A SYSTEMS THEORY APPROACH TO

THE DISTRICT CENTRAL OFFICE'S ROLE IN

SCHOOL IMPROVEMENT

By

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Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
DOCTOR OF EDUCATION
December, 2014

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ACKNOWLEDGEMENTS

This study has been life changing. It has contributed to my professional understanding of education, challenged me as a researcher, and given me the opportunity to work with a number of supportive and inspirational individuals. I would like to thank them.

To Dr. Krumm, my advisor, thank you for your guidance, patience, and high expectations for my work. I will always be grateful for your leadership.

To my committee members, Dr. Harris, Dr. Curry, and Dr. Brown, thank you for your time and your honest critique. Your input was invaluable.

To my classmates, Erin—thank you for always being the best group work partner, and Shawna and Stephanie—thank you for late night writing sessions and the motivation to finish.

To my family, thank you for always encouraging my academic pursuits and giving me the confidence I needed to start and finish this journey.

To my husband, Nick, thank you for understanding my desire to pursue this degree, being patient during my long hours in the library, and always serving as my number one cheerleader.

To my son, Ethan, you will not remember it, but you were with me for the nine most difficult months of this process. Thank you for giving me a more noble reason to complete this study and this degree.

Name: JACKIE MANIA SINGER

Date of Degree: DECEMBER 2014

Title of Study: A SYSTEMS THEORY APPROACH TO THE DISTRICT CENTRAL
                OFFICE'S ROLE IN SCHOOL-LEVEL IMPROVEMENT

Major Field: SCHOOL ADMINISTRATION

Abstract: The purpose of this qualitative case study was to explore the relationships between the district central office and higher and lower performing elementary schools and to identify what influence, if any, these relationships have on the ability of schools to implement and sustain reform efforts to improve student outcomes. Participants included staff members at a district central office and elementary school principals from an urban school district. Data were collected through Social Network Analysis surveys, interviews, observations, and document review. UCINET and Netdraw were used to analyze Social Network Analysis surveys, and content analysis was used to analyze data obtained through interviews, observations, and document review. For the district involved in the study, findings revealed: (1) there are few relationships between members of the district central office and elementary schools, and of those that do exist, they are professional, not cohesive, and unreciprocated; (2) there are differences in the relationships between members of the district central office and principals of higher and lower performing schools; and (3) the relationships between the members of the district central office and principals affect the input and influence the school receives and the school's ability to provide feedback. The researcher concluded, in this district, the relationships between the district central office and elementary school principals are integral for system change and sustainability of reforms, the types of relationships that exist are important factors in improvement and sustainability of reforms, and in order for all schools to succeed, high and low performing schools need differentiated supports and services based on feedback. These conclusions led to recommendations for school districts for the implementation of reform efforts and suggestions for future research in this area.

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CHAPTER I

OVERVIEW OF THE STUDY

If an unfriendly foreign power had attempted to impose on America the mediocre

educational performance that exists today, we might well have viewed it as an act

of war (Nation at Risk, 1983).

In 1983, the National Commission on Excellence in Education published *A Nation at*

Risk, a comprehensive report on the results of a two-year study of the American public

education system. The report claimed that other industrialized nations were

outperforming America on all standardized tests, large percentages of the adult

population were functionally illiterate, achievement on national aptitude tests was

steadily declining, and most graduates needed remediation or training when they entered

college or the workforce (Nation at Risk, 1983). The commission determined that these

shortcomings were due to the "disturbing inadequacies in the way the educational process

itself is often conducted" and made recommendations to improve the American education

system including increasing expectations of students, increasing learning time, improving

teacher preparation programs, and establishing higher content standards (Nation at Risk,

1983). Although *A Nation at Risk* (1983) deemed the state of public education in the

early 1980s a potential "act of war" and warned "for the first time in the history of our

country,

the education educational skills of one generation will not surpass, will not equal, will not even approach, those of their parents," few immediate large-scale reforms grew out this report. However, the results and recommendations of the report did spark a series of federal reforms in subsequent decades which dramatically increased performance expectations and state and federal accountability of public schools.

Two major education reforms of the early 1990s, *Goals 2000: Educate America Act* and the *Improving America's Schools Act of 1994*, took many of the recommendations made in *A Nation at Risk* one step further and created federal guidelines and mandates for States and local schools and districts.   Both of these reforms focused on increased achievement standards and for the first time required low-income students to meet the same standards as their higher income peers (IASA, 1994). Additionally, Goals 2000 set high performance benchmarks for states and schools including a 90% graduation rate, a 100% adult literacy rate, and a number one ranking for the United States in science and math by the year 2000. To meet these new standards and these higher benchmarks, both reforms required new and additional standardized testing and improved identification and support for schools failing to meet the standards and benchmarks. These reforms led to an increase in federal involvement in state and local education, a standardization of curriculum within the state, and an increased emphasis on the core academic subjects of reading and math as teachers struggled to prepare students for tests. However, despite the new mandates and increased accountability, Goals 2000 and IASA saw limited success in improving educational outcomes for all students (National Education Goals Panel, 2000; United States Department of Education, 2001).

In 2002, George W. Bush signed the No Child Left Behind Act of 2001 (NCLB) into law. Although standardized testing and identification of failing schools was included in

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IASA 10 years earlier, NCLB raised the stakes. NCLB (2001) instituted a set of rigorous achievement targets for the nation, with an end goal of 100% of the nation's students scoring proficient or better in reading and math by the year 2014. To measure progress toward these benchmarks, NCLB (2001) increased the number of standardized tests required of school and mandated that scores be reported by subgroup to reveal gaps in achievement. For schools failing to meet the rigorous new benchmarks, NCLB also created the Needs Improvement List identifying failing schools and developed a series of sanctions for these schools including decreased flexibility in spending federal funds, expanded school choice for parents, and possible restructuring and closure (NCLB, 2001). Despite the increased accountability and sanctions, data show that 6 years after NCLB was enacted, few districts had exited the Needs Improvement list and many that did exit, eventually returned to the list (National Center on Education Policy, 2007).

But why after nearly 20 years of national education reform and billions of dollars in supplemental funding are districts and school still seeing mixed results in student achievement? Research shows that school improvement is a complex issue with many variables. Factors such as socioeconomic status, school leadership, teacher quality, and family involvement can all affect a school's ability to meet performance standards (Beatty, 2007; Hargreaves & Shirley, 2008; Hill & Tyson, 2009; Sykes & Dibner, 2009). Yet, the national reforms such as Goals 2000, IASA, and NCLB all targeted specific low performing groups or schools and focused financial and human capital support in those isolated areas (Goals 2000, 1994; IASA, 1994; NCLB, 2001). Recent research suggests that focusing on the larger context of schools instead of individual schools may be integral not only to understanding school-level improvement, but also in supporting schools in implementing and

sustaining improvement efforts (Coburn, Choi, & Mata, 2010; Daly & Finnigan, 2010; Daly & Finnigan, 2012; Fullan, Cuttress, & Kilcher, 2009; Fullan & Sharratt, 2009).

Problem Statement

Despite the rigorous achievement standards established by NCLB and the added support and funding for districts in recent years, research indicates that some schools are improving and some are not. In its independent study of student achievement since NCLB, the Center on Education Policy (2007) found that states showed varied levels of achievement. Of the 25 states with reliable data for a three-year period, 14 showed moderate to large gains in student achievement in reading and math, but 11 showed achievement levels ranging from only slight gains to slight declines. In a separate study, Fuller et al (2007) described proficiency levels on state tests as a "jagged mountain range, erratically moving up and down as tests are changed and proficiency bars are moved" (p. 278). Additionally, although the reading and math scores on the National Assessment of Educational Progress (NAEP) showed statistically significant increases for large urban districts containing the lowest performing schools in the country, the report also showed only pockets of success with many schools still failing to meet achievement targets (National Center for Educational Statistics [NCES], 2011). This begs the question, "Why, when faced with the same achievement targets, do some schools improve while others do not?"

The district central office is often used as a "popular scapegoat for [this] perceived poor performance" (Smith & Larimer, 2004). Because of its historical and traditional role as a bureaucracy, the district central office has a reputation of being an impediment or an obstacle to reform rather than a support (Honig, 2009; Larson, 2007). In fact, there is a body of research showing that policies enacted by the DCO and the slow pace of progress by many

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DCOs have stifled innovation and led to limited growth in overall student achievement (Raywid, 2002; Simmons, Foley, & Ucelli, 2006; Raywid & Schmerler, 2003).   In a seminal study, Chubb and Moe (1988), also showed that a lower level of bureaucracy was correlated with higher levels of academic achievement.

However, despite this reputation, there is also evidence from research that "schools, as a group, cannot move forward unless the district is part of the solution" (Fullan, 2009). There are many studies on the recent restructuring of DCOs to better support schools and to initiate progress rather than impede it (Firestone, 2009; Honig, 2009; Honig & Copland, 2008; Honig, et al., 2010; Leverett, 2004). For example, DCOs in New York City and Oakland have made great strides in building relationships with schools, restructuring to meet the needs of schools, creating districts-within-districts for lowest performing schools, and partnering with community agencies to increase resources (Honig, 2008; 2009). A task force created by the Annenburg institute, School Communities that Work (2002), also found that DCOs were key to district-wide school-level success and the sustainability of that success. The task force recognized that the key to success is not a school-by-school approach, but a system-wide reform that includes focus on the DCO (Annenburg Institute for School Reform, 2002).

Purpose Statement

The purpose of this study was to explore the relationships between the district central office and higher and lower performing elementary schools and to identify what, if any, influence these relationships have on the ability of schools to implement and sustain reform efforts to improve student outcomes.

Research Questions

The following research questions will guide this study:

1. In terms of General Systems Theory, what types of relationships exist between the district central office and elementary schools in an urban school district?

2. What are the differences in the relationships, if any, between the district central office and higher performing and lower performing schools?

3. In what ways do the relationships between a school site and the district central office influence a school's ability to implement and sustain improvement efforts?

Theoretical Framework

There are a number of factors to consider when one asks the question, why do some schools improve and others do not? For the last 30 years of education reform, lawmakers and commissions have attempted to answer that question with a school-by-school approach (Goals 2000, 1994; IASA, 1994; Nation at Risk, 1983). However, academic achievement of the last 30 years has also shown that this approach is not working (Fuller, 2007; NCES, 2011). Researchers are beginning to look beyond the school-by-school approach and expand the focus of reform on the larger educational system (Annenburg Institute for School Reform, 2002; Firestone, 2009; Honig, 2009; Honig, et al., 2010; Honig & Copland, 2008; Leverett, 2004).

General Systems Theory (GST) provides a framework for studying the interactions of the parts of such systems. Ludwig von Bertalanffy first proposed systems theory in the mid 20th century as a response to the prevailing organizational theorists of the time. During the early part of the 20th century, organizational theorists such as Max Weber and Henri Fayol drew from the success of the early factories and proposed bureaucracy as the most effective

method of organization (Morgan, 2006). Elements of the bureaucratic view such as strict

chain of command, specialization of work, discipline, and centralization of authority implied

that organizations worked much like machines (Morgan, 2006). Bertalanffy, however,

viewed organizations differently. Using the living organism as a model, Bertalanffy (1950)

posited that organizations were not similar to machines, but functioned more like complex

biological systems. In contrast to earlier theorists such as Weber and Fayol, Bertalanffy also

recognized that relationships between parts of the system were vital to overall success.

According to GST, assessing the patterns of these interrelations is key to understanding the

organization, and the roles each part of the system plays.

Several key elements of system theory are applied when studying organizations.

First, GST places emphasis on the structure of organizations as wholes and parts, or a series

of interrelated subsystems (Bertalanffy, 1950; Patton, 2006; Patton & McMahon, 2006).

Each of these subsystems is interdependent on the other, and the whole system is dependent

on each subsystem. Second, GST views all organizations as "open systems" or systems that

are constantly influenced by and placing influence on the larger environment (Bertalanffy,

1950; Lunenburg, 2010; Patton & McMahon, 2006). Third, these interrelated subsystems in

an open environment are in a continuous feedback loop. This loop consists of inputs,

transformation inside the system, outputs, and recursive feedback (Bertalanffy, 1950;

Lunenburg, 2010; Patton, 2006; Patton & McMahon, 2006). The evolution of a system, then,

depends on this cyclical process. See figure 1.
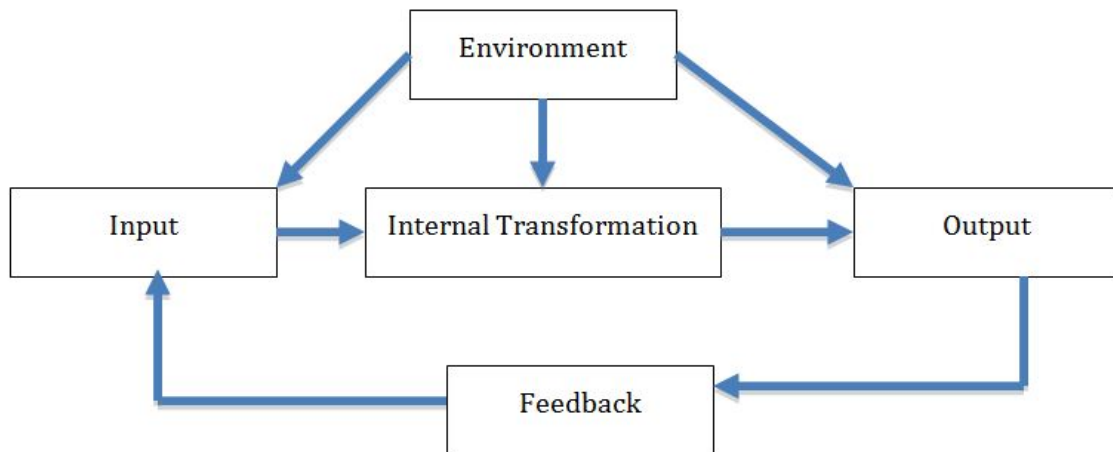
Figure 1. Diagram of General Systems Theory

Procedures

Based on the research questions, the purpose of the study, and the focus on participants in a real-world context, I chose a qualitative methodology with a case study research design strategy. Case studies are a strategy of inquiry in which a subject of study, or a case, is explored in-depth in its real-world context (Creswell, 2009; Patton, 2002; Yin, 2009). To study a case in-depth, case study researchers become the primary data collection tool and rely on multiple sources of data including interviews, observations, and documents collected and analyzed over a period of time (Creswell, 2009; Feagin, Orum, & Sjoberg, 1991; Patton, 2002). These multiple data sources provide a more comprehensive description of the case, which leads to better and deeper understanding of the phenomenon being studied (Patton, 2002). Specifically, this study is a single-case, embedded case study because it will involve one larger case, a school district, and two subunits--higher and lower performing schools.

Setting and Participants

According to Yin (2009), one of the first steps in designing a case study is defining the case. Purposeful sampling was used to define this case. Purposeful sampling refers to the researcher 1) purposefully selecting the participants according to certain criteria that will best benefit the study and 2) choosing participants that will lead to "information rich cases" (Patton, 2002, p.230). A combination of criterion and stratified purposeful was used to select the setting and participants.

Criterion sampling was used to select the school district for this study. Guided by the purpose and research questions, I selected a school district that had a centralized district central office with an adequate number of employees to participate in the study, included more than two elementary schools that had similar demographics and varied levels of student performance, and was implementing at least one district and/or school-level reform to improve student outcomes. Based on these criteria, Johnson Public Schools was chosen.

Johnson Public Schools is a large, urban district with 56 elementary schools, over 30,000 students, and over 2,000 employees. The district typifies comparable urban districts in that it is high minority and low income, has been identified as needing improvement for a number of years, and has varied degrees of school performance among its elementary schools. Because of the size of the context and the diversity of outcomes for the participants, the district was able to provide the "information rich cases" described by Patton (2002).

Within the larger case of the school district of this study, stratified sampling was used to identify two subunits within the case for further analysis--higher and lower performing schools. Schools were labeled as higher or lower performing based on three years of proficiency data in reading and math for 3-6 grade students, two years of attendance rates,

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and two years of school improvement designation. Spreadsheets were used to assign

rankings to schools based on these three criteria and to calculate overall rankings of the

schools. Those with the highest rankings were considered higher performing schools and

those with the lowest rankings were considered lower performing schools.

Data Collection

Data collection for this case study consisted of a social network analysis (SNA)

survey, interviews, observations, and document review. To collect data for the SNA, surveys

were administered to selected members of the DCO, administrators of all elementary schools,

and certified staff at two identified schools. Initial document review of artifacts such as

district and school improvement plans occurred simultaneously with the SNA. Interviews,

observations, and additional document review followed the analysis of SNA surveys to

expand and elaborate on the results of the SNA surveys and initial document review.

Data Analysis

Surveys were analyzed using traditional SNA methods. Survey data were entered

into UCINET to create relationship matrices that were used to create sociograms, or visual

representations of the relationships between participants. UCINET was also used to measure

the centrality, density, and reciprocity of relationships between the district central office and

the elementary school sites. Content analysis was used to analyze interview notes,

observation field notes, and documents collected for review. All interviews, observations,

and documents were organized, read reflectively multiple times, and coded for themes. GST

was applied *a priori* as a lens during the entire data analysis process.

Significance of the Study

There are over 500 school districts in Oklahoma, all with district central offices of varying sizes and responsibilities. However, the ability of these districts to successfully support improvement at the school level is critical to meeting the academic achievement targets of state and federal accountability systems. The findings of this study may influence practice at the district and school level while contributing to the larger body of research regarding district central offices and GST.

Because this is a qualitative study, the findings are not generalizable to a larger population. However, the findings provide insight into specific practices of members of the DCO that may benefit other school districts. The study explored the relationships between members of the DCO and schools in regard to many of the traditional roles of the DCO: development of shared vision and goals, allocation of resources, usage of data in decision making, capacity building, and communication (Fullan, Cuttress, & Kilcher, 2009; Hargreaves, 2009; Honig, 2010; Marzano & Waters, 2009). The findings may assist in the transformation of current DCOs to more supportive roles in these areas.

There are few research studies on the role of district central offices in school improvement, and the research that does exist is fairly new to the field (Annenburg Institute for School Reform, 2002; Finnigan & Daly, 2012; Foley & Sigler, 2009; Honig, 2007). This study seeks to produce findings regarding the specific aspects of the district central office that positively and negatively influence student outcomes. It provides findings that can be explored in other districts and recommendations for further research that will be needed in relation to the role of the DCO.

This study also bolsters the literature regarding GST in the field of education. Although much is written about GST, most of the research is in the biological, sociological, or business field. Very few studies were found that used GST as a lens to view the educational system. This study adds to the existing body of research in GST and supports those who are currently working to reform education from a systems perspective rather than a school-by-school approach.

Limitations

This qualitative case study focused on one urban district. Due to the nature of the research, the findings are relevant to this particular district and cannot be generalized across an entire population. Additionally, this study captures the story of the district based on a select number of participants, eight members of the DCO and 12 elementary school principals. The sample size and the demographics of the population who volunteered to participate in the study could skew the findings because the participants represent a small percentage of the overall population of employees in the district. However, the findings, conclusions, and recommendations of this study may be of use to school districts in this state and across the country.

Definition of Terms

Actor – Individuals within a social network. Actors are expressed as nodes in a social
    network analysis.

Adequate Yearly Progress (AYP) – applies the same high standards of academic achievement
    to all public elementary and secondary students in the state; is statistically valid and
    reliable; results in substantial academic improvement for all students, measures the
    progress of public elementary schools, secondary schools, and local educational

agencies in the state based primarily on academic assessments; and includes separate

measurable annual objectives for continuous and substantial improvement for [all

subgroups] (NCLB)

Academic Performance Index (API) - The API numeric index or score ranges from 0 to 1500

with 1092 as the 2009-2010 state average. A total API score as well as subscores for

individual indicators are assigned annually to each school and district in Oklahoma.

The total API score reflects a school's or district's performance level, based on three

components encompassing seven indicators reflective of educational success (OSDE

Brochure).

Boundary Spanner – Actor who connects to separate groups in the network.

Centrality – A social network analysis measure that determines how central an actor is in the

network.

Density – A social network analysis measure that determines the cohesion of a network.

Value represents the number of actual ties out of the number of possible ties in a

network.

District Central Office – The term "district central office" refers to the individuals supporting

a school from the district level. This may include superintendents, assistant

superintendents, middle level management including directors and specialists,

administrative support staff, and technical staff. This definition also includes

supportive offices as the business office, human resources, federal programs,

curriculum, ESL/Bilingual, Special Education, transportation and even facilities

(Leverett, 2004).

Dyad – In a social network analysis, a dyad is a pair of actors, or nodes, and the relationship, or tie, between the actors. It is a basic unit of analysis in a social network analysis.

Feedback Loop – In GST, the interrelationship of subsystems with the environment is viewed as a continuous cycle of inputs, transformation within the internal system, outputs, feedback to the environment, and return to the inputs.

General Systems Theory – (GST) An organizational theory that views organizations not as machines with separate parts, but as systems with wholes and parts that are interrelated. GST places emphasis on the environment of a system and the constant exchange of information between subsystems.

Group – In social network analysis, a group is refers to a system of actors and the ties between them that are measured.

Input – In General Systems Theory, the information, influence, services, or resources taken in by the system to create output.

Internal Transformation – The process by which the system transforms input into output to meet goals.

No Child Left Behind Act of 2001 (NCLB) – NCLB was signed into law by then President George W. Bush in 2001, and it reauthorized the Elementary and Secondary Education Act (ESEA) of 1965. The goal of NCLB was to close the achievement gap and ensure all students, regardless of ethnicity or socioeconomic status, achieve at a level of proficiency in reading/language arts and math. NCLB was designed to provide more choices for parents; to increase accountability of schools, districts, and states; provide more flexibility for use of federal funds; and encourage use of research-based strategies.

Node – A specific point on a sociogram that refers to an actor or a group of actors in a social

    network analysis.

Peripheral – An actor who is located on the outside of a network and has little or no

    additional ties.

Reciprocity – A social network analysis measure that shows mutual relationship between

    actors.

Relation – The collection of types of ties between members of a group. For example,

    friendship, resource sharing, information sharing, and communication are all types of

    ties that could occur between actors in a group.

Subgroup – Each district and state must assess and report data on students in various ethnic

    and demographic groups. NCLB requires states to include the following subgroups in

    AYP: American Indian, Asian & Pacific Islander, Black, Free/Reduced Lunch,

    Hispanic, Individualized Education Plan (IEP), and Limited English Proficient (LEP)

Social Network Analysis – A set of theories, methods, and techniques to visually portray and

    quantifiably measure relations within a network.

Tie – A line that connects nodes, or actors, in a sociogram. Ties can be shown as

    connections or as arrows to show direction of the relationship.

Summary

Data show that despite increased academic targets and financial support, some

schools are improving and some are not. The last 30 years of education reform have focused

mainly on school-level reforms with accountability monitored directly by the state.

However, research shows that the district central office plays an important role in not only

leading improving efforts at schools, but providing the support needed to sustain the efforts

beyond the implementation year. This case study uses GST as a lens to explore the

relationships between the DCO with school sites and how these relationships influence

school-level outcomes.

CHAPTER II

LITERATURE REVIEW

The purpose of this qualitative study is to explore the relationships between a DCO and its elementary sites and to study the influence those relationships have on a school's ability to implement and sustain reforms to improve student outcomes. The review of the literature addresses the increasing federal student achievement targets mandated by the education reforms of the past 12 years, the student achievement scores of schools since the inception of these reforms, and the role of the district central office in supporting schools' efforts to meet federal and state performance targets.

Education Reforms

The past 30 years have been wrought with Education reform movements. From *A Nation at Risk* to the ESEA Flexibility Waiver, each reform brought new and more rigorous mandates for states, districts, and schools. This section describes, in more detail, the two most recent of these reforms, The No Child Left Behind Act of 2001 and the ESEA Flexibility Waiver.

No Child Left Behind

Each State shall establish a timeline for adequate yearly progress. The timeline

shall ensure that not later than 12 years after the end of the 2001-2002 school

year, all students will meet or exceed the State's proficient level of academic

achievement on the State assessments (No Child Left Behind Act [NCLB] of

2001).

On January 8, 2002, President George W. Bush signed the No Child Left Behind

Act of 2001 (NCLB) into law. The act reformed the previous Elementary and Secondary

Schools Act of 1970 and was the first major education reform since the Improving

America's Schools Act of 1994. The intent of NCLB was to increase accountability of

states, districts, and schools for student performance; refocus federal dollars on proven

effective programs; provide more choices and rights for parents; and increase flexibility

for the spending of federal Title I dollars (Belfanz, 2007).

NCLB increased mandates and responsibilities of states, districts, and schools for

ensuring students achieve at the basic level of proficiency. NCLB required states to

develop rigorous academic standards for reading/language arts, mathematics, and

science; a statewide accountability system and achievement tests for measuring

proficiency levels of all public school students; and a system for identifying schools not

meeting the states accountability standards and providing assistance or imposing

consequences or sanctions to support improvement (Belfanz, 2007; Center on Education

Policy, 2007a; NCLB Act of 2001). NCLB also created a new system of measurement

for states, Adequate Yearly Progress (AYP),

Adequate Yearly Progress. Adequate Yearly Progress (AYP) is defined by NCLB (2001) as a system of measurement that,

> Applies the same high standards of academic achievement to all public elementary and secondary students in the state; is statistically valid and reliable; results in substantial academic improvement for all students, measures the progress of public elementary schools, secondary schools, and local educational agencies in the state based primarily on academic assessments; and includes separate measurable annual objectives for continuous and substantial improvement for [all subgroups]

These measurable annual objectives for each student subgroup are mandated for mathematics, reading/language arts; testing participation rate; graduation rate; and student attendance (Belfanz, 2007; Center on Education Policy, 2010; NCLB Act of 2001). However, states are given the flexibility to develop their own systems of measuring AYP and to establish timelines for increased student proficiency.

Oklahoma's Academic Performance Index. To meet NCLB's regulations for measuring AYP, Oklahoma developed the Academic Performance Index (API). Oklahoma's API was comprised of three components that are weighted and combined to determine the success or failure of a school: the Oklahoma School Testing Program (Oklahoma Core Curriculum Tests and End of Instruction exams); academic excellence indicators (ACT, college remediation rates, and advanced placement enrollment); and school completion indicators (graduation rate, drop-out rate, and attendance rate) (Oklahoma State Department of Education (OSDE) API Brochure). Oklahoma's API provided a score that ranged from 0 – 1500 for each subgroup as identified by NCLB.

Oklahoma also established, in accordance with NCLB, a timeline of state performance targets that required schools to score a minimum API for each school year. Oklahoma's timeline began with a baseline of 648 in 2002 and set incremental performance goals to 2014 when all schools were to be required to achieve a score of 1500 to meet NCLB mandates (OSDE Website). Oklahoma designed these API targets to be easier to reach in the early years of NCLB, with smaller gains required and created a large curve in API requirements for the last two years of the timeline. However, in 2011 just as the state targets were increasing dramatically, the NCLB mandates and Oklahoma's accountability system changed.

ESEA Flexibility Waiver

In 2011, knowing most schools and districts were not going to meet the NCLB mandates and knowing Congress was no closer to reauthorization of NCLB, the Obama Administration created the ESEA Flexibility Waiver. The ESEA Flexibility Waiver alleviated districts and schools from many mandates and timelines of NCLB including school improvement regulations, district improvement regulations, and the strict 2014 proficiency deadline (ESEA Flexibility Guidance, 2011). In exchange, States were required to develop local accountability plans that ensured statewide reading and math assessment, established a system to identify and support the lowest performing schools, and used student achievement as a measure of teacher effectiveness (ESEA Flexibility Guidance, 2011). The ESEA flexibility waiver also gave the states the opportunity to set new, rigorous performance targets for schools.

Oklahoma's ESEA Waiver. In February 2012, Oklahoma was approved for an ESEA Flexibility Waiver that changed performance targets and increased mandates for

Oklahoma schools. In the application, Oklahoma set new performance goals based on a

calculation of the overall performance of students on State assessments, the overall

growth of students from year to year on State assessments, and the growth of the bottom

25% of students on State assessments.   The calculations result in a performance index

with a range of 80-320. Success is measured by a performance index of 300 or a

performance index that increases the difference between the previous year's performance

index and the maximum score of 320 by 15% (Oklahoma ESEA Flexibility Waiver

Application, 2011). According to the Oklahoma ESEA Flexibility Waiver (2011), in

order to score a 300 a school must have "almost all students and students in each

subgroup both at proficient or advanced and improving beyond proficiency level."

Beyond academic achievement, the Oklahoma ESEA Flexibility Waiver also requires

schools to meet a graduation rate goal of 87% and an attendance goal of 95% and

mandates a new district and school accountability system--the A-F Report Card.

A-F Report Card. In addition to the mandates and requirements of the ESEA

Flexibility Waiver, in 2012-2013, the Oklahoma legislature and the Oklahoma State

Department of Education implemented an A-F grading system for all districts and schools

in the state. Designed as an easy way for parents and communities to assess the success

of schools, the grading system is based on a series of complex mathematical formulas

that combine student performance on State assessments, student growth on state

assessments, attendance rate, graduation rate, and other academic factors such as

advanced coursework completion and drop-out rates to identify schools with letter grades

A, B, C, D, and F. Similar to student report cards, the letter grades indicate whether a

school is successful (an A school) or failing (an F school). However, these report cards do more than just grade schools; they also increase many of the mandates of NCLB.

The A-F Report Card, as part of Oklahoma's ESEA Flexibility Waiver, expands many of the mandates established in NCLB. The A-F system now includes assessments from all content areas including the social studies and sciences (as opposed to the reading and math requirements of NCLB) in calculating student performance. The A-F system also uses growth measures not included in NCLB to count student performance up to three times in a calculation of school performance. This means the lowest performing students are included in measures of overall performance, overall student growth, and bottom 25% growth, putting increased pressure on schools to improve the performance of low achieving students. Additionally, the A-F system is the basis for Oklahoma's increased sanctions for low performing schools. Under NCLB, schools received additional support and funding, but were required to implement strategies such as school choice, free tutoring, and reallocation of some federal funds. However, Oklahoma added a new level of sanction, the C3 Partnership, in which the Oklahoma State Department of Education assumes governance of the lowest performing schools in the state, establishing an unprecedented "take over" system in the State of Oklahoma. Although the Oklahoma ESEA Flexibility Waiver removes the requirement for all schools to achieve 100% proficiency by 2014, the waiver still requires "almost all" students to be proficient or making satisfactory progress toward that goal and increases local pressure on districts and schools to perform.

Effects of Education Reforms

Despite the rigorous achievement standards established by NCLB and the increased mandates of the State ESEA Flexibility waiver, research indicates that some schools are improving and some are not. In its independent study of student achievement since NCLB, the Center on Education Policy (2007b) found that states showed varied levels of achievement. Of the 25 states with reliable data for a three-year period, 14 showed moderate to large gains in student achievement in reading and math, but 11 showed achievement levels ranging from only slight gains to slight declines.

Student Achievement Scores

Scores on NAEP assessments indicate that student achievement is not meeting the rigorous improvement standards set by NCLB. The National Center for Educational Statistics reported in its Condition of Education 2010 that the average reading scores for American students remained relatively flat for the years of 2007-2009. Reading scores for 4th graders remained the same, and the scores for 8th graders increased by 1 point. Average math scores increased from the decades between 1990 and 2009 at a rate of 27 points for 4th graders and 20 points for 8th graders. In the most recent version of the Condition of Education published in 2014, achievement data show improvement is being made in some grade levels and subject areas, but improvement is not universal. Again, the average reading score for 4th grade students remained about the same as the previous years, but the average 8th grade reading score was 2 points higher. In math, the same pattern was seen. There was no significant difference in 4th grade scores between 2011 and 2013, but there was an increase in 8th grade scores for those same years.

The Condition for Education 2014 also showed that achievement gaps between students have not decreased since 2011. In 2013, White students outscored African American or Hispanic students in both reading and math at the 4th and 8th grade levels on the 2013 NAEP. Additionally, non-ELL students outscored ELL students in both reading at math at the 4th and 8th grade levels. In Reading, the gap between non-ELL and ELL students in 4th and 8th grade is 45 points and 38 points respectively. In math, the gaps are 25 points for 4th grade and 41 points for 8th grade.

