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Mind the Gap: Organizational Learning and Improvement in an Underperforming Urban System

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Drawing on the theoretical lens of organizational learning, and utilizing the methodological approaches of social network and case-study analyses, our exploratory study examines whether schools under sanction exhibit the necessary processes, relationships, and social climates that support organizational learning and improvement. We also investigated the degree to which length of time under sanction affects the processes, relationships, and social climates of schools as well as the extent to which the relationships and climate of the larger district facilitate or hinder improvement in schools under sanction. Results indicate sparse ties within these schools, suggesting limited connectedness of staff with greater connectivity in the school that was newly placed on sanction. We also found school climates that did not support the type of collaboration necessary to bring about organizational learning and improvement. Finally, we found that a negative social climate and weak underlying relationships between district leaders inhibited the flow of ideas and practices district-wide, especially to these low-performing schools. These findings have important implications for school and district improvement under high-stakes accountability policies.

A national push for higher levels of performance and accountability through federal policies and programs such as the No Child Left Behind Act (NCLB), and most recently, the American Recovery and Reinvestment Act (ARRA), has increased the pressure on schools in the most challenging circumstances. Race to the Top, which is part of ARRA, relies heavily on local school districts and their low-performing schools to engage in reform efforts to bring about improvement in student outcomes as a result of personnel, leadership, or structural changes. However, trends indicate that most schools have struggled

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rather than improved, and increasing numbers have advanced to the ultimate consequences of the law, remaining stalled in the final “restructuring” category (Scott 2008). United States Secretary of Education Arne Duncan brought attention to this problem in his testimony to Congress when he noted that NCLB “has created a thousand ways for schools to fail and very few ways to help them succeed” (Duncan 2011).

Improving underperforming schools is difficult work that requires close attention to internal conditions in these schools, including the technical processes they undergo as well as the social relationships that facilitate improvement. Underperforming schools tend to be turbulent with high staff turnover, multiple and changing reforms, and challenges related to leadership (Daly 2009; Finnigan 2010, 2012; Finnigan and Daly 2010; Finnigan and Stewart 2009), teacher quality (Sunderman et al. 2005), and teacher motivation (Finnigan and Gross 2007). Research outside of education has found that system-wide improvement is closely linked to the quality and structure of relations within the organization (McGrath and Krackhardt 2003; Tenkasi and Chesmore 2003) with frequent interactions supporting the transfer of tacit, non-routine, and complex knowledge, thereby allowing for mutual problem solving and system-wide change (Hansen 1999; Reagans and McEvily 2003; Uzzi 1997). Within education, research has found that schools with collaborative or trusting cultures are more likely to show signs of improvement and innovation (Bryk and Schneider 2002; Mintrop 2004; Mintrop and Trujillo 2005; Moolenaar 2010; O’Day 2004). Beyond the importance of internal processes and relationships, policy makers and practitioners must pay greater attention to the larger district in which low-performing schools reside, given the key role of the central office and the importance of a system-wide approach to improvement (Burch and Spillane 2004; Daly and Finnigan, forthcoming; Datnow and Castellano 2003; Honig 2006; Marsh et al. 2005; Smylie et al. 2003).

Building upon this prior work, drawing on the theoretical lens of organizational learning, and using the methodological approaches of social network and case-study analyses, our exploratory study examines schools and their larger district context as they attempt to improve student outcomes under

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accountability policy sanctions. Specifically, to better understand why so few schools have improved under sanction, we sought to answer the following questions: To what extent do schools under sanction exhibit the necessary processes, relationships (or social ties), and social climates that support organizational learning and improvement; to what extent does length of time under sanction affect the processes, relationships, and social climates of schools; and in what ways do the relationships and climate of the larger district facilitate or hinder improvement in schools under sanction?

This study makes a unique contribution to the research by examining both the internal conditions of schools under sanction and the larger district context through surveys at the school and district levels, as well as in-depth case studies involving interviews, observations, and document review. While more attention has been focused recently on the district as a unit of analysis, few studies have used qualitative and quantitative—including social network data—to demonstrate the embedded nature of underperforming schools within their districts. These results can inform the broader policy debates about the current accountability policy movement and challenge the underlying assumptions about the processes and relationships that exist within these schools to bring about improvement.

