of cognitive crafting	Effect
One participant takes on the additional task of arranging and facilitating professional development for school staff who usually do not have such opportunities. The participant then works with these individuals to implement new ideas in schools. This move builds capacity for change and for school leadership. “It’s taking myself out of it and providing for others to become school leaders.”	Each of these participants expands the scope of their work and change the nature of their relationships with others in order to develop leadership capacities in others.
A second participant expands the scope of her work by meeting once a month with representatives from district schools. “I can’t be at all of the schools. But if I can develop a strong system of teacher leaders I can lead even more people.”	The potential of central office teacher leadership is increased. Participants reframe how they perceive themselves in their work—from perceiving themselves as leaders
A third participant consciously shifts the focus of his work from training teachers to implement district policies to “growing the next generation of teacher leaders”. The shift in thinking leads him to place more emphasis on work that builds the capacities of “early adopters” who provide positive examples of new practices.	to perceiving themselves as individuals who develop leadership in others.

I know they appreciate this a lot, because they bring it up. I look at it as their leadership that they take in their school, but also as ... building capacity for school leadership. I haven't thought about that, but that's exactly what it is. It's taking myself out of it and providing for others to become school leaders.

This participant engaged first in task crafting (i.e., “... finding ways to give them staff development ... outside of the proper channels”) that was motivated by her desire to increase the number of people who benefit from her work (i.e., “... whatever they learn they take back to the school and share it”). The task crafting leads to relational crafting in which the nature of the relationship between the participant and the nonteaching

professionals changes from “staff development or training” to support of the “leadership that they take in their school”. Through this process, the participant reframed how she thought about the purpose of her own role—from giving “them staff development and training” to the larger purpose of “taking myself out of it and providing for others to become school leaders.” In the examples of cognitive crafting summarized in Table 8, participants reframed how they thought about their respective jobs by thinking beyond the tasks and interactions that make up their work to the difference they can make for other teachers.

Summary

This chapter presented the findings from analysis of interviews with twelve central office teacher leaders. In particular, the chapter (a) identified specific tasks and interactions that make up participants’ work, (b) interpreted their approach to spanning boundaries between schools and the central office, and (c) presented examples of ways they redesign their work. The analysis reveals that central office teacher leaders can be active in all parts of a school district structure, and that they engage in at least four types of work—development, assistance, supervision, and coordination. In addition, the analysis suggests that participating central office teacher leaders function as sensemakers who increase district capacities by shaping how teachers and administrators make sense of ideas that are intended to improve teaching and learning in schools.

From the perspective of participants in the study, their sensemaking role is mediated by specific professional practices and organizational supports. Four core professional practices are identified, including continuous deepening of professional expertise, gathering and sharing information, making sense of teaching and learning, and

making sense of the organization. Four critical organizational supports are also identified, including systemic commitment, a well-articulated plan for professional learning, time and ongoing opportunities, and a dual presence in schools and in the central office. These practices and supports work together to support sensemaking that increases capacities for change within the school district. Finally, the analysis verifies that participating central office teacher leaders actively redesign their jobs to improve their performance, to cope with adversity, and to increase their job satisfaction and influence. The conclusions drawn from these findings are discussed in the next chapter.

CHAPTER 5 – CONCLUSIONS AND IMPLICATIONS

This study was exploratory, in that, to date, there has been a paucity of published research about the work and role of central office teacher leaders. The findings of the present study described the work of participating central office teacher leaders, examined their approach to the work, and articulated why and how they actively crafted their work. Data for the study were gathered through in-depth interviews with 12 central office teacher leaders from five Midwestern school districts. Because of the exploratory nature of the study, the sample of participants was small, the method design was singular, and the findings are not generalizable. New information about the context and meaning of leadership by teachers who work between the central office and schools emerged from the study. The findings have significance for the design of future research in two areas of study—teacher leadership and school district reform. This chapter presents conclusions from the study, and the implications of the study findings for future research, practice, and development.

Conclusions

How do central office teacher leaders perceive and enact their work in different parts of a school district structure? I suggest that participating central office teacher leaders perceive themselves as teachers who influence other district educators by helping them make sense of (a) new ideas in teaching and learning, and (b) what is going on in various parts of the school district structure. The following statements summarize my conclusions:

- Central office teacher leaders engage in a wide variety of work throughout their respective school districts, including work that takes place in the central office

and in schools; and work with teachers, principals, other central office teacher leaders, directors, assistant superintendents, and school boards.

- Within the central office, they engage with other central office teacher leaders, as well as with directors and assistant superintendents, around at least three broad categories of work: assistance, supervision, and coordination. In schools, central office teacher leaders engage teachers and principals in development work that supports either district or school objectives.
- Principals and assistant superintendents influence the outcomes of central office teacher leadership by supporting, or not supporting, district objectives for central office teacher leadership.
- Central office teacher leaders take a sense-making approach to their work—making sense of new ideas in teaching and learning, and making sense of what is going on in various parts of the school district structure, for themselves and for others—in order to influence district capacities for teaching and learning. Sensemaking is required to realize a nuanced implementation of new teaching practices that addresses the specific and varied needs of classrooms, teams, and school contexts across a school district.
- At least four core professional practices (Figure 4 in this thesis) mediate the sense-making approach. The practices include the continuous deepening of professional expertise, gathering and sharing information, making sense of teaching and learning, and making sense of the organization. These practices appear to be used in conjunction with one another.

- Central office teacher leaders rely on critical organizational supports (Figure 4 in this thesis) to increase district capacities for teaching and learning, including systemic commitment, a well-articulated plan for professional learning, time and ongoing interactions with teachers and principals, and a dual presence in schools and in the central office. These supports appear to be interdependent, with a change in one support resulting in a change to one or more of the other supports.
- Central office teacher leaders actively craft their work to improve their performance, extend their influence, cope with adversity, and increase their job satisfaction.

Major implications of these conclusions for future research in the areas of central office teacher leadership and district reform are discussed next.

Implications for Research

This study was a starting point. It was designed to initiate a conversation about the everyday work of mid-level central office staff, some of whom are central office teacher leaders. Given that this study involved only twelve practitioners, five school districts, and a single method of inquiry, additional research is necessary to examine the extent to which the present findings describe the work and experience of central office teacher leaders in other school districts. For example, future research could compare the work of a larger number of central office teacher leaders in geographically and demographically dispersed school districts to determine whether the nature and scope of their work is similar to, or different from, the work described by participants in this study. In particular, it seems reasonable to consider that the practices of central office teacher leaders would vary based on district size. For example, in smaller districts central office

teacher leaders may have easier access to their central office and school administrators, potentially resulting in greater shared understanding of context and related practices that would best advance teaching and learning. Or, the reverse could be true given less funding. For example, proportionately fewer district leaders could render access, communication, and prospects of coherence more challenging.

In addition, as this study collected data from a single perspective (i.e., central office teacher leaders) further research that incorporates the perspectives of other reform agents (e.g., superintendents, directors, principals, and teachers) is necessary to fully understand the nature and scope of the work done by central office teacher leaders. In-depth case studies methods would create the possibility of understanding the influence of contextual factors, (e.g., culture, power, policy, professional development, administrative turn-over) on central office teacher leaders and their work. Finally, analysis of other sources of data (e.g., district policies, job descriptions, meeting agendas, and activity logs) could further develop our understanding of the nature and scope of central office teacher leadership, and also the ways and reasons enacted practices may vary from formally articulated expectations. Such inquiries could dispute, verify, and refine the findings of the study reported in this thesis.