Although 8th grade students and some subgroups saw improvement in overall average score in reading and math, according to the Condition of Education 2014, the results of student achievement over the last 40 years is varied. "NAEP long-term trend results indicate that average Reading and Math achievement of 9- and 13-year olds improved between the early 1970s and 2012. However, only 13-year-olds made score gains from 2008-2012, and they did so in both subject areas" (p. 112).

School/District Improvement Status

School and district improvement status within states is also not showing the improvement required by NCLB. In its 2010 report, the Center on Education Policy found that the number of both schools and districts not making AYP has steadily risen from 2005.   In 2009, 33% of schools in the nation and 36% of districts in the nation did not meet AYP. In testimony before the House Committee on Education and the Workforce, U.S. Secretary of Education, Arne Duncan, made his predictions for the future of school improvement in the nation:

> Today, almost 40% of America's schools are not meeting their goals and as we
> approach the 2014 deadline, that number will rise steeply…the number of schools

not meeting their goals under NCLB could double to over 80%...So, let me repeat

that. Four out of five schools in America may not meet their goals under NCLB

next year (Winning the Future, 2011).

Achievement in Oklahoma

The numbers in Oklahoma mirror the national trends for both student

achievement and for school/district improvement status. In 2011, the number of

Oklahoma students scoring proficient or better on the 4th and 8th grade NAEP reading and

math assessment, was not significantly different than the number of students scoring

proficient or better in 2009. The average scores for 4th grade math in 2009 and 2011

were the same, 237, and the average scores for 8th grade math increased from 276 in 2007

to 279 in 2011 (NCES website). The average score for 4th grade reading decreased from

217 in 2009 to 215 in 2011, and the average score for 8th grade reading increased 1 point,

from 259 to 260 (NCES website). On the most recent NAEP assessment, saw mixed

results. In math, 4th grade average scores increased to 239, but 8th grade average scores

decreased to 276. In reading, 4th grade average scores remained flat at 217 and 8th grade

scores increased to 262 (NCES website).

The 2013 scores also show that Oklahoma has not closed most achievement gaps

since the 1990s. In 4th grade math, 90% of White students scored at or above the basic

level while only 58% of African American students and 73% of Hispanic students did the

same. In 8th math, 75% of White students scored at basic or above compared to 46% of

African American students and 55% of Hispanic students (NCES Website). These gaps

have not decreased since 1992. In reading, 73% of White students scored at or above

basic compared to 46% of African American and 51% of Hispanic students, the with no

decrease in achievement gap since 1992. In 8th grade Reading, 81% of White students scored proficient compared to 56% of African American students and 65% of Hispanic students, a gap that has existed since 1998 (NCES Website).

Oklahoma has also seen an increase in the number of schools and districts identified for improvement status. In the 2009-2010 school year, 45 schools and 0 districts were identified for improvement. The numbers increased to 90 schools and 9 districts identified for improvement in the 2010-2011 school year and more than doubled to 226 schools identified for improvement in 2011-2012 before the ESEA Flexibility Waiver was approved and the A-F Report Card was implemented (OSDE, 2011; OSDE, 2012).

When Oklahoma transitioned to the requirements and mandates of ESEA Flexibility and the A-F Report Card in 2011-2012, the API scale and the number of schools in improvement changed, but the discrepancy in improvement among districts and schools in the state was still evident. There were 160 A schools, 842 B schools, 594 C schools, 138 D schools, and 10 F schools identified. At the district level, there were 22 As, 216 Bs, 243 Cs, 42 Ds, and 4 Fs. In 2012-2013, after the legislature again changed the calculations for the A-F Report Card, 354 schools were identified as A schools, 499 as B schools, 472 as C schools, 263 as D schools, and 163 as F schools. After 10 years of NCLB mandates, 2 years of ESEA flexibility, and increased funding and supports at the school level, some schools are successful and some still are not.

The Role of the District Central Office

One of the problems is that [school reform efforts] focus on schools as parts of the system and do not address 'context.' All and all the absence of a well-founded

system strategy either at the state or federal level continues to take its toll (Fullan, 2009, p. 106).

As Oklahoma, along with the rest of the nation, prepares for either the impending failure of all schools to meet the rigorous performance targets of NCLB or the increasing mandates under ESEA Flexibility Waivers, districts and schools find themselves searching for reform efforts and improvement strategies that will have a dramatic impact on student achievement. It is obvious from the data presented that what has been tried in the past 12 years has not worked for all schools and districts. As a result, many researchers and practitioners are beginning to examine school improvement as a systems issue in which the DCO as a group of individuals plays an important role.

Looking at schools and districts as interrelated systems as opposed to independent parts is not a new phenomenon. Countries such as Finland, England, and Singapore have been implementing system-wide reform since the late 1990s (Fullan, 2009a; Hargreaves & Shirley, 2009). But, according to Fullan (2009a), the US has repeatedly tried school-by-school improvement as opposed to systems change, and as a result, "aside from a successful school district here and there, there was no progress" (p. 105). To achieve progress on a large scale, the US may need to look at schools and districts as whole systems.

This shift from looking at schools and districts as parts to wholes involves what Fullan (2006) referred to as "systems-thinking" (p.113). Systems-thinking involves leaders that are continuously interacting and connecting with other parts of the system, much like the feedback loop described in GST. This interaction and connection includes and engages more parts of the system in decisions and improvement efforts and in turn,

builds capacity of those involved (Fullan, 2006). The capacity built among members of the system ensures sustainability (Fullan, 2006). This idea of systems-thinking is supported by GST which posits that the cyclical process of interaction and feedback between parts of interrelated systems is what contributes to growth and change (Patton, 2006). Given that GST, the theoretical lens for this study, implies that members of DCOs interact with school sites providing feedback that would improve the overall system, it is important to know more about the roles and responsibilities of the DCO as part of the system.

Definition and Duties of District Central Office

For the purposes of this study, the term "district central office" or DCO refers to the individuals supporting a school from the district level. This may include superintendents, assistant superintendents, middle level management including directors and specialists, administrative support staff, and technical staff. This definition also includes supportive offices as the business office, human resources, federal programs, curriculum, ESL/Bilingual, Special Education, transportation and even facilities (Leverett, 2004).

The members of the DCO have two main responsibilities: the managing and operating the district, and providing support for teaching and learning at the school level. The management and operation of the district refers to functions such as "building relationships between the board, the superintendent, the district leadership, and the schools; developing and enforcing policies and procedures, providing processes that ensure quality human capital; managing finances and upkeep of facilities; and ensuring compliance with state and federal laws and regulations" (Lane, 2009). Support of

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teaching and learning at the school level refers to making decisions about the curriculum including cross district alignment from Pre-K-12th grade, developing common assessments for schools, acquiring data systems and making data available to school administrators and teachers, ensuring quality human capital through hiring process and continued professional development, and providing the materials and resources necessary for schools to conduct the business of school (Lane, 2009; MacIver, 2003).

Although the responsibilities and accountabilities of those in the DCO sound like good business practices, in some instances, this is not been the case. As Larry Leverett (2004), Superintendent of Schools in Greenwich, Connecticut stated, "Due to the failure to provide leadership and support for the reform of curriculum, instruction, and assessment, the central office is sometimes seen as an impediment to student success" (p. 3).

Impact of Bureaucracy on Student Achievement

Bureaucracy is the traditional structure for district central offices. Bureaucracy was implemented in education during the Industrial Era over 100 years ago as American society was shifting from an agrarian to industrial society to provide structured organization in schools, and it has been the dominant culture ever since (Harris, 2005). The characteristics of this culture include specialized roles for individuals, strictly defined rules, top-down authority, lack of individual autonomy, and insulation of individual members from the group (Harris, 2005).

There is a body of research that suggests that the bureaucratic culture of many district central offices is impeding school improvement efforts. Chubb and Moe (1990) make the argument that the DCO staff's inability to implement reforms and respond to

school needs lie in its organizational structure that centralizes decision making and restricts school autonomy creating what Smith (2004) calls an "agent of incompetence and ineffectiveness." In a study of Texas schools, Bohte (2001) found that these higher levels of bureaucracy do have a negative effect on student achievement on state assessments, writing tests, and the SAT. As the ratio of district administrators to students increased among the districts studied, student proficiency rates on these assessments declined.

District Central Office Role in Improved Achievement

In subsequent studies on the work of Chubb and Moe (1990) and Bohte (2001), claims of negative effects of bureaucracy have been challenged. Meier (2000) tested the hypothesis of Chubb and Moe (1990) that bureaucracy causes low performance and found that "bureaucracy has little impact on student performance in future years." Similarly, Smith (2004) found that while Bohte's findings on the negative effect of bureaucracy on test scores were supported by a replicated research study, new findings on the positive effects of bureaucracy emerged. Bureaucracy is significantly associated with higher attendance rates and lower dropout rates of students (Smith, 2004).

Other research studies support the positive effects of the leadership in the DCO. In their meta-analysis, Marzano and Waters (2009), found a statistically significant correlation between district leadership and student achievement. Additionally, if the level of effective teaching remained at average, but the level of effectiveness of the district leadership was increased to 2 standard deviations above the average, the level of student achievement increased by an average of 7 – 10 percentile points (Heflebower, 2011; Marzano & Waters, 2009). Case studies of schools that have performed dramatic

turnarounds have also shown that those given the flexibility and freedom to make decisions without bureaucratic restrictions have seen a higher rate of success in improving student achievement and sustaining the efforts (Loften, et al, 1998; Zavadsky, 2009).

Important to note is that the research surrounding DCO support for improved student achievement does not cite the mere existence of a central office as effective support for schools. Research in this area has identified specific actions common among districts that have successfully supported school improvement (Honig, 2010; MacIver, 2003; Marzano & Waters, 2009; McLaughlin & Talbert, 2003; Zavadsky, 2009). For the purpose of this literature review and this study, the actions have been organized into Organizational Context and Support for Continuous Improvement.

Organizational Context

Organizational context refers to not only the structure of the leadership within the district central office, but also the allocation of resources and the decision-making processes.

Organizational Structure. Effective departments within DCOs are willing to reorganize and start change within at the DCO level to fully support improvement efforts aimed towards improving instruction (McLaughlin & Talbert, 2003). They shift from a bureaucratic relationship to a relationship of learning networks (Honig, 2008; McFadden, 2009). This restructuring occurs in two ways. The first is the physical restructuring of the office in which positions are eliminated, the size of the office is changed, or offices are physically moved. The second is the restructuring of the actual practice of the people (Honig, 2010). By restructuring practice, all efforts, functions, policies, and actions are

changed to directly support the common vision and goals. All members of the DCO redefine their work toward improving instruction (Lane, 2009; Leverett, 2004).

Allocation of Resources. The term "resources" refers to more than money in education. Resources also refers to materials, human capital, and professional learning opportunities (Cawelti & Protheroe, 2007; Leverett, 2004; Marzano & Waters, 2009) Whatever the resource, in effective central offices, the resources are equitably and transparently distributed. (Cawelti, 2007; Foley, et al, Roza, et al, 2004). Individuals in DCO also practice goal-based allocation meaning the district's vision and goals drive the programmatic and financial decisions at all levels of the system. In districts with central offices like these, new programs are often piloted in a small number of schools before large cross-district investments are made (Zavadsky, 2009).

Decision-Making Process. In effective central offices, data are used not only to inform decisions about programs, but also to inform planning at the district level and teaching and learning at the school level (Fullan, Cuttress, & Kilcher, 2009; Honig, 2010, Marzano & Waters, 2009). These members of the DCO use data from their own experiences to inform decisions at the district level, and they intentionally search out other forms of data that can be used in district and site level decision-making (Honig, 2010; McLaughlin & Talbert, 2003). Because everyone is working toward the common goal, it is important for accountability that data be accessible and transparent (Foley, et al, ; McFadden, 2009; Zavadsky, 2009). To ensure this, the effective DCO leadership provides data management systems, creates data collection tools, and encourages a culture that values data (Cawelti & Protheroe, 2007; Leverett, 2009; Zargarpour, 2005; Zavadsky, 2009).

Support for Continuous Improvement

District central office support for continuous improvement refers to creating district-wide vision and goals, building capacity at all levels, and providing for site-level autonomy.

Vision and Goals. Leadership in effective DCOs begins by creating a common and coherent vision for the district. (Cawelti & Protheroe, 2007; Lane, 2009; McLaughlin & Talbert, 2003; Zavadsky, 2009).   Creating the common and coherent vision involves creating the "big picture" for the district's future and creating specific and measurable goals to meet this vision (Zavadsky, 2009). In a district with a common and coherent vision, the central office staff are focused on the district goals, can articulate the vision and the common beliefs, and are fully aware of how their actions affect teaching and learning in the classroom. (Fullan, Cuttress, & Kilcher, 2009; Honig, 2010; Zavadsky, 2009). Not only must DCO leadership develop a clear and concise vision, they must provide ongoing communication about this vision to the members of the staff, to the school, and to all stakeholders (Honig, 2010; Lane, 2009; Marzano & Waters, 2009). These stakeholders include fellow central office staff, school leaders, teachers, students, parents, the school board, and other community members.

Capacity Building. Effective members of DCOs also support school improvement by building the capacity of their leadership and structuring networks of individuals for collaboration. The concept of building capacity is defined as "any strategy that increases the collective effectiveness of a group to raise the bar and close the gap of student learning" (Levin & Fullan, 2009). To prevent turnover, leadership at the DCO level streamlines human resources procedures to recruit effective people, and they retain

them by strategically developing leaders within the system, providing whatever is needed for success including induction and mentoring programs and high quality, job embedded professional development (Hargreaves, 2009; Zavadsky, 2009). Members of the DCO develop support systems such as principal networks and instructional leadership partners (Cawelti & Protheroe, 2007; Honig, 2010; Leverett, 2004; Zavadsky, 2009) so that leaders within this type of system have strong networks of peers to assist them with problem solving and to collaborate on teaching and learning issues on a regular basis (Hargreaves, 2009; Portin, 2006; Whiteside, 2006).

Autonomy. According to Harris (2005), "Power is the capacity to influence and motivate organizational members." Effective members of the DCO shift the power from top-down authority to school-level autonomy, allowing not only for shared decision-making, but also for community building. In districts with this structure, sense of freedom is promoted and equal partnership and relationship building are encouraged (Marzano & Waters, 2009). Decisions are made collectively within parameters set by the district, which promotes a sense of ownership and shared values and goals (Marzano & Waters, 2009).

Summary

The federal performance targets for schools will continue to increase incrementally each year, but the assessment scores for students show relatively no upward progress since 2007, and the percentage of schools and districts not making adequate yearly progress in Oklahoma more than doubled between 2009 and 2012. As the cited research shows, the district central office plays an integral role in supporting schools in their efforts to improve student achievement and to not only meet these targets,

but to sustain improvement efforts over time. However, the research also shows that not only are there few studies on district central offices, there are fewer comparative studies of higher and lower performing school districts (Honig, 2007; MacIver, 2003). This study seeks to use GST as a lens by which to explore the relationships between a district central office and its elementary schools.

CHAPTER III

METHODOLOGY

Chapter 3 describes the research design and methodology used to conduct this case study. This chapter includes a restatement of the research problem and questions, an explanation of the research design, and the procedures for data collection and data analysis.

Research Problem and Questions

Data from state and national assessments show that after 12 years of mandates from NCLB and two years after the implementation of local requirements through the ESEA flexibility waiver, some schools in Oklahoma have shown improvement in academic achievement and some have not. Recent research suggests that focusing on the larger context of schools, including the district central office, instead of individual schools may be integral in supporting school level improvement.

Few studies have been conducted that explore the relationships between the DCO and the school sites. This study builds on those few studies and explores the relationships between elementary schools and the district central office as the schools attempt to implement and sustain reform efforts to improve student outcomes. By exploring these relationships, one may better understand the role of the DCO in school-level improvement.

The following research questions will guide this study:

1. In terms of General Systems theory, what types of relationships exist between the district central office and elementary schools in an urban school district?

2. What are the differences in the relationships, if any, between the district central office and higher performing and lower performing schools?

3. In what ways do the relationships between a school site and the district central office influence a school's ability to implement and sustain improvement efforts?

The Researcher's Role and Bias

According to Patton (2002), "the credibility of qualitative methods hinges to a great extent on the skill, competence, and rigor of the person doing the fieldwork-as well as things going on in a person's life that might prove a distraction (p. 14). For this reason, it is important, first, that I note my background and relationship with the subject and participants of this study.

I have six years of experience working directly with district central offices and low performing schools in Oklahoma. For three years, I served as the State Director of School Turnaround. In this position, I provided direct support in school planning and parent involvement for high-performing school districts and support in the area of NCLB requirements and school improvement for the lowest performing school districts. During my three years with the State, I developed a personal belief that the district central office is a key player in whether or not a school enters or exits "the list." This bias could influence my data collection and data analysis procedures. To minimize the effects of this bias, I chose to focus on only one district with high and low performing schools so

that I may focus on details of the relationships of those schools with a common district office.

I have also worked for the last 3 years as a district-level administrator for Johnson Public Schools, which affords me intimate knowledge of the inner-workings of the district central office. However, most of my three years at Johnson Public Schools has been spent working with the Middle and High Schools as well as the DCO departments associated with secondary education. By focusing the study at the elementary school level, I minimize my prior knowledge of the schools, DCO members, and relationships that could bias my research. Additionally, I entered the study with the expectation that other district employees in the district may have perspectives that differ from mine.

I recognized that my experiences with JPS could color my data collection and analysis; therefore I made every effort to remain neutral. However, it is also important to note as Patton (2002) stated, "neutrality does not mean detachment" (p. 569). My position and relationships with DCOs across the state and, specifically, with JPS provided me with a unique perspective during the data collection and analysis processes.

Research Design

If you want to know how much people weigh, use a scale. If you want to know if they're obese, measure body fat in relation to height and weight and compare the results to population norms. If you want to know what their weight *means* to them, how it affects them, how they think about it, you need to ask questions, find out about their experiences, and hear their stories. (Patton, 2002, p.13)

This study does not seek to measure a variable or mathematically compare two outcomes. Instead, this study seeks to explore a district and its relationship to its schools,

to tell the story of schools attempting to implement reforms under increasing state and federal pressure and to share the stories of the participants living this experience. The choice of research design, then, was driven by these purposes. Because it allows for meaning to be created during the research process, relies on multiple sources of data to create a rich description of that being studied, and permits the researcher to collect data in the field to interact with the participants, a qualitative design was most appropriate (Creswell, 2009; Merriam, 1988; Patton, 2002; Yin, 2009).

Within qualitative design, a number of methodologies are available to a researcher. Yin (2009) stated three conditions one must consider when selecting a method: 1) the type of research question, 2) the extent of control over events, and 3) whether the event is contemporary or historical. This study attempts to answer "how" and "why" question, does not require experimental control of events, and focuses on present events. For this reason, case study was selected as the method for this study.

Case studies are a strategy of inquiry in which a subject of study, or a case, is explored in-depth in its real-world context (Creswell, 2009; Patton, 2002; Yin, 2009). To study a case in-depth, case study researchers become the primary data collection tool and rely on multiple sources of data including interviews, observations, and documents that are collected and analyzed over a period of time (Creswell, 2009; Feagin, Orum, & Sjoberg, 1991; Patton, 2002). These multiple data sources provide a more comprehensive description of the case, which leads to better and deeper understanding of the phenomenon being studied (Patton, 2002).

Yin (2009) divided case study into four separate design categories: single-holistic, single-embedded, multiple-holistic, and multiple-embedded. Each of these designs

involves a different number of contexts and cases for analysis (Yin, 2009). A single-case design focuses on one context, which means one single case is used to answer the research questions, whereas a multiple-case design focuses on two or more cases to answer the research questions (Yin, 2009). Further, a single- and a multiple-case design can be holistic or embedded which refers to the number of units of analysis within the larger case (Yin, 2009). A holistic design has only one level of analysis looking at the entire case from a global perspective. An embedded design, however, focuses attention not only on the case as a whole, but also on subunits within the case (Yin, 2009). This study looks at one case, the Johnson Public School system, but involves deeper analysis of two subunits-higher and lower performing schools. Therefore, this study is considered a single-embedded case study.

For the purpose of this case study, SNA data collection and analysis methods of survey and sociogram were used in conjunction with qualitative methods of interview, observation, and document review to create a detailed visual picture and narrative story of the relationships between the DCO and elementary schools in a large, urban district.

Site Selection

I used criterion sampling to select the school district for this study. Guided by the purpose and research questions, I selected a school district that had a centralized district central office with an adequate number of employees to participate in the study, included more than two elementary schools that had similar demographics and varied levels of student performance, and was implementing at least one district and/or school-level reform to improve student outcomes. Based on these criteria, Johnson Public Schools (JPS) was selected.

Within the larger case of JPS in this study, I used stratified sampling to identify

two subunits within the case for further analysis--higher and lower performing schools. I

labeled schools as higher or lower performing based on three years of proficiency data in

reading and math for 3-6 grade students, two years of attendance rates, and two years of

school improvement designation. I then created an Excel spreadsheet with a ranking

formula to assign rankings to schools based on these three criteria and to calculate overall

rankings of the schools. Those with the highest rankings were considered higher

performing schools and those with the lowest rankings were considered lower performing

schools. (See Appendix G.) In addition, I collected school population and demographics

for all school sites and considered this information when comparing schools in the data

analysis.

Participants

This study explores relationships between the district central office and

elementary school sites. Because of this purpose, I set criteria that limited my study

participants to members of the DCO or the elementary school sites. However, including

all members of the DCO (nearly 200 employees) and elementary school sites (over 1000

employees) would result in a population too large to feasibly study in a case study

utilizing SNA survey; the resulting survey would have too many possible choices for

participants. For this reason, a second set of criteria was used to determine study

participants. Participants with a formal certified position within the DCO (as opposed to

contract employees) and a job description that requires the employee to work directly

with elementary schools on academic or instructional issues were included. This totaled

36 employees at the DCO level. At the school site, participants were limited to site

administrators (principals, assistant principals, administrative interns). I distributed a

total of 56 surveys to school-level administrators. Although I recognize that these criteria

limited members in the network and excluded possible relationships, the qualitative

methods of interview, observation, and document review revealed relationships not

collected through the SNA survey.

Data Collection

The data for this case study came from many sources including SNA survey and

sociograms, interviews, observations, and document review. As this is a qualitative study

and I assumed the role of primary data collection tool, I administered surveys to the study

participants. Using the survey responses, I created a matrix of relationships that I used to

create a sociogram. I also conducted interviews, observations, and document review to

triangulate and provide deeper understanding of the relationships reflected in the

sociograms. The data collection section of this chapter describes each of these steps in

more detail.

Survey

For the SNA, I administered a free choice survey with ratings. This means that all

participants of the study received a survey without a list of pre-populated names, or a

roster, and participants were able to enter names as they recalled them. Within this

survey, participants identified relationships with as many members of elementary

administration or district central office as possible, and were not limited in the number of

responses they could give (DeLima, 2010). This type of survey was chosen due to the

potential size of a pre-populated survey, as encouragement for participants to answer the

survey, and based on existing research on SNA surveys. Scott (2000) stated that free

choice surveys increase response rates of the participants and provide a more

comprehensive picture of the relationships. In addition, participants had the opportunity

to rate each of the relationships with the other members of the population. Ratings

ranged from 1-5, 1 meaning contact was made 1-2 times a school year and 5 meaning

contact was made at least once a week. Unfortunately, many of the surveys returned did

not have complete or correct ratings, so this information was not used to create the

sociograms.

I developed the questions for the survey based on the research questions of this

study, existing research on effective district central offices, and contemporary SNA

research in the field of education. The research questions for this study dictated that the

survey questions collect information on the relationship between the DCO and school

sites in a high performing and low performing school district. However, due to the nature

of SNA surveys, which have the possibility of being quite lengthy, I focused my survey

on seven questions. To create the questions, I turned to existing SNA research in the

field of education and the existing research surrounding effective district central offices.

According to research on district central offices presented in this paper, characteristics of

effective DCOs include supportive organizational structure, school-centered resource

allocation, use of data to make decisions, clearly communicated shared vision and goals,

a process for building capacity of leaders, and opportunity for school-level autonomy.

Finnigan and Daly (2010) and Daly and Finnigan (2010, 2013) used similar

characteristics to design SNA research studies on low performing school districts. In a

study conducted on a large school district in California, Finnigan and Daly (2010) created

a survey that included both work-related questions such as information flow, best practice

sharing, and data sharing and personal questions about trust and personal friendships. As a result of the existing research on DCOs and contemporary SNA studies, the following survey questions were developed:

1. For the current school year (2013-2014), to whom have you turned for information on best practices related to your work?

2. For the current school year (2013-2014), to whom have you turned for information on student data or data usage?

3. For the current school year (2013-2014), to whom do you turn when making important work-related decisions?

4. For the current school year (2013-2014), from whom do you receive formal communications (newsletter, informational email, meeting, phone call) about work related topics?

5. For the current school year (2013-2014), who has contributed to your personal professional growth (i.e., mentorship, professional development, leadership training).

6. For the current school year (2013-2014), with whom do you discuss personal issues not related to work?

7. For the current school year (2013-2014), with whom do you spend time outside of the work setting?

A copy of the surveys can be found in Appendices A and B.

Because it was important that the sociograms for this study identify whether participants were from the DCO or a school site or from higher or lower performing schools, the surveys were not anonymous. Participants were provided a survey with an

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identifying code printed on it. Codes were two to three digit codes with a D for district central office or a P for Principal, a number identifying the school site or department, and an additional number identifying the participant. For example, a participant from the DCO in the academic department could be coded as D-05-01. For reporting purposes, only the recoded identifiers were used. No information regarding which participant was tied to which code was shared with other school staff or included in the study write up.

Due to the unusual nature of SNA surveys, steps were taken to ensure participants understood the survey so that a large number of surveys are completed. I sent an initial electronic correspondence to each identified employee of the DCO or principal prior to administering the surveys to explain the study and the survey process. Copies of the informed consent letter and survey were attached to this correspondence for review. Because it was imperative to get as many surveys as possible to ensure the SNA was accurate, I hand delivered paper surveys to each identified member of the DCO and each elementary principal. In each case, survey participants received a copy of the informed consent letter, a paper copy of the survey, and a self-addressed, stamped envelope to return the survey.   One week after distribution, I sent one follow up email to all identified participants and provided a second paper survey with a self-addressed stamped envelope, if requested.

Interviews

I used a general interview guide approach to collect interview data for this study (Patton, 2002). I used research questions and the SNA survey questions to develop initial interview questions, and the results of the SNA survey and subsequent sociograms to develop additional questions for the interviews. The guided interview approach ensured

that all participants discussed the same basic information and topics, but I also asked additional open-ended questions to clarify and/or expand on information provided by participants or to expand on the SNA. During the interview process, I recorded notes by hand on the interview protocol. There was space on the interview protocol (Appendix C and D) to provide basic information such as name of participant, demographic information, time, date, and location of the interview, and to record answers and observations. Interviews were digitally recorded using a small digital recorder.

I used purposeful sampling to determine interview participants. First, I chose principals and certified staff members from one high performing and one low performing (as defined in this document) for a live interview. I provided interview consent forms to both principals and 28 certified staff members. Of these, 2 principals and 1 certified staff member agreed to an interview. From the DCO, I chose nine interview participants. Of those chosen, five agreed to interview. Second, I conducted additional interviews with principals in other high performing and low performing schools. Five principals were chosen, and three agreed to interview.

Observations

To collect additional network data for this study, I conducted several observations over the course of the spring semester of the 2013-2014 school year. I coordinated these observations with the DCO and school site staff so observations could occur when DCO staff were onsite at the schools or meeting about topics that concerned school sites. Observations included test pick up and drop off, two Board of Education meetings concerning elementary schools, two meetings concerning the Reading Sufficiency Act, and two onsite school visits at the identified higher and lower performing schools.

During the observations, my role was that of non-participant. I observed the situation and took field notes. Each observation lasted at least 1 hour and handwritten field notes that include thick, rich description of the physical space, drawings of the meeting setting, a visual plot graph of interaction among meeting attendees, and recordings of personal reflections were taken. Because of the drawings and the various side notes that were included in the field notes, I did not transcribe field notes, but scanned them in handwritten form for secure electronic storage.

Document Review

In addition to interviews and observations, documents related to the case study were collected between April 2014 and June 2014. These documents provided a perspective of the phenomena that could not be gathered through other means (Patton, 2006). I accessed all documents through the Web sites of the United States Department of Education, the Oklahoma State Department of Education, or the selected district. I requested information that could not be found on public Web sites from site administrators or through a formal Open Records Request. Documents collected include district planning documents, principal meeting agendas, school planning documents, school performance reports, meeting agendas, and other evidence of interaction between DCO and school sites.

<div align="center">Data Storage and Security</div>

The lack of a formal database for most case studies is a major shortcoming
of case study research and needs to be corrected. (Yin, 2009, p. 119)

To increase the reliability of a case study, Yin (2009) suggested creating a case study database. This is a concept borrowed from other empirical research methods and is

a way of organizing and documenting case study data (Yin, 2009). This practice separates the raw data and initial analysis notes collected during a case study from the final narrative report and stores them in such a way that other investigators may use them (Yin, 2009).

For the purposes of this case study, I created a case study database to store all raw data collected during this including SNA surveys, interview notes, observation notes, documents, sociograms and UCINET reports, and initial analytic narratives. The case study database was stored on both my computer and external flash drives. Data were initially stored in folders separating types of data. As data were analyzed and coded, I classified the data by themes and placed the data into different folders. I stored large documents such as district and school improvement plans in separate files and cross referenced them when necessary. Because many of my data was handwritten, I scanned all interview notes, observation protocols, and other handwritten data and stored the information as PDF files.

I took security measures to protect anonymity of the participants and ensure confidentiality of certain types of data and results. I did not include informed consent forms, lists matching participants to codes (key), or any document that contained participant names (such as an organization chart) in the case study database. I stored all documents containing names on a flash drive and files were password protected. I stored both hard copies of the documents and the flash drive separately in locked file cabinets to which only I had access. To protect the case study database, files stored on the computer were password protected and accessible only to me. I secured hard copies of the documents in a separate locked file cabinet accessible only to me.

Data Analysis

The challenge of qualitative analysis lies in making sense of massive amounts of

data. This involves reducing the amount of raw information, sifting trivial from

significant, identifying significant patterns, and constructing a framework for

communicating. (Patton, 2006 p. 432)

In this study, I met the challenge of qualitative analysis through a two phase

process: analysis of surveys using traditional SNA methods and content analysis of

interviews, observations, and documents. The two phases overlapped chronologically

and analysis occurred simultaneously with data collection.

Survey Analysis

I used traditional SNA methods to analyze the surveys for the study. I entered

survey data into UCINET, a web-based social network analysis software, and created a

matrix of relationships for each survey question (Borgatti, Everett, & Freeman, 2002).

This resulted in 21 separate matrices: seven for district central office relationships, seven

for elementary principal relationships, and seven for the relationships between the district

central office members and the elementary principals. I then entered the matrices

generated in UCINET into Netdraw, an online program for creating visual representations

of network data, to create sociograms for each matrix (Borgatti, 2002). This resulted in

21 sociograms. Then, I used UCINET to calculate the network measures of centrality,

density, and reciprocity in order to better understand the networks that were generated

because, according to Prell (2012), "understanding how individual actors are positioned

within a particular network can help us understand such questions as who is important to

that network, who makes things 'happen' in the network or holds the network together in times of distress."