Theoretical Framework

Learning is important to school improvement, as staff “face a steady stream of novel problems and ambitious demands” (Leithwood et al. 1998, 3–4). In the following pages, we briefly describe our theoretical lens related to organizational learning and the technical and social aspects of school improvement. An underlying assumption of accountability sanctions is that sanctions will focus attention on particular outcomes, in this case student (and as a result school) performance. This assumption suggests that schools will focus on the technical aspects of organizational learning (e.g., by assessing problems, changing strategies, or refocusing goals). However, organizational learning also involves the social processing of knowledge, yet underlying relationships and climate are not often considered explicitly in these policy reforms. These social aspects of organizational learning—which have received much less attention in the research and policy debates compared with the technical aspects of learning—have an important role in organizational improvement. To examine the technical aspects of learning, we build on the work of theorists who focus on the process of learning within organizations. To examine the social aspects, we build on the work of researchers both within and outside of education who consider the importance of collective relationships or communities of practice within organizations in the social processing of knowledge. We also

consider the importance of the quality of those relationships and related social climate in advancing improvement.

Technical Aspects of Learning

Organizational learning is the process of detecting and correcting problems to improve organizational effectiveness (Argyris and Schön 1996). Through this process, organizations must “question underlying assumptions that guide practice so that chosen solutions address the core problem and not merely symptoms” (Scribner et al. 1999, 134). The process of accurately diagnosing issues facing an organization is one of the first and most crucial technical steps in an organization’s ability to “learn” and improve (Argyris and Schön 1996; Collinson and Cook 2007). Learning, in an organizational sense, leads members to change behaviors (Levitt and March 1988) and norms (Collinson and Cook 2007) through a deliberate, rather than haphazard, process (Fiol and Lyles 1985).

Technical conceptualizations of organizational learning suggest that organizations follow one of two trajectories as individuals in the organization refine the goals, objectives, or practices to bring about change (Argyris and Schön 1996). “Single-loop” learning, or remaining within the current operating paradigm of the organization, is about “how best to achieve existing goals and objectives and how to keep organizational performance within the range specified by existing norms” (Argyris and Schön 1978, 21). “Double-loop” learning requires a more careful examination of underlying assumptions, values, and beliefs that have maintained previous performance. This process involves examining “incompatible organizational norms by setting new priorities and weightings of norms, or by restructuring the norms themselves together with associated strategies and assumptions” (Argyris and Schön 1978, 24). As such, double-loop learning requires the examination of underlying values or assumptions that at one time may have been supportive of organizational goals, but now inhibit its ability to improve. A key distinction between single- and double-loop learning is that the former refers to incremental or routine changes, while the latter refers to transformational or more radical change and innovation (Easterby-Smith et al. 2000).

Another important technical aspect of organizational learning relates to the way in which ideas or practices enter the organization or evolve. March (1991) argues that organizations require a balance between exploration (e.g., exploration of new knowledge or experimentation) and exploitation (e.g., refinement or use of existing knowledge). Furthermore, double-loop learning would suggest that some degree of exploration (or search for new ideas and practices outside of the organization) occurs as the organization moves beyond current

norms and practices. In fact, this flow of “novel” information into and throughout the organization is critical (Huber 1991). While the exact proportion of exploration and exploitation is not clear in these works, March suggests that some balance is critical as organizations both “exploit” their internal resources (i.e., knowledge and practices) and search for, or “explore,” new knowledge and practices from outside. As part of the organizational learning process, organizational actors “incorporate” new ideas or approaches into their practice, either formally or informally. In sum, these more “technical” elements of organizational learning are core to the work of improvement.

Social Aspects of Learning

Beyond these more technical aspects, organizational learning and improvement involve important social components, as the underlying relationships within an organization support or constrain opportunities for information transfer and the development of new knowledge between individuals, levels, and units (Ahuja 2000; Daly 2010; Tsai and Ghoshal 1998). This understanding of organizational learning assumes that changes in organizations are socially constructed and coconstructed (Datnow et al. 2006; Hubbard et al. 2006). Therefore, attempts to modify the technical elements of learning often require changes in the existing social relationships (Borgatti and Foster 2003; Stevenson et al. 2003). Thus, the nature and strength of relationships among organizational actors may influence the speed, direction, and depth of planned change and learning (Mohrman et al. 2003).

As we suggest above, the type, quality, and structure of relationships matter to a collective (i.e., school-level) effort to improve. As Stoll (2009) points out, learning processes involve dialogue, allowing members of the community to connect, discuss, and debate. Organizational learning is, therefore, “embedded in the deeply held beliefs and shared conceptualizations that develop among members of the organization over time as particular understandings and practices evolve through unconscious and regular interactions” (Supovitz 2009, 709). Our study is informed by prior work that has focused on the ways in which the structure of relationships in a social network influence the process of learning and change (see, e.g., McGrath and Krackhardt 2003; Mohrman et al. 2003; Stevenson et al. 2003). For example, informal networks with dense ties generally achieve at higher levels of performance than those with sparse connections (Reagans and Zuckerman 2001), suggesting the importance of the overall network structure in achieving organizational goals (Guzzo and Shea 1992). In addition, whether the tie is expressive (also considered more affective) versus instrumental (thought of as more work-related) is important to understanding the flow of resources (Dean and Lin 1977; Wethington and

Kessler 1986). Expressive ties allow a type of psychological support that can be effective against distress as individuals share feelings and vent their frustrations (Lin et al. 1999). Given the current policy context and high levels of stress associated with increased sanctions, these expressive relations may be especially important to organizational improvement (Daly and Finnigan 2010, 2011; Finnigan and Daly 2010).