Although the findings of this study are not generalizable, they clearly indicate that central office teacher leadership is rich terrain for research that aims to better understand the inter-level dynamics of educational change. The findings presented in this thesis provide an enticing glimpse into the complexities of school district reform and teacher leadership that operates at both the district and school levels. Of particular interest are the professional practices that participants used as they interacted with the messy social

and political contexts that are inherent in efforts to continuously improve educational outcomes across a school district. New research that studies central office teacher leadership as both a process and a variable in educational change would likely prove informative. In the words of Van de Ven & Poole (2005), "... a thorough understanding of the buzzing, blooming, and confusing dynamics often observed in organizational changes probably requires the use of multiple approaches ..." (p. 1396).

One approach may be to explain the relationship of central office teacher leadership to reform processes by constructing narrative histories that portray their role in critical events and turning points during the course of a reform initiative. Another approach may be to study how central office teacher leadership develops over the course of reform initiatives through comparative case studies that capture the social and political context of reform work in the central office and in schools. Quantitative approaches such as network analysis have potential to examine the relationship between core professional practices and the social contexts that central office teacher leaders encounter as they span organizational and role boundaries throughout their school districts. Finally, evaluative approaches may be of highest importance as it is unclear whether central office teacher leadership is an effective tool for district reform, and if it is, under what conditions.

With these various approaches in mind, I offer the following broad questions for future research:

- To what extent, and in what ways, does central office teacher leadership contribute to meaningful changes in instructional practice in schools?

- In what ways do the core professional practices and critical organizational supports identified in this study (Figure 4, p. 77 in this thesis) help explain the depth or extent of implementation in educational change initiatives?
- Is there a significant difference in the outcomes of reform efforts in districts that utilize central office teacher leadership as a strategy for implementing new teaching practices and districts that do not utilize such positions?
- What are the relationships between central office teacher leaders' professional practices and the specific social and political contexts in which they interact with others to support district reforms?
- How do central office teacher leaders manage the tensions that are inherent in supporting both district and school objectives? And, how do these tensions, and central office teacher leaders' management strategies, vary in districts of differing size and demographics?

Significant implications of the study findings for central office practices of central office teacher leadership and for the development of central office teacher leadership are discussed next.

Implications for Practice

This study presents new information about the role of midlevel central office staff in education reform. In particular, the study offers insight into the day-to-day experiences of central office teacher leaders whose work is to advance instructional reforms. The contribution is significant. Through their daily work with teachers and principals, central office teacher leaders affect the outcomes of teaching and learning initiatives district wide. As members of the mid-level central office staff, central office

teacher leaders are among those responsible for shaping teaching and learning in accordance with the vision of top-level administrators (Burch & Spillane, 2004; Firestone & Martinez, 2007; Scribner & Bradley-Levine, 2010; Wells et al., 2010). Yet participants in the study described persistent tensions related to whose objectives they should be supporting (e.g., various top-level administrators, directors, and principals), and what form the support should take.

An implication of this tension is that central office teacher leadership positions may need to be more closely aligned with school district reform objectives. In particular, central office teacher leaders could more effectively support reforms if top-level and mid-level administrators were to describe more fully their objectives for central office teacher leadership positions, and clearly articulate those objectives to educators throughout the school district structure. Central office teacher leadership is, in effect, a policy strategy for improving teaching and learning in schools. The benefits of carefully aligning the objectives for central office teacher leadership and district reforms extend far beyond simple clarification of job descriptions.

Clearly mapped and articulated objectives for central office teacher leadership positions will (a) support efforts to create and maintain coherence among reform strategies across a school district; (b) reduce tensions that are apparent between school objectives, district objectives, and the objectives of individuals within the system; and (c) proactively clarify the strengths and weaknesses of the organizational support system that central office teacher leaders rely on. When the objectives for their work are detailed, closely aligned with specific reform objectives, and clearly articulated throughout the system, central office teacher leaders are uniquely positioned to support district reforms.

And, given the opportunity for ongoing conversation and reflection with teachers and principals, central office teacher leaders are well positioned to help others tailor district reforms to the distinctive needs of schools.

The importance of principal support for effective school-based teacher leadership has long been acknowledged (Mangin, 2007; Weiner, 2011, York-Barr & Duke, 2004;). Other researchers assert that teacher leadership is most likely to have a positive impact on school improvement when it is connected to visions, structures, and processes that have their origin in the larger context of school district policy (Firestone & Martinez, 2007; Lord, Cress, & Miller, 2008; Scribner & Bradley-Levine, 2010; Vernon-Dotson et al., 2009; Wells et al., 2010). Findings from the present study suggest that the support of both top-level and mid-level administrators may be essential for effective central office teacher leadership. It is likely that the support of teachers and site-based teacher leaders is also necessary. As York-Barr and Duke (2004) note, the effectiveness of teacher leaders at the school level depends on their acceptance by teachers in classrooms.

The potential of central office teacher leadership as a tool for implementing change is diminished, even undermined, when principals and other administrators do not align their own work with the visions, structures, and processes outlined in school district policy. An unfortunate outcome of a lack of alignment between district, school, and individual objectives is that talented, well-intentioned teachers who 'lead from the middle' can easily become 'caught in the middle', and rendered ineffective. As Leithwood et al. (2004), argue, "The chance of any reform improving student learning is remote unless district and school leaders agree with its purposes and appreciate what is required to make it work" (p. 7). Central office teacher leaders can serve well to support

mutual understanding and agreement about reforms within an aligned and committed system.

Implications for Development

The finding that central office teacher leaders engage in work throughout a school district poses a challenge for those who design their work, as well as for central office teacher leaders themselves. That is, in what ways can it be assured that central office teacher leaders (a) have the complex set of skills they need to constructively engage in work with educators who play different roles within the school district structure, and (b) understand how to develop and maintain close, balanced professional relationships in two highly demanding environments, schools and the central office. The descriptions of work presented in the present study confirm that central office teacher leaders experience a range of issues as they move back and forth between these environments.

Participants in this study were generally hired for their reputation and expertise as either classroom teachers or school-based coaches. As novices they lacked both the expertise and experience needed to manage varied work settings and professional relationships. One participant describes preparation for central office work in this way: “My position is called Teacher on Special Assignment, or TOSA. When I came into the position it was like, ‘Welcome! Here’s your cubicle. Here are four files of stuff going back 15 years. Now go forth and TOSA.’ That was it.” This observation implies an unintentional, even happenstance approach to leadership development that is likely to be self-limiting. The results of this study clearly indicate that expertise in academic content and teaching is an insufficient skillset for effective central office teacher leadership.

A more intentional approach to professional development, such as the “coordinated professional development *system*” suggested by Gallucci, Van Lare, Yoon, and Boatright (2010, p. 954), would likely increase the quality of instructional leadership in reform contexts by addressing the learning needs of both central office teacher leaders and school principals.

One difficulty of addressing the challenge of preparedness may be finding ways to develop central office teacher leaders’ capacities for boundary spanning and brokering activity. Districts may lack the organizational knowledge necessary to guide the growth and effectiveness of central office teacher leaders and need to look to outside consultants to develop the necessary skills. And, as researchers have noted, there has been little research on the professional development of educators in instructional leadership roles (Gallucci, et al, 2010; Mangin & Dunsmore, 2013). Clearly, such practices as boundary spanning and brokering are best learned in context as they likely vary significantly by context. While on-the-job coaching by more experienced central office teacher leaders who share knowledge of the local context and practices would be a useful and appreciated support, districts often lack such in-house expertise (Honig, 2008; Mangin & Dunsmore, 2013).

Our lack of understanding in this area is further complicated by the compartmentalization of knowledge into silos of literature on instructional leadership by principals, teacher leaders, and instructional coaches (Neumerski, 2013), making it difficult to extrapolate from one body of literature to another. Still, the status of central office teacher leadership as a strategy for improving instruction suggests that the issue of developing central office teacher leaders may be most effectively approached as an issue

of developing district instructional leadership capacity, rather than developing the leadership abilities of individuals.