Centrality

Centrality is one value measured in social networks. Centrality refers to how central an actor is in the network. It measures the number of ties an actor has and the distance between those actors. An actor with a higher centrality value may have more influence or power in a network because he/she has more access to information or resources and more opportunities to influence others in the network (Cross & Parker, 2004; Prell, 2012). There are a number of ways to measure centrality, but for the purposes of this study, I measured centrality using Eignevector centrality. While other types of centrality measure the number of actors directly tied to an actor, Eigenvector centrality expands the measure of centrality to include the network around the actor (Prell, 2012). In a sense, Eigenvector centrality takes a more global view of centrality than the immediate local network (Prell, 2012). I chose this type of centrality measurement to limit the affect local patterns would have on centrality measures (Hanneman & Riddle, 2005; Prell, 2012). I used UCINET to calculate the Eigenvector Centrality of each of the 21 networks.

Density

Density is another value measured in networks. Density shows how cohesive a network is by measuring the percentage of ties that are present in the network as compared to all the possible ties that could be present in the network (Hanneman & Riddle, 2005). A network with a higher density has a higher number of ties between actors, and a network with a lower density has fewer ties between actors. The density

calculations generated by UCINET provided the density value, number of ties, and average degree for each of the 21 networks measured.

Reciprocity

Reciprocity indicates the mutual nature of a tie between actors (Hanneman & Riddle, 2005). If a connection in a network is reciprocal, it means that both actors identified a relationship to one another. The higher the reciprocity value, the more two-way relationships are present (Hanneman & Riddle, 2005). Reciprocity values as measured in UCINET provided the overall percentage of reciprocal relationships in the network and a measurement of reciprocity for each actor and his/her ties within the network.

Together, these measures of centrality, density, and reciprocity explained the importance of individual actors, the closeness of the actors, and the direction of the relationships within the networks created for this study (Wasserman & Faust, 1994).

<div align="center">

Content Analysis

</div>

I used the content analysis process to analyze the data collected in interviews, observations, and document review. The content analysis process involved reviewing the data that had been collected and reducing it to a set of core themes (Patton, 2002). This process occurred simultaneously with data collection. I used the following steps adapted from Creswell (2009) to analyze the data:

1. **Data were collected**. Data for this study were collected in the form of interview protocol notes, digital interview recordings, observation and field notes, documents related to the study, and document review notes**.**

2. **Data were organized and prepared for analysis.** Digital recordings of interviews were transcribed and combined with interview notes. Each interview transcription was printed on a different color paper. Interview notes were printed on corresponding paper. All notes from observations and document review were scanned and printed on a different color paper corresponding with event or document.

3. **Data from surveys were compiled.** UCINET was used to generate sociograms and measurement tables which were stored in the case study data based and printed according to survey question. Notes taken as observations from the analysis of sociograms and measurement tables were also printed.

4. **Data were reviewed for information and patters.** I read through all the data sources that had been printed. I conducted a first read to familiarize myself with the data. As I read a second time, I made notes about emerging patterns or themes or important information.

5. **Data were read reflectively.** I engaged in reflective reading of sources and notes a third time to code the information into categories that could provide information for description of the setting or participants or for themes.

6. **Data were organized according to analysis**. Each data source was cut into pieces and organized according to themes or for use in description.

7. **Narratives were developed.** I used the codes to develop a thick, rich description of participants, location, and events and determine which themes are triangulated and could be findings.

8. **Analysis was presented.** I presented the analysis in narrative form with charts and graphs.

9. **Data were interpreted.** From the findings, I used the lens of GST to interpret the data to make meaning of the results of the study and to answer the research questions.

Data Verification

Although qualitative studies explore the subjective and are not bound to the validity and reliability tests of quantitative studies, I, as the researcher, have a responsibility to ensure the credibility of my study. I used the following strategies in my study to ensure credibility.

Table 1.

Trustworthiness Table

Criteria	Examples of Activities	Section
Credibility		
Triangulation	Multiple Sources of data: interviews, observations; and documents	Methodology: data collection
Thick Description	Profile of the District Central Offices and School Sites; Description of interactions and observations; Description of sociograms	Findings
Referential Adequacy	Unobtrusive measures such as school plans, meeting agendas, State performance reports; photographs; Web site, etc.	Methodology: data collection and analysis
Peer Debriefing	Continuous informal discussions with peers and dissertation adviser (design, interview questions, observations); feedback on interviews and observations; Consideration of alternate explanations	Methodology: data collection

| Case Study Database | Raw data including case study notes, documents, tabular materials, and narratives that were used in analysis and results will be stored in a database for future independent inspection. | Methodology; Findings |

Summary

This case study explored the relationships between a district central office and its elementary school sites. I used SNA as a data collection method, and UCINET and Netdraw to create a visual graphic for each of the networks in the study, and then, I triangulated the results of the SNA with interviews, observations, and document review. Using multiple data sources provided a comprehensive picture of the relationships between the district and schools and lead to a thick, rich narrative in which to develop deeper understanding of the meanings and outcomes of those relationships.

CHAPTER IV

PRESENTATION OF DATA

The purpose of this study was to explore the relationships between members of

the district central office and the staff of higher and lower performing elementary schools

and to identify what, if any, influence these relationships have on the ability of schools to

implement and sustain reform efforts to improve student outcomes.

I collected the findings presented in Chapter IV from a number of sources. I

administered Social Network Analysis surveys to members of the district central office

and the elementary school principals and used the survey results to create sociograms,

visual representations of the relationships. I then measured the density, centrality, and

reciprocity of the sociograms to further analyze the networks. I also conducted

interviews with five members of the DCO, five elementary school principals, and one

teacher; conducted seven observations at the district and site levels; and reviewed several

district school-level documents.

In this chapter, data are presented in three sections: The District Central Office as

Part of the System, The Elementary Schools as Part of the System, and The District as a

System. Each section is divided into six sections that were the main relationships

analyzed in this study: best practices, data, decisions, communication, professional growth, and personal issues and time spent outside of work.

Overview of Johnson Public Schools

Johnson Public Schools (JPS) is a large, urban school district that covers a large swath of the state and includes addresses from a number of cities and towns. Due to the district's size, one could drive through at least two other school districts to reach one of the outlying Johnson Public schools. Within this space, the district serves over 35,000 students in more than 70 schools. Of the students who attend these schools, approximately 89% are eligible for free and reduced lunch and over 12,000 are identified as English Language Learners. JPS is also a majority minority district with over 80% of students identifying as Hispanic, African American, Native American, Asian, or Pacific Islander.

With these urban demographics come urban challenges. In 2011-2012, JPS was named a district in improvement in Year 2. By the State's definition, a district in need of improvement is one that fails to make Adequate Yearly Progress (AYP) or substantial progress towards the State's identified benchmarks in the same subject for all grade spans for two consecutive years. Since the adoption of the A-F grading system in 2011, which replaced the district improvement designation, JPS earned a D (2011-2012) and an F (2012-2013). In those same years, JPS saw 358 and 762 drop outs in grades 7-12 and earned a graduation rate of 73.5 and 82.4.

Academically, JPS performs below the state average in ACT and state testing. The average ACT score for JPS was 18.4 compared to the State average of 20.8. JPS

also performs lower on Grades 3-8 Reading and Math and Algebra I and English II state

tests. Table 2 shows the comparison between the district and state averages.

Table 2

Comparison of Average % Proficiency for JPS and the State on State Administered Exams for 2012-2013

Grade	JPS % Proficient 2013	State Average % Proficient 2013	Difference
3	51.9	72	- 20.1
4	57.7	69	-11.3
5	55.1	69	-13.9
6	56	66	-10
7	52.7	72	-19.3
8	50.1	77	-26.9
Algebra I	77.6	84	-6.4
English II	74	88	-14

The district also faces the challenge of mobility at all levels. Average student

mobility for elementary schools in 2012-2013 was 39.7% with some schools reporting

mobility as high as 71% and others as low as 19%. In that same year, 14% of elementary

principals left the district. Additionally, the district has been led by over five

superintendents in the last 10 years (and one of them stayed almost five years), and has

reorganized the organizational chart of the DCO multiple times. It is within this context

that the members of the DCO of JPS operate.

The District Central Office as Part of the System

For the purposes of this study, members of the DCO were defined as any

individual coded by Human Resources as a Central Office Administrator or Professional

Technical employee. This includes the superintendent, executive level staff, department

administrators and directors, coordinators, executive assistants, and any other positions

supporting the departments located within the district central office building.

Physical Structure

The physical building of the DCO is located just west of downtown in a blighted neighborhood. Houses surrounding the DCO building are in disrepair, and many are vacant and boarded up. Two halfway houses are located within a block of the DCO building, and it is not unusual for residents of these homes and surrounding homes, as well as homeless individuals, to congregate near or walk through the parking lots of the DCO building. To maintain safety, a security guard is posted by the main door of the DCO building on a daily basis, and all entries except the main entry are protected with magnetic locks that only an approved card can open.

The building is over 80 years old and signs of its previous purpose and years of renovation are evident. The building is a former junior high school, and as a result of it being designed as a school and not an office building, the rooms and hallways have been manipulated to be conducive for work. Former classrooms house 2-3 employees and, in other areas, permanent or temporary walls have been erected to create mazes of small office spaces. In some areas, employees must walk through 2-3 other offices to reach their own offices. Other employees are housed in former storage rooms, a gymnasium with bookshelves for dividers, or in cubicles lining areas that formerly served as hallways. Because of the layout, some employees of the same department are located down separate hallways or on different floors of the building. In attempts to keep departmental employees together, there is a regular shuffling of office spaces as new positions in departments are created or other positions are eliminated.

Organizational Structure

In addition to the physical shuffling of offices, the organizational structure of the district has changed multiple times in the last 5 years. In 2011, the DCO underwent a dramatic change when it restructured from six small learning communities who administered services to six distinct regions of schools within the district to a departmental structure. In the small learning communities structure, each of the six regions had an executive director and each department, such as special services or federal programs, had one or two coordinators assigned to only that region of schools. Some services such as communication and printing were shared among the learning communities, but for the most part, each learning community, or region, operated independently of the others. When the small learning communities were dissolved, the district changed the organizational chart by eliminating regional executive directors and creating several new high level executives called "chiefs" to oversee a new departmental structure of DCO employees.

In the 2013-2014 school year, the organizational chart changed once again with the change in superintendents. Some "chief" level positions were eliminated and multiple executive director positions were created to oversee departments in high needs areas of the district: human resources and curriculum. The organizational chart was flattened, placing the executive directors of elementary and secondary education at the same level as the previous chief positions for the purposes of streamlining processes that related directly to the schools. Additionally, several departments were moved out of the DCO building and placed in empty spaces within district schools. The reasoning for this was the services of the district would be closer to the schools which it is intended to

serve. The DCO continues its changes as the 2014-2015 school year starts with yet

another superintendent, several new high level executive positions, and a planned move

of the DCO to a newly acquired office building.

Relationships

The purpose of this study was to explore the relationships between the members

of the district central office and elementary school principals at higher and lower

performing schools. To better understand the context for the relationships in the larger

system of the district, I started by exploring the relationships between members of the

district central office. Although all members of the district central office were eligible to

be identified on the survey, surveys were distributed only to those employees who had

job descriptions or titles or worked in departments explicitly designed to serve the

elementary schools. I distributed surveys to 35 members of the district central office.

For this part of the study, eight surveys were returned. Data for this section also included

interviews with five members of the district central office, several observations, and

review of major district documents including the District Improvement Plan (DIP), the

Title I Plan (TIP), and the Strategic Plan. The following sections provide more

information about the relationships of district office members with other district office

members in the areas of best practices, data, decisions, communication, professional

growth, and personal issues and time outside of work.

Best practices. The first question of the SNA survey focused on best practices.

Specifically, the question asked, "For the current school year, which district central office

staff members have you turned to for information on best practices related to your work?"

Of the eight participants who returned a survey, all eight identified at least one person to

whom they turn for this information. The sociogram, or visual representation of networks, showing the relationships between staff members of the DCO is shown below in Figure 2.
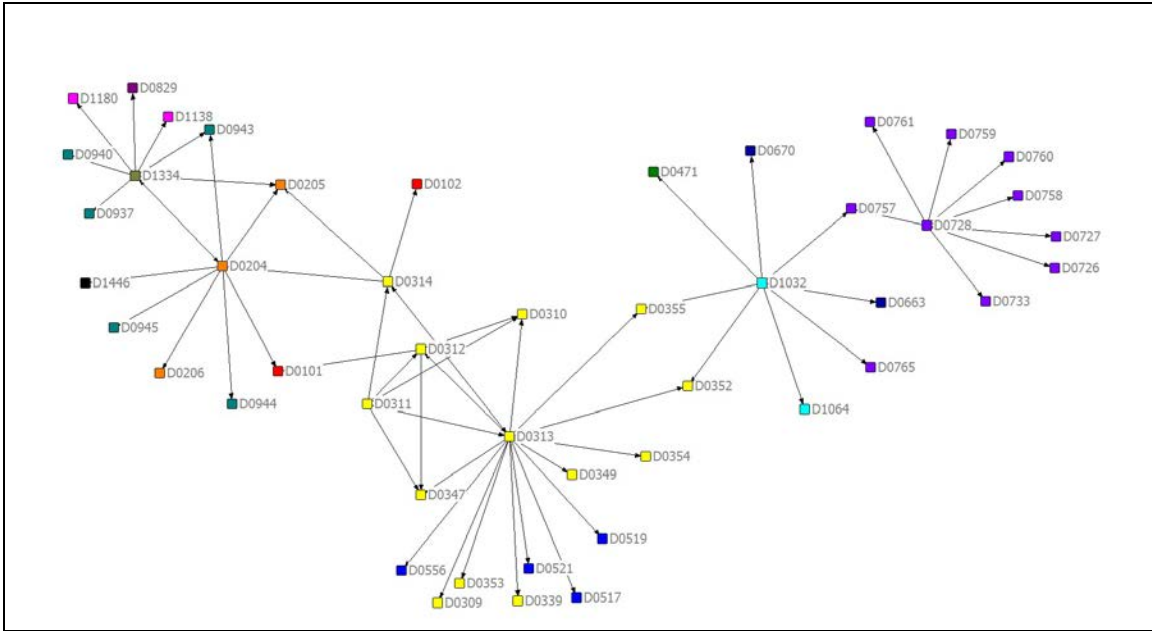
Figure 2. Sociogram showing relationships between district central office personnel in terms of sharing best practices related to work. Nodes are color coded by department. Nodes within the same department are shaded the same color.

In Figure 2, each of the squares, or nodes, represents a member of the district central office, or actors, who have been identified as part of the network related to information about best practices. Each node is labeled with a code that identifies the department for which the actor works and a unique identifier for the individual. For example, node D0313 signifies that this actor is a member of the DCO (D), an employee of department 03 (03), and is coded as employee 13 as a unique identifier for survey distribution (13). The lines between the nodes, or ties, signify a connection, or relationship, between the nodes. The small arrow at the end of each tie shows in which direction the relationship is made. For example node D0313 is connected to D0354 by a

tie with an arrow pointing to D0354 meaning that D0313 turns to D0354. A tie with

arrows on both ends indicates that each actor identified the other as someone to whom

they turn. This is a two-way relationship. For example, D0313 and D0314 are connected

by a tie with arrows on each end. This means that D0313 turns to D0314 for information

on best practices, and D0314 turns to D0313 for the same information.

This sociogram illustrates what appears to be a well-connected network. Each

survey participant (D0312, D0204, D1334, D0311, D0313, D0314, D0728, and D1032)

identified at least one other member of the district central office with whom they share

information, all parts of the network are connected by at least one node, and there are

several members of the DCO named as actors that did not participate in the survey

indicating a large number of relationships and a wide network of connections. However,

closer analysis indicates the network is not as well-connected as it seems.

Each color in the sociogram represents a department within JPS. The sociogram

shows that actors mostly have connections with those from their own department. There

are a couple of actors who have a few connections outside their department, but it is only

a connection with only one or two other departments within the DCO, a system with over

200 employees and a number of departments. There are also a number of peripheral

actors, meaning an actor is located on the outside of the sociogram and has no other or

few other connections. For example, D0313 named 9 actors (D0556, D0309, D0353,

D0339, D0521, D0517, D0519, D0349, D0354) who have no other connections in the

network. According to Cross and Parker (2004) peripheral actors are those not well

connected, but could be underutilized resources or actors trying to gain access to the

network who have not had the opportunity do so or lack the knowledge of how to make

the connections. Additionally, this network has a number of what Cross and Parker (2004) refer to as boundary spanners. These actors connect two or more parts of the network. In this case, D0314, D0355, and D0352 connect large parts of the network. If they were removed, the network would lose much of its cohesion. These boundary spanners can be helpful, meaning they move information to other parts of the network, or they can hinder the entire network if they do not efficiently move information or transfer knowledge. Beyond basic visual analysis, measures of centrality, density, and reciprocity can be used to further analyze the network.

As explained in Chapter III, centrality, reciprocity, and density are measures used in social network analysis to determine patterns in relationships. Centrality refers to how central an actor is to the network; that is, it measures the number of ties an actor has and the distance between actors. An actor with a higher centrality value can indicate an actor with more influence or power in a network because they have the most ties and least distance between others in the network. Density indicates the strength of the network. It measures the percentage of ties that exist in the particular sociogram out of all the possible ties that could exist in the network. The higher the density, the more ties of all possible are made between actors. Reciprocity indicates the mutual nature of a connection, or tie. Reciprocity refers to a two-way connection in which both actors indicate a relationship to each other. The higher the reciprocity, the more two-way relationships are present. Density and reciprocity can be looked at together to determine the network's ability to transfer information among all the actors.

The measures of centrality, density, and reciprocity reveal more about Figure 2 and the relationships between the members of the district central office. The density

value of this network is .012 which means that only 1% of all possible ties within this network have been made. In regard to reciprocity, only 5% of ties are reciprocal. These measures indicate that although each participant identified relationships in which they obtain information about best practices, in the global sense of the network, there are very few connections and of those that are made, most are one-way relationships. The measure of centrality shows D0313 is the most "central" actor, that is the actor with the most ties and the least distance between ties, but the overall variation in distances is low (24.9%) which means only about ¼ of the relationships follow the centrality pattern. This low variation means care must be taken in interpreting how much influence D0313 really possesses.

The information obtained in interviews with five DCO members support the results of the sociogram. Although review of the major planning documents of the district revealed that JPS has a comprehensive software system where DCO employees can enroll in classes related to best practices and the district has a large budget of Title II and Title I funds that provide training on best practices, participants interviewed stated they only attended district trainings that were required by their respective departments. All five interview participants indicated that in terms of best practices, they sought out information for themselves through the internet, professional books, social networks or other informal channels such as emailed newsletters from professional organizations or day-to-day conversations with colleagues or educators across the state. Also, although those interviewed identified colleagues on the survey who they turned to for information related to best practices, none mentioned these relationships in the interview indicating that the relationships identified on the survey may be weak and not relied upon that often.

Data. According to the District Title I Plan (TIP) and the District Improvement

Plan (DIP), employees of the DCO have access to a wide variety of student-level data

including state academic proficiency scores, district benchmarks, and attendance and

discipline rates and teacher-level data including school walk-throughs,

teacher/administration evaluation summaries, and attendance and attrition rate. District

employees also have access to district-level data through the Organizational Health

Inventory (OHI), which collects feedback from DCO departments on how those

departments are functioning. Additionally, the district has a Planning, Research, and

Evaluation (PRE) department that provides district-level employees with information

about student assessments and educational statistics. The DIP and TIP also report that

the district engages in a data cycle called the PDSA cycle which stands for Plan, Do,

Study, Act. In this process, the district plans a solution, implements the solution on a

small-scale, studies the outcomes, and then makes revisions or creates new solutions

based on the study of the outcomes. This cycle continues with the new solutions in a

continuous process.

To measure the relationships between the members of the district central office in

regards to all this data, survey participants were asked, "Which district central office staff

member(s) have you turned to for information on student data or data usage?" Figure 3

illustrates the relationships generated by survey responses for this question.
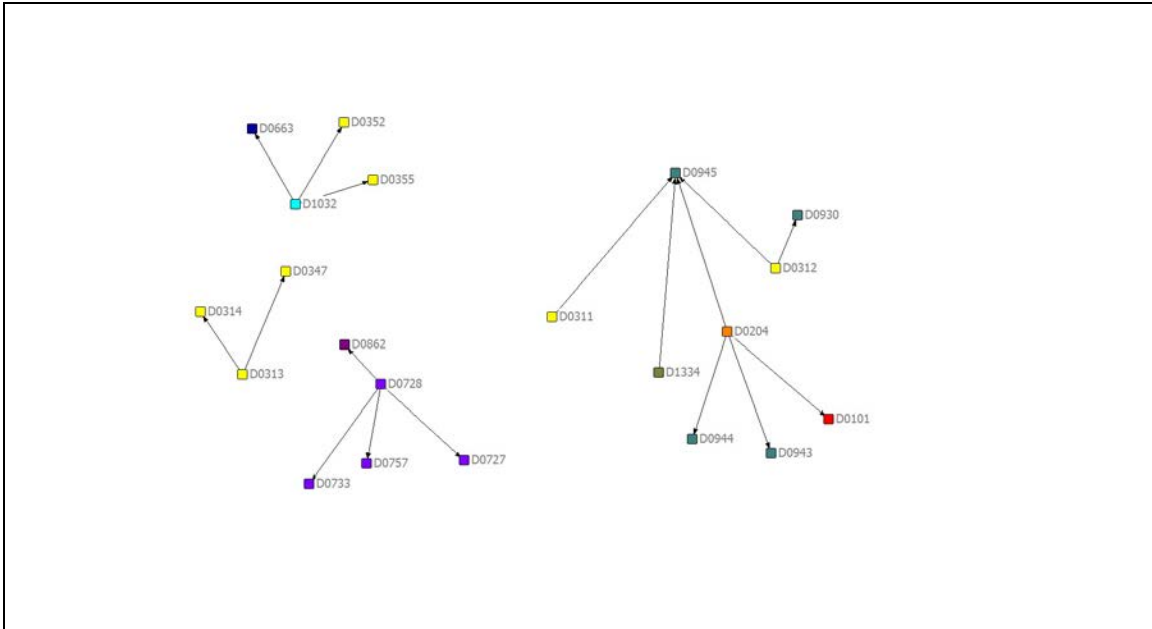
Figure 3. Sociogram showing relationships between district central office personnel in terms of student data or data usage. Nodes are color coded by department. Nodes within the same department are shaded the same color.

Figure 3 shows that, in terms of data, relationships within the network occur in small groups with no connecting actors, and a high number of peripheral actors. Seventeen ties are present in this sociogram, and although, in this sociogram, relationships are more diverse in terms of departmental relationships, the density measure of .003 and reciprocity measure of .0000 indicate that very few of the possible ties in this network exist and there are no two-way relationships. Although, one actor, D0945, has the highest centrality value, the overall variation is only 24% which means there is little power in D0945's influence in this network.

The interviews, again, support the results of the sociogram. All five interview participants did admit to having access to any data they needed and mentioned the use of the PRE department on at least one occasion to obtain data. However, any data the DCO members received were mostly used to complete mandated reports or was passed through their offices to the schools. None of those interviewed indicated using data within their

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department to make work related decisions or being included in any data analysis process at the district level. Interestingly, none of those interviewed knew of the PDSA process included in the DIP or admitted to using the process in their own departments.

Decisions. Another area of focus in the study was the decision making process at the DCO level. The DIP and TIP both indicate that major decisions at the district level are made by a leadership team informed by campus planning teams at all the schools. The DIP and TIP also state that feedback is gathered from all stakeholders, including members of the DCO through surveys and opportunities to serve on planning committees. In fact, committee member lists of the DIP and the TIP have a large number of DCO members as representatives, 37 and 23 respectively, who represent multiple departments within the district.

To better understand the decision making process of members of the DCO, survey participants were asked to identify other members of the DCO to whom they turned when making important work related decisions. Figure 4 shows the resulting sociogram.

Figure 4. Sociogram showing relationships between district central office personnel in terms of important work-related decisions. Nodes are color coded by department. Nodes within the same department are shaded the same

All 8 survey participants identified at least one other DCO member to whom they turn for work-related decisions. However, this sociogram shows that members of DCO rely heavily on members within their own departments or, if they seek outside advice, it is from only one other department. This sociogram also shows that, in terms of decisions, DCO members once again fall into separate groups with many peripheral actors and no boundary spanners.

Within this sociogram, there are 32 ties, but only 3% are reciprocated and the overall density is .006. This is a network of few ties and even fewer two-way relationships. Centrality is not significant, but within the ties presented, D0313 and D0347 are the actors with the most ties and least distance from all other actors. It is interesting to note that they are from the same department, the same department, 03, in which all reciprocated ties are present showing that this particular department may have a more collaborative decision making process than the others represented in the sociogram.

To expand on the information found in the sociogram and the differences between what was reported in the DIP and TIP and the results of the surveys, interview participants were asked to explain how decisions were made at the district level. Three of five interviewed did admit to sitting on a district-level committee in 2013-2014, all were on the same committee: the literacy task force. These three interview participants explained that they attended meetings, provided feedback from the perspective of their departments, and felt that the committee was productive, though none were sure how much impact their voices had on the overall decisions of the committee. Additionally, none of the five interviewed could articulate how decisions were made at the district-

level beyond D0314's response, "I don't know if there is a protocol as far as the district operations," or D0308's response, "mostly the school board makes our decisions for us."

Communication.   Members of the DCO were also surveyed on the formal communication they receive from other members of the DCO. For the purposes of the survey, formal communication was defined as newsletters, informational emails, meetings, or phone calls about work-related topics (See Figure 5.)
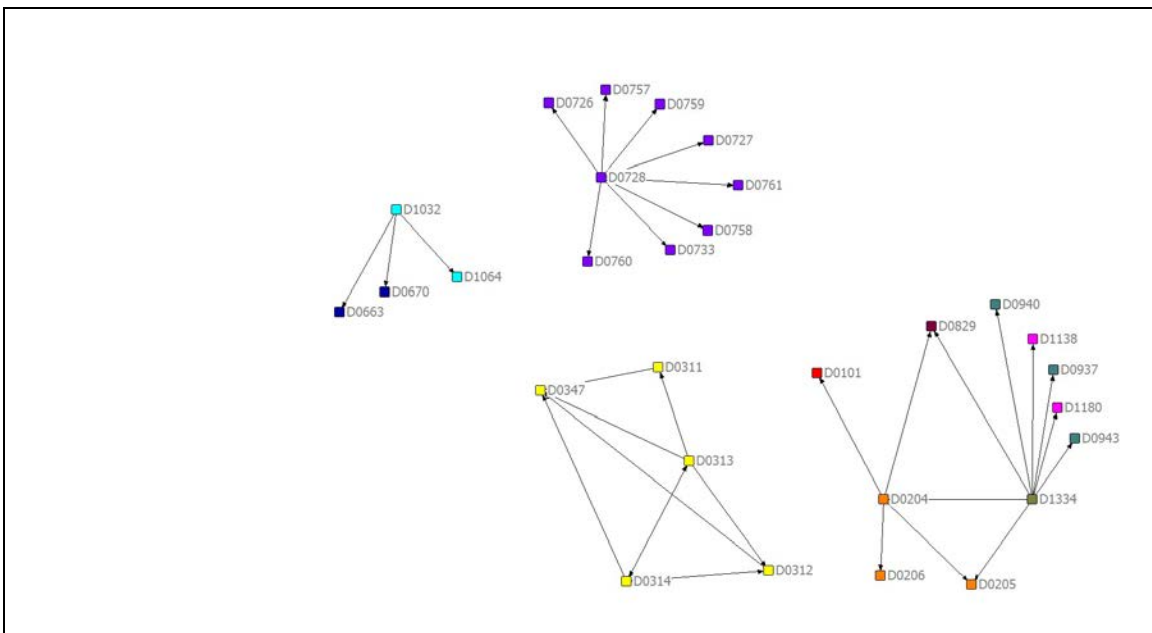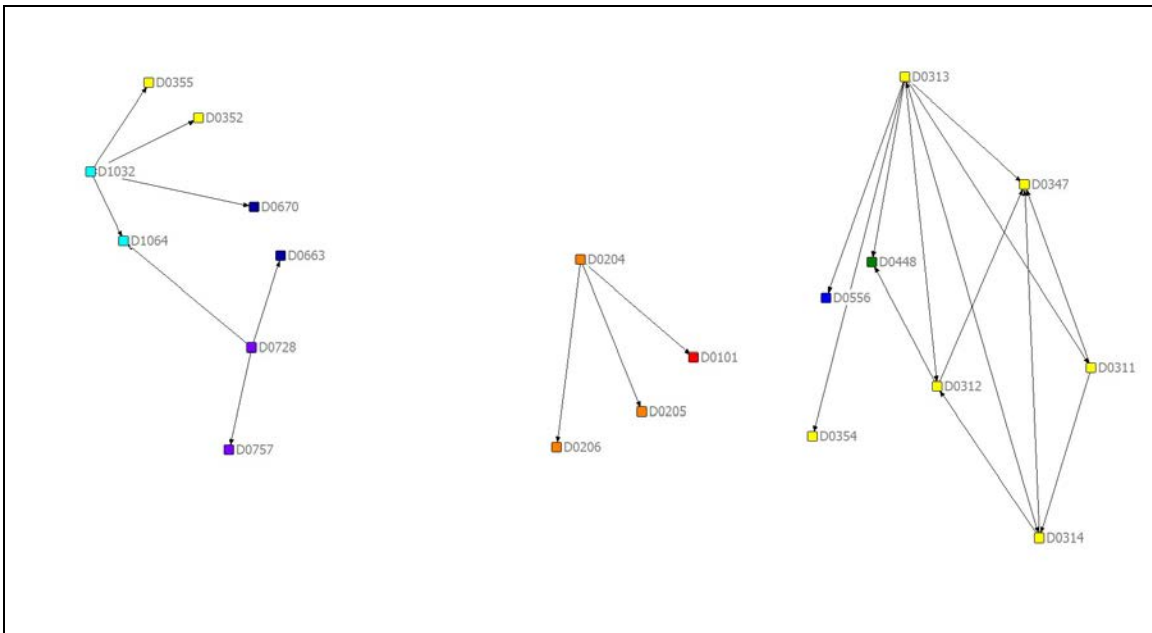

Figure 5. Sociogram showing relationships between district central office personnel in terms of formal communication. Nodes are color coded by department. Nodes within the same department are shaded the same color.

Because the DCO is physically and organizationally structured in departments, it is understandable that communication between members of the DCO would, again, largely occur within departments with a few outliers in some of the groups. Like the previous two sociograms, Figure 5 shows that relationships related to communication are represented by disconnected groups of actors instead of a cohesive network with connected nodes. Also, like the previous two sociograms, the measures of density (.005)

69

and reciprocity (.0435) indicate few ties within the actors and mostly one-way

relationships. In terms of centrality, the overall variation is somewhat higher (36%), but

not high enough to place much power on D0313's highest centrality value. It is

important to note, though, D0313 and D0314 share the only reciprocated relationship in

the network.

According to data obtained in interviews, there is little to no formal

communication between offices. Most communication between colleagues occurs

through informal email conversations or Outlook calendar appointments. The only report

of formal district-sponsored communication was the Staff Welfare Email used to inform

all employees of the passing of a former employee or family member of an employee.

When asked how they find out about important information or decisions within the

district, D0308 stated,

> I usually find out through the grapevine. What's really interesting is I found out
>
> more from my schools about what's going on in the district than I find out from
>
> the district itself…[Communication in the district] is kind of a trickle down, and it
>
> does not always trickle down the way it's supposed to.

Professional Growth. According to the DIP and the TIP, the district provides

members of the DCO multiple opportunities for professional growth. These opportunities

include OHI training, technology training through the Educational Technology Services

department, training on the Teacher/Leader Evaluation system, leadership training, and

any number of trainings related to curriculum and instructional strategies. These

trainings are available on a comprehensive district-wide professional development

software system that allows DCO members to log-in see a calendar of all available

trainings, and sign up online. According to this system, in 2013-2014 there were over

900 trainings available for employees of the district. The district also has policies in

place to pay registrations and travel for DCO employees who are chosen to present at

state and national conferences and to allow for leaves of absence for employees to take

full-time coursework at a university. This level of opportunity for professional growth

was described by D0102,

> I just think our district is one of the best at offering opportunities for professional
>
> growth. It seems like we are always making needs assessments and looking to see
>
> how we can help people.