Instrumental ties, on the other hand, are usually oriented toward the more tangible (or technical as discussed above) work-related supports (Wellman 1992). However, research has found that the quality of the relationship (or strength of the tie) matters to these instrumental relationships as well, suggesting that expressive ties also have a more functional resource-sharing purpose (Lin et al. 1999). In fact, some research suggests that as ties get stronger, they move from focusing on instrumental or work-related purposes to becoming more expressive, thereby allowing the transfer of a variety of different resources rather than just the more technical, information-oriented exchanges (Oh et al. 2004). Finally, intraorganizational interaction and communication enable the diffusion of new ideas, while stable ties between subgroups, such as grade levels, facilitate knowledge transfer, cooperative relationships, and innovation (Ghoshal et al. 1994; Song et al. 2007; Tsai and Ghoshal 1998).

Related to these underlying relationships, another aspect of the organization, the organizational culture or climate, can support or constrain the learning and inquiry of members (Collinson et al. 2006). Organizational climates involve the norms and relationships among members of the organization and the general sense of connectedness (or not) among individuals. For example, the climate may be one in which individuals respect, support, and trust one another, or they may be climates that are more toxic or dysfunctional. Trusting relationships in particular have been identified as a critical aspect of cultures that supports improvement, as it supports risk taking and the exploration of new ideas (Bryk and Schneider 2002; Stoll 2009). At its core, trust is based on interpersonal interdependence (Rousseau et al. 1998), requiring a willingness on the part of both parties to be vulnerable to one another based on the confidence that the other party is benevolent, reliable, competent, honest, and open (Cummings and Bromiley 1996; Hoy and Tschannen-Moran 2003). The affirmative outcome of this interaction, meaning both parties trust one another, may result in an increase in the ability of the parties to engage in deeper exchanges of information and innovative practices (Costa et al. 2001; Tschannen-Moran 2004), whether of a more technical or social nature as discussed above. A trusting and supportive social climate is especially important for organizations that operate in turbulent environments, which is certainly the case in underperforming urban schools and districts (Bryk and Schneider 2002).

While there is often much emphasis on the technical aspects of learning

(e.g., the creation of school improvement plans), our research points to the importance of considering the social aspects of learning to bring about improvement (Daly and Finnigan 2010, 2011, forthcoming; Finnigan and Daly 2010). These distinct areas (technical and social aspects of organizational learning), in combination, provide us with important insights in understanding efforts to improve within these schools under sanction as well as the broader district context.

Method and Data Sources

The study involves case-study design (Yin 2003) and focuses on one district, La Confianza,¹ which is a district “in need of improvement” under NCLB that serves approximately 32,000 students. The district is nearly 90% non-white, with 88% of students receiving free and reduced-price lunches. Within the district, nearly all of the high schools are identified as “underperforming” based on state and federal accountability guidelines. La Confianza is an important case as it typifies many of the urban districts across the country that serve primarily students of color from low socioeconomic communities, have a pattern of underperformance, and are engaged in district-wide improvement efforts to move off of sanctions.

Sample Selection

While La Confianza is the overarching case, including district-level data as discussed below, the study involves embedded case studies of three secondary schools in the district (see table 1). These schools were purposively selected based on their history of performance and matched based on student demographics. Schools 1 and 2 were both under state and federal sanctions for several years prior to the start of the study. At the start of 2009–10, both schools were cited for not making Adequate Yearly Progress (AYP) in English language arts (ELA). However, school 3 was newly placed under sanctions during the study, based on the spring 2010 ELA and math scores. At the start of 2009–10, this school was considered in “good standing,” providing a contrasting case in terms of the role of sanctions in improvement given the short length of time the school was under sanctions (i.e., the staff did not yet know at the time of data collection). As noted in table 1, all three schools serve high proportions of low-income students of color, mirroring the student population in the district. These schools also had high rates of teacher turnover, ranging from 25% to 43%, causing a high level of organizational instability.

Mind the Gap

TABLE 1

School-Level Demographics

School	% Teacher Turnover	% Free and Reduced Lunch	Student Demographics	Years in INI
1	43	88	68% African American 25% Hispanic 8% White	4
2	33	76	63% African American 27% Hispanic 7% White 