Summary

This study set out to describe the work done by central office teacher leaders, to understand their approach to the work, and to consider how they craft their work as they move between the central office and schools. Findings indicate that the ongoing processes of gathering and sharing information while spanning role and organizational boundaries allowed participating central office teacher leaders to help educators throughout the school district structure make sense of (a) new ideas in teaching and learning, and (b) what was going on in various parts of the school district. The central office teacher leaders in this study clearly engaged in boundary spanning and job crafting activities that grounded their leadership in processes of continuous improvement within their respective school districts. The study makes three unique contributions. First, it integrates three fields of research, school district reform, teacher leadership, and job crafting. Second, this study is an early attempt to understand the day-to-day work of school district reform. Third, it examines teacher leadership in a new context, the boundary between schools and the school district central office. These contributions invite new conversations about school district reform, teacher leadership, and job crafting in educational settings.

References

- American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, §123, Stat. 115 (2009).
- Andersen, S. E. (2003). *The school district role in educational change: A review of the literature* (ICEC Working Paper #2). Ontario, Canada: Ontario Institute for Studies in Education.
- Angelle, P. S., & Schmid, J. B. (2007). School structure and the identity of teacher leaders: Perspectives of principals and teachers. *Journal of School Leadership, 17*(6), 771-799.
- Barley, S. R., & Kunda, G. (2001). Bringing work back in. *Organization Science, 12*(1), 76-95.
- Berg, J. M., Dutton, J. E., & Wrzesniewski, A. (2008). *What is job crafting and why does it matter?* Ann Arbor, MI: University of Michigan.
- Berg, J. M., Wrezniewski, A. & Dutton, J. E. (2010). Perceiving and responding to challenges in different ranks: When proactivity requires adaptivity. *Journal of Organizational Behavior, 31*, 158-186.
- Boatright, B., & Galucci, C. (2008). Coaching for instructional improvement: Themes in research and practice. *Washington State Kappan, 2*(1) 3-5.
- Brunner, C. (1996). *Developing women leaders: The art of "stalking" the superintendency*. Paper presented at the Annual Meeting of the American Association of School Administrators, San Diego, CA, March 8-11.
- Burch, P. (2007). Educational policy and practice from the perspective of institutional theory. *Educational Researcher, 36*(2), 84-95.

- Burch, P. & Spillane, J. (2004). *Leading from the middle: Mid-level district staff and instructional improvement*. Chicago, IL: Cross City Campaign for Urban School Reform.
- Camburn, E. M. (2009). Allocating more experienced teachers to leadership positions in schools: A double-edged sword? *Journal of School Leadership, 19*(6), 680-696.
- Camburn, E., Rowan, B., & Taylor, J. E. (2003). Distributed leadership in schools: The case of elementary schools adopting comprehensive school reform models. *Educational Evaluation and Policy Analysis, 25*(4), 347-373.
- Carnegie Forum on Education and the Economy (1986). *A nation prepared: Teachers for the 21st century*. New York, NY: Carnegie Forum on Education and the Economy.
- Chrispeels, J. H., Burke, P. H., Johnson, P., & Daly, A. (2008). Aligning mental models of district and school leadership teams for reform coherence. *Education and Urban Society, 40*(6), 730-750.
- Cohen, L., Manion, L., & Morrison, K., (2007). *Research methods in education*. Oxford, UK: Routledge Publishers.
- Creswell, J. W., (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage Publications.
- Daly, A. J., Finnegan, K. S. (2011). The ebb and flow of social network ties between district leaders under high-stakes accountability. *American Educational Research Journal, 48*(1), 39-79.

- Daly, A. J., Moolenaar, N. N., Bolivar, J. M., & Burke, P. (2009). Relationships in reform: The role of teachers' social networks. *Journal of Educational Administration, 48*(3), 359-391.
- Deussen, T., Coskie, T., Robinson, L., Autio, E. (2007). "Coach" can mean many things: Five categories of literacy coaches in Reading First (REL report 2007-No. 005). Portland, OR: Northwest Regional Educational Laboratory.
- Donaldson, M. L., Johnson, S. M., Kirkpatrick, C. L., Marinell, W., Steele, J. L., Szczesiul, S. A. (2008). Angling for access, bartering for change: How second-stage teachers experience differentiated roles in schools. *Teachers College Record, 110*(5), 1088-1114.
- Elmore, R. F., & Burney, D. (1997). *School variation and systemic instructional improvement in community school district #2, New York City*. Pittsburgh, PA: University of Pittsburgh.
- Firestone, W. A. & Martinez, C. (2007). Districts, teacher leaders, and distributed leadership: Changing instructional practice. *Leadership and Policy in Schools, 6*(1), 3-35.
- Fuhrman, S. H., & Elmore, R. F. (1990). Understanding local control in the wake of state education reform. *Educational Evaluation and Policy Analysis, 12*(1), 82-96.
- Gallucci, C. (2008). Districtwide instructional reform: Using sociocultural theory to link professional learning to organizational support. *American Journal of Education, 114*(4), 541-581.

- Gallucci, C., Van Lare, M., D., Yoon, I. H., Boatright, B. (2010). Instructional coaching: Building theory about the role and organizational support for professional learning. *American Educational Research Journal*. 47(4), 919-963.
- Gubrium, J. F., & Holstein, J. A. (2001). *Handbook of interview research*. Thousand Oaks, CA: Sage Publications.
- Hackman, J. R., & Oldham, G. R. (1980). *Work redesign*. Reading, MA: Addison-Wesley.
- Honig, M. I. (2008). District central offices as learning organizations: How sociocultural and organizational learning theories elaborate district office administrators' participation in teaching and learning improvement efforts. *American Journal of Education*, 114(4), 627-66.
- Honig, M. I. (2009). No small thing: School district central office bureaucracies and the implementation of new small autonomous schools initiatives. *American Educational Research Journal*, 46(2), 387-422.
- Honig, M. L., Copland, M. A., Rainey, L., Lorton, J. A., & Newton, M. (2010). *Central office transformation for district-wide teaching and learning improvement*. Center for the Study of Teaching and Policy, University of Washington: Seattle, WA.
- Hightower, A. M. (2002). *San Diego's big boom: District bureaucracy supports culture of learning*. Center for the Study of Teaching and Policy, University of Washington: Seattle, WA.
- Holmes Group (1986). *Tomorrow's teachers: A report of the Holmes Group*. East Lansing, MI.

- Johnson, P. E. & Chrispeels, J. H. (2010). Linking the central office and its schools for reform. *Educational Administration Quarterly*, 4(5), 738-775.
- Kim, J. J., Crasco, L. M., Smith, R. B., Johnson, G., Karantonis, A., & Leavitt, D. J. (2001). *Academic excellence for all urban students: Their accomplishment in science and mathematics*. Mansfield, MA: Systemic Research, Inc.
- Knapp, M. (2003). Professional development as a policy pathway. *Review of Research in Education*, 27: 109-157.
- Leithwood, K., Louis, K. S., Anderson, S., & Wahlstrom, K. (2004). *Review of research: How leadership influences student learning*. New York, NY: Wallace Foundation.
- Lord, B., Cress, K., & Miller, B. (2008). Teacher leadership in support of large-scale mathematics and science education reform. In M. M. Mangin & S. R. Stoelinga (Eds.), *Effective teacher leadership: Using research to inform and reform* (pp. 55-76). New York: Teachers College Press.
- Louis, K. S. (2008). Learning to support improvement—Next steps for research on district practice. *American Journal of Education* 114(4), 681-689.
- Mangin, M. M. (2005). Distributed leadership and the culture of schools: Teacher leaders' strategies for gaining access to classrooms. *Journal of School Leadership* 15(4), 456-484.
- Mangin, M. M. (2008). The influence of organizational design on instructional teacher leadership. In M. M. Mangin & S. R. Stoelinga (Eds.), *Effective teacher leadership: Using research to inform and reform* (pp. 77-98). New York, NY: Teachers College Press.