To examine how members of the DCO took advantage of these opportunities and

built relationships around the concept of professional growth, survey participants were

asked to identify members of the DCO who contributed to their professional growth

during the 2013-2014 school year. (See Figure 6.)
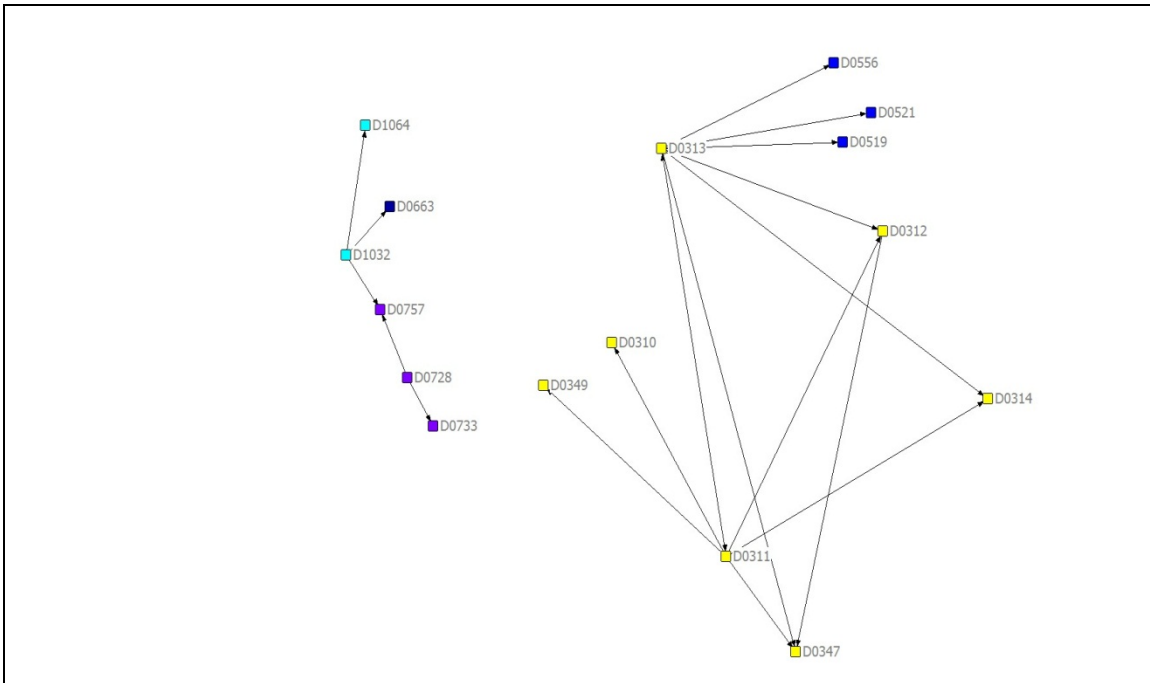
Figure 6. Sociogram showing relationships between district central office employees in terms of contribution to professional growth. Nodes are color coded by department. Nodes within the same department are shaded the same color.

Figure 6 shows both a decrease in the overall number of actors involved in the network and a slight increase in the departmentalization of the relationships between actors from the previous sociograms.   Only 75% of survey respondents could identify at least one person who contributed to their professional growth, and those that did listed far fewer connections than for previous survey questions. The density measure is .005 indicating only .5% of possible ties have been made, and of these ties, 11% are two-way relationships.

These measurements reflect what was reported by interviewees. Only one of the 5 DCO members interviewed said that she attended training that contributed to professional growth at the district level. Like best practices, the other four interview participants stated that they sought professional growth opportunities elsewhere. As D0314 reported,

> I don't do a lot of things within the district. There will be webinars and things, but I do that more with the State than the district.

Although the DIP and TIP emphasize hundreds of professional growth opportunities, results of the interviews and surveys seem to indicate that these opportunities may not be seen as valuable or helpful by the members of the DCO as they report few relationships in terms of professional growth and report seeking out other sources in this area.

Personal Issues and Time Outside of Work. In a social network analysis of a large, urban school district, Finnigan and Daly (2012) emphasized the value of including measures of trust and social relationships when analyzing networks. In their study of the La Confianza school district, they found that "when trust was present, it was critical in

predicting reciprocated best practice relationships" (p. 517) and "interpersonal relations also augmented principal professional learning" (p. 518). In La Confianza, they found that increased social relationships based on trust had a positive effect on culture, information sharing, innovation, and overall improvement in the district (Finnigan and Daly, 2012). To explore the social relationships between members of the DCO for this study, survey participants were asked, "With which DCO staff members do you discuss personal issues not related to work" and "which DCO staff members do you spend time with outside of the work setting?" Figure 7 shows the results for the question related to personal issues, and Figure 8 shows the results for the question related to time outside of work.
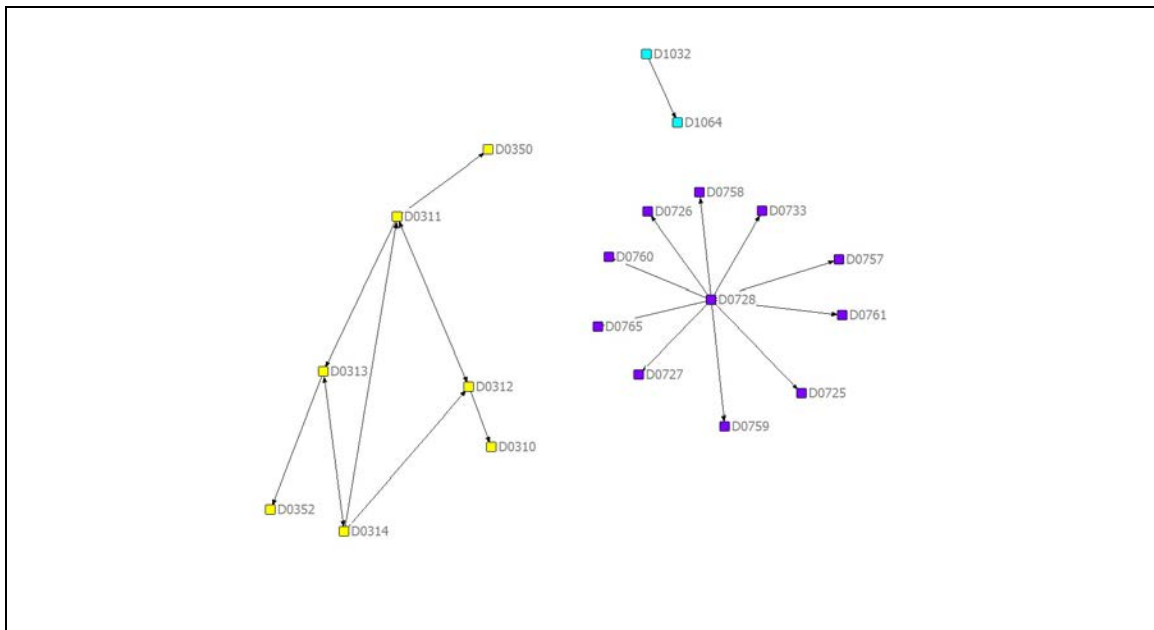
Figure 7. Sociogram showing relationship between district central office personnel in terms of discussion of personal issues. Nodes are color coded by department. Nodes within the same department are shaded the same color.
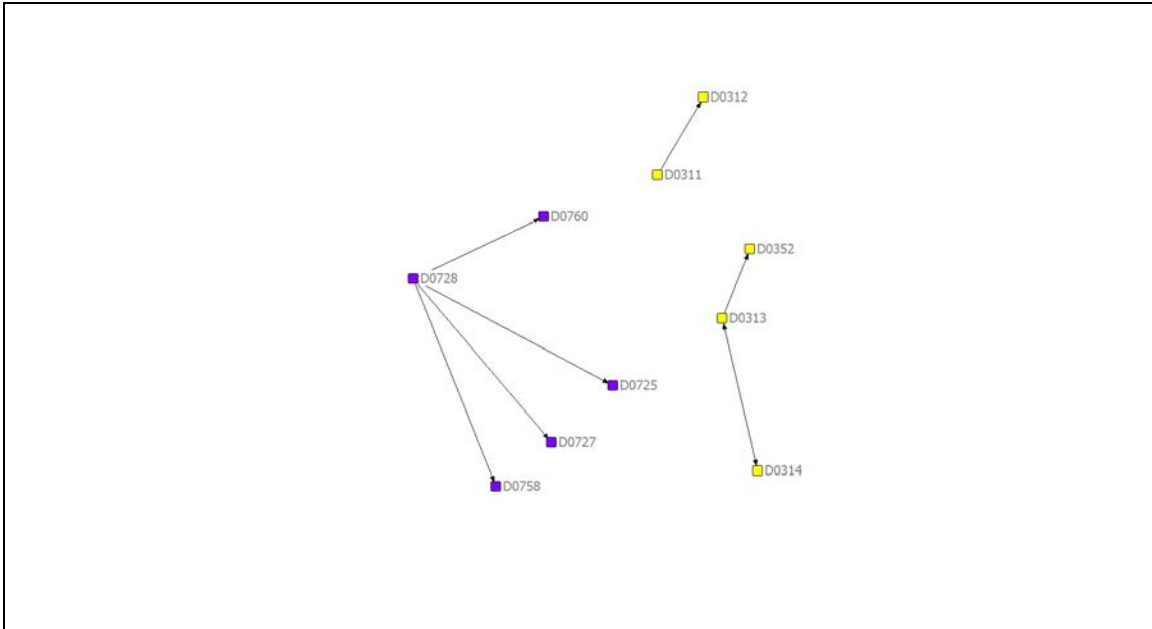
Figure 8. Sociogram relationships between district central office employees in terms of spending time together outside the work setting. Nodes are color coded by department. Nodes within the same department are shaded the same color.

Both Figures 7 and 8 show that even fewer survey respondents could identify one person with whom they either shared personal information (75% of respondents) or spent time with outside of work (50% of respondents). These sociograms also show that connections are completely departmentalized. All actors in these sociograms are only connected to others within that actor's department, and all connections exist within the network as disconnected groups. It is also notable, that there are more relationships in which actors have someone to turn to for personal issues than to spend time with outside work, and the network created by relationships in the 03 department fragments when the transition from discussing personal issues to spending time outside of work occurs.

The network related to personal issues had a density of .004, and the network related to time outside work had a density of .002 which indicates that there are few relational ties in these areas as compared to all the possible ties. Though these density

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values are low (.1053), the reciprocity value of .1429 is higher than the other sociograms because there are fewer ties present. Although the variation of distance is low, 37% for the Figure 7 and 45% for Figure 8, D0728 is the most central actor for both indicating that in that department, D0728 would have a degree more influence.

Information obtained in interviews supported the results of the sociograms. According to the interview participants, there are few opportunities for DCO members to interact socially with other members of the DCO. Most interdepartmental interaction is work related through meetings or district-wide presentations which have no time for networking built into the agenda. This lack of social interaction time was observed on one occasion within the DCO building. At one event, a district-sponsored meet and greet for the new administration, DCO members were invited to meet the new administration and the invitation alluded that the event would include refreshments and time to network. However, the event was structured much like a receiving line. DCO members stood in line outside the hallway and filed in one by one to shake hands with the new administration. After shaking hands, DCO members attempted to stay in the cramped board room to converse, but were quickly asked by the host of the meet and greet to "shake hands, grab some cake and punch, and clear out the room so more people can file in." As a result, many DCO employees spent less than 10 minutes at the event. DCO employees interviewed did not feel that social networking or interaction was encouraged or supported by the administration of the district, and this may affect the number of social relationships that exist between members of the DCO.

The Elementary Schools as Part of the System

The first section of Chapter IV explored the relationships between the members of the district central office of JPS. This section of Chapter IV uses the same methods to explore another part of the system, the elementary schools. In this section, relationships between elementary principals are presented in the areas of best practices, data, decisions, communication, professional growth, and personal issues and time outside work.

Overview of Elementary Schools

There are over 50 elementary schools within JPS. These schools are spread throughout the district and are as diverse as the population of the city. Some schools are majority Hispanic with a large percentage of ELL students. Some schools are majority African American with nearly 100% free and reduced lunch rates, and others are supported by affluent neighborhoods and strong PTA groups. These elementary schools also range in size from the smallest site with just over 200 students in PK-6 to the largest site which has over 1100 students in PK-6. Achievement levels at each of the schools also differ. Although almost all schools report a yearly attendance rate of over 90%, the percentage of students scoring proficient in reading or math ranged from a low of 11% of students to a high of 89% of students in 2013-2014. Additionally, in 2012-2013 seven of these schools earned an A or B on the State's A-F report card while 9 received Cs, 12 received Ds, and 28 received Fs. These differences present each elementary school with unique challenges and unique needs as they attempt to implement reform efforts to improve student achievement.

Schools of Focus

For the purpose of this study, two of these elementary schools were chosen to be studied in more depth, one traditionally high performing school and one lower performing school. At each of these schools, School 14 (S14) and School 15 (S15), interviews with the principals, P14 and P15, and observations were conducted to obtain information related to areas of the study. Other certified staff members at both S14 and S15 were invited to participate in interviews, but only one teacher, T14, agreed to be part of the study. Important to note is that S14, the lower performing school, does perform in the top 50% of the district. However, the school is traditionally low performing according to state accountability standards and is far lower performing than the comparison school, S15, with half the number of students scoring proficient in reading and math.

School 14. School 14 (S14) is a large elementary school on the south side of the JPS district. It houses over 700 students and employs over 30 certified staff. It is a predominately Hispanic population (86.2%) and has a high ELL population (70.5%). The free and reduced lunch rate at S14 is 99%

Physical building. S14 sits in a residential neighborhood in one of the poorer areas of the city. Small, old, single family homes surround the school. Some homes are well-kept with mowed lawns and painted siding while other homes showcase peeling paint, sheets hung as curtains in the windows, and leaking window air conditioning units causing green growth on the sides of the homes. The original school building was built in the early 1930s with multiple renovations and additions occurring during the last 80 years of its existence including current construction on a much needed gymnasium.

Evidence of these renovations is clear. The floor and ceilings of the building are new, but the architectural detail including the brick walls, wooden doors, and wall tiling are original to the building. The newest addition of the school that houses several newly built classrooms is physically separated from the old building and connected only by a narrow sidewalk.

Despite the years of renovations, the building is welcoming and clean. Inside the main entrance is a waiting area with chairs and flyers containing important information decorating the walls. This area accommodates parents who arrive early to pick up students after school or students who arrive early in the morning to school. Although students are not supposed to be dropped off until close to 8:00 am, there are a number of students who arrive to the building as early as 7:00 am, many with no coats on cold winter days or umbrellas on rainy days.

Every wall within the school is decorated with exemplary student work – simple coloring pages at the Pre-Kindergarten level and writing assignments or science projects at the upper levels. Along with student work, many teachers have student data walls hanging outside the room showing proficiency on recent district benchmarks or reading screening assessments. Classrooms are equally student focused. Colorful banners or pictures hang on the walls, learning centers are evident in lower level rooms, and computers and interactive white boards are present. Evidence of the Great Expectations teaching/training program to motivate and inspire teachers and students is also visible with values and belief statements posted on the classroom walls.

Leadership. The school is led by principal P14. P14 has worked in JPS for nine years, three of those as a head principal, though 2013-2014 was his first year at S14.

Coming from another lower performing school in the district with many of the same challenges as S14 and determined to improve student outcomes, P14 instilled a number of changes in his first year that were received with mixed results from staff members. Some teachers welcomed the changes while others gave notice in April that they would not be returning. Because of the population of the school, P14 is afforded an assistant principal. AP14 has years of experience in elementary education, but 2013-2014 was also her first year at S14. P14 had confidence in AP14 bragging that she would be ready for a head principal position after just that year.

According to P14, the role of a leader at S14 is different than that of his previous schools. S14 has few discipline issues leaving P14 and AP14 to focus on what P14 calls "the fun stuff"-curriculum, instruction, and teacher support.

Academics. S14 is not without its challenges. Over 70% of the population at S14 is identified as English Language Learners, and the mobility rate of students is 30.5%. These demographics, along with staff challenges, such as one teacher leaving one day during plan and never returning, affect the overall achievement of the students in the school. Although S14 has an attendance rate of nearly 95%, the proficiency rates on State assessments are not as high. In 2013-2014, less than 50% of students scored proficient in reading in the 3rd, 4th and 5th grades. In math, 3rd and 5th grades had a proficiency level of less than 50%, but 4th grade saw a proficiency level of 69%. Additionally, the school received a D on the 2012-2013 report card.

School 15. School 15 (S15) is a midsize elementary school on the north side of JPS, the opposite side of town from S14. S15's population is smaller than S14's; it houses just over 500 students and employs 23 certified staff. Unlike the majority

minority population at S14, S15's population is 55% white and the free and reduced

lunch rate is 35%.

Physical Building. S15 is nestled in one of the city's most affluent

neighborhoods. Surrounded by million dollar homes, the school barely resembles a

building built in the 1930s. Numerous renovations and upkeep by generous volunteers

and donors have given the school an updated façade and a beautifully landscaped

entryway.

The inside of the building barely hints at its age. Floors and walls are updated,

hallways are wide and well-lighted, and common spaces are well appointed. Just inside

the main entrance is a large parent resource room with tables, chairs, pamphlets and

brochures for parents, and a computer for parent use during the school day. The large

media center at the back of the building has a welcoming and warm atmosphere. Plush

chairs and matching table and chair sets that look like they could be from an executive

office fill the floors while oil paintings and decorative vases decorate the tops of the

shelves. The furniture and the décor were paid for or donated by parents in the school.

The classrooms are just as inviting. Evidence of student work lines the walls, and

learning centers and hands-on activities can be seen in most rooms. In the front office,

there is also evidence of the strong parental involvement at S15. Most days of the week,

the office is manned by at least one parent volunteer who assists the registrar with

phones, filing, and other administrative duties that need to be done in order for the school

to run smoothly.

Leadership. S15 is led by principal P15. Principal P15 has 20 years of

experience in education, many of those as a principal, but served her first year at S15 in

2013-2014. Because of the school's size, P15 does not have an assistant principal, but does have a very active school leadership team and several teachers who have an administrative certification help out as often as needed. Even though this was S15's first year, she made few dramatic changes and relied on the teachers to inform her of issues that needed to be addressed.

Academics. As the marquee at the front of the school proudly boasts, S15 is a National Blue Ribbon school. S15 has a long tradition of academic success. In 13-14, over 70% of students in Grades 4-5 and 89% of 3rd grade students scored proficient in reading. Nearly 80% of 3rd-5th grade students scored proficient in that same year. In 2012-2013, P15 earned a B on the State's A-F report card, down from an A in the previous year, and was ranked 3rd in overall performance for the JPS district.

S14 and S15 typify the diversity of schools within the JPS district. Although these schools are within the same district and the same city, the demographics, and therefore the challenges, are very different. Subsequently, the resources and relationships needed to be successful are also different.

Relationships

The purpose of this study was to explore the relationships between the members of the district central office and elementary school principals at higher and lower performing schools. To better understand the relationships in the larger system of the district, I also explored the relationships between principals of the elementary schools in the district, paying particular attention to relationships involving high and low performing schools. The surveys were distributed to 57 elementary school principals. For this part of the study, 12 surveys were returned, 4 from principals of low performing schools and 8

from principals of high performing schools. Data for this section also included in-depth interviews and observations with two principals, P14 and P15, and additional interviews with three other principals, one of a high performing school and two from low performing schools. I also reviewed documents including site improvement plans and principal meeting agendas. The following sections provide more information about the relationships between elementary principals in the areas of best practices, data, decisions, communication, professional growth, and personal issues and time outside of work.

Best practices. One survey question asked of the elementary principals was, "Which elementary principal(s) have you turned to for information related to best practices related to your work?" From the answers provided on the survey, the following sociogram was created.
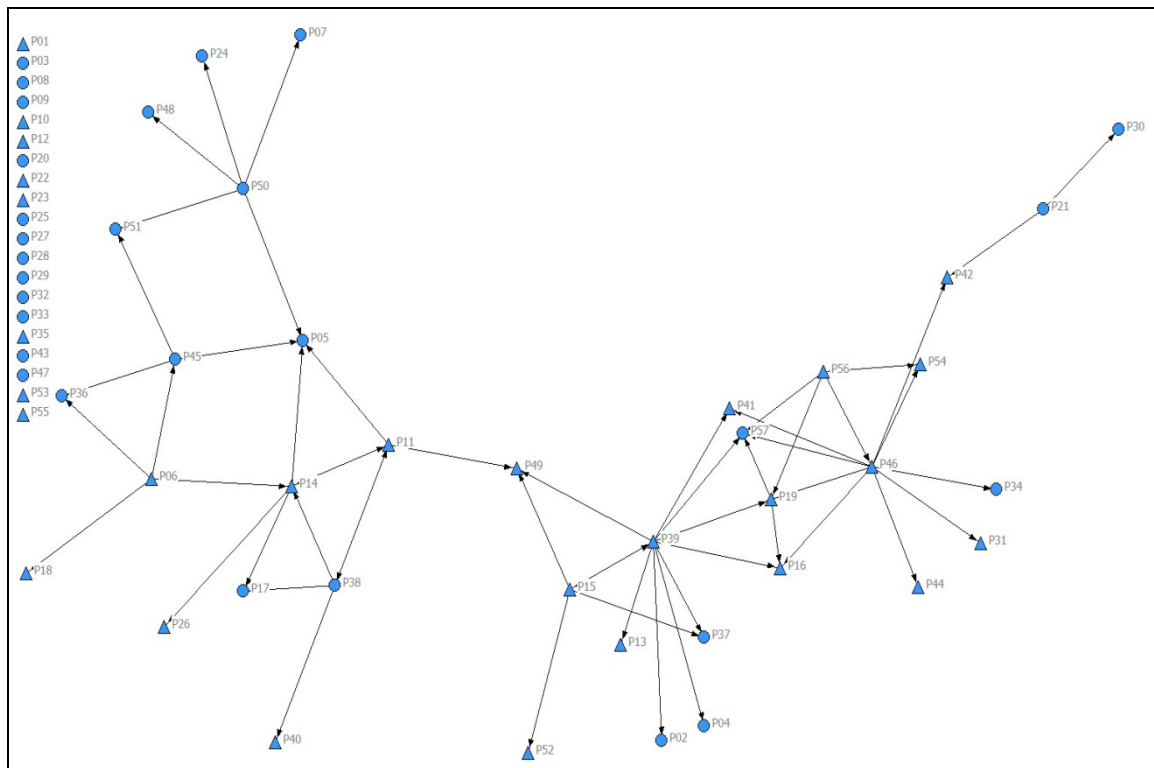
Figure 9. Sociogram showing relationships between elementary principals in terms of sharing information related to best practices. Triangle nodes indicate principals of high performing schools and round nodes indicate principals of low performing schools.

In Figure 9, each of the triangles or circles, or nodes, represents a principal of an elementary school, or actors, identified as part of the network related to information about best practices. Each node is labeled with a code that identifies the actor as a principal and indicates which school that principal leads. For example, node P02 indicates the actor is a principal (P) at school S02 (02). The different shapes of nodes, either triangle or circle, identifies whether the principal is from a high performing (triangle) or low performing (circle) school. As explained in Chapter III, each of the elementary schools in the district was ranked according to proficiency rates, attendance rates, and State identification for improvement. The top 28 were identified as high performing schools and the bottom 27 were identified as low performing schools. Unlike the sociograms for the relationships of the district central office, Figure 9 includes a list of actors on the far left side of the sociogram. These actors were eligible for the network, but were not identified as being part of connection with any other principal. These actors give a visual picture of how many principals were not included in this particular network, according to the survey respondents.

Visually, the actors included in this network seem to be very well connected. Each principal who returned a survey (P56, P39, P45, P50, P46, P19, P38, P15, P06, P21, P11, and P14) had at least one person they turned to for information on best practices, and although the network could have been two disconnected groups, P49 serves as a boundary spanner for the two sides of the network. However, closer analysis of the data reveals fewer connections than initially apparent.

Although there are 56 ties in this network, the density measure of .018 and the reciprocity measure of .0769 indicate that few of the possible ties in this network have

been made, and those relationships that do exist are mostly one-directional. The actors

listed on the left side of the sociogram also show that over a third of the elementary

school principals in the district are not included in any relationship in terms of best

practices. This sociogram also shows approximately the same number of principals from

high and low performing schools in this network, 19 and 17 respectively, but a closer

look at the centrality measures shows that of the five nodes with the highest degree of

centrality (P19, P39, P46, P56, P57), that is the five actors with the most connections

with other actors and the least distance from the actors in the network, four are from high

performing schools (P19, P39, P46, P56).

In this network, P14 and P15 have very different centrality measures, 2.828 and

21.945, indicating that P15 has more influence in this network than P14. However, when

interviewed about their relationships regarding best practices, both had similar responses.

Both stated that there is no formal process for principals to learn from each other or even

communicate regularly about best practices, and admitted that they learned best practices

from other principals in very informal ways. P14 stated,

> You are literally trained by the person who was trained by another person. It
>
> would depend on how well the person you are being trained by understands best
>
> practices for you to get a good training.

P15 receives information on best practices through emails,

> Principals are on [best practices.] I do have a group of principals that we just
>
> email back and forth. We don't have a lot of time to get together, but we share
>
> best practices through email. I mean, P06, his stuff is great.

Both principals also indicated that much of the conversation surrounding best practices occurs in casual conversations with principals in what little time they have before and after district meetings to speak face-to-face.

    Data. According to the school improvement plans (SIP) for both S14 and S15, collecting and reviewing student data is an integral part of the business of school. Data is used by teachers to drive instruction and to place students in tiered interventions and by administrators to make school-level decisions such as placement of teachers and scheduling. Both SIPs report that P14 and P15 have access to multiple forms of data including benchmarks, formative assessments, reading screening tools, and state assessments, and know whom to contact in the event that specific types of data are desired that are not readily available.

    Despite the reported importance of data in the schools, the results of the survey question, "Which elementary principals to do you turn to for information on student data or data usage?" resulted in a sociogram with a large number of actors with no connections and few connections among respondents. (See Figure 10.)
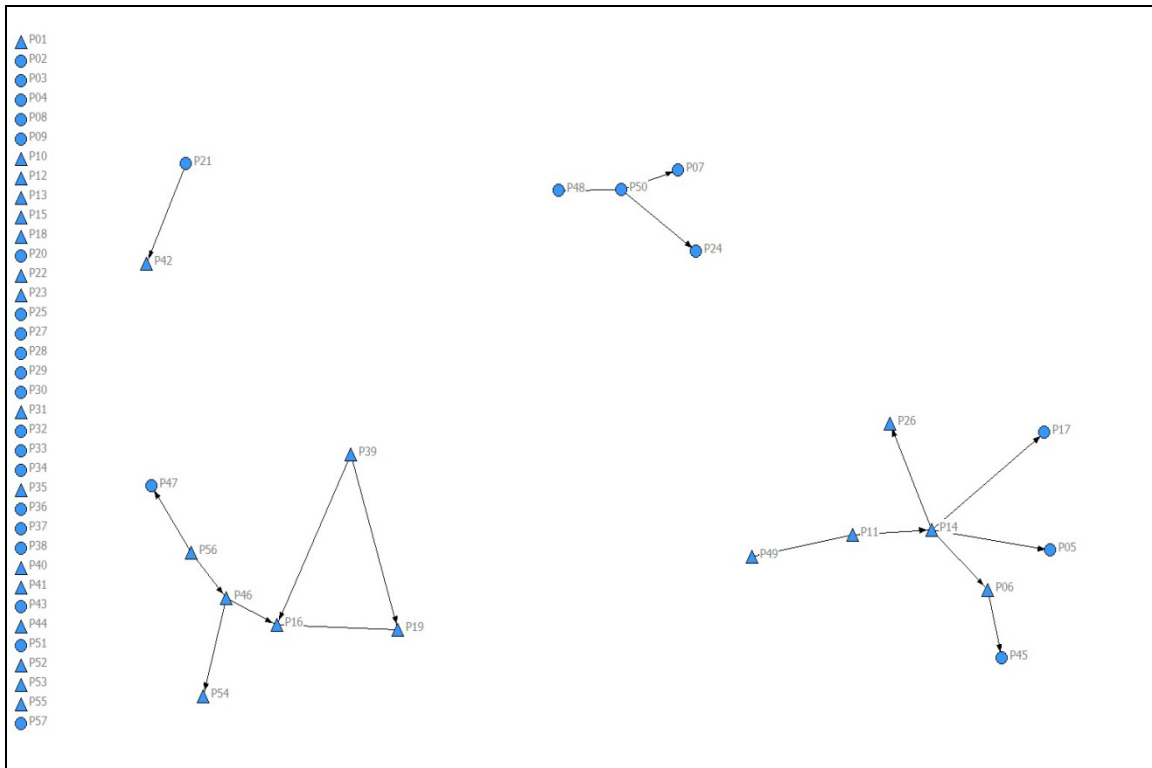
Figure 10. Sociogram showing relationships between elementary principals in terms of sharing information related to student data and data usage. Triangle nodes indicate principals of high performing schools and round nodes indicate principals of low performing schools.

As the sociogram shows, the network related to student data and data usage consists of four disconnected groups, and 64% of principals are listed as actors having no ties within the network. Of the four groups in the network, two are very small with one central actor contacting only one-directional relationships with few other actors. The density and reciprocity values of .006 and .0556 once again show that few of the possible connections have been made and most relationships are only one way. In terms of centrality, the three principals who are the most central actors are from high performing schools (P06, P11, P14). However, the variation of differences is extremely low (20.8) which means the data do not adequately describe the patterns in the network so these centrality measures are not as important.

According to interviews with P14, P15, and the teacher from S14, T14, time is a major factor in the lack of relationships in the area of data. P15 stated that she does not really know where to start when it comes to data, but she knows whom to contact. However, when she does get the data she needs, data analysis competes with other matters of the school, P15 stated, "We never seem to have enough time to evaluate our own progress."

P14 expanded on this idea and defined the struggle he sees within his school. The student achievement data are available, but there are few resources to turn the raw data into usable information for the school,

> The struggle I've always wrestled with is we don't have a person who sorts through the data to boil it down to its key components to deliver it to the teachers. [The principal] has to do that or you have to have the teachers do it and, of course, the teachers are also doing lots of other things.

T14 further defined the issues with data at the school level. He also agreed that time was a factor stating that teachers only spoke about data in Professional Learning Communities "about once a month" and that even when they did have time to look at data, he was not quite sure that their analysis and subsequent decision making had any effect on student achievement.

Although the SIPs and interviews indicated that principals placed high value on data, information obtained from surveys and interviews also showed that even though there are large amounts of data available in the district, there are few conversations between principals or between principals and teachers about the meaning of the data.

This may be due to lack of resources, mainly time, to adequately address the issue of student data.

        Decisions. Like the emphasis on data, the SIPs from both S14 and S15 indicate that schools place importance on collaborative decision-making and provide opportunities for staff members to be involved in decisions.

        In S15, there are multiple leadership teams including a faculty advisory, a curriculum leadership team, a Great Expectations leadership team, a special services committee, and a Title I team. Each team meets monthly and includes teachers from various grade levels and specialties. According to the SIP, these teams assist the principal in tasks such as allocating fiscal resources, planning instructional goals, and revising the mission and vision of the school. Two quotations from the SIP regarding decision making are "We work to make decisions at the lowest level of implementation" and "We believe there is no scarcity of leadership." P15 also spoke highly of her staff in the interview stating, "I do have a lot of leaders in the building, really great teachers."

        The SIP of S14 also described decision making as collaborative, though in a different structure than S15. S14 has PLC teams that meet weekly to discuss data and horizontal and vertical teams that meet to discuss issues such as curriculum, student data, and student interventions. Through review of the SIP, it does seem that teams at S14 focus more on work at the classroom level than decisions at the schoolwide level. References to schoolwide decisions in the SIP refer to "leadership" as being responsible for decision making, and the term "leadership" appears to be defined as the principal and assistant principal.

To better understand the process of decision making at the school level, principals were asked on the survey, "Which other elementary principals have you turned to when making important work-related decisions." The results generated by the survey are shown in Figure 11.
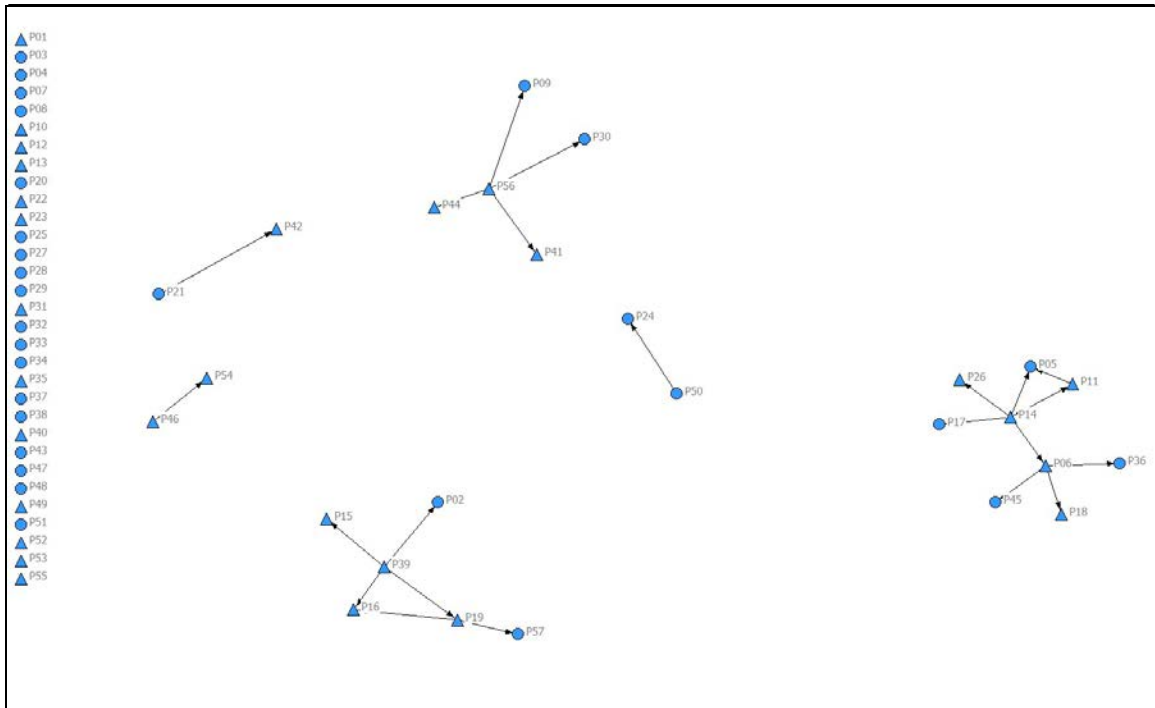
Figure 11. Sociogram showing the relationships between elementary principals in terms of making work-related decisions. Triangle nodes indicate principals of high performing schools and round nodes indicate principals of low performing schools.

Figure 11 shows, that in terms of decision-making, the network of principals consists of small groups with no connecting actors. The density of .007 and reciprocity of .0455 indicate that these small groups make up a very small percentage (.7%) of possible ties and only 4% of those are two-way relationships. The sociogram also shows that 55% of the principals in JPS are not included in the network at all. Like the previous sociograms, the variation of distances is very small, 20%, but when looking at the

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centrality value, once again, the actor with the highest centrality, P14, is from a high performing school.

  Communication. On the survey, principals were asked from which other elementary principals they receive formal communication. Formal communication was defined the same as in the district central office survey: newsletters, informational emails, meetings, or phone calls about work related topics. Figure 12 shows the results of this survey question.
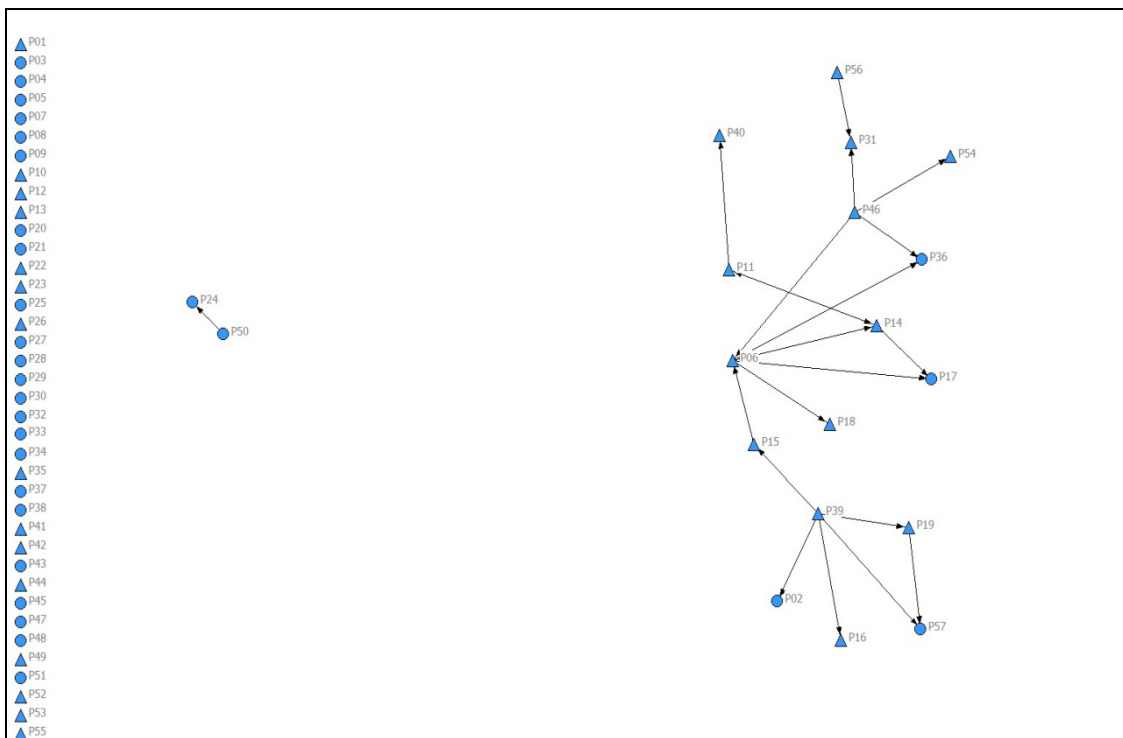
Figure 12. Sociogram showing from which elementary principals formal communication is received. Triangle nodes indicate principals of high performing schools and round nodes indicate principals of low performing schools.

  For this survey question, 75% of respondents identified at least one person from whom they received formal communication. As Figure 12 shows, respondents also named fewer connections than with previous questions. Thirty-eight principals, or nearly

68% of the principals in the district, were not identified be any of the survey respondents. This sociogram is notable in that most of the respondents were connected in one network group, with just one respondent, P50, as an outlier.

This network has a density value of .007 indicating that most principals do not receive formal communication from other principals. The reciprocity value of .0769, or 7.6%, also indicates that of the principals who do receive communication, the communication is one-directional. This sociogram also shows more principals from high performing schools (13) are part of the communication network than those principals of low performing schools (6).

Interviews with the principals support the findings of this sociogram. Of the five principals interviewed for this study, all reported that communication with other principals about any topic occurs informally. This communication usually occurs spontaneously through conversations before district meetings, some of the only times a year the principals are together in the same room, or through social lunches scheduled by particular principals after these meetings. P19 also reported that most of her communication with principals occurs when she overhears a conversation about a topic that interests her, and she takes initiative to ask questions of those principals. All principals reported no formal process or structured time for principals to communicate with other principals even though, according to P14, "We've actually suggested that A LOT."

Professional Growth. Both the SIPs for S14 and S15 indicate that teachers in those schools are encouraged to use peer networks for professional growth. These plans report that P14 and P15 allow time for teachers to conduct peer observations either in the

school or in other schools in the district and provide time during faculty meetings for

teachers to "teach" other teachers through sharing ideas and instructional practices. This

idea of using peer networks for professional growth was also of interest in this study. In

the survey, I asked principals to identify other elementary principals that contributed to

their professional growth during the 2013-2014 school year. The results are shown in

Figure 13.
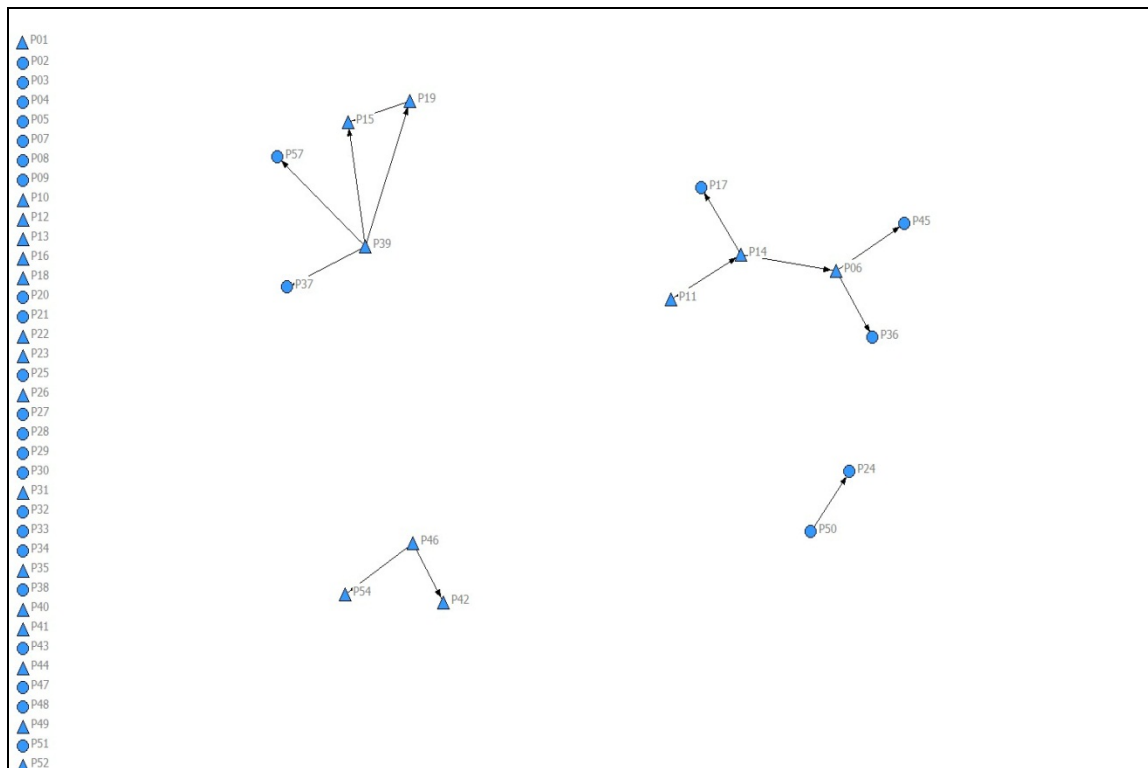
Figure 13. Sociogram showing relationships between elementary principals in terms of professional growth.
Triangle nodes indicate principals of high performing schools and round nodes indicate principals of low
performing schools.

Figure 13 shows that fewer survey respondents identified one other principal who

contributed to professional growth (7 out of 12) and of these seven, six were from high

performing schools (P14, P06, P46, P39, P19, P11) and one was from a low performing

school (P50). It is notable that P50 named P24 as a connection in this sociogram and all

previous sociograms indicating a strong relationship in most areas work related to the

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principalship. It should also be noted, that like the relationships between members of the DCO, principals named numerous connections when referring to learning about best practices, but many fewer when stating that these connections led to personal professional growth.

The .004 density value and .0769 reciprocity value show that few of the possible ties are made in this network and connections that are present are largely one-directional. In fact, there is only one reciprocated relationship between P11 and P14. In terms of centrality, P39 has the highest centrality value, but given the structure of the network into disconnected groups and the low variation of distances (28.5%), the influence of P39 is not strong.

Much like the area of communication, principals reported little time for peer to peer learning for professional growth. Although the district hosts principals' meetings once a month, which is a chance for all elementary school principals to meet for five hours in the morning and learn about practices related to their position, the principals interviewed reported there is little time for principals to interact or learn from one another. A review of the agendas for the 2013-2014 showed that these meetings are indeed informational. Principals are provided with a full agenda each month with presentations over topics such as Title I, suspensions, school safety, and state mandates, but all of these presentations are done by either DCO employees or state/community leaders. It appeared through review of the agendas, that during the majority of the 5 hour agenda, principals are "sitting and getting" information. There are a few times built into the agenda for "sharing" and "book discussions in learning teams", but this time averages 15-30 minutes each meeting. The only evidence of principals presenting to other

principals is on the October agenda when the "Best Practices Group" shared out on RtI,

Data Sharing, GE, and Board Policy I-67, but only 45 minutes was given for that session

indicating that each group only received about 4 minutes to share. None of the five

principals interviewed agreed that principals meetings were the best format for

professional growth or learning from other principals. According to P38, "We did have

some book studies last year, but I don't really think that 10 minutes on each book is the

best way to learn that kind of stuff. It was very little and surface information."

All five principals repeated earlier statements regarding how professional growth

occurs between principals, informally. All of the principals reported that the time before

and after principals meetings was the most valuable as they had an opportunity to

network with one another, meet at social gatherings at lunch, and sometimes set up later

meetings based on these conversations. Many principals also admitted that due to time

constraints in the buildings, they could not always take advantage of these informal

meeting times.

Personal Issues and Time Outside of Work. Of interest to this study were

relationships not related to work. For this reason, principals, like DCO members, were

asked with whom they discuss personal issues not related to work and with whom they

spend time with outside the work setting. This information provides a more

comprehensive look at the types of relationships that exist within the system. Of the

respondents surveyed, 75% identified at least one other elementary principal with whom

they discuss personal issues, and 41% identified at least one other person with whom they

spend time outside of work. Figures 14 and 15 show the results.
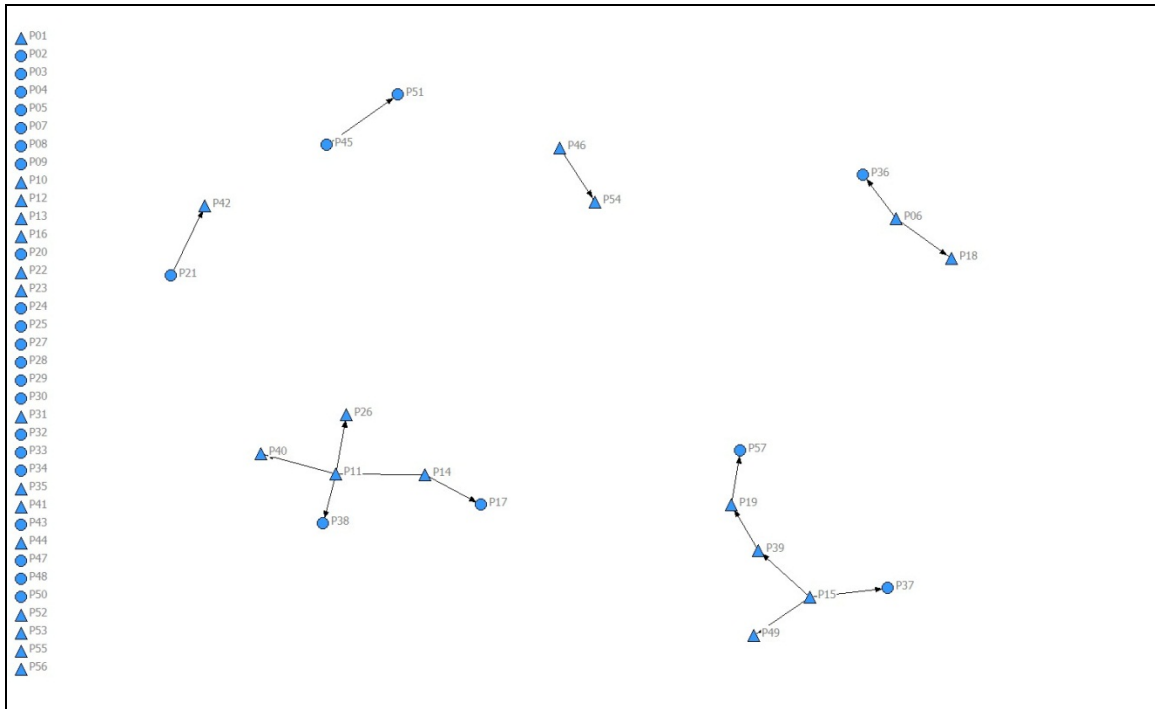
Figure 14. Sociogram showing relationships between elementary principals in terms of discussing personal issues. Triangle nodes indicate principals of high performing schools and round nodes indicate principals of low performing schools.

This sociogram shows principals reported little social interaction not related to work. Although 75% of survey respondents did identify at least one other principal with whom they discuss personal issues, the network consists of six separate groups; four consist of one central actor and one or two ties. The density value of .005 and reciprocity value of .0000 show few connections between principals in this area and no two-way relationships. The variation of distances in this network is also very low (19.9) making it difficult to interpret the centrality of any one actor.
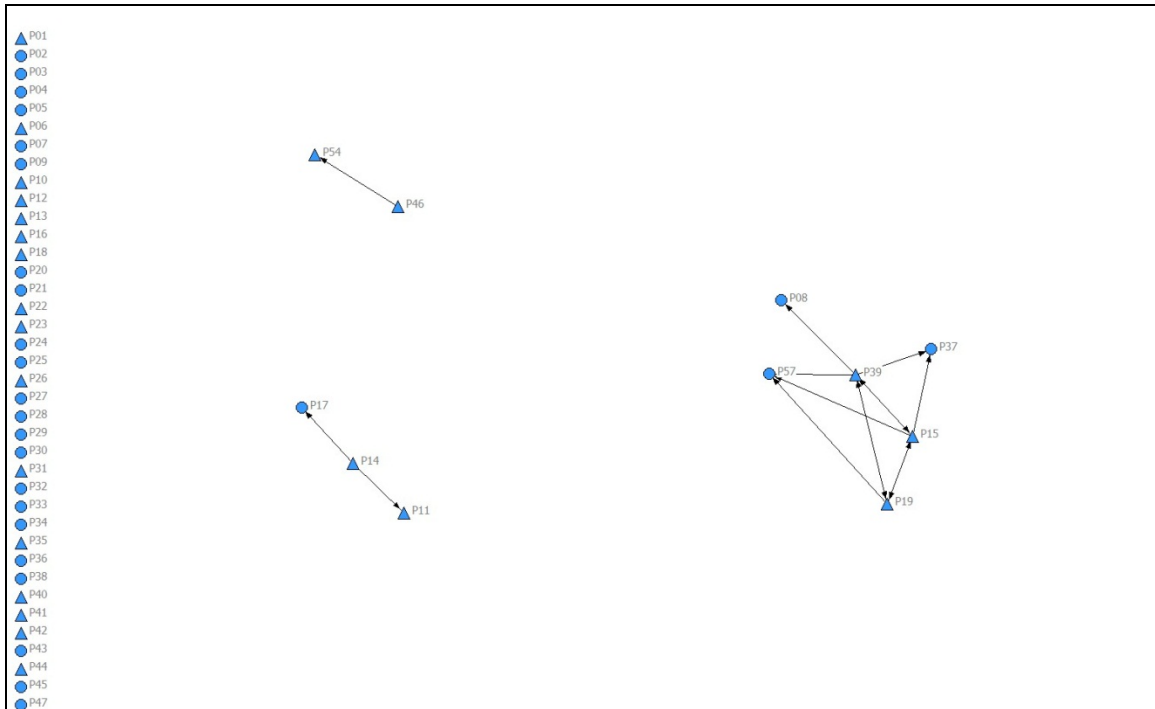
Figure 15. Sociogram showing relationships between elementary principals in terms of spending time together outside of work. Triangle nodes indicate principals of high performing schools and round nodes indicate principals of low performing schools.

Figure 15 shows that principals have even fewer connections when referring to time spent with colleagues outside the work setting. Only 41% of respondents could identify one other elementary principal for this survey question. The density value of .005 again shows that few of the possible ties in the network are actually present. In fact, only 15 ties were made. Interestingly, however, 25% of the connections present were reciprocated. A closer look at the larger group in the network shows that P19, P15, and P39 all identified each other as principals they spend time with outside of work. This is the largest number of reciprocated ties for any of the networks analyzed for this study. Again, centrality is difficult to interpret in this network as the variation of distances is still relatively low (51.9), but because of the way the network is structured, P15, P19, and P39 are all the most "central" of the actors in this network.

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The District as a System

In the first two sections of this chapter, I presented data on DCO member to DCO member relationships and principal to principal relationships within JPS. This data provided context for relationships occurring at different levels of the district. This section will provide data collected on the relationships between DCO members and elementary school principals with particular focus on relationships with principals of high performing and low performing schools. Data will again be presented in six areas: best practices, data, decisions, communication, professional growth, and personal issues and time outside work.

Overview

As explained in the overview of the district central office at the beginning of this chapter, JPS has undergone a series of organizational changes designed to streamline and strengthen services to school sites. As part of the latest changes, services to elementary schools have increased and previous bureaucratic protocols have been removed.

The Office of Elementary schools has undergone major changes to deliver improved services. The Executive Director of Elementary schools now reports directly to the superintendent instead of through the Chief Academic Officer or other high level executive. The Office of Elementary Education was also expanded to include one Executive Director and three Associate Directors, all of whom supervise assigned groups of schools, approximately 19 each. As supervisors for the elementary schools, the directors conduct principal evaluations, building walk-throughs, and provide support and resources to principals in areas such as personnel, budget, and reform implementation.

Because of the nature of their positions, directors are supposed to spend a majority of their time in assigned schools.

The Curriculum Department also made dramatic changes. Previously, JPS had one Curriculum Department with three positions that served all 70 schools in the district, secondary and elementary. With the changes to the organizational structure, a secondary curriculum office was created. This allowed the existing curriculum department to focus solely on elementary schools. At the end of the 2013-2014 school year, the department also hired two new coordinators to focus directly on literacy and low performing schools bringing the total positions in the office to five. These positions plan and present professional development, provide technical support for state mandates, oversee the development of pacing guides, and connect teachers and parents to resources to assist students in mastering curriculum. According to the job descriptions, these positions are also supposed to spend a majority of their time in the elementary schools.

Besides the newly expanded and restructured elementary and curriculum offices, other departments within the DCO including Federal Programs, Educational Technology Services, Language and Cultural Services, and Special Services all have positions assigned to directly support elementary schools. Each of these departments has approximately one position for every 15-20 elementary schools within the district. Although many of their positions do not spend the majority of their time in the schools, others report visiting the schools as least 2-3 times a year and communicating regularly with the schools via email or phone calls. Including the Office of Elementary Schools, Curriculum, and these departments, there are over 35 positions at the DCO that should be working directly with elementary schools and providing resources and assistance in a

variety of areas to help the school achieve the stated Elementary school goals: 98%

attendance, reading on grade level, and parent engagement.

Relationships

To collect data on the relationships between the DCO members and principals, I

distributed surveys to 57 elementary school principals and 35 DCO members. For this

part of the study, 12 principal surveys were returned, 4 from principals of low performing

schools and 8 from principals of high performing schools, and 8 DCO surveys were

returned. Data for this section also included interviews with five DCO members and five

elementary principals. I also conducted observations at the district and site level and

reviewed pertinent documents. The following sections provide more information about

the relationships between the members of the DCO and elementary principals in the areas

of best practices, data, decisions, communication, professional growth, and personal

issues and time outside of work.

Prior to creating sociograms for this part, I created a chart showing the rates at

which DCO members and principals identified members of the other parts of the system

on their SNA surveys. This chart provides data on the percentage of DCO members who

identified principals as connections in each of the six areas and principals who identified

DCO members as connections in each of the six areas. The chart shows that in most

areas, principals seek out DCO members at a higher rate than DCO members seek out

principals. The rates are shown in Table 3.

Table 3.

Percentage of Respondents who Identified Members of Other Systems as Connections for

SNA Survey Questions.

	Survey Question						
Respondent	Best Practices	Data	Decisions	Communication	Prof. Growth	Personal Issues	Outside Work
DCO Members	87	25	63	62	25	37	N/A
Elementary Principals	83	91	82	91	41	16	N/A

Best practices. JPS uses a variety of funding sources including Title I, General

Fund, Special Education IDEA, and Title II funding to provide with the district refers to

in the DIP as "an intensive system of support focused on improvement of instruction,

planning, leadership, school processes, and parent involvement." This system of support

is designed to provide information on best practices through instructional consultants,

leadership facilitators, intensive professional development, mentoring, and a structured

planning process. Additionally, the DIP states that "low performing schools are a

priority" and a higher level of support is provided for these schools.

Survey participants at the DCO and in the elementary schools were asked who

they turn to for best practices related to their work. Elementary school principals were to

identify members of the DCO and members of the DCO were to identify elementary

school principals. Of all the questions on the survey for this section, this question

received the most responses. 83% of principals identified as at least one member of the

DCO, and 87% of DCO members identified at least one elementary principal. The results

generated by the survey are shown in Figure 16.
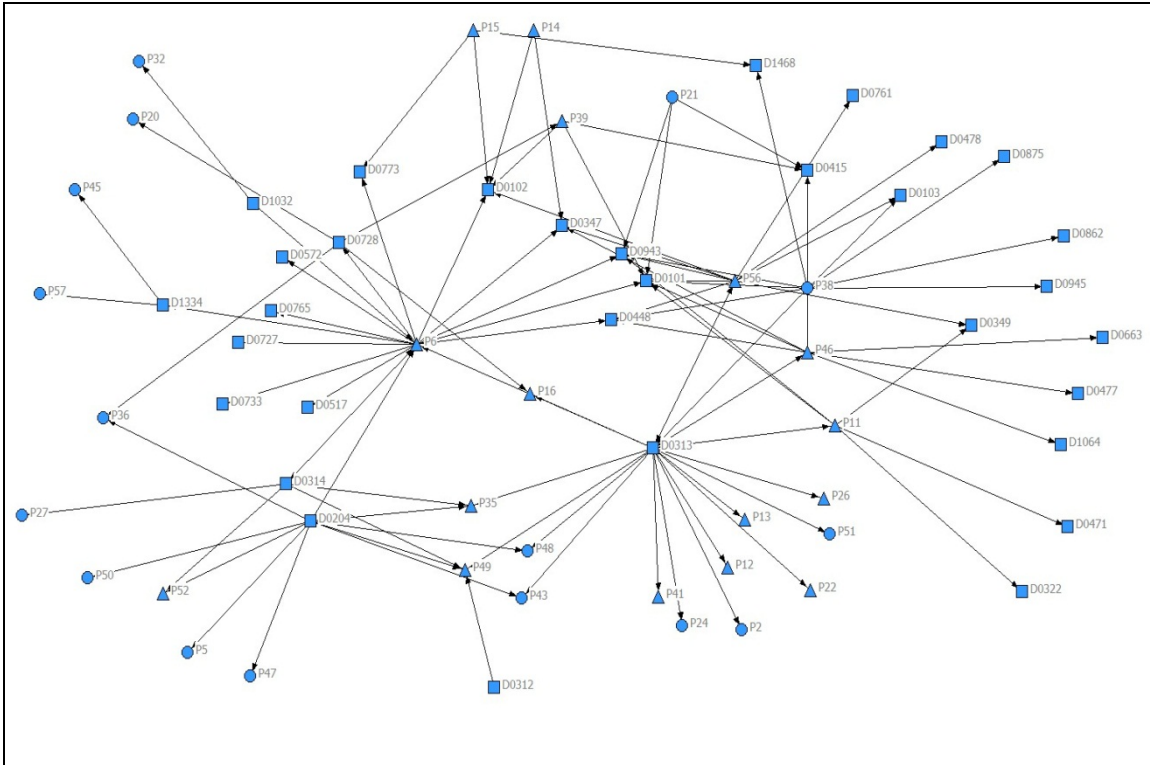
Figure 16. Sociogram showing the relationships of district central office members and elementary school principals in terms of sharing best practices. Square nodes stand for DCO members, triangle nodes stand for principals of high performing schools, and circle nodes stand for principals of low performing schools.

In Figure 16, each of the squares, triangles, or circles (nodes) represents a principal of an elementary school or a member of the DCO identified as part of the network related to information about best practices. Squares represent DCO members, triangles represent principals of high performing schools, and circles represent members of low performing schools. Each node is labeled with the same code pattern used in the previous two sections. Each actor's code either begins with a D for DCO member or P for principal and is followed by a series of numbers indicating a department or a school. For example, node D0101 indicates the actor is a member of the DCO (D) in department 01 (01) and is uniquely identified on the survey as participant (01). Node P06 indicates that the actor is a principal (P) at school S06 (06).

The actors in Figure 16 appear to be well connected to each other. There are 100 ties in this network, the highest amount of ties for any sociogram in the study. However, the sociogram also shows that many of the actors in this sociogram are peripheral, meaning the actor is located on the outside of the sociogram and has few or no other connections. For example, D0313 identified six principals (P2, P12, P13, P22, P51, P26) who are tied to her in the sociogram, but have no other ties in the network. The density value of .014 and the reciprocity value of .0417 also show that few of the possible ties are actually present, and those present are largely one-directional. In terms of centrality, the most central DCO actor is D0313, and the most central principal is P06. However, it appears that D0313 may have just listed the principals of the schools to which she is assigned which may have skewed her relationships and her centrality in this network. Additionally, the variation of distances is very low (17%) which means one must be careful in interpreting the influence either of these actors has in the network.

The sociogram also shows differences in relationships between DCO members and principals of higher and lower performing schools. DCO members identified connections with principals from high performing schools more often than with low performing principals at a rate 5 to 3. There was no discernible difference, however, in how many connections with members of the DCO low and high performing principals named, on average. Additionally, the most central principal in the network, that is the principal with the most ties and the least distance between the other actors, is P06, who is also the principal of the highest performing elementary school in JPS.

Some principals reported receiving little information about best practices. When each of the principals of the two lowest performing schools participating in the interviews

was asked, "What supports or programs does the district central office have in place to help you learn or find best practices?" both started with a long pause and could not immediately think of a response. Although P14 did state that there are opportunities at the district, they do not always align with what he needs in terms of best practices.

> There are trainings, but I would not say they relate directly to what I do…a lot of the trainings are for a new program or a new software system, not what I would consider best practices. You know? We don't even have a training for finance, and this last year, they actually improved that by giving us a one hour PowerPoint at one of our meetings. It's kinda laughable, but that's actually a huge improvement from nothing.

P45 also had a difficult time answering the question, and finally responded, "If there are any [supports or programs], I don't know what they are. I find everything for myself. I would say any attempts are more informal."

Data. It is evident that data plays an important role in all levels of JPS. The district provides each school with an online benchmarking system for grades 2-8 in reading and math and at the HS level in state tested subjects. This system provides assessment data three times a year and can be disaggregated and analyzed in multiple ways using an online reporting tool. The district also provides an online reading screening tool that allows K-5 teachers to assess students multiple times a year and record progress monitoring; the Gates-MacGinitie Reading Assessment for selected grades; and PLAN and Explore, two ACT predictive tests. According to the DIP, these assessments play an important role in providing feedback to teachers and administrators to increase the effectiveness of the teaching and learning processes. In addition, the district houses a

Planning, Research and Evaluation department to provide information about student assessments and educational statistics, and funds the Organizational Health Inventory, a data based process designed to help each leader at the site and district level improve his/her leadership effectiveness.

As well as providing access to data, the district requires sites do something with the data. All Title I schools are required by the district to conduct quarterly data reviews looking at data such as proficiency levels on the benchmark, student and teacher attendance, and parent involvement rate and complete a report as part of their school improvement planning process. All elementary schools are also required to maintain data walls for the school and for each classroom. These are monitored through walk throughs by the elementary directors and other DCO personnel.