- Mangin, M. M. (2010). The future of instructional teacher leader roles. *The Educational Forum*, 74(1), 49-62.
- Mangin, M. M., & Dunsmore, K. (2013). The instructional coach's leadership role in systemic change. (Unpublished paper). Rutgers, The State University of New Jersey, New Brunswick, NJ.
- Mangin, M. M., & Stoelinga, S. R. (Eds.) (2008). *Effective teacher leadership: Using research to inform and reform*. New York, NY: Teachers College Press.
- Maxwell, J.A., (2005). *Qualitative research design: An interactive approach*. Thousand Oaks, CA: Sage Publications.
- Manno, C. M., & Firestone, W. A. (2008). Content is the subject: How teacher leaders with different subject knowledge interact with teachers. In M. M. Mangin & S. R. Stoelinga (Eds.), *Effective teacher leadership: Using research to inform and reform* (pp. 36-54). New York, NY: Teachers College Press.
- Merriam, S. B. (2009). *Qualitative research*. San Francisco, CA: Jossey-Bass.
- Mintzberg, H. (1979). The structuring of organizations: A synthesis of the research. Englewood Cliffs, NJ: Prentice-Hall.
- Muijs, D., & Harris, A. (2007). Teacher leadership in (in)action: Three case studies of contrasting schools. *Educational Management Administration & Leadership*, 35(1), 111-134.
- Murphy, J. (2005). *Connecting Teacher Leadership and School Improvement*. Corwin, Thousand Oaks, CA.
- National Commission on Excellence in Education (1983). *A nation at risk: The imperative for educational reform*. Washington, D. C.: US Department of

Education.

No Child Left Behind (NCLB) Act of 2001, Pub. L. No. 107-110, §115, Stat. 1425

(2002).

Neumerski, C. M. (2013). Rethinking instructional leadership, a review: What do we know about principal, teacher, and coach instructional leadership, and where should we go from here? *Educational Administration Quarterly* 49(2), 310-347.

Patton, M.Q. (2002). *Qualitative research and evaluation methods*. Thousand Oaks, CA: Sage Publications.

Riordan, K. (2003). *Teacher leadership as a strategy for instructional improvement: The case of the Merck Institute for Science Education* (CPRE Research Report RR-053). Philadelphia, PA: University of Pennsylvania.

Rorrer, A. K., Skrla, L., Scheurich, J. J. (2008). Districts as institutional actors in educational reform. *Educational Administration Quarterly*, 44(3), 305-358.

Rubin, H.J., & Rubin, I.S., (2005). *Qualitative interviewing: The art of hearing data*. Thousand Oaks, CA: Sage Publications.

Scribner, S. M. P., & Bradley-Levine, J. (2010). The meaning(s) of teacher leadership in an urban high school reform. *Education Administration Quarterly*. 46(4), 491-522.

Smylie, M. A., & Denny, J. W. (1990). Teacher leadership: Tensions and ambiguities in organizational perspective. *Educational Administration Quarterly*, 26(3). 235-259.

Spillane, J. (1998). State Policy and the non-monolithic nature of the local school district: Organizational and professional considerations. *American Educational*

Research Journal, 35(1), 33-63.

- Steel, C., & Craig, E. (2006). Reworking industrial models, exploring contemporary ideas, and fostering teacher leadership. *The Phi Delta Kappan*, 87(9), 676-680.
- Stein, M. K., & Coburn, C. E. (2008). Architectures for learning: A comparative analysis of two urban school districts. *American Journal of Education*, 114(4), 583-626.
- Stoelinga, S. R. (2012). At the intersection of principal and teacher instructional leadership: The case of Donaldson Elementary. *Journal of Cases in Educational Leadership*, 13(2), 21-28.
- Stokes, L., Hirabashi, J., Murray, A., & Senauke, L. (2001). *The enduring quality and value of the national writing project's teacher development institutes: Teachers' assessments of NWP contributions to their classroom practice and development as leaders*. Inverness, CA: Inverness Research.
- Swinnerton, J. (2006). *Learning to lead what you don't (yet) know: District leaders engaged in instructional reform*. (Unpublished doctoral dissertation). University of Washington, Seattle, WA.
- Swinnerton, J. (2007). Brokers and boundary crossers in an urban school district: Understanding central-office coaches as instructional leaders. *Journal of School Leadership*. 17(2), 195-221.
- Tansey, O. (2007). Process tracing and elite interviewing: A case for non-probability sampling. *Political Science and Politics*, 40(4), 1-23.

- Tushman, M.L., & Scanlon, T.J. (1981). Characteristics and external orientations of boundary spanning individuals. *The Academy of Management Journal*, 24(1), 83-98.
- Tushman, M.L. (1977). Special boundary roles in the innovation process. *Administrative Science Quarterly*, 22(4), 587-605.
- Van de Ven, A., & Poole, M. (2005). Alternative approaches for studying organizational change. *Organization Studies*, 26(9), 1377-1404.
- Vernon-Dotson, L. J., Belcastro, K., Crivelli, J., Lesako, K., Rodrigues, R., Shoats, S., & Trainor, L. (2009). Commitment of leadership teams: A district-wide initiative driven by teacher leaders. *International Journal of Teacher Leadership*, 2(2), 24-38.
- Warren, C.A. (2001). Qualitative interviewing. In: J.F. Gubrium & J.A. Holstein, Eds., *Handbook of interview research*, Thousand Oaks, CA: Sage Publications.
- Weick, K. E. (1995). *Sensemaking in organizations*. Thousand Oaks, CA.
- Weiner, J. M. (2011). Finding common ground: Teacher leaders and principals speak out about teacher leadership. *Journal of School Leadership*. 21(1), 7-41.
- Wells, C. M., Maxfield, C. R., Klocko, B., & Feun, L. (2010). The role of superintendents in supporting teacher leadership: A study of principals' perceptions. *Journal of School Leadership*, 20(5), 669-693.
- Weiss, I. R., Gellatly, G. B., Montgomery, D. L., Ridgway, C. J., Templeton, C. D., & Whittington, D. (1999). *Local systemic change through teacher enhancement: Year four cross-site report*. Chapel Hill, NC: Horizon Research, Inc.

- Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*.
Cambridge: Cambridge University Press.
- Wrzesniewski, A., & Dutton, J.E. (2001). Crafting a job: Envisioning employees as
active crafters of their work. *Academy of Management Review*, 28(2), 179-201.
- York-Barr, J. & Duke, K. (2004). What do we know about teacher leadership? Findings
from two decades of scholarship. *Review of Education Research*, 74(3), 255-316.

Appendix A

Summary of District Reform Literature

Reference	Research	Findings
Burch, 2007	<p>Questions: How can recent contributions to institutional theory guide scholarship in education? Theoretical article that presents a framework of ideas from new institutional theory that may be valuable in education research.</p> <p>Perspective: New institutional theory; field theory</p>	<p>Recent developments in institutional theory offer important insights for understanding education policy and practice.</p> <p>Education researchers can elaborate and strengthen institutional thinking by applying new constructs from institutional theory.</p>
Burch & Spillane, 2004	<p>Questions: What is the leadership role that mid-level central office staff play in district reforms?</p> <p>Methods: Qualitative; interviews analyzed with cross-comparative methods.</p> <p>Data: A subset collected during a 3-year study of 3 urban school districts. The subset sample includes 55 interviews with mid-level central office staff representing a range of departments, and 59 school-based administrators.</p> <p>Perspective: Communities of practice.</p>	<p>Mid-level central office staff function as knowledge brokers or translators because they have membership in multiple communities.</p> <p>In this role, they design tools, manage information, provide training and support, and build networks.</p> <p>Mid-level staff approach their work in two distinctly different ways: authoritative or collaborative</p> <p>Authoritative orientation limited opportunities for central office staff to learn from schools and strengthen district policy.</p>
Childress, Elmore, & Grossman, 2006	<p>Commentary on a management model developed by the Public Education Leadership Project (PELP) at Harvard University.</p>	<p>Many education reforms fail because the district office is not part of the reform strategy.</p> <p>The role of the district office is to create and clearly articulate a strategy for strengthening the instructional core and help educators decide what to do and what not to do.</p>

Summary of District Reform Literature (contd.)

Reference	Research	Findings
Chrispeels, Burke, Johnson, & Daly, 2008	<p>Research questions: What is the mental model held by each of the key players (central office, principal, and leadership team members) regarding tasks of school leadership teams in the process of school improvement? In what ways do similarities and differences in mental models of leadership tasks influence the potential of Site Leadership Teams to serve as a bridge between the central office and school sites engaged in the process of reform?</p> <p>Methods: Mixed methods; individual interviews, survey, focus groups, observations, professional development documents and evaluations.</p> <p>Data: Constant comparative analysis, high inter-rater reliability, triangulation of methods, member checking. Sample of 5 elementary schools participating in a 3-year nationwide professional development project.</p> <p>Perspectives: Leadership tasks (Leithwood, et al., 2004); mental models construct (Senge, 1990).</p>	<p>Site leadership teams (SLTs) can serve as a bridge between the central office and schools by enhancing coordination, depth, spread, and commitment to district reforms.</p> <p>District and Site Leadership Team mental models became more congruent over the course of professional development.</p>
Daly, Moolenaar, Bolivar, & Burke, 2010a	<p>Research questions: To what extent do formal and informal social network structures within grade levels support or constrain the access and exchange of collaborative lesson planning, knowledge of reading comprehension, and</p>	<p>Principals initiated the reform at the school level, and their understanding of the reform impacted their ability to disseminate reform information.</p> <p>The reform underwent several layers of interpretation</p>

Summary of District Reform Literature (contd.)

Reference	Research	Findings
<p>reform-related effort around district-wide change efforts? How do teachers in different formal and informal positions in the network both perceive the relational linkages through which the reform is diffused and enacted? To what extent are social network structures related to teachers' perceptions of collective action, efficacy and satisfaction with regard to the reform?</p>	<p>and modification prior to reaching the classroom. Teachers in densely connected networks tended to focus on teaching and learning, goal setting and shared decision making, and assume a learning orientation.</p>	<p>Design/Methods: Mixed methods exploratory case study. Data: Quantitative survey data from five schools implementing a district reading comprehension reform; Qualitative interview data (12 one-hour interviews) from teachers at various grade levels Perspective: Social capital and social network theories</p>
<p>Gallucci, 2008</p>	<p>Research questions: What capacity-building structures do educational leaders develop in response to the current policy environment? How are frontline professionals, such as classroom teachers, supported in making changes in their instructional practice? How can professional learning processes inform organizational leaders and contribute to what has</p>	<p>The embedded and public nature of the teacher's learning experience supported her learning and that of her colleagues. Instructional leaders shared the teacher's experience at other levels of the district in ways that contributed to changes in professional development policies.</p>

Summary of District Reform Literature (contd.)

Reference	Research	Findings
	<p>been called “organizational learning” – here focused on how the district as a system learns to support professional learning? Design/Methods: Case study of the organizational effect of a teacher’s learning. Interviews, field notes, artifacts, video of professional development.</p>	
Honig, 2008	<p>Data: Subset from a large qualitative study of district</p> <p>Research Questions: How do organizational and sociocultural learning theories elaborate what might be involved if central offices operated as learning organizations? Design/Method: Theoretical article that presents a framework of work practices for central office administrators. Perspectives: Sociocultural learning theory and organizational learning theory.</p>	<p>Assistance relationships with schools: modeling, valuing and legitimizing ‘peripheral participation’, creating and sustaining social engagement, developing tools, brokering/ boundary spanning, joint work. Cycle of searching for, incorporating, and retrieving evidence. These concepts are integrated.</p>
Honig, 2009	<p>Research questions: How do central office administrators participate in the implementation of small autonomous schools initiatives? With what results? What conditions seem to mediate their participation and attendant outcomes? Design/Method: Multiyear, qualitative, comparative study of small autonomous schools initiatives in two districts. 60 interviews with 45 respondents identified with a snowball method, observations,</p>	<p>Specialized boundary spanning units of public bureaucracies may function as change agents in the context of policy initiatives. Boundary spanners are fundamentally dependent on others to realize particular outcomes. Implementation hinges on investments in people within central offices to engage in new work practices, rather than on the development of better formal policies.</p>

Summary of District Reform Literature (contd.)

Reference	Research	Findings
	<p>and document review. Data: Triangulation of sources. Perspectives: Innovation and organizational learning</p>	
<p>Honig, Copeland, Rainey, Lorton, & Newton, 2010</p>	<p>Research questions: What does it take for leaders to promote and support powerful, equitable learning in a school and in the district and state system that serves the school? Design/Method: Qualitative; one year, comparative case study of three urban school districts. Observations of administrators' engagement in reform activities. 282 semi-structured interviews with 162 respondents, and document review. Data: Triangulation of methods. Perspective: Sociocultural learning theory.</p>	<p>Central office administrators collected evidence about their experience with the reform and used the evidence to make decisions and strengthen their work. Processes related to evidence use included ongoing collection and incorporation of evidence in multiple forms.</p>
<p>Johnson & Chrispeels, 2010</p>	<p>Research questions: What are the linkages between the central office and its schools that support and constrain school reform? How do perceptions differ among the three key stakeholders: central office leaders, principals, and school leadership teams? Design/Method: Qualitative; descriptive case study; K-8 school district, urban fringe; interviews with 10 central office administrators 5 principals, and 45 leadership team members from 5 elementary schools; document review; observation.</p>	<p>Successful reform requires the joining of bureaucratic and professional perspectives on organizations. Standard linkages—structures, communication, resources, relationships, and ideology—can play roles in administrative control functions, and professional and learning dimensions. Although the structural linkage was the primary vehicle used by the district the relational and ideological linkages are essential for many reform processes.</p>

Summary of District Reform Literature (contd.)

Reference	Research	Findings
	<p>Data: Methodological triangulation, constant comparative method.</p>	
<p>Rorrer, Skrla, & Scheurich, 2008</p>	<p>Research questions: What roles have districts served in reform? What role could districts serve to improve achievement and advance equity systematically? What would be the nature of district-level change necessary to systematically improve achievement and advance equity?</p> <p>Design/Methods: Literature review; narrative synthesis (Popay, et al., 2006) of empirical and conceptual work related to districts' roles, 1984</p>	<p>Four essential roles for districts in educational reform emerged from the analysis: providing instructional leadership, reorienting the organization, establishing policy coherence, and maintaining an equity focus.</p> <p>Together these roles comprise aspects of district leadership, management, values and norms, operation, and governance.</p>
<p>Stein & Coburn, 2008</p>	<p>Research questions: Are teachers actually learning the knowledge and skills required to transform their practices? If so, what role has the district played in creating the opportunities for that learning?</p> <p>Design/Method: Qualitative study of 8 schools in 2 district; interviews, observations, document analysis, social network analysis</p> <p>Perspective: Communities of practice</p>	<p>Teachers opportunities to learn are mediated by the structure and nature of interactions designed by the district.</p> <p>Informal learning communities differed from formal organizational designations, but leaders did not take advantage of the former.</p>

Appendix B
Summary of Teacher Leadership Literature

Reference	Research	Findings
Angelle & Schmid, 2007	<p>Question: How is the role of teacher leadership articulated by school principals and by teachers perceived as leaders by their principal? In what ways does school structure result in differently perceived concepts of teacher leadership?</p> <p>Design/Method: Qualitative; descriptive; semi-structured interviews</p> <p>Data: purposeful sampling; 11 K-12 schools, 14 administrators, 51 teachers; dual analysis</p> <p>Leadership: varied</p> <p>Perspective: Structural symbolic interactionism; social identity theory (Burke, 1980; Stryker, 1980)</p>	<p>Five categories that describe and define teacher leaders: decision maker, role model, positional designee, supra-practitioner, visionary.</p>
Camburn, 2009	<p>Question: How is expertise distributed between CSR teacher leaders and regular classroom teachers in urban schools implementing CSR programs?</p> <p>Design/Method: Quantitative; descriptive; survey research comparing 4300 classroom teachers with 72 teacher leaders. Comparisons were based on experience, certification, postsecondary training.</p>	<p>The most able teachers were reallocated to leadership positions and not working directly with students.</p> <p>Teacher leaders had significantly stronger post-secondary training in academic content areas and teaching methods, as well as more teaching experience than classroom teachers.</p>

Summary of Teacher Leadership Literature (contd.)