According to the data obtained in the surveys, 91% of principals identified at least one DCO member that they turned to for information related to student data or data usage. However, only 25% of the DCO members surveyed identified an elementary principal that they turn to for the same information, and of those principals named, 4 of 7 of them are from low performing schools. The results of the survey are shown in Figure 17.
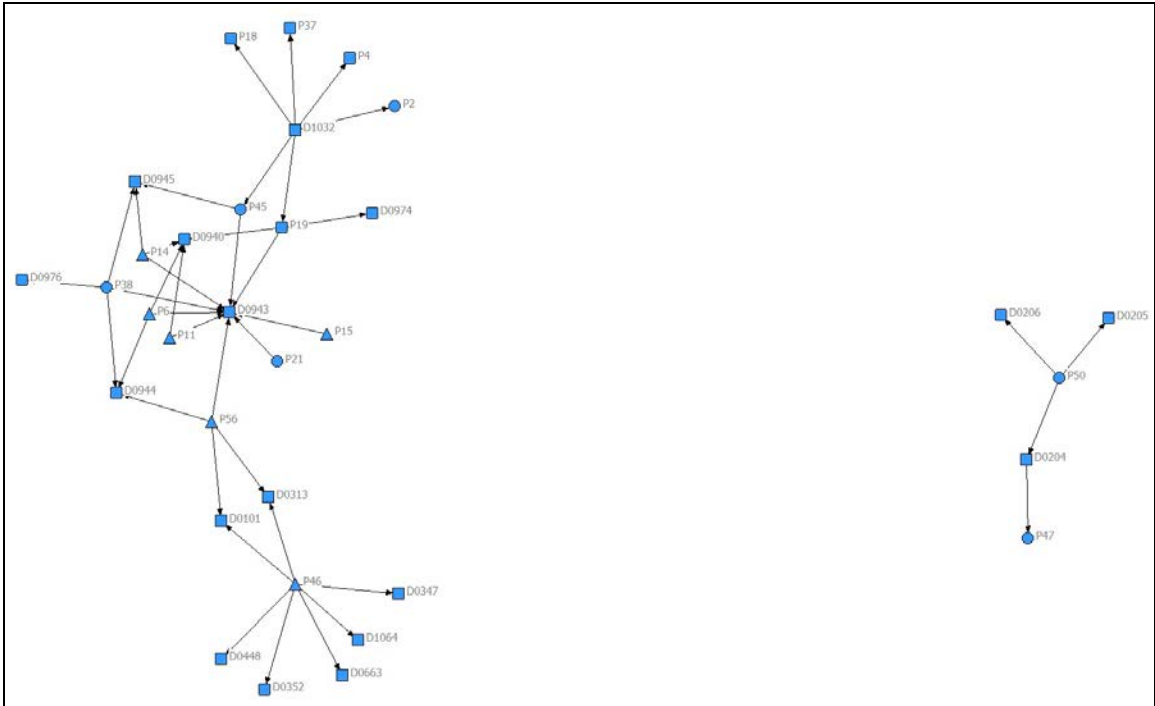
Figure 17. Sociogram showing the relationships of district central office members and elementary school principals in terms of student data and data usage. Square nodes stand for DCO members, triangle nodes stand for principals of high performing schools, and circle nodes stand for principals of low performing schools.

Figure 17 shows that there is a change in relationships from talking about best practices to data. The sociogram for best practices (Figure 16) had 100 ties and each of the actors was connected to the larger network by at least one actor. In Figure 17, there are only 40 ties, and the network is actually two groups without a connecting actor. Both the density and reciprocity values for this network are 0% (density=.006, reciprocity=.0000) which shows that the 40 ties are a very small percentage of the possible ties in this district and that there are no two-way relationships in this network. No DCO members and elementary principals share information about data back and forth. In this network, D0943 is the most central actor for the DCO and P19 is the most central actor for the principals though influence is small due to the variation of distances

(21.2%). It should be noted that D0943 is a member of the PRE department, and P19 is

the principal of one of the highest performing schools in the district.

Information obtained in interviews with DCO members and principals more

closely aligns with the results of the sociograms than with the description of data sharing

in the DIP. DCO members interviewed reported that they assisted principals with data,

but the sharing is mostly one way.   The DCO member provides the raw data to the site,

and once the data is received by the site, assistance seems to cease. According to D0204,

> We are not really involved with the schools' data collection. What we do is
>
> analyze the data and provide it to the [elementary] directors. We don't have much
>
> contact with the schools as far as the analysis part.

According to the DCO members, if the site does provide feedback about data to

the DCO, it is usually in the form of a required report. D0314 explained,

> We have a portal on the internet and we upload everything into the portal so
>
> schools can access that, and they have to be able to access that to be able to
>
> complete their reports for us.

Principals interviewed indicated that they knew where to get data in the district,

from PRE. According to P45,

> If I want to know anything at all, I call PRE and ask. They can get me a
>
> spreadsheet of anything and everything I ever want to know.

However, as the same principal stated, "That's it." All principals interviewed

stated that beyond providing spreadsheets of data, there was no support from the district

in analyzing or using the data at the site level. As P38 explained,

The district doesn't help in the schools…most of it is the principal gathering the

data and crunching the numbers and the teachers in the classroom doing common

assessments and crunching those numbers. The district doesn't really provide any

supports for that.

Principals interviewed also addressed the multiple data software systems that the

DIP mentions as supports for school sites. P14 stated,

You know, we have a couple software systems, and they all run their own reports.

The thing is, they all run them on different systems so that makes it extremely

difficult to cross reference all the information for any one kid. You gotta [sic]

pull it from all sorts of systems. You manually have to do that, and you have to

do it in almost the crudest way…you drop everything into an Excel sheet.

All principals admitted to having access to multiple forms of data, however, all

principals, like P14, expressed concern over the lack of time, resources, and district

support to turn the raw data into something useful at the school site. Even if they did

have the time, however, some principals expressed that they feel not all principals are

adequately trained to analyze data effectively. P38 stated, "I think they all assume we

know how to do that stuff and do it, but I don't know that we all do."

Decisions. According to the DIP for JPS, district planning and decision making is

"developed through an input process of representation throughout the district." In the

planning model described in the DIP, TIP, and the strategic plan, input is solicited

through site level leadership teams. These teams are made up of administrators, teachers,

and parents at each site. These teams "have input on significant decisions related to

assessments, identification of research based practices, and requests for technical

assistance from district resources." This input is compiled by the site leadership teams, sent to the district, then reviewed by the district leadership team to identify needs and develop solutions.

The committee membership lists for all three plans, the DIP, TIP, and strategic plan, seem to support this idea of collaboration. For the DIP, although all 23 members of the official planning team were representatives of the DCO, input from stakeholders was solicited through surveys . According to the DIP, 43 administrators, 335 teachers, 7 parents, and 38 other DCO members completed the survey. For the TIP, there was a 55 member committee that included a number of representatives from each stakeholder group: 6 principals, 6 teachers, 3 parents, 3 students and 37 representatives of the DCO. Finally, for the strategic plan, the 40 person committee was also representative of various stakeholder groups with 5 principals, 6 teachers, 11 members of the DCO, and 18 community members. According to the plans, these committees held multiple meetings, reviewed stakeholder input, and made decisions based on the needs of the district. Based on the planning process written into the three plans and the committee membership lists, it would seem there is a formal feedback process for site leadership teams to provide input and that major district decisions are made collaboratively involving multiple stakeholder groups. However, the data from surveys, interviews, and observations tell a different story.

Survey participants were asked to identify either members of the DCO or elementary principals to whom they turn when making important work related decisions. Sixty-two percent of DCO members identified at least one elementary principal, and 83%

of elementary principals identified at least one DCO member. From these survey

answers, I created Figure 18.
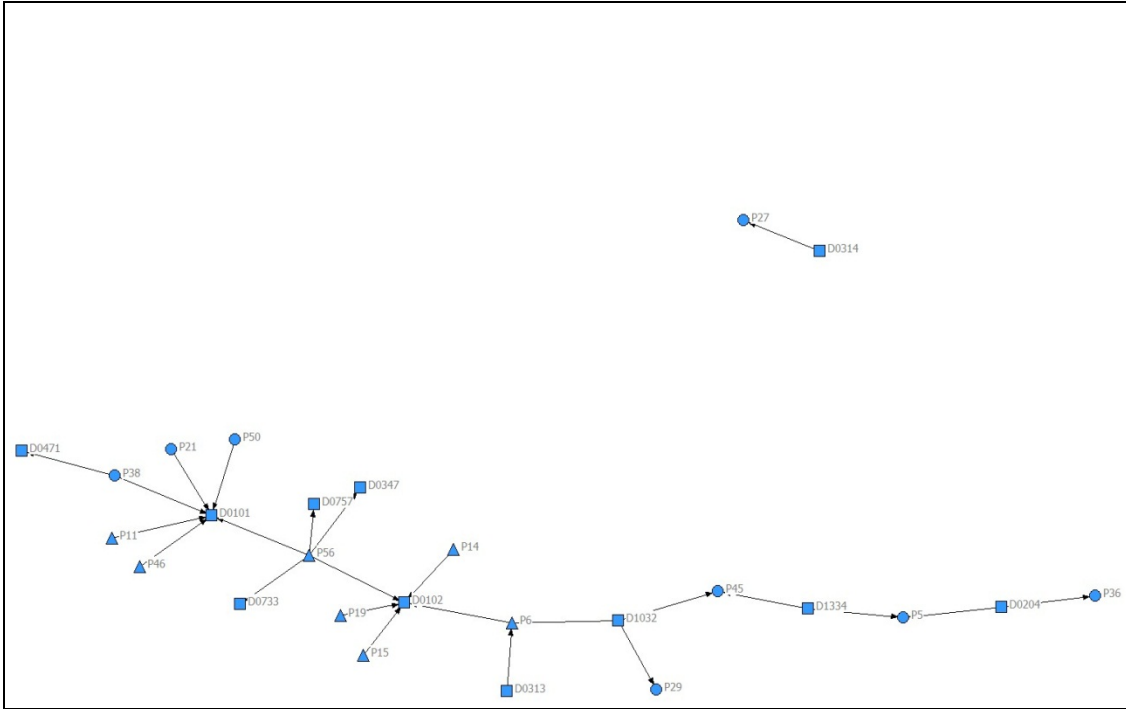
Figure 18. Sociogram showing to whom district central office members and principals turn when making work related decisions. Square nodes stand for DCO members, triangle nodes stand for principals of high performing schools, and circle nodes stand for principals of low performing schools.

Figure 18 illustrates few ties between DCO members and elementary principals in

terms of decision-making. There are 24 ties of all possible ties in this network

(density=.004), and one of them is disconnected from the larger group. Of all the actors

that did have ties, 0% had a reciprocal connection (reciprocity=.0000). The data also

shows that more principals seek out DCO members when making work related decisions

than do DCO members seek out principals. The two most central DCO members, D0101

and D0102, are two of the three elementary directors at the DCO level. This shows that

the principals surveyed overwhelmingly turn to their supervisors when making work

related decisions. This sociogram also shows DCO members turned to principal of low

performing schools at a ratio of 2:1 compared to high performing schools when making work-related decisions.

In addition to the low number of ties and lack of reciprocity evident in the sociograms, data obtained from interviews also revealed a disconnection between what the DCO considered collaborative decision making and how the principals perceived their opportunities to be involved. According to all DCO members interviewed, there are multiple opportunities for principals to be involved with the decision making processes at the district level. Interviewees mentioned focus groups, planning committees, task forces, and departmental committees. All DCO members interviewed reported that the committee structure was effective and that principals who were involved were engaged and seemed to appreciate having a voice in the process. However, DCO members could not always articulate how principals were chosen for these committees. D0308 stated that she "thinks" principals received an email and were asked to volunteer for a committee she served on, and D0102 and D1334 admitted that they just did not know how principals were chosen for committees. One interviewee, D0204, was able to articulate how principals were chosen for a committee he headed, "We chose them. I looked at the data, and we chose principals who had very good test scores, principals who had reading scores that had remarkable improvement" indicating that principals of high performing schools were preferred for this particular committee. A closer analysis of the committee lists from the DIP, TIP, and strategic plan support this idea. Of the six principals on the strategic planning committee, four were from high performing schools, and on the TIP committee, three of the five were from high performing schools.

Additionally, one principal's name appears on all three committees, P06, the principal of the highest performing school in the district.

Although DCO members listed committees, task forces, and other ways principals could be involved in decision making at the district-level, principals did not indicate many opportunities to give feedback or input to DCO members. The three principals from high performing schools who were interviewed did admit to being involved in one committee each during the 2013-2014 school year, but also stated that the committees met only "once or twice" and that they were not sure how effective their presence was as they did not see the end result of the committee work. One of the principals from a low performing school, P45, also sat on two committees during the 2013-2014 school year, but did so only because the leaders of the committees personally called her. These committees, however, did not meet often, and one consisted of mostly online conversations. The other principal from a low performing school did not participate in any committees in the 2013-2014 school year and was not aware of any opportunities for principals to serve on committees.

Principals shared the DCO members' confusion on how principals were chosen for committees. Some thought they had seen emails asking for volunteers, and one believed that all inquiries passed through the president of the principal's union. Another thought maybe he was contacted because his school fit the demographic the committee was trying to reach, but he really did not know why he was chosen. From interviews with DCO members and principals, it is apparent there is no formal list of committees for principals or a protocol for identifying principals for decision making opportunities and

neither the DCO members or the principals knew about the planning process described in the DIP, TIP, and strategic plan.

Communication. Survey participants were also asked, "From whom do you receive formal communication?" The definition of formal communication is the same from the previous two sections: newsletters, information emails, meetings, and phone calls about work related topics. Of the respondents, 62% of DCO members identified at least one principal, and 91% of principals identified at least DCO member. The sociogram created by the data supplied on the surveys is shown in Figure 19.
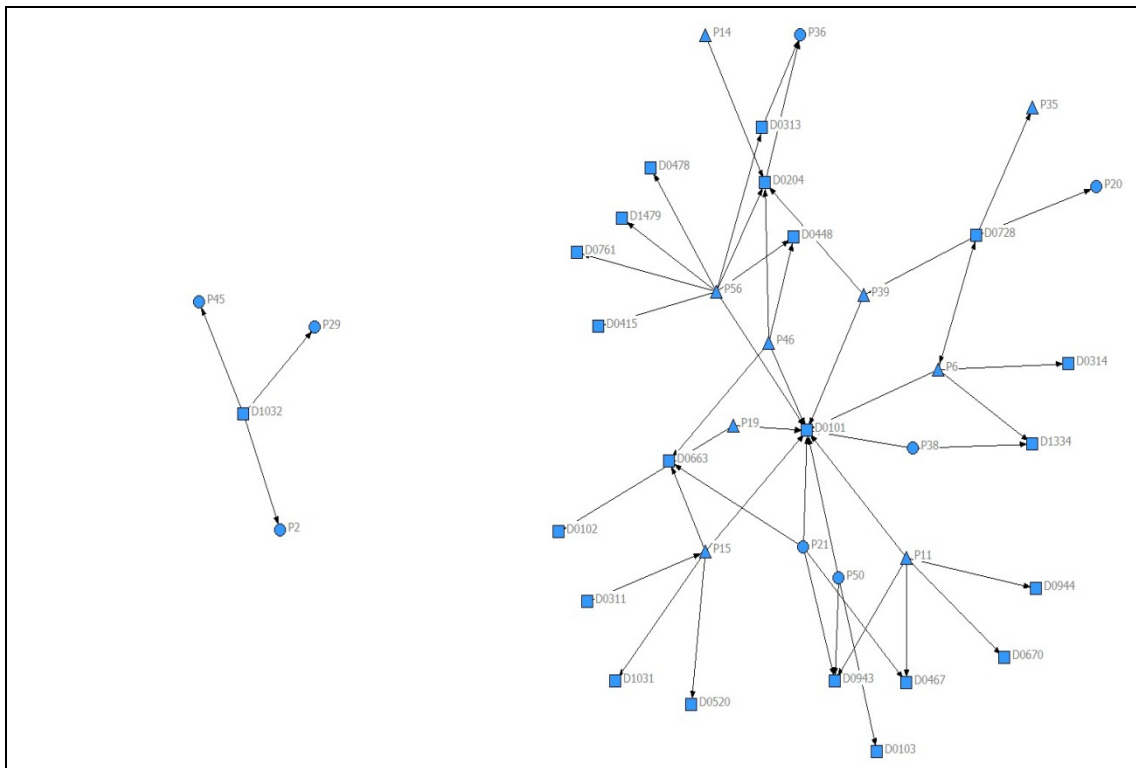
Figure 19. Sociogram showing from whom district central office members and principals receive formal communication. Square nodes stand for DCO members, triangle nodes stand for principals of high performing schools, and circle nodes stand for principals of low performing schools.

Figure 19 shows that like the sociograms for decisions and data, this network consists of two groups, one larger group and one group consisting of one outlier with

only a few one-directional ties. Visually, the larger group appears to be well-connected,

but a number of the ties are peripheral, meaning they are on the outside of the network

with little to no additional ties. For example P56 identified ties with D0478, D1479,

D0761, and D0415, but those actors are not connected to anyone else in the network. Of

the 46 ties in the larger group, 15 are peripheral. The density and reciprocity values of

.007 and .0208 also indicate that the network is comprised of few of the possible ties and

that only one of the existing ties are reciprocal (2%), this tie being between P06 and

D0728. In terms of centrality, the most central actor in the network is D0101. Again,

this actor is one of the directors of the elementary education office.   It is notable that, in

this network, DCO members again identified more low performing principals from whom

they receive formal communication than they do from high performing principals.

Interview data reveal that communication is also another area where principals

and DCO members differ. Three of the DCO members interviewed from different

departments stated that their departments sent regular newsletters to principals via email.

These newsletters contained important dates, information about district requirements and

state mandates, schedules for professional development opportunities, and information

related to best practices. All five members of the DCO also stated that they had

distribution lists for the elementary principals and would forward important or interesting

information to the principals on a fairly regular basis.

The principals interviewed, however, did not claim to receive much formal

communication from the DCO. They admitted that they did receive newsletters once or

twice from various departments, but, as P19 explained, "The elementary office used to

send weekly newsletters but that went away sometime in the Spring. Curriculum used to

send weekly emails too, but they quit." This indicates that newsletters from departments were shared at some time, but were not sent as regularly as reported in the DCO member interviews.

Some principals interviewed stated they did not receive any formal communication from members of the DCO. These principals felt that in order to get information from the DCO members, they had to take the initiative to call the district directly or rely on informal emails. The effectiveness of communication through email in the district, however, is questionable. According to P14,

> We get like 50 emails a day. One time, I timed myself, I averaged, if I was to actually answer every email…it takes an average of one and a half to two hours to answer every email you get in a day, minimum. That's assuming you take approximately two minutes per email. Email is definitely the predominate way of communication, and the amount of emails we get is a lot.

Although the DCO believes that emailing newsletters and sending information through distribution lists is effectively reaching the elementary principals, the elementary principals disagree. All interviewed felt as though the level of communication from the district was less than adequate. As P19 stated in her interview, "I'm going to be honest. There are some things we need to know that we just don't know about."

Professional Growth. Opportunities for professional growth occur often in JPS. As mentioned in earlier sections, multiple funding sources are used to provide regular professional development, consultants, and facilitators for the principals, the online professional development system boasts over 900 trainings, and principals have access to regular trainings by various departments within the district. When asked about the

relationships between DCO members and principals in terms of professional growth, however, almost all DCO interview participants referred to the monthly principals meetings as the one strategy that should contribute the most to professional growth of principals.

As described in an earlier section, principals' meetings for elementary school principals are scheduled for every other month. In 2013-2014, meetings were held in August, October, December, April and May. These meetings were hosted by the Office of Elementary Education and featured topics that were designed to inform leadership practice at the elementary school site. Samples of topics from 2013-2014 included Suspensions, Safety, and TIPS, an online incident reporting program, (August), Activity Funds (October), Easy CBM, the district adopted reading screener, (October), RTI/Tier Process (December), Reading Sufficiency Act Updates (April), and Marzano – Teacher Leader Effectiveness (May). At some of these meetings, book discussion times (an average of 15-20 minutes per meeting) and a time for celebration of birthdays are built into the agenda. However, these agenda items are listed with the discussion and wrap-up so they appear to be included as announcements. Agendas are fully scheduled from 7:30 am to approximately 12:00 pm each time, and consist of no fewer than 7 sessions during that timeframe. Each speaker, usually a DCO member, has an average of 30 minutes to speak on his/her topic. Quite a bit of information appears to be relayed to the principals in a short amount of time.

All the principals interviewed questioned the effectiveness of these meetings. P14 referred to the shortened sessions on important topics like activity funds and the teacher leader effectiveness training as "crunched down" and "piecemeal" and felt as

though he did not receive any training at these meetings that showed him how to do things "properly in the real world and not in a book." P19 stated that principals did not receive principal meeting agendas ahead of time so they never knew which sessions they were going to be presented with when they showed up at the meeting. She felt that if she had known about topics ahead of time, she could have read some literature on the topics or at least prepared questions so that she would get more from the training. As stated earlier in the best practices section, P38 felt that 10 minutes on a book study was not enough time to adequately learn the information, and felt it was "surface information."

The disconnect between what the DCO thinks it is providing principals in terms of professional growth and what principals are actually experience could be explained by the lack of opportunities for principals to give feedback or have a voice in developing sessions designed to contribute to professional growth. Of the five members of the DCO who were interviewed, three were responsible for developing professional development for principals. All three were asked, "How is school-level staff involved in designing professional development at the district-level?" Two said that they had used surveys of principals in the past, but neither could remember if they had used one in 2013-2014. One DCO interview participant said that her department asked schools to complete a professional development needs assessment, but none of the principals mentioned this needs assessment. All three of the DCO members did say, however, that the usual process is that principals just "call up" and ask for certain professional development. Again, none of the principals seemed to be aware of this option for feedback.

The sociogram created from the survey question related to professional growth reflects a disconnection between the DCO members and the principals. Forty-one

116

percent of principals identified a member of the DCO that contributed to their

professional growth, and only 25% of DCO members identified at least one elementary

principal. Figure 20 shows the results of the survey question.
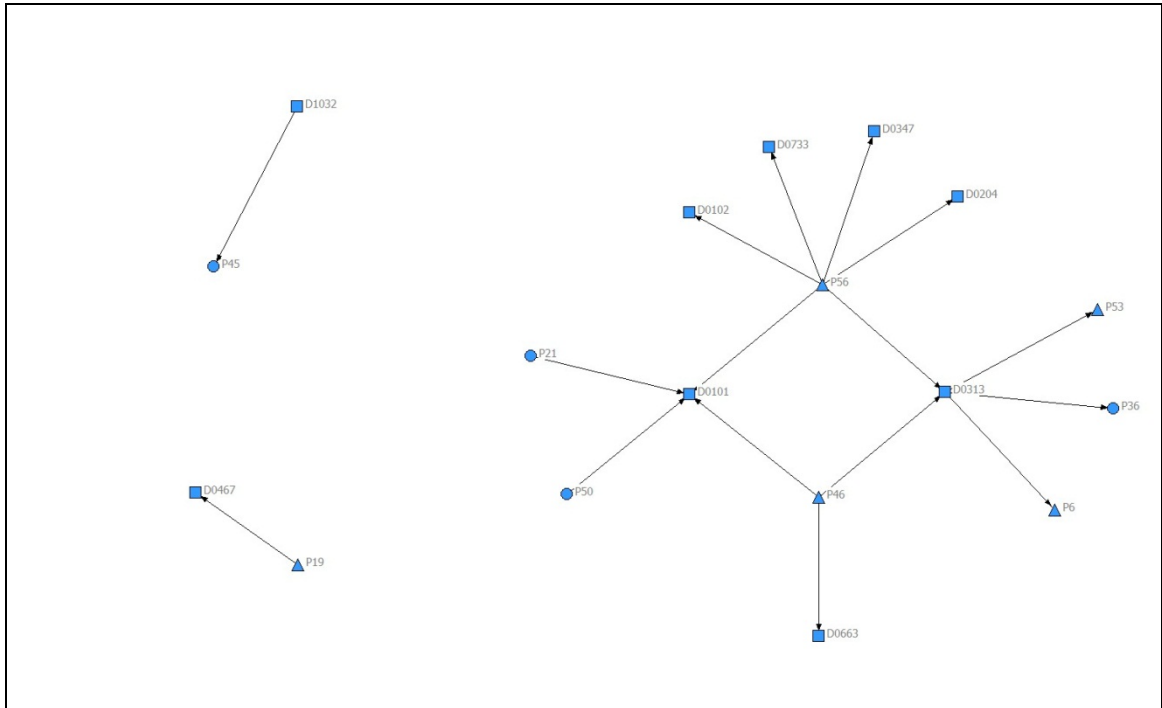
Figure 20. Sociogram showing which district central office members and principals contributed to professional growth. Square nodes stand for DCO members, triangle nodes stand for principals of high performing schools, and circle nodes stand for principals of low performing schools.

Figure 20 shows few connections between DCO members and principals in the

area of professional growth. Sixteen ties are present in this network, and two of them are

located in outlier networks not connected to any of the actors in the bigger group.   The

density value of this network was .002, and the reciprocity value was .0000 showing that

few of the possible ties have been made, and of those currently in the network, there are

no two-directional relationships. In terms of centrality, P56 and D0313 were identified as

the most central. However, due to the low variation of distances (33.4%), the influence is

not significant. Analysis of these sociogram in terms of relationships between DCO

members and high and low performing school principals shows that of the four principals named by DCO members as connections, two were from high performing schools and two were from low performing schools.

Personal Issues and Time Outside of Work. Following the patterns of the sociograms created for personal issues and time outside of work for DCO member relationships and elementary principal relationships, the sociograms generated by the survey of DCO members and elementary principals show few connections between the two groups in these areas. (See Figures 21 and 22.)
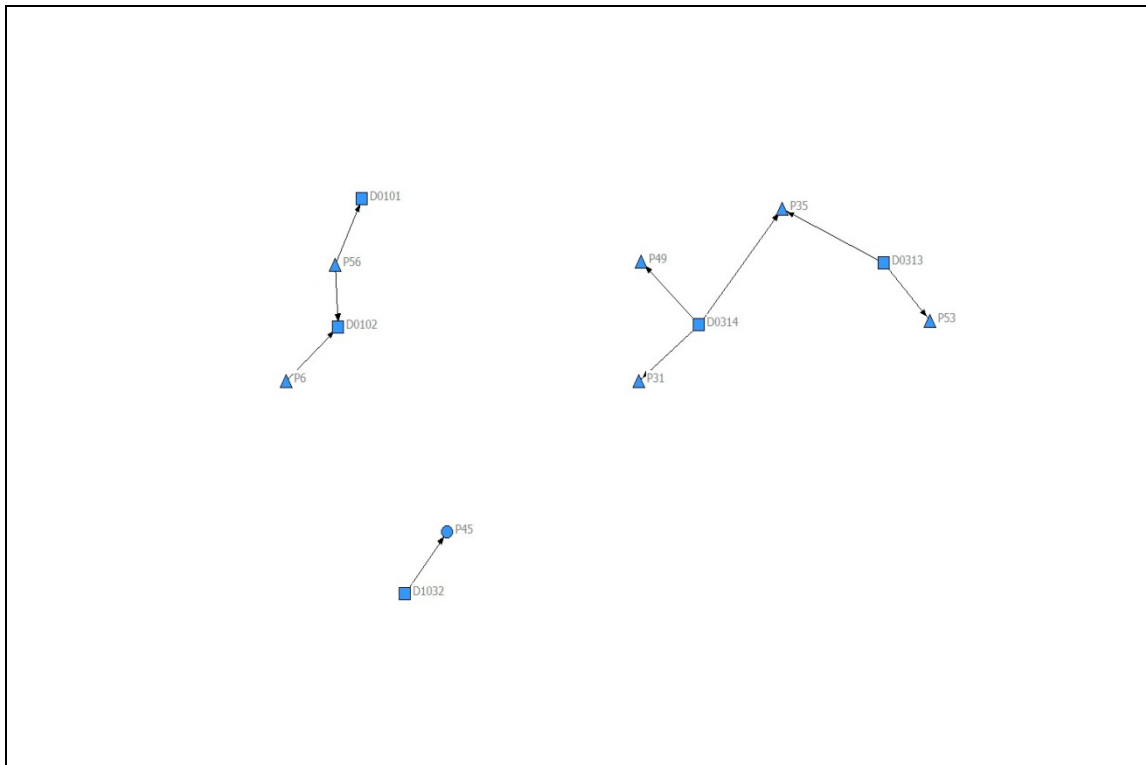
Figure 21. Sociogram showing which district central office members and elementary principals discuss personal issues not related to work. Square nodes stand for DCO members, triangle nodes stand for principals of high performing schools, and circle nodes stand for principals of low performing schools.
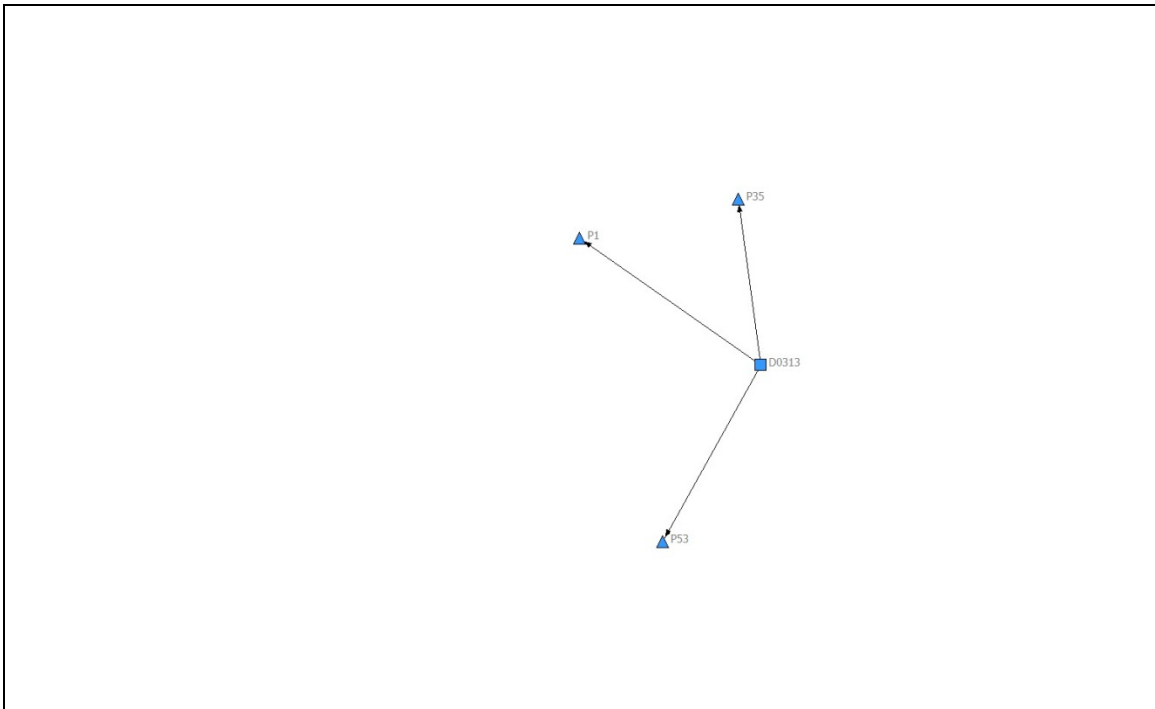
Figure 22. Sociogram showing which district central office members and elementary principals spend time together outside the work setting. Square nodes stand for DCO members, triangle nodes stand for principals of high performing schools, and circle nodes stand for principals of low performing schools.

Of the survey respondents, 16% of principals identified at least one DCO member that they discussed personal issues with, and 0% identified any DCO member that they spent time with outside of work. Thirty-seven percent of DCO members identified at least one principal with whom they discussed personal issues and only one DCO member identified principals with whom they spent time with outside of work. These survey answers resulted in two fragmented networks with small groups of only one or two connections. Both sociograms have density and reciprocity values of 0% supporting what is seen visually: there are very few possible connections made and no reciprocated relationships. In terms of centrality, D0314 is the most central actor in the sociogram for personal issues, but the influence is not strong given the small variation of distance (30%). In the sociogram for time outside of work, D0313 is the only actor who identified

any ties so she is also the most central, and with a 100% variation of distance, it is a strong influence. Though, again, she is the only actor in the network with ties.