Reference	Research	Findings
Boatright & Gallucci, 2008	Professional Resource; Summary of themes in instructional coaching research.	Suggestions for future research.
Donaldson, Johnson, Kirkpartick, Marinell, Steele, & Szezesiul, 2008	<p>Question: How do recently appointed teacher leaders experience a range of roles?</p> <p>Design/Method: Qualitative; descriptive; interview-based; 20 second-stage teachers, 28 to 50 years of age.</p> <p>Leadership: Formal, school-based, reform and non-reform positions, some practicing teachers.</p>	<p>Teacher leaders charged with changing the practice of their colleagues encountered resistance, unlike teacher leaders in non-reform positions.</p> <p>The authors attribute this to norms of autonomy, egalitarianism, and seniority.</p>
Firestone & Martinez (2007)	<p>Questions: How do districts influence teaching practice? How do teacher leaders influence teaching practice? What is the relationship between teacher leaders and districts in change efforts?</p> <p>Design/Methods: Qualitative; descriptive; case studies of 4 schools in 3 districts; teachers selected to represent different levels of experience and grades.</p> <p>Data: Collected over two years, part of a larger study of schools participating in an NSF MSP</p> <p>Perspective: Organizational theory; distributed leadership</p>	<p>Teacher leaders ability to fulfill their role was influenced by the amount of time they were available to work with other teachers.</p> <p>They needed to know more about the subject and curriculum than the teachers they support.</p> <p>Teachers needed to know their teacher leaders could be trusted.</p> <p>Teacher leadership can compliment, but may not be essential to, district reform efforts.</p>

Summary of Teacher Leadership Literature (contd.)

Reference	Research	Findings
Lord, Cress, & Miller, 2008	Design: 3-year qualitative study of teacher leadership models	Teacher leaders reliance on their own experience as teachers limits their influence on teaching and learning. Expectations for teacher leadership should be explicit and part of a larger district reform effort.
Mangin, 2005	Question: Design/Methods: Qualitative; comparative case study; interviews and observation of 12 teachers in five districts. Data: Sampling based on low socioeconomic status of district and existence of a formal teacher leader. Leadership: Formal, school based, math specialists	Strategies teacher leaders used to gain access to classrooms include developing relationships, engaging in nonthreatening leadership, and targeting subsets of teachers. Administrators influence teacher leaders' access to classrooms by setting expectations supporting instructional change, and offering guidance to teacher leaders.
Mangin, 2008	Question: What are the effects of design on the enactment of teacher leadership initiatives? Design: Qualitative, descriptive Leadership: Formal, nonsupervisory, some were shared across schools.	Teacher leaders used content expertise to support basic use of curriculum and to help teachers develop deeper knowledge and understanding.
Manno & Firestone, 2008	Question: How does content knowledge help teacher leaders influence other teachers? Design/Method: Qualitative; 8 teacher leaders (4 content experts. 4 not) participating in the New	Teacher leaders used content expertise to support basic use of curriculum and to help teachers develop deeper knowledge and understanding.

Summary of Teacher Leadership Literature (contd.)

Reference	Research	Findings
Murphy, 2005	<p>Jersey Math Science Partnership Leadership: Formal, school-based. Perspective: Organizational theory, distributed leadership.</p> <p>Professional resource for principals. Leadership: Practicing classroom teachers with influence beyond their classrooms.</p>	<p>Concentrated leadership has more impact on schools than shared leadership. Teacher leadership is more likely to be administrative than instructional leadership.</p>
Weiner, 2011	<p>Questions: How do teacher leaders and principals describe the teacher leaders role and responsibilities? How do teacher leaders and their principals describe the principal's leadership in relation to the teacher leader's role? In what ways do these descriptions overlap? In what ways do they diverge? Design/Method: Qualitative; descriptive; 8 semi-structured interviews; 4 schools, 1 teacher and 1 principal in each school. Data: Thematic analysis</p>	<p>Principals viewed successful teacher leadership as a function of personality rather than training. Principals provided little support to teacher leaders, but neither reported being dissatisfied with the level of support. Principals did not provide teacher leaders with necessary resources. Teacher leaders felt more efficacious when their work was part of larger school goals. Teacher leaders had a greater sense of self-efficacy and autonomy when they defined their own daily responsibilities.</p>
Wells, Maxfield, Klocko, & Feun, 2010	<p>Questions: What are principals' perceptions of the role of superintendents in promoting and supporting teacher leadership? What differences exist between what principals want and receive</p>	<p>Principals wanted superintendents to support teacher leadership programs. Principals wanted superintendents to take an active role in creating systems that support teacher leadership.</p>

Summary of Teacher Leadership Literature (contd.)

Reference	Research	Findings
	from their superintendents? Design/Method: Quantitative; descriptive; online survey research; purposeful sampling; 394 principals, K-12.	

Appendix C

Nomination Form

An Exploratory Study of Teacher Leaders
Who Work Between the Central Office and Schools
Nomination Form – Available on UMSurvey

Thank you for nominating participants for this University of Minnesota research project! The aim of this study is to develop a deeper understanding of how teacher leaders support school improvement. You may nominate as many teacher leaders as you like, including yourself. Use your knowledge of each teacher leader to respond to the questions below. Your responses provide information that will be used to create a pool of teachers to be contacted to determine their interest in participating in the study. Please be assured that your nominations will remain confidential, meaning the nominee will not know who nominated her or him.

If you have questions about the study or this process, you are welcome to contact me, Audrey Murray, or my doctoral studies advisor, Dr. Jennifer York-Barr. (Contact information below.)

1. Nominee's first and last name:

2. Nominee's school district (for contact purposes only):

3. Description of the nominee: Please check only the items that you know are characteristic of the nominee. Do not check items you are unsure of, or do not know.
 - Is a licensed teacher

 - Has served for 2 or more years in the central office, in a role that also involves supporting educators within their elementary schools

 - Has served 2 or more years in the central office, in a role that also involves supporting educators within their secondary schools

 - Work is focused on increasing teaching and learning capacity in schools

 - Nominee is female

 - Nominee is male

4. Additional information about the nominee that you feel may be relevant to participation in the study:

Appendix D

Invitation and Consent Form

You are invited to participate in an exploratory study of teacher leaders who work between the central office and schools.

Dear [nominee's name],

My name is Audrey Murray. I am a doctoral candidate at the University of Minnesota.

I am conducting a research study about the role of teacher leaders who serve in central office positions, and whose work is to increase the teaching and learning capacities of schools. A considerable amount of research has been done about teacher leaders who are school level employees. Very little research has been conducted about teacher leaders who are centrally positioned in their school district and who work with directly with teachers and administrators in their respective schools to support continuous improvement of teaching and learning. The aim of the study is to learn more about these types of teacher leaders.

If you decide to participate, I will ask you to meet with me for an interview about your work. The interview will take place at a mutually agreed upon time and place, and will take about 2 hours of your time. I am available any weekday at 3:00 p.m. or later. I am also available on weekends, if that is more convenient for you. We will meet off-site at a location of your choosing (for example, a coffee shop).

You may have questions about participating in the study. The Consent Form is attached—the contents of the form may answer some of your questions. Please be assured that you, as well as the schools and the district in which you work, will remain anonymous in the reporting of results. You will also receive an executive summary of the study findings when all analysis and writing is complete. You are also welcome to call me at the phone number below, or email me with questions.

Thank you for considering my invitation. I hope you will accept. If you would like to participate, please reply to this email, or call me at the phone number below.

With kind regards,

Audrey

Audrey Murray
XXX-XXX-XXXX
murr0195@umn.edu

CONSENT FORM

An Exploratory Study of Teacher Leaders Who Work Between the Central Office and Schools

You are invited to participate in a research study of the work done by teacher leaders positioned in school district central offices, because you work between your school district's central office and schools. Please read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by: Audrey Murray, PhD. Candidate, Department of Educational Policy and Administration, University of Minnesota, under the advisement of Professor Jennifer York-Barr.

Background Information

The purpose of this study is to: 1) describe the work of teacher leaders who work between schools and the school district central office, and 2) identify ways they carry out their work in these different locations (i.e., central office and school sites)

Procedures:

If you agree to be in this study, we would ask you to participate in a two-hour interview with the primary researcher, Audrey Murray. The interview would occur in-person at a time and location of your choosing. An audio recording will be made of the interview to allow indepth review and analysis of the perspectives you offer.

Risks and Benefits of being in the Study

Participation has minimal risk in that your name or other identifying information (e.g., school or school district) will not be reported. It is unlikely but possible, however, that readers of the study who know you may be able to discern perspectives in the report as yours.

A benefit to participation is that you may find the interview enjoyable and informative—the interview is a time to reflect on your experiences as a teacher leader in ways that are both constructive and rewarding.

Compensation:

You will not receive compensation for participating in the study.

Confidentiality:

The records of this study will be kept private. In any sort of report I might publish, I will not include information that will make it possible to identify you or your school district. Pseudonyms will replace your name and the names of schools, or school districts that you identify. Research records will be stored securely, and only the researcher and her doctoral advisor will have access to the records, although my doctoral advisor will not know the names of study participants. Study data will be encrypted according to current University policy for protection of confidentiality. Audio records will be accessible only to the researcher and will be erased at the conclusion of the data analysis phase of the project.

Voluntary Nature of the Study:

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with the University of Minnesota. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

Contacts and Questions:

The researcher conducting this study is: Audrey Murray. The researcher's advisor at the University of Minnesota is Professor Jennifer York-Barr. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact the researcher at XXX-XXX-XXXX, murr0195@umn.edu or her advisor at XXX-XXX-XXXX, yorkx001@umn.edu.

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Research Subjects' Advocate Line, D528 Mayo, 420 Delaware St. Southeast, Minneapolis, Minnesota 55455; (612) 625-1650.

You will be given a copy of this information to keep for your records.

Statement of Consent:

I have read the above information. I have asked questions and have received answers. I consent to participate in the study.

Signature: _____ Date: _____

Signature of Investigator: _____ Date: _____

Appendix E

Interview Protocol

Introduction: I want to thank you for taking time to meet with me today. I would like to talk to you about your work and experiences as a teacher working in a school district central office. More specifically, I am interested in the work that takes you back and forth, between schools and the central office. [Refer to “Working Between Schools and Central Office” diagram.] The interview should take about 2 hours. With your permission, I will record the session, because I don’t want to miss any of your comments. Your responses will be kept confidential. This means that your responses will only be shared with my thesis advisor, and we assure you that any information we report will not identify you, your colleagues, or your school district. Remember, you don’t have to talk about anything you don’t want to, and you may end the interview at any time. Do you have any questions before we begin? There is a great deal I can learn from you, as you have committed several years of your career to this important work.

Category 1: Tell me how you became interested in central office work.

- 1) What was your work prior to coming to the central office?
- 2) What did you anticipate the work would be like?
- 3) How was the transition from school to central office?
- 4) Have you been in the same position since you arrived? If not, what other positions have you held?

** For the remainder of the interview, think of work as a collection of tasks and relationships—the building blocks of your job.*

Category 2: What does your work look like? Would you walk me through a typical workweek or month?

- 5) What do you do on a regular basis?
 - In the central office?
 - In schools?
- 6) Who do you interact with as you go about your work?
 - In the central office?
 - In schools?
 - What typically happens during that interaction?
 - How would you describe your role?

- Do you have informal work relationships that you count on?
 - How are they helpful to you?

Category 3: School and central office environments are very different. What has been your experience with moving back and forth between the two?

- 7) In your view, what is the relationship between your work in schools and your work in the central office?
 - How do you suppose others see the relationship?
 - Central office administrators?
 - School administrators?
 - Teachers?
 - Think again of your daily/weekly routine. What parts of the routine are fundamental to your work between schools and central office?
- 8) Tell me about the demands of going back and forth.
 - What do you depend on for support?
 - How do you balance competing demands?
- 9) Think about the ups and downs of your experience.
 - Can you tell me about a time when you felt that working between schools and the central office was thrilling?
 - A time when it felt hopeless?
- 10) How do various parts of the district benefit from your work in other parts?
 - How does your work in schools benefit the central office?
 - How does your work in the central office benefit schools?
 - How does your work in schools benefit other schools?

Category 4: New jobs come with a job description that outlines responsibilities. As people become more comfortable with their job, they often make changes to make the job their own. Have you done this with your job?

- 11) Tell me about a time when you took the initiative to make changes.
 - Have you actively changed aspects of your work?
 - For example, have you taken on work that is not required of you, cut back on the number of obligations, or changed the kind of tasks?
 - Tell me about your reasons for the change.
 - What was involved?
 - What were the outcomes?

12) Have you actively changed your relationships with specific school or central office staff?

- For example, you might decide who you will interact with or how frequently, you might decide to develop a new relationship or cut back on the number of relationships. And you might change the type of relationship you have with an individual or with a group.
 - What was your reason for changing the relationship?
 - What was involved?
 - What were the outcomes?

13) What about the meaning of this work? Has the meaning stayed the same, or is it different than when you first started?

- Tell me why do you continue to do this work.
- What does it mean to you now?
- What led you to this meaning?

Closing: As we conclude, try to imagine some hypothetical scenarios.