When questioned in interviews about time to interact with principals, D0314 stated, "I don't think it's a practice. If it is, I'm not aware of it," and D0308 stated, "I wouldn't say it was something the district does." School staff interviewed had the same reaction. P14 stated that he did not feel work was the appropriate place to discuss personal issues and "even in the past when I knew some of them a little bit closer, I probably wouldn't have." Interestingly, the way a few principals answered the survey also stressed the lack of personal relationships with the DCO members. On the part of the survey with the questions about personal issues and time outside work, one of these principals wrote a very large "N/A" and circled it, though on other parts of the survey, did not place that emphasis on a none or an n/a. Another principal did the same thing writing "NONE – ZERO" as answers for both of these questions where on other parts of the survey with no answer, wrote simply "None." Probably the most telling quote about relationships between school staff and the district office came from the interview with T14 who stated, "To be honest, I wouldn't be able to put any faces with names at the district office level. I wouldn't know who anyone is."

Summary

To establish context for the relationships between the district central office and the elementary schools of this urban school district, I explored networks from three parts of the JPS system: relationships between members of the district central office, relationships between elementary principals, and relationships between the district central office and elementary principals. I conducted surveys to create sociograms, or visual

representations, of the relationships in the areas of best practices, data, decisions, communication, professional growth, and personal issues and time outside work. I then used data from interviews, document review, and observations to provide more detail about the DCO and schools in JPS. All of this data provided an in-depth picture of the relationships that exist between DCO members and elementary principals in this urban school district.

CHAPTER V

DATA ANALYSIS

Chapter IV presented the data collected on the relationships between the members of a DCO and elementary school principals in an urban school district. The data sources for Chapter IV included interviews with DCO members and school staff, results of SNA surveys, and observations I conducted at the DCO and school levels. The data were presented in three parts: the DCO as a system, the schools as a system, and the district as a system. Each part focused on six areas: best practices, data, decision-making, communication, professional growth, and personal issues and time outside of work.

Chapter V includes an analysis of the data reported in Chapter IV using General Systems Theory (GST) as a lens. As described in Chapters I and II, GST views organizations much like biological systems: organizations are wholes made up of interrelated parts, or subsystems, and these parts exchange information within themselves and the larger environment through a continuous process of inputs, internal transformation, outputs, and feedback (Bertalanffy, 1972; Bowen, 1999; Kast & Rosenzweig, 1972). These four steps in the cycle were used to organize, analyze, and interpret the data in this study. The analysis provides a better understanding of the

relationships between the district central office and the school sites. Each of these steps of GST and how they relate to the data found in JPS is described in more detail in the following sections.

Input

If schools are to be viewed as part of a system, then the schools must exchange information with the environment. A critical part of this exchange is receiving input from the larger context in which they exist (Bowen, 1999). Schools receive a number of inputs from various parts of the environment including parents, community, and internal actors, but for the purposes of this study, the focus was on the input from the larger context of the district and the DCO.

According to Bowen (1999), the members of the DCO as a whole are part of a school's environment. Environment is defined as "the totality of physical and social factors that are external to a system's boundaries and exert influence on the system" (p. 65). As an influence, the members of the DCO direct instructional activities, provide resources and support, and adopt policies and practices that serve as input to the school and influence how the school operates as a system (Bowen, 1999). In order for a school to successfully implement change through the cyclical process described in GST, the school first needs adequate and appropriate input.

There are three networks that appear to be the most connected which would also indicate the highest levels of input. Figures 2, 9, and 16 are all focused on relationships at different levels of the district in the area of sharing best practices. These three networks have higher numbers of ties than any other network in the study and include the most actors. This indicates that both DCO members and elementary school principals

seek information about best practices from other parts of the system and from each other. This pattern also indicates that information about best practices currently is the most easily transferred at all levels in the district. The networks around best practices are understandable given the large amount of funding and resources reportedly used to support learning best practices in the district. However, it is also important to note that even though all three sociograms regarding best practices had the most connections, each also had a low density value. The low density values show that even in the largest networks in the district, there are still many actors at both levels that are not receiving information.

The density values of the other sociograms included in Chapter IV show that there are very few relationships at all levels of the system. At the DCO level, the density of the networks ranged from .002 to .12, and at the school level, the density of the networks ranged from .005 to .018 showing the highest number of connections made at both levels was 1% of all possible connections. The sociograms in part three, the district as a system, shows members of the DCO have few relationships with elementary principals in all areas included in the study: best practices, data, decisions, communication, professional growth, personal issues, or time spent outside work. As reported in Chapter IV, the density values for the seven networks showing the relationships between DCO members and elementary school principals ranged from .000 to .014, again meaning that at best only 1% of possible ties have also been made between these two groups. Low density values such as those found in this study indicate lack of cohesion in the networks.

According to Prell (2012), lack of cohesion may indicate that information does not flow freely through the system, and the transfer of knowledge does not happen

effectively across the system. This information and knowledge would be considered the

input schools need to receive from their environment to operate as successful systems.

Because of the high number of peripheral actors and the few connections that are made, it

can be reasoned that any input received from the members of the DCO to the schools is

reaching only a small population. This is echoed in the information found in the

interviews with principals. Principal P38 stated she felt "out of the loop on

communication," and P19 shared, "There are some things we need to know that we don't

know about." Additional principals interviewed commented that some information is

transferred from the members of the DCO, but that it is not always the information they

need, as in professional development that does not address challenges in the schools, or

infrequent newsletters or cancelled principals meetings. What these data show is that

there is not a cohesive and highly consistent process for providing adequate and

appropriate input to all the schools.

The data also show that the amount and types of input from the district to the

schools is not equal across the district. It is evident from the sociograms and interviews

that there are some differences in the relationships between the members of the DCO and

principals of higher and lower performing schools. SNA sociograms showed that in

some areas such as best practices, personal issues, and time spent outside work, DCO

members identified higher performing principals at a higher rate, and in other areas such

as data, decisions, communication, and professional growth, DCO members identified

lower performing principals as connections at a higher rate. However, a closer look at

the measure of centrality and analysis of the interviews showed that principals of higher

performing schools seem to receive more input than those of lower performing schools.

In 4 out of 6 sociograms, the principal with the highest degree of centrality is from a high performing school. As the most central actor in the network, this principal has the potential to receive more input from other actors in the network, and to exert influence on other actors in the network. Additionally, of the reciprocated relationships in these sociograms, meaning the DCO member and the principals named each other as a connection, all included principals of high performing schools. This means that although some DCO members may have relationships with principals of lower performing schools, in the larger network, principals of high performing schools have more power and more opportunity to receive information with the larger context of the DCO.

When schools in JPS do not receive the input they need from the larger context, the members of the DCO, they rely either on input from other parts of the environment or attempt to operate without input. In the case of JPS, some principals have access to input from other parts of the environment. In P15, for example, there is a strong parent organization that provides needed input from the community. P15 receives time from parent volunteers, funding, donations of furniture, and other resources that fill the gap left by missing input from the DCO. However, according to data on parent engagement and interviews with P14, the lower performing school, this is not the norm in the district. Most schools do not have access to input at that scale from the community environment. In some cases, principals seek input from other principals in the district. As evidenced by Figures 10-15 in Chapter IV, there are some connections between site principals in JPS. However, like the networks between the members of the DCO and the principals, the relationships between the principals consist of few connections between actors and a high number of principals not included in any network. Because some principals feel they do

not get input from the members of the DCO or from their peers, these principals indicated they feel the pressure to seek out input on their own. P45 stated, "I find everything for myself," and P15 commented she "is not afraid to call and ask questions." Although the input they find may be appropriate, the process of seeking input takes time and focus away from other parts of the GST process at the school level.   In some cases, principals may not have the time to search for input, and this may also lead to recycling the same inputs that have been received in the past, which may have not been effective in the first place.

Analysis of the relationships between members of the DCO could indicate why there is a lack of input from the district to the schools. Most of the networks shown in Figures 2-8 show that relationships between DCO members are departmentalized. Although Figure 2 shows that in terms of best practices, some members of the DCO have connections with colleagues outside their departments, Figures 3-8 show that members of the DCO primarily connect with members of their own department. In terms of the DCO as a system, this indicates that even within the DCO information and knowledge is not being transferred internally within the DCO part of the system. This departmentalization means there is no cohesive message of input to the schools from the DCO as a whole and indicates why the relationships between the DCO and the principals are as fragmented as shown in the sociograms in Chapter IV.

The types of relationships present in JPS may also affect the input from the DCO to the schools. According to Finnigan and Daly (2012), a high number of personal relationships based on trust and social interaction within a district has a positive effect on culture and overall improvement in the district. Analysis of the sociograms in Chapter IV

of this study shows there are few personal or social relationships at any level in the district. The sociograms created in the areas of personal professional growth, personal issues, and time outside work have the least number of ties present for any sociogram in the study. Additionally, data collected from interviews supported the apparent lack of personal relationships. No DCO member or principal interviewed stated that there were opportunities for DCO members or principals to interact in a social setting. The social interaction that does take place in JPS is informal or spontaneously held by departments within the DCO or by principals before and after district meetings. Interesting to this study, also, is how some principals answered the questions about personal relationships on the study. In the areas where they were to identify personal relationships with DCO members, some principals used larger font, all capital letters, or placed heavy emphasis on the words "None" or "N/A." This emphasis was not present in other questions of the survey where no relationships were identified. These emphasized answers provide an unintentional commentary on the culture of relationships in JPS. The principals may feel strongly about the lack of personal relationships with the DCO, possibly indicating that they would like to have more trusting and social relationships, but the culture of the district is not conducive or impedes these types of relationships. Without the personal and social relationships between DCO members and principals, there are even fewer connections for input to reach the schools.

Internal Transformation

The next step in the continuous process of GST is internal transformation. In this step, the school accepts the inputs from the external environment, and while still receiving influence from the larger context, uses the inputs to support or facilitate change

in internal processes. Research in Chapter II shows effective DCOs can influence these processes through allocating necessary resources and building the capacity of the staff at the school sites (Cawelti & Protheroe, 2007; Hargreaves, 2009; Leverett, 2004; Marzano & Waters, 2009; Zavadsky, 2009). In order for schools to successfully implement change, they must have adequate influences such as these during the internal transformation step in the process. Analysis of the data presented in Chapter IV shows that, much like input, schools may not be receiving the influence they need from the members of the DCO. Using the research in Chapter II, I looked specifically at the questions of the survey that relate to resources and capacity building, data and professional growth, to determine the influence of the members of the DCO.

Data is a resource that schools need to make decisions at the site-level. DCO members can provide influence in this area not only by providing access to data, but also providing the necessary support to analyze and use the data in a meaningful way. The data in Chapter IV indicate that this process is not happening at JPS. Figure 17 shows that the network related to data has a low density value (not cohesive) and consists of two disconnected groups. Information about data, then, is not transferring across the entire network. This disconnect is also evident in interviews with both DCO members and principals. All interview participants stated that the DCO provides as much data as needed and various software systems to collect student data. However, participants also admitted that the support ended there. D0204, a member of the DCO, stated, "We don't have much contact with schools as far as the analysis part," and P38 stated, "The district doesn't help in the schools."

The data show that professional growth is also an area where influence from the members of the DCO is lacking. Although Levin and Fullan (2009) stated that professional growth, or capacity building, "increases the collective effectiveness of a group to raise the bar and close the gap of student learning" (p. 195) and the DIP and TIP of JPS suggests that the district invests funds and human resources in providing numerous professional development opportunities, the data from Chapter IV show that there are very few connections between the DCO members and principals in the area of professional growth. In fact, there are only 16 ties, or .2% of all possible ties, in this network. Figure 20 also shows that of the connections that do exist, most are with peripheral actors or occur in disconnected groups. All the principals interviewed reiterated this lack of connection. They stated that most influence from the district in terms of professional growth is informal and the professional growth opportunities that are provided do not necessarily align with the needs of the district. As P14 stated, "There are trainings, but I would not say they relate directly to what I do." Additionally, P15 mentioned lack of professional growth for teachers as well stating, "well…they plan some [professional development]…but it's not something my teachers who have been here awhile feel like they need to go to." Additionally, one teacher interviewed, T14, simply stated, "To be honest, I don't feel supported professionally by the district at all." It is evident that influence from the DCO members related to professional growth is not being transferred from the DCO to the schools in a substantial way.

When a school does not receive the influence it needs for internal transformation from the DCO, it seeks influence from other parts of the environment. In the case of JPS, some principals seek out other principals. However, as shown in Figure 10 and Figure

13, the relationships between elementary principals in terms of data and professional

growth are even less cohesive and more fragmented than those between the DCO and

elementary principals. Both sociograms show that over 65% of principals are not

included in the networks, meaning 2/3 of principals in the district are not receiving the

information about data or professional growth from peers. As indicated in the input

section, because of the lack of influence from the DCO, most principals interviewed felt

they were solely responsible for seeking out resources in terms of data and providing

their own professional growth opportunities. In essence, these principals are, in many

cases, the main or sole influence during the internal transformation step.

Analysis of relationships between DCO members once again indicates why

influence to the schools may be lacking. Both Figure 3 and Figure 6 show that in terms

of data and professional growth, there are few relationships between DCO members, and

those that do exist are largely departmentalized. Meaning, once again, the DCO members

are working in isolation within their departments and information about data and

professional growth is not transferring around the DCO. The lack of connections and

information sharing at this level may affect how the DCO as a system can effectively

influence the internal transformation of schools.

Analysis also shows that there are discrepancies between what the DCO members

in JPS believe is being provided in terms of influence and what the principals report as

being provided. According to interviews and my review of district planning documents,

many DCO members believe that they are providing formal planning and decision

making processes that the schools use during the internal transformation step in the GST

process. Both the Title I Plan and the District Comprehensive Plan refer to the PDSA

planning process that is reportedly used at both the district and school levels as well as

formal communication processes that are designed to ensure all stakeholders are

informed of decisions and supported in implementing the decisions. However, some

DCO members and principals claimed the planning and decision making processes in the

district are in reality more informal and unstructured.

P14: "It's all been by trial and error."

P38: "I do talk to other principals, but it is informal."

P45: "I would say any attempts are more informal."

P19: "It is an informal process."

D0204: "It was something ad hoc."

D0308: "There's just informal communication that takes place..."

D0314: "…sometimes during conversation or when principals stop by…"

Other discrepancies in perception of the members of the DCO and the reality of

the principals can be seen in the areas of data, and communication. All DCO members

said that they place heavy emphasis on data and encourage school sites to use data to

make decisions and improve student learning. However, principals report that they get

little more than spreadsheets of raw data from the district and spend their own time trying

to make sense of the data to transform it into a format teachers can use. DCO members

were also proud of the fact that they had formal communication to the sites in the form of

emailed newsletters and email distribution lists, and according to the principals, email is,

in fact, the primary means of communication. However, principals also spoke of how

ineffective newsletters and email are. P45 reported that newsletters were regular for a

time, but departments just stopped sending them; P14 claimed that principals receive so

many emails that it is difficult to address each email and ensure all important information is read.

This discrepancy of perception versus reality may impact the district's ability to effectively provide input and influence during the internal transformation step of the GST cycle. Because the district perceives that it is offering adequate and appropriate input and influence, there is little motivation to change what is provided to schools. Additionally, if information is shared more informally in the district, it is quite possible that most members of the DCO and elementary principals are unaware of the input and influence that is available because they are not sure how to access it.

Output and Goals

The third step in the GST process is output, and output is based on a general assumption of GST—that all systems are goal oriented (Kast & Rosenzweig, 1972; Skyttner, 1996). That is, systems exist to achieve some end. In schools, especially in this current landscape of accountability, these goals are often improvement oriented (Bowen, 1999). Schools usually set goals to improve student achievement, teacher effectiveness, or improve the overall achievement of the school. According to Skyttner (1996), "All systems, if they are to attain their goals, must transform inputs into outputs" (p. 20).

The data presented in Chapter IV show the goals of JPS elementary schools are "Reading on Grade Level. Attendance at 98%. Parent Engagement." The output of JPS schools shows at least two of these goals were not met in 2013-2014. Data on parent engagement for the 2013-2014 school year were not available, but the rankings of schools (Appendix G) show that not all students in JPS are reading on grade level. In fact, based on preliminary 2014 OCCT scores, the average percent of students scoring Satisfactory

and Advanced on the State reading assessment is 51%. For S14 and S15, those numbers

are 44% and 89%. The rankings also show that few schools were on track to meet the

98% attendance target. Although attendance rates for 2014 were not available, the

attendance rates for 2013 show that no elementary school in the district had a 98%

attendance rate in 2012-2013. The average for that year was 94.5%. Additionally, growth

in attendance rate from 2011-2012 for most schools was slight. The highest rate of

growth was 1.9%, but the average growth rate was only .44%. It is evident that most

schools in JPS did not produce the output to meet stated goals.

  According to GST, output is reliant on the input and changes made during internal

transformation. In an effective system, outputs are created by accepting input, using

influence from the environment to conduct internal transformation, and producing an

output that meets a stated goal. In ineffective systems, often the outputs do not meet

goals, and this is due to inadequate or inappropriate input or lack of influence or support

during internal transformation.

  Given the analysis of input and influence on internal transformation by the

members of the DCO from last two sections, the output of the schools is not surprising.

Data showed that there were few connections between the DCO and elementary

principals indicating that input, in the form of information and knowledge transfer, was

not effectively provided to the schools. Data also showed that influence, in the form of

data resources and professional growth opportunities, also was not reaching the schools.

The connections surrounding those areas were sparsely connected and included few

actors in the system. With little input and less influence from the DCO, the schools could

not make the internal transformation necessary to produce output to meet the goals.

However, there are pockets of success in JPS. There are a few high performing schools that have seen gains over the years, and some of these do face the challenges of high poverty, high minority populations. The data in Chapter IV also show that these successful schools, S15 in particular, may have a strong support system that provides input and influence where the district is lacking. In the case of S15, it is the well-developed parent organization that provides time, talent, and financial resources. The data in Chapter IV also show that higher performing schools receive more input and influence from the district. Because high performing schools are often the most central in the networks presented in this study, the input that does come out of the district office are most likely influenced more by these high performing schools, and that can further explain the pockets of success.

Feedback

The final step in the process of General Systems Theory is feedback. According to GST, open systems, such as school systems, maintain a sense of equilibrium by taking in inputs and influence from the environment and feeding back information into the larger system (Bowen, 1999; Kast & Rosenzweig, 1972). This feedback then informs the larger system and affects the future inputs and influence back into the school, possibly leading to changes in future outputs (Kast & Rosenzweig, 1972). According to Skyttner (1996), "feedback is, therefore, a requisite of control" (p. 20).

The research in Chapter II shows effective school districts build a culture of collaboration. An effective culture of collaboration allows for shared decision and includes all stakeholders in the decisions (Marzano & Waters, 2009). It also provides structures for individuals to be included in collaborative efforts (Hargreaves, 2009).

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Overall, in effective school districts, all members of the district work together and listen to each other to reach a common goal (Cawelti & Protheroe, 2007; Lane, 2009, Marzano & Waters, 2009). If feedback is imperative for the organizational health of a system, and research shows that collaboration is proven to be effective in school districts, then feedback from schools to the members of the DCO is important to the process of school change and transformation. However, the data show JPS provides little to no opportunity for schools to provide feedback to the district.

One of the major themes found in the data regarding relationships between DCO and elementary principals is that principals seek out DCO members at a much higher rate than DCO members seek out principals. Although the rate of DCO connection to principals was higher for the best practices and personal issues, for all other areas on the survey, a higher percentage of principals identified a DCO connection than DCO members identified principals. For the question related to data, the difference was 66%. In other areas, decisions, communication, professional growth, and personal issues, the average percentage difference was 20%. (See Table 3.)

The difference in identification rates results in low reciprocity values in the sociograms related to relationships between the DCO members and elementary principals. Reciprocity values indicate the percentage of ties in the network that are two-way; the actors identified each other as connections. A higher value of reciprocity indicates a degree of mutual relationship between the actors and may indicate a more collaborative network. The data in Chapter IV show there are few reciprocal relationships between DCO members and elementary principals. In fact, of all seven networks, there are only 5 reciprocal relationships and four of them are in the best

practice network. It is important to note that all reciprocated relationships were between

DCO members and principals of high performing schools. A lack of reciprocity in these

networks indicates few opportunities for DCO members to receive information back from

school sites.

The data from interviews also indicate lack of opportunities for principals to

provide feedback to the DCO. Four of the five principals reported sitting on a committee

at the district-level, but the principals also reported that these committees met

infrequently, were comprised mostly of district central office staff, and that principals

were unsure of how effective the committees were in problem solving as they did not see

the end results of the committee work. One principal, the principal of the lowest

performing school participating in the interviews has never been on a committee, and was

unsure even how to be involved in decision making. P38 stated, "I don't know. I think

they must just pick people for them." Interviews with the DCO office members reveal

there is no formal process for principals to give feedback. Although all interviewed

members of the DCO stated there were opportunities for principals to sit on committees,

only one could articulate how principals were chosen for those committees. In that case,

only high performing principals were selected. The other 4 interviewees stated that they

thought principals were solicited by email to volunteer. One of those interviewees

admitted that she just did not know how principals were selected. Two members of the

DCO stated that they had used surveys in the past for feedback, but each was a one-time

annual survey, and neither member of the DCO could recall using the survey in the 2013-

2014 school year. However, one principal, P19, questioned the effectiveness of surveys

and stated,

We did get surveys…but it was a long survey, and it took a long time to complete, at least 45 minutes, and, then, we never heard anything back from them so I'm not sure if they were used or not.

It is apparent from the data, however, that there are some opportunities for principals to provide feedback to the district. The data also show that the opportunities are available more often to principals of high performing schools. A review of the lists of committees that developed the major planning documents for JPS show that high performing principals were involved in committees at a higher rate. Of the 11 principals who sat on these committees, seven were from high performing schools. D0204 even stated that when his department sought principals for committees they "chose principals that had very good test scores." Also important to note is that the principal who sat on each of the three committees, P06, was the principal of the highest performing elementary school in the district.

Summary

Chapter V presented an analysis of the data collected using SNA surveys, interviews district and school staff, review of documents, and observations. Analysis was done through the lens of General Systems Theory. The steps in General Systems Theory, input, internal transformation, output and goals, and feedback, were used to interpret and analyze the data presented in Chapter IV. This analysis provides a more in-depth view of the relationships that exist in JPS and how those relationships affect the district's ability to function as a system.

CHAPTER VI

FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Chapters IV consisted of a presentation of the data collected in the study, and

Chapter V consisted of an analysis of the data using General Systems Theory as a lens.

These chapters provided a thick, rich description of the DCO and schools of JPS as well

as a detailed analysis of the relationships that exist at different levels of the system. The

data and analysis in these two chapters drive the content of Chapter VI. Chapter VI

consists of a summary of the study and the relevant research, findings based on the data

and analysis in Chapters IV and V, conclusions based on the findings, and

recommendations for practice and future research.

Summary of the Study

A number of education laws and reforms have been enacted in the past 20 years.

The Improving America's Schools Act of 1994 (IASA) first addressed the achievement

gap between low income and high income students (IASA, 1994). Goals 2000 expanded

on the IASA and set new performance goals for the nation: 90% graduation rate, 100%

adult literacy rate, and number one ranking for the United States in reading and math by

the year 2000 (Goals 2000, 1994). Both IASA and Goals 2000 began the standardized

testing requirements in the nation and created the idea of state standards for teaching.

In 2002, the No Child Left Behind Act of 2001 (NCLB) became law. Building on the

foundation built by the IASA and Goals 2000, NCLB instituted rigorous achievement

standards for students and created a series of supports and consequences for schools not

on track to meet those standards (NCLB, 2001). Each of these reforms set high standards

for American education and focused billions of dollars on the nation's lowest performing

schools. Despite this focus, however, few of the goals of the IASA, Goals 2000, or

NCLB have been achieved.

There is overwhelming data to show that reforms of the last 20 years have not had

the intended effect on student outcomes. As reported in Chapter II, even 14 years after

NCLB, not all districts and schools are close to the 100% proficiency expected. In fact,

NAEP scores for 2013 show that nationally, only 8th grade students showed significant

improvement during the years of 2008-2012 (NCES Website). Fourth and 12th grade

students' average scores in reading and math stayed flat or even decreased during that

time (NCES Website). The NAEP result also shows that despite efforts to target

subgroups in NCLB, the achievement gap is not shrinking. White students outperformed

African and Hispanic students in every grade and subject, and there is a large gap

between the achievement of non-ELL and ELL students (NCES Website). Even in

Oklahoma, some schools are improving and some are not. NAEP results are still behind

the national average at every grade and subject, and, unlike national trends, 8th grade

students' average scores did not increase significantly in the past two years (NCES

Website). Oklahoma is also maintaining an achievement gap between White students

and African American and Hispanic students that has been in existence since the 1990s

(NCES Website). Current research indicates that to be more effective, education reforms

may need to be implemented at a systems level.

Researchers including Fullan (2006), Honig (2010), and Daly and Finnigan (2012) have conducted research supporting a shift in thinking about school reforms and improvement from a school-by-school approach to what Fullan (2006) refers to as "systems thinking" (p. 113). Systems-thinking involves leaders who are continuously interacting and connecting with other parts of the system. This interaction and connection includes and engages more parts of the system in decisions and improvement efforts and, in turn, builds capacity of those involved. Reforms instituted through systems-thinking place focus not on each individual school, but at all levels including the district central office to implement systemic and sustained improvement. However, research in how districts interact and interrelate with schools is lacking. According to Honig and Copland (2008), "the practice of central office reinvention efforts outstrips research." Daly and Finnagan (2012) wrote, "The space between principals and district office administrators is one ripe for exploration."

The intent of this study was to address this gap and to explore the relationships between the district central office and higher and lower performing elementary schools so as to identify what, if any, influence these relationships have on the ability of schools to implement and sustain reform efforts to improve student outcomes.

The following research questions guided the study:

1. In terms of General Systems Theory, what types of relationships exist between the district central office and elementary schools in an urban school district?

2. What are the differences in the relationships, if any, between the district central office and higher performing and lower performing schools?

3. In what ways do the relationships between a school site and the district central office influence a school's ability to implement and sustain improvement efforts?

Because the study sought to explore a district and its relationship to its schools, a case study design was chosen. Case studies are a strategy of inquiry in which a subject of a study, or a case, is explored. For this study, JPS served as the case and focus was placed on two schools within JPS, S14 and S15. Data were collected for the case study through a social network analysis survey of district central office personnel and elementary school principals, interviews with five district central office personnel and five elementary school principals, several observations, and document reviews of major planning documents and meeting agendas.

Analysis of data occurred in two phases. I analyzed surveys using UCINET and Netdraw to create relationship matrices and sociograms for each of the survey questions (Borgotti, 2002; Borgotti, Everett, & Freeman, 2002). Using UCINET, I also measured these matrices for density, reciprocity, and centrality of actors to provide more information about the networks. I used content analysis to analyze the results of the sociograms, interviews, observations, and document review notes, and GST was used as a lens during data collection processes and through which to organize and interpret the data. The findings of this analysis are explained in more depth in the next section.

Findings

After I analyzed the data presented in Chapter IV, several main findings emerged. The findings of this study are included below organized by each research question that guided this study.

Research Question 1

In terms of General Systems Theory, what types of relationships exist between the district central office and elementary schools in an urban school district?

Data analysis revealed two main findings for this research question: 1) in terms of GST, there are few relationships between the members of the DCO and the elementary schools in the urban district studied, and 2) those relationships that do exist are professional not personal, lack cohesion, and are not reciprocated relationships.

Through the lens of GST, relationships are viewed in terms of input, influence on internal transformation, influence on output and goals, and feedback. Data from sociograms in Chapter IV show there are few relationships that exist between members of the DCO and elementary school principals in any of the six areas studied: best practices, data, decision-making, communication, professional growth, and personal issues and time outside work; and there are a high number of outliers and peripheral actors. Analysis of these sociograms showed the number of relationships between DCO members and elementary principals ranged from 3 (time outside work) to 100 (best practices), but these numbers were small compared to the number of all possible relationships between actors. Further evidence of lack of relationships was reported in interviews with principals. P45 stated, "I find everything for myself," and T14 stated, "To be honest, I wouldn't be able to put any faces with names at the district level." Additionally, the data show that few relationships exist at any level in the system. Data analysis showed that DCO members had few relationships outside his/her departments, and principals of both high and low performing schools worked mostly in isolation. In terms of GST, the lack of relationships in the sociograms indicate that the DCO and schools have few of the

connections necessary to ensure adequate and appropriate input and influence flow into the school to impact output or to provide opportunities for schools to provide feedback back to the DCO members to affect future input and influence.

Data also show those relationships that do exist are professional not personal, lack cohesion, and are not reciprocated relationships. At every level in the system, the networks created around best practices have the most ties and the networks created around personal professional growth, personal issues, and time outside work have the least ties. In this urban district, the relationships between DCO members and principals seem to be based on basic professional information and very little personal information or social interaction occurs between DCO members, elementary principals, or DCO members and elementary principals. Density measures included in the data analysis show that the relationships that do exist, even in best practices, are not cohesive. The highest density measure for any sociogram of relationships between DCO members and elementary principals was 1%. This means that of all the relationships possible between DCO members and elementary principals, 1% were present. Analysis also showed that of the relationships in the district, few are reciprocated. Between the members of the DCO and elementary principals only 5 relationships are reciprocated, meaning most of the relationships reported in this study are one-way. Additional analysis showed that most of the one-way relationships were from the DCO member to the principal (See Table 4.), which further indicates little opportunity for information to travel from the school to the DCO. Given the reciprocity measures presented in Chapter IV and analyzed in Chapter V, very few relationships in this district allow for two-way information flow in the system.

Research Question 2

What are the differences in the relationships, if any, between the district central office and higher performing and lower performing schools?

Analysis of the data in terms of GST revealed there are differences in the relationships between the DCO members and elementary principals of higher and lower performing schools. There are three main findings for this research question: 1) principals of high performing schools receive more input and influence from the members of the DCO than do principals of low performing schools, 2) principals of high performing schools have more opportunity to provide feedback to the DCO than do principals of low performing schools, and 3) principals of high performing schools have more power and influence in the system than do principals of low performing schools.

Data analysis showed that principals of high performing schools receive more input and influence from members of the DCO. Although members of the DCO identified relationships with more principals of lower performing schools in some areas of the study, overall, there were more connections between DCO members and principals of high performing schools. Data analyzed from interviews indicated higher rates of input and influence in high performing schools. D0204 stated that his department specifically chose principals for committees based on school performance, and principals of high performing schools indicated more involvement at the district level than did principals of low performing schools.

Data analysis also showed that principals of high performing schools were more often included on committees at the district level or were involved in more two-way relationships with members of the DCO. Of the committee member lists analyzed, all

included a majority of principals from high performing schools. Additionally, of the 5 reciprocated relationships identified in data analysis, 4 were between DCO members and principals of high performing schools. These opportunities and relationship networks afford the principals of high performing schools more opportunity to provide feedback to the DCO members, thereby impacting future input and influence that goes back into the school.

The centrality measures included in the data analysis also show that principals of high performing schools have more power and influence in the system than do principals of low performing schools. Centrality measures indicate that of the 6 sociograms analyzed, high performing principals were the central actor in 4 of them. As defined in Chapter I, an actor with a higher centrality value may have more influence or power in a network because he/she has more access to information or resources and more opportunities to influence others in the network (Cross & Parker, 2004; Prell, 2012). This means that in most areas of the study, high performing schools have more influence on not only the DCO, but also other principals in the network, further impacting the input and influence that is received in the system.

Research Question 3

In what ways do the relationships between a school site and the district central office influence a school's ability to implement and sustain improvement efforts?

According to GST, systems need appropriate and adequate input and influence to make the internal transformation necessary to produce the desired output and meet intended goals. As part of this process, feedback is integral to providing information necessary to the larger system so that future input and influence can better meet the needs

of each part of the system. Sustained system change depends on this cyclical process.