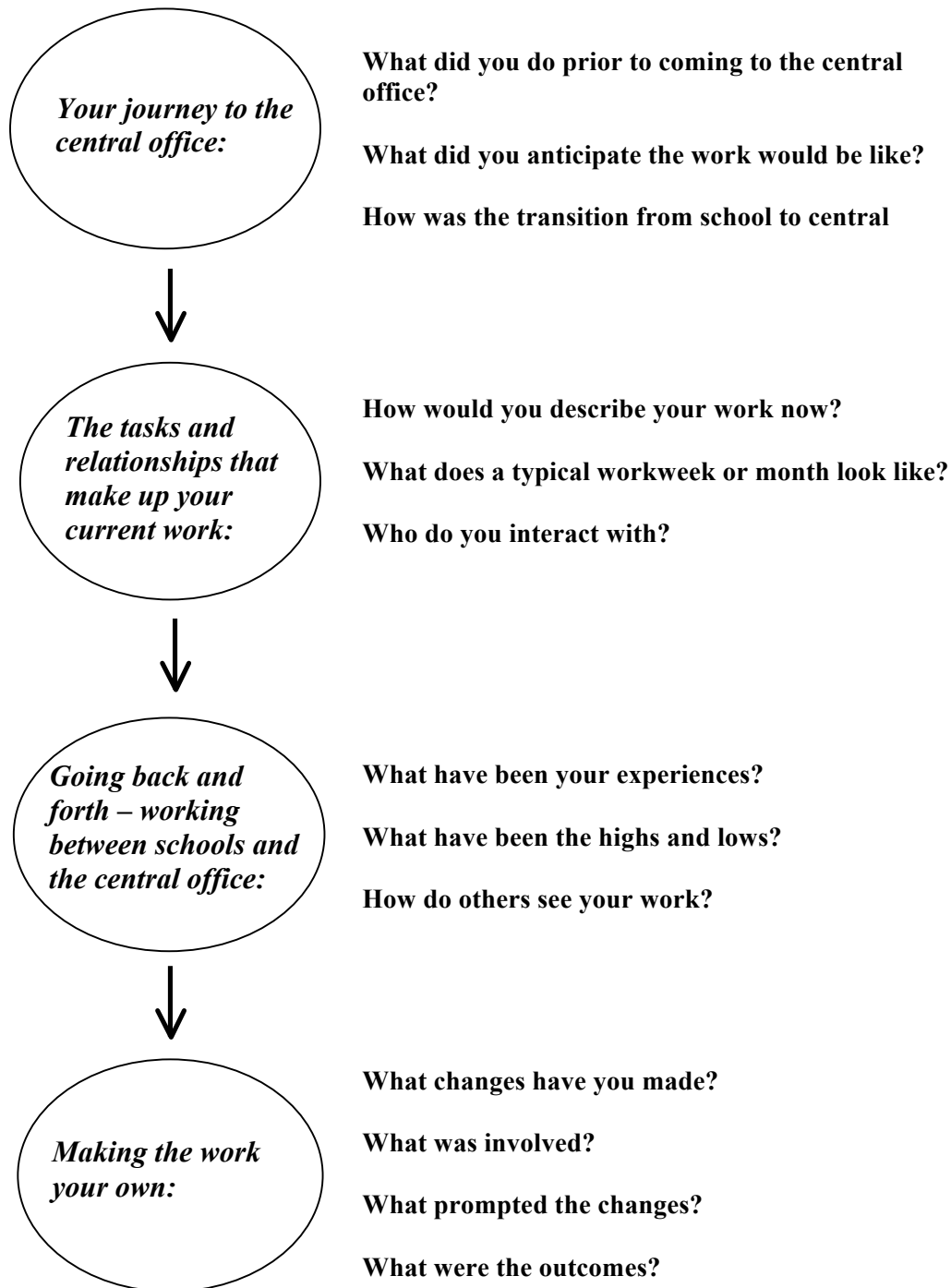
14) What if ...

- ... the superintendent comes to you tomorrow and says, "...[name]... how can we make better use your specialized knowledge of teaching and learning?" What would you say?
- ... a new person steps into your position. What advice would you give the individual?
- ... your position was trimmed from the district budget? What would be your next step?

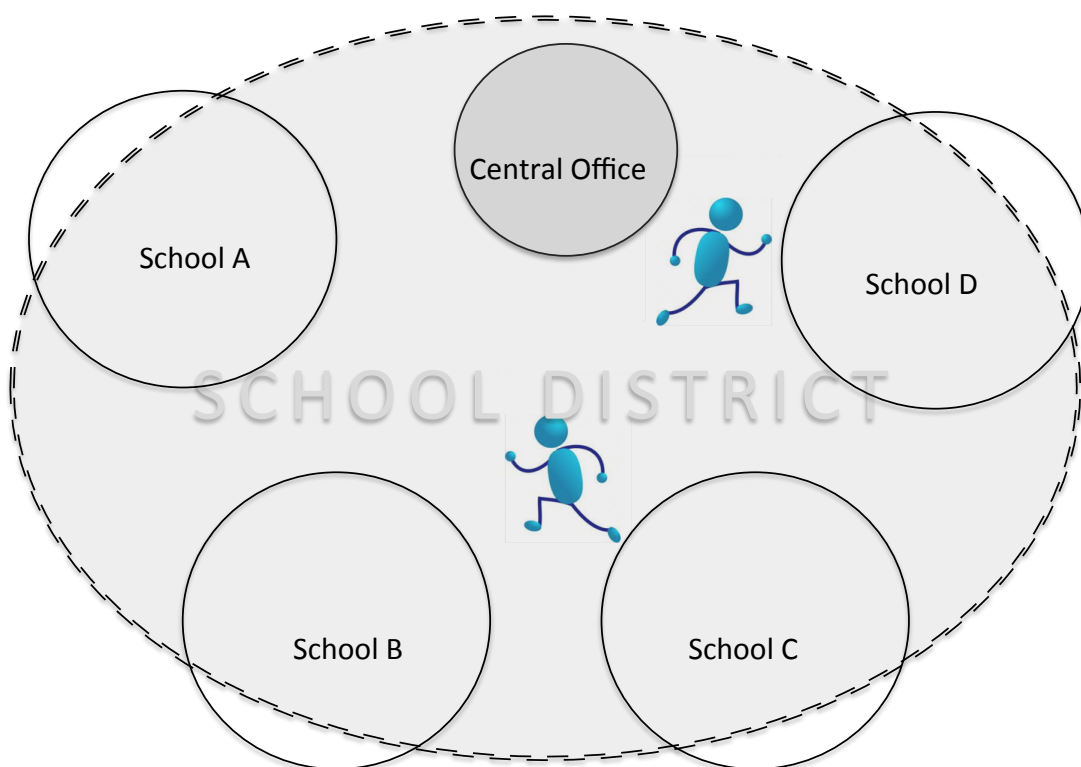
15) Is there anything you would like to tell me about your work that hasn't come up in our conversation?

Thank you!

Participant's Interview Guide



WORKING BETWEEN SCHOOLS AND THE CENTRAL OFFICE



Appendix F
Coding Schemes

Coding Scheme for Data Related to the Nature of Work		
Open Codes	Axial Codes	Selective Codes
Tasks	Coordination	Assistance
Interactions – top-level admin.	Collaboration	Supervision
Interactions – technostructure	Advisory	Coordination
Interactions – mid-level admin.	Assistive	Development
Interactions - schools	Shared learning	
	Supervisory	
	Technical assistance	
	Analysis	
	Planning	
	Development of principals	
	Filtered/third party	
	Cursory	
	Mediating conditions	
	Information cycle	
	Liaison to/from central office	
	Developing leadership	
	Developing teaching and learning	
	Trust	

Coding Scheme for Data Related to Boundary Spanning

Open Codes	Axial Codes	Selective Codes
Cross-pollination	Translation/negotiation	Understanding teaching and learning for self & others
Mediators	Connecting the dots	
Sense-making	Put together/take apart ideas	Understanding the district organization for self and others
Challenges	Listening/observing/sharing with others	
Innovation	Personal understanding	Personal practices:
Ambiguity	Others' understanding	<ul style="list-style-type: none"> • Learn • Gather and share information
Collecting information	Field testing	<ul style="list-style-type: none"> • Make sense of teaching and learning • Make sense of the organization
Disseminating information	Empowering others	
Shared/joint work	Improve educational experience for students and teachers	
Meaning of the work		
Rewards	Sense of responsibility	Organizational supports:
	Visibility	<ul style="list-style-type: none"> • Systemic commitment • Learning structure • Time • Dual presence
	Time	
	Vision and plan	
	Commitment of admin.	
	What's going on - schools/central office	
	Reflection	
	Teacher perspective	
	Networks	

Coding Scheme for Data Related to Job Crafting

Open Codes	Axial Codes	Selective Codes
Relationships	Motivation	Developing leadership in others
Tasks	Freedom	Following a personal passion
Cognitive	Ambiguity	Personal satisfaction
	Effect	Improved performance
	Efficiency/productivity	Increased meaning