Analysis of the data revealed two main findings for this research question 1) the

relationships between members of the DCO and elementary principals in an urban district

affect the input and influence a school receives, and 2) relationships between members of

the DCO and elementary principals in an urban district affect a school's ability to provide

feedback.

Analysis of the data showed that relationships between the DCO members and

elementary school principals affect the input and influence a school receives. The

sociograms presented in Chapter IV show few relationships between DCO members and

elementary principals in any area of the study. In terms of GST, this means there are few

connections for input and influence to travel through from the DCO to the schools.

Because of this inadequate or inappropriate input and influence, many of the schools in

JPS are not improving. Further analysis showed that those that have improved are

traditionally high performing schools. Analysis also showed there is a higher rate of

input and influence at higher performing schools and a higher number of relationships

between DCO members and principals of high performing schools. Data show, then, that

the relationships between the DCO members and the school principal may affect whether

the school receives the adequate and appropriate input and influence necessary to make

improvements.

Analysis of the data also showed that relationships between DCO members and

elementary school principals impact the school's ability to provide feedback to the larger

system. The data showed that DCO members identify relationships with principals at

lower rates than principals identify DCO members in most areas, and there are few

reciprocal relationships in any of the networks studied. This lack of two-way

relationships indicates few opportunities for schools to provide the necessary feedback to

the DCO. If schools cannot provide feedback, they cannot have a voice in the types of

input and influence they receive in the future. Additional analysis showed, like input and

influence, principals of higher performing schools in the district have more opportunities

for feedback. They are more often included on committees, have more relationships with

DCO members, and have more reciprocal relationships with DCO members. Because

these schools have more opportunity for feedback, they have more opportunity to affect

future input and influence into the system which allows inputs and influences to be

changed to meet their needs. As these inputs and influences change as needs change,

there is a higher likelihood improvements made can be sustained.

Conclusions

In this study, I wanted to better understand why, under current accountability

standards, some schools were improving and some were not. Additionally, I wanted to

explore the relationships between the members of a DCO and principals of higher and

lower elementary schools in an urban district to identify what, if any, influence these

relationships have on school-level improvement. As a result of analysis of SNA surveys,

interviews, documents, and observations, I found few cohesive and reciprocal

relationships existed between members of the DCO and elementary principals; principals

of high performing schools had more input and influence from the DCO, more

opportunities to provide feedback to the DCO, and more power and influence in social

networks; and relationships between DCO members and elementary principals affected

the input, influence, and feedback of the system ultimately affecting a school's ability to

improve and sustain improvement efforts. These findings led to several conclusions

regarding relationships and improvement efforts in this school district.

       Conclusion 1: In this study, *the relationships between the DCO and the school*

are integral to the cyclical process necessary for effective system change and

sustainability of reforms. GST views schools as part of a suprasystem, meaning, schools

such as the elementary schools in JPS operate as individual systems and the DCO

members, such as those in JPS, operate as their own individual system (Bowen, 1999).

However, according to Kast and Rosenzweig (1972), "The whole is not the sum of the

parts; the system itself can only be explained as a totality" (p. 450.) The entire

suprasystem, then, includes the elementary schools at the center and the DCO operating

around all the schools (Bowen, 1999). In effective systems, these parts of the systems are

continuously influencing and being influenced by the other parts of the system.

       In effective systems, schools are undergoing continuous internal transformation in

the attempt to produce successful outputs and achieve goals. For the internal

transformation to be effective, schools need appropriate and adequate inputs and

influence from their environment (Bowen, 1999). In school districts such as JPS, the

DCO serves as the environment and provides the input and influence to schools. In order

to improve and meet achievement goals, the DCO members and schools in JPS must

form relationships networks for information and ideas, in the form of input and influence,

to flow freely to all members of the system. Relationships are also important in

sustaining reform efforts. As needs of the schools change, either goals are met or new

problems are identified, schools must be able to provide feedback into the environment to

affect future input and influence. The relationships networks between the DCO and the

school are then important for DCO members to receive information back from schools and to change supports and services accordingly.

Conclusion 2: In this study, the types of relationships that exist between the DCO members and the school staff are also important factors in school improvement and sustainability of reforms. In JPS, even the principals of the lowest performing schools identified some relationships with other principals and DCO members. However, these relationships did not prove to be enough to affect the output and goals of the school. In order for districts to function as effective systems, relationships must be cohesive and reciprocal at all levels of the system. Cohesive relationships tie actors together, decreasing actors with no connections and peripheral actors. Reciprocal relationships increase two-way information flow between the actors tied together in a network. When districts and schools build a network of relationships that involves most or all members of the network and those relationships are reciprocated, critical information in the form of input, influence, and feedback is more easily transferred throughout the system and is more accessible to all actors in the system (Bowen, 1999). New ideas, innovations, and necessary supports are passed from the district to the school, and feedback that informs future input and influence is passed from the school back to the district. A culture of cohesive, two-way relationships also opens up departmental silos within the DCO, decreases the number of actors with no connections in a district, and ensures schools can make the internal transformation necessary to meet goals.

Conclusion 3: In this study, in order for all schools in the system to succeed, high and low performing schools need differentiated supports and services based on feedback. JPS wrote in both its District Improvement Plan (DIP) and Title I Plan (TIP) the district

provides "intensive support" for its lowest performing schools. However, the data in the

sociograms, interviews with participants, and observations did not support the claim of

intensive support for lower performing schools. Rather, this study found principals of

high performing schools received more input from the DCO, had more opportunity to

give feedback to the DCO, and had more power and influence in the district.   It appears

that the DCO provides the same services and supports to all elementary schools in JPS,

but those that benefit more are the high performing schools, most likely due to their

impact on the input and influence that is sent to the schools by the DCO. Lack of

opportunity for lower performing schools to provide feedback means that lower

performing schools within JPS are missing a key component of effective systems and

enacting transformative change. With few feedback loops to inform the DCO members,

the inputs and influence from the district continue to be a mismatch for the needs of the

schools. These inadequate or inappropriate inputs perpetuate in an ineffective cycle and

impede the schools from making the necessary internal transformation needed to produce

outputs that meet goals. This indicates that in this system, if the relationships between

the DCO and the schools do not change, high performing schools will remain high

performing and low performing schools will remain low performing. For this reason,

schools must be able to give feedback to the district about individual needs and supports

and services from the DCO should be individualized to meet those needs.

Recommendations

The conclusions of this study led to recommendations for practice and research

that may assist districts in creating more effective systems to aid schools in improvement

efforts.

Recommendations for Practice

Because developing a culture of cohesive, two-way relationships is imperative to system-wide improvement, districts should make attempts to build relationships at all levels of the system. Districts should review current planning processes, decision-making processes, committee appointments, and agendas for district meetings. Then, districts should create formal structures in these processes that promote collaboration between departments within the DCO, between principals in the district, and among DCO members and principals. These processes should also strengthen existing relationships within the district and target those networks that are sparse, making a concerted effort to connect principals, especially those of low performing schools, and members of the DCO. However, it is important, as Finnigan and Daly (2010) stated that districts do not merely schedule time for group work. Rather, the collaboration should be intentional, meaningful, and goal-based so participants feel the interaction is important and will drive changes in the system.

Districts should make the shift from the one-size-fits-all approach for school reform to differentiated supports and services based on individual school needs. To gather data on individual school needs, districts should create and fully implement a process or processes by which principals of schools can provide feedback on a regular basis. These opportunities cannot merely consist of an annual survey, but should be provided multiple times a year through multiple methods. Examples include establishing collaborative learning communities to address areas of high needs in schools, providing time during regularly scheduled meetings at the district level for principals to provide structured feedback, conducting pilot studies of programs with close interaction with the

principal, and developing leadership teams at the district level that include a cross section

of principals from the district. Most importantly, the opportunities for feedback need to

be formally planned and communicated so all principals are aware of the opportunities

and members should be chosen to ensure they are representative of the school population.

Once this feedback is received, the district should have a formal process in place for

members of the DCO to analyze the feedback and revise existing supports and services to

better meet the needs of individual schools.

Another conclusion reached in the course of this study is that districts should also

make the shift from a school-by-school approach to school improvement to emphasizing

improvement of the district as a larger system. Previous accountability systems such as

NCLB (2002) and the ESEA Flexibility Waiver (2011) focused attention on improvement

efforts at specific failing schools. This study showed, however, that for schools to

improve and sustain reform efforts, there must be relationships between the DCO

members and schools, and the DCO members must provide adequate and appropriate

input and influences. For this reason, districts should view school improvement as

system improvement and emphasize changes at all levels of the system. In addition to

providing supports at the school level, the district should take a closer look at

relationships between DCO members and relationships between DCO members and

principals to identify why input is not transferring to schools. Attempts should be made

to restructure, reorganize, or refocus work at the district level to better support system

wide improvement. As Finnigan and Daly (2010) pointed out, this may also change the

role of the central office from "pressure to support at the school level" which may, in

turn, contribute to relationship building as principals and schools become partners with the district in improvement processes.

Recommendations for Research

In recent years, the federal and state reforms on education as well as research on school improvement have begun to look more closely at supporting schools as part of a system that involves the district central office instead of supporting them in a school-by-school approach. Data from this study showed that while pockets of success may exist even in a low performing district, there may be other variables that affect that success. This study showed that adequate input and influence from the members of the DCO is necessary for school level improvement and sustainability of reform efforts. However, future research is needed to expand on the findings of this study in order to better understand both the relationships between the DCO and elementary schools and the role of the DCO as part of the system.

A future study of either JPS or another school district should increase the survey return rate to increase the sample size. A larger sample size would obtain more data from more actors in the system, and the sociograms generated would be more representative of all the networks that exist in the system. A larger sample size may also reveal higher density, more reciprocal relationships, and provide data to increase validity for measures of centrality.

It would also be beneficial to replicate this study in other large urban school districts. Similar social network analysis studies have been done in recent years by Daly and Finnigan (2010, 2012), and many of the results found in those studies were reflected in this study. However, because this study and the similar studies are qualitative studies,

the results cannot be generalized to a larger population. Replicated studies, though, may identify more similarities in results and patterns that could lead to a deeper understanding of how schools and districts work as systems and the role of the DCO as part of the system.

This study explored relationships between a DCO and elementary schools in one point in time. Future research could include a longitudinal study of one DCO's attempts to improve relationships, in terms of input, influence on internal transformation, output, and feedback, with its schools. Following a district undergoing this transformation for a number of years while comparing the progress of achievement rates would benefit research on school improvement as more in-depth analysis could be done on which type of relationship (input, influence on internal transformation, output, or feedback) most affects school improvement or what specific strategies are successful in improving systems.

Finally, research on the unexpected results of this study would be beneficial. The results revealed that the DCO members and planning documents held a different perception of what was happening in the district than did the elementary principals. This unexpected result may have a large impact on the DCO's ability to provide the adequate and appropriate input needed for schools to operate as effective systems. A more intensive study of how this phenomenon affects the operations at the district level and school improvement efforts may be merited.

Summary

The purpose of this study was to explore the relationships between the district central office and higher and lower performing elementary schools and to identify what,

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if any, influence these relationships have on the ability of schools to implement and sustain reform efforts to improve student outcomes. Through months of data collection and thorough data analysis through the lens of General Systems Theory, results and conclusions developed that addressed this purpose. Relationships between the members of the district central office and elementary schools can be viewed as interrelated systems of inputs, influence on internal transformation, output, and feedback. Through its input and influence on the schools as well as its opportunities to collect feedback, the district central office, as a collective, does have an impact on a school's ability to implement and sustain reform efforts. These findings led to several recommendations for future research and implications for current practice at the district level.

Final Thoughts

The impetus for this study was my three years of experience at the State Department of Education working closely with the administrators and teachers of Oklahoma's lowest performing districts and schools. During those three years, I watched dedicated teachers and principals work tirelessly long past contract hours, sacrifice weekends and school holidays, and fret continuously about how they were going to get off "that blasted list." During those three years, I celebrated with some staffs as they made dramatic gains in student achievement. I also consoled others as, despite all the hard work by everyone in the building, they opened their test scores to see little or no gains, or worse, dramatic decreases in academic achievement. I also wondered as I watched school after school exit "the blasted list" why those same schools returned to the list two short years later.

The process of school improvement is challenging, it is taxing, it is thankless, and, quite often, it is not successful. As I watched and worked and wondered, I thought, there has to be a better way.

My professional curiosity led me to Marilyn Honig, Michael Fullan, Andy Hargreaves, and eventually, to Alan Daly and Kara Finnigan, who were all doing research on what I felt was lacking in Oklahoma's school improvement processes— viewing districts and schools as systems instead of separate entities. It is through their work that I was re-energized and inspired to take on this dissertation topic.

This has been an exciting journey. I have learned more than I ever imagined about General Systems Theory, the role of the District Central Office in school improvement, and Social Network Analysis. I will make it my next challenge to use what I have learned to better support districts like Johnson Public Schools as they continue the daily march toward improving student achievement. My hope is that my research will also inspire other educators to do the same.

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APPENDICES

SNA Survey

Participant:

There are two sections to this survey. ALL survey participants should complete both sections: Elementary School Principals and District Central Office Staff. There are seven questions in each section for a total of 14 questions to complete the survey.

Questions About Elementary School Principals

The purpose of this section of the survey is to identify professional and personal relationships you may have with **elementary school principals Oklahoma City Public Schools.** Read each question, and list names of relevant **OKCPS elementary school principals only.** If there is not enough room in the space provided, use the back of the survey to list additional people. Next to each person's name, indicate how often you have contact with that person with an "x" or a "√" on the five-point scale provided. If, for any question, you do not have any relevant names to list, you may leave the spaces blank.

1 = 1-2 times a school year.
2 = 1-2 times a semester.
3 = Once a month.
4 = Once every two weeks.
5 = At least once a week.

1. For the current school year (2013-2014), which **elementary principal(s)** have you turned to for information on best practices related to your work?	How often?				
Name	1	2	3	4	5

1 = 1-2 times a school year.
2 = 1-2 times a semester.
3 = Once a month.
4 = Once every two weeks.
5 = At least once a week.

2. For the current school year (2013-2014), which **elementary principal(s)** have you turned to for information on student data or data usage?	How often?				
Name	1	2	3	4	5

1 = 1-2 times a school year.
2 = 1-2 times a semester.
3 = Once a month.
4 = Once every two weeks.
5 = At least once a week.

3. For the current school year (2013-2014), which other **elementary principal(s)** have you turned to when making important work-related decisions.	How often?				
Name	1	2	3	4	5

1 = 1-2 times a school year.
2 = 1-2 times a semester.
3 = Once a month.
4 = Once every two weeks.
5 = At least once a week.

4. For the current school year (2013-2014), from which other **elementary principal(s)** do you receive formal communication (newsletter, informational email, meeting, phone call) about work-related topics?	How often?				
Name	1	2	3	4	5

1 = 1-2 times a school year.
2 = 1-2 times a semester.
3 = Once a month.
4 = Once every two weeks.
5 = At least once a week.

5. For the current school year (2013-2014), which other **elementary principal(s)** have contributed to your personal professional growth (i.e., mentorship, professional development, leadership training)?	How often?				
Name	1	2	3	4	5

1 = 1-2 times a school year.
2 = 1-2 times a semester.
3 = Once a month.
4 = Once every two weeks.
5 = At least once a week.

6. For the current school year (2013-2014), with which other **elementary principal(s)** do you discuss personal issues not related to work?	How often?				
Name	1	2	3	4	5

1 = 1-2 times a school year.
2 = 1-2 times a semester.
3 = Once a month.
4 = Once every two weeks.
5 = At least once a week.

7. For the current school year (2013-2014), which other **elementary principal(s)** do you spend time with outside of the work setting?	How often?				
Name	1	2	3	4	5

Appendix B

SNA Survey

Participant:

There are two sections to this survey. ALL survey participants should complete both sections: Elementary School Principals and District Central Office Staff. There are seven questions in each section for a total of 14 questions to complete the survey.

Questions About District Central Office Staff

The purpose of this section of the survey is to identify professional and personal relationships you may have with **district central office staff at Oklahoma City Public Schools.** (District central office staff is defined as staff housed at the Administration Building, Service Center, PRE Office, or IT Offices.) Read each question, and list names of relevant **OKCPS district central office staff only.** If there is not enough room in the space provided, use the back of the survey to list additional people. Next to each person's name, indicate how often you have contact with that person with an "x" or a "√" on the five-point scale provided. If, for any question, you do not have any relevant names to list, you may leave the spaces blank.

> 1 = 1-2 times a school year.
> 2 = 1-2 times a semester.
> 3 = Once a month.
> 4 = Once every two weeks.
> 5 = At least once a week.

1. For the current school year (2013-2014), which **district central office staff member(s)** have you turned to for information on best practices related to your work?	How often?				
Name	1	2	3	4	5

1 = 1-2 times a school year.
2 = 1-2 times a semester.
3 = Once a month.
4 = Once every two weeks.
5 = At least once a week.

2. For the current school year (2013-2014), which **district central office staff member(s)** have you turned to for information on student data or data usage?	How often?				
Name	1	2	3	4	5

1 = 1-2 times a school year.
2 = 1-2 times a semester.
3 = Once a month.
4 = Once every two weeks.
5 = At least once a week.

3. For the current school year (2013-2014), which **district central office staff member(s)** have you turned to when making important work-related decisions.	How often?				
Name	1	2	3	4	5

4. For the current school year (2013-2014), from which **district central office staff member(s)** do you receive formal communication (newsletter, informational email, meeting, phone call) about work-related topics?	How often?				
Name	1	2	3	4	5

5. For the current school year (2013-2014), which **district central office staff member(s)** have contributed to your personal professional growth (i.e., mentorship, professional development, leadership training)?	How often?				
Name	1	2	3	4	5

1 = 1-2 times a school year.
2 = 1-2 times a semester.
3 = Once a month.
4 = Once every two weeks.
5 = At least once a week.

6. For the current school year (2013-2014), with which **district central office staff member(s)** do you discuss personal issues not related to work?	How often?				
Name	1	2	3	4	5

1 = 1-2 times a school year.
2 = 1-2 times a semester.
3 = Once a month.
4 = Once every two weeks.
5 = At least once a week.

7. For the current school year (2013-2014), which **district central office staff member(s)** do you spend time with outside of the work setting?	How often?				
Name	1	2	3	4	5

Appendix C

Interview Protocol – School Level

Introduction

  Thank you for agreeing to this interview. My name is Jackie Mania-Singer, and I am conducting this study to fulfill requirements of my Ed.D. at Oklahoma State University.

  I am interested in the relationships between district central offices and school sites. I am going to ask you a series of questions related to your relationships with colleagues at the school level and colleagues at the district central office.

  Please take a moment to review the consent form you signed prior to completing the survey. Do you have any questions?

  I am going to tape this interview so that I can transcribe it at a later date. The tapes or transcribed information will not be shared with anyone at your school or district, and if I use any of the information I will not use your name or position. All tapes and transcriptions will be kept secure and will be destroyed after the study. Do I have your permission to tape this interview?

Interview Questions

1. Please state your name and position.

2. How many years have you worked in education? This district? This school?

3. How do you learn about best practices related to your work?

4. What supports or programs does the district central office have in place to help you learn or find best practices?

5. How does your school use student data?

6. What types of data do you use?

7. How does the district help you collect or use student data?

8. How are decisions made in this building? In this district?

9. Tell me about a time this school year when you were involved in making decisions in your school. District.

10. What types of communication do you receive from your school? From your district?

11. How often do you receive formal communication from your school? From your district?

12. Tell me about the professional development opportunities in the district.

13. How does the district central office support you in professional development?

14. This school year, who would you turn to with a personal issue not related to school or work?

15. This school year, how often do you spend time with colleagues outside the work environment?

Conclusion

Thank you, this concludes our interview. Before I end, are there any questions you wish I would have asked related to your relationship between your colleagues at school or at the district central office? Is there anything else you want me to know?

Appendix D

Interview Protocol – District Level

Introduction

Thank you for agreeing to this interview. My name is Jackie Mania-Singer, and I am conducting this study to fulfill requirements of my Ed.D. at Oklahoma State University.

I am interested in the relationships between district central offices and school sites. I am going to ask you a series of questions related to your relationships with colleagues at the school level and colleagues at the district central office.

Please take a moment to review the consent form you signed prior to completing the survey. Do you have any questions?

I am going to tape this interview so that I can transcribe it at a later date. The tapes or transcribed information will not be shared with anyone at your school or district, and if I use any of the information I will not use your name or position. All tapes and transcriptions will be kept secure and will be destroyed after the study. Do I have your permission to tape this interview?

Interview Questions

1. Please state your name and position.
2. How many years have you worked in education? This district? In this position?
3. How do you learn about best practices related to your work?
4. How do you engage schools in learning about best practices?
5. How does your district use student data?
6. What types of data do you use?

7. How do you as a district involve the schools in data collection or usage?

8. How are decisions made in this district?

9. Tell me about a time this school year when you were involved in making decisions in your district.

10. Tell me about opportunities school-level staff has had in making decisions at the district level.

11. What types of communication do you receive from district? Schools?

12. How often do you receive formal communication from the district? From the schools?

13. Tell me about the professional development opportunities in the district.

14. How is the school-level staff involved in professional development in this district?

15. This school year, who would you turn to with a personal issue not related to school or work?

16. This school year, how often do you spend time with colleagues outside the work environment?

Conclusion

Thank you, this concludes our interview. Before I end, are there any questions you wish I would have asked related to your relationship between your colleagues at school or at the district central office? Is there anything else you want me to know?

Appendix E

ADULT CONSENT FORM - SURVEY

OKLAHOMA STATE UNIVERSITY

PROJECT TITLE: A Systems Theory Approach to the District Central Office's Role in School-Level Improvement

INVESTIGATORS: Jackie Mania-Singer, Doctoral Candidate, School Administration, Oklahoma State University

PURPOSE: The purpose of this study is to explore the relationships between the district central office and higher and lower performing elementary schools and to identify what, if any, influence these relationships have on the ability of schools to implement and sustain reform efforts to improve student outcomes.

PROCEDURES: You will participate in one survey. Questions asked in the survey will relate to the relationship of the district central office with school sites. This study will assess the extent to which district central offices and school sites are networked and examine the affect that network has on student achievement. The survey will take approximately 30 minutes to complete.

If selected, you will also participate in one live interview. Questions asked during the interview will relate to the relationship of the district central office with the school sites within your school district. The interview will take place in a private setting agreed upon by you and the researcher. This interview is designed to last approximately 45-60 minutes. The interview will be tape recorded and transcribed by the researcher.

RISKS OF PARTICIPATION: There are no risks associated with the study which are greater than those ordinarily encountered in daily life.

BENEFITS OF PARTICIPATION: Upon request, participants will be provided a copy of the research associated with the study. Due to confidentiality, any information that could lead to identification of a participant will not be released with the research.

CONFIDENTIALITY: The records of this study including, but not limited to the completed surveys, taped participant interviews and the transcriptions of interviews will be kept confidential. These records will be stored securely and only the researcher will have access to this information. Any identifying information will be recoded and the information used in the recoding process will only be accessible to be researcher. No identifying information will be included in the final project. Any information taken for identification will be used solely by the researcher for the purposes of coding information. It is possible the consent process and data will be observed by research oversight staff responsible for safeguarding the rights and wellbeing of people who participate in research.

COMPENSATION: There is no compensation as a result of participation in this study.

CONTACTS: You may contact the researcher or the faculty advisor of the study at the following contact address, phone number, or email to discuss your participation in the study or to request a copy of the research associated with the study.

Jackie Mania-Singer, Researcher
5113 North Linn Avenue
Oklahoma City, OK 73112
(H) 405-245-8592
jackie.mania@okstate.edu

Dr. Bernita Krumm, Faculty Advisor
315 Willard Hall
Stillwater, OK 74078
(405) 744-9445
Bernita.Krumm@okstate.edu

If you have questions about your rights as a research volunteer, you may contact the following Institutional Review Board Chair.

Dr. Sheila Kennison, IRB Chair
219 Cordell North
Stillwater, OK 74078

PARTICIPANT RIGHTS: I understand that my participation in this study is voluntary and there is no penalty for refusal to participate. I am free to withdraw my consent and participation in this project at any time, without penalty.

CONSENT DOCUMENTATION: I have been fully informed about the procedures listed here. I am aware of what I will be asked to do and of the benefits of my participation. I affirm that I am 18 years of age or older.

I have read and fully understand this consent form. I sign it freely and voluntarily. A copy of this form will be given to me. I hereby give permission for my participation in this study.

_____   _____

Signature of Participant   **Date**

I certify that I have personally explained this document before requesting that the participant sign it.

_____   _____

Signature of Researcher   Date

ADULT CONSENT FORM - INTERVIEW

OKLAHOMA STATE UNIVERSITY

PROJECT TITLE: A System's Theory Approach to the District Central Office's Role in School-Level Improvement

INVESTIGATORS: Jackie Mania-Singer, Doctoral Candidate, School Administration, Oklahoma State University

PURPOSE: The purpose of this study is to explore the relationships between the district central office and higher and lower performing elementary schools and to identify what, if any, influence these relationships have on the ability of schools to implement and sustain reform efforts to improve student outcomes.

PROCEDURES: You will participate in one live interview. Questions asked during the interview will relate to the relationship of the district central office with the school sites within your school district. The interview will take place in a private setting agreed upon by you and the researcher. This interview is designed to last approximately 45-60 minutes. The interview will be tape recorded and transcribed by the researcher.

RISKS OF PARTICIPATION: There are no risks associated with the study which are greater than those ordinarily encountered in daily life.

BENEFITS OF PARTICIPATION: Upon request, participants will be provided a copy of the research associated with the study. Due to confidentiality, any information that could lead to identification of a participant will not be released with the research.

CONFIDENTIALITY: The records of this study including, but not limited to the completed surveys, taped participant interviews and the transcriptions of interviews will be kept confidential. These records will be stored securely and only the researcher will have access to this information. Any identifying information will be recoded and the information used in the recoding process will only be accessible to be researcher. No identifying information will be included in the final project. Any information taken for identification will be used solely by the researcher for the purposes of coding information. It is possible the consent process and data will be observed by research oversight staff responsible for safeguarding the rights and wellbeing of people who participate in research.

COMPENSATION: There is no compensation as a result of participation in this study.

CONTACTS: You may contact the researcher of the study at the following contact address, phone number, or email to discuss your participation in the study or to request a copy of the research associated with the study.

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If you have questions about your rights as a research volunteer, you may contact the following
Institutional Review Board Chair.

Dr. Sheila Kennison, IRB Chair
219 Cordell North
Stillwater, OK 74078

PARTICIPANT RIGHTS: I understand that my participation in this study is voluntary and
there is no penalty for refusal to participate. I am free to withdraw my consent and participation
in this project at any time, without penalty.

CONSENT DOCUMENTATION: I have been fully informed about the procedures listed here.
I am aware of what I will be asked to do and of the benefits of my participation. I affirm that I
am 18 years of age or older.

I have read and fully understand this consent form. I sign it freely and voluntarily. A copy of this
form will be given to me. I hereby give permission for my participation in this study.

_____   _____

Signature of Participant   **Date**

I certify that I have personally explained this document before requesting that the participant sign
it.

_____   _____

Signature of Researcher   Date

Appendix G

Rankings of Johnson Public Schools

Codes	% of Students Scoring Proficient in Reading/Math				Attendance			Accountability Designation			Overall Ranking
	2014 Ranking	2013 Ranking	2012 Ranking	Total Ranking	2013 Ranking	2012 Ranking	Total Ranking	2013	2012	Total Ranking	
S08	5	4	22	6	1	2	1	1	2	1	1
S28	1	3	5	1	8	6	7	1	2	1	2
S38	18	5	9	11	3	6	3	1	2	1	3
S32	11	2	7	4	16	13	15	1	2	1	4
S48	9	10	19	13	8	8	7	1	2	1	5
S30	13	9	6	9	11	8	11	1	2	1	5
S04	12	1	2	3	19	16	19	1	2	1	7
S05	13	19	10	16	12	18	7	1	2	1	8
S09	29	15	4	17	5	4	6	1	2	1	8
S36	31	20	24	23	3	5	4	1	2	1	10
S02	16	21	29	21	7	10	7	1	2	1	11
S17	8	7	3	2	25	31	26	1	2	1	11
S42	10	8	15	8	23	24	23	1	2	1	13
S03	3	12	25	12	22	18	22	1	2	1	14
S50	6	5	10	5	34	25	37	1	2	1	15
S24	19	23	12	19	24	25	24	1	2	1	16
S29	17	14	1	7	38	31	38	1	2	1	17
S51	22	35	21	26	2	3	2	1	3	21	18
S21	4	22	32	18	16	10	15	2	2	21	19
S45	33	17	14	20	34	41	34	1	2	1	20
S20	2	13	23	10	25	41	25	1	3	21	21
S43	15	16	8	15	21	10	21	1	3	21	22
S34	35	25	18	27	16	13	15	1	3	21	23
S07	36	31	16	29	13	16	13	2	2	21	23
S27	44	17	13	24	39	31	41	1	2	1	25
S33	20	24	26	22	30	31	31	2	2	21	26
S39	40	43	42	42	6	1	5	3	2	30	27
S56	7	11	28	14	43	44	43	1	3	21	28
S41	23	41	39	39	10	13	12	2	3	30	29
S54	31	29	38	34	27	29	27	1	3	21	30
S26	26	27	31	28	15	22	13	3	3	41	30
S55	21	33	20	25	30	25	31	2	3	30	32
S42	37	34	27	35	52	49	54	1	2	1	33
S01	26	29	33	30	30	29	30	2	3	30	33
S52	25	28	41	33	27	25	29	2	3	30	35
S22	28	36	43	38	14	18	15	3	3	41	36
S11	34	26	30	31	42	41	41	2	3	30	37
S14	30	38	36	37	37	36	36	2	3	30	38
S35	42	40	17	36	40	39	38	3	2	30	39
S10	38	38	37	41	34	36	34	2	3	30	40
S53	39	42	46	43	20	21	20	4	4	49	41
S23	24	32	34	32	53	52	51	2	3	30	42
S31	40	37	34	40	48	49	48	2	3	30	43
S13	51	47	39	44	33	22	31	4	3	44	44
S49	52	53	51	53	27	31	27	4	4	49	45
S44	43	44	53	47	40	39	38	3	4	44	45
S16	47	46	44	46	43	45	44	3	3	41	47
S46	45	44	47	45	45	36	45	4	4	49	48
S12	48	50	45	48	47	46	47	3	4	44	48
S40	49	49	49	49	54	54	52	3	4	44	50
S19	49	48	52	50	51	46	53	3	4	44	51
S15	54	51	50	52	50	52	50	4	4	49	52
S18	46	52	54	51	49	48	48	4	5	53	53
S06	53	54	48	54	46	49	46	5	4	53	54

VITA

Jackie Mania Singer

Candidate for the Degree of

Doctor of Education

Thesis: A SYSTEMS THEORY APPROACH TO THE DISTRICT CENTRAL OFFICE'S ROLE IN SCHOOL-LEVEL IMPROVEMENT

Major Field: School Administration

Biographical:

Education:

Completed the requirements for the Doctor of Education in School Administration at Oklahoma State University, Stillwater, Oklahoma in December, 2014.

Completed the requirements for the Master of Education in English Education at the University of Oklahoma, Norman, Oklahoma in 2006.

Completed the requirements for the Bachelor of Arts in Humanities at St. Gregory's University, Shawnee, Oklahoma in 2002.

Experience:

Administrator of Organizational Assessment, Research Associate, Innovative Programs Coordinator, Oklahoma City Public Schools, Oklahoma City, Oklahoma, 2011-2014

Director of School Turnaround, Oklahoma State Department of Education, Oklahoma City, Oklahoma, 2008-2011

Education Coordinator, City of Oklahoma City and City Arts Center, Oklahoma City, Oklahoma, 2006-2008

English Teacher, All Saints Catholic School, Norman, Oklahoma; and Highland East Junior High, Moore, Oklahoma, 2002-2005

Professional Memberships:

Phi Kappa Phi Honor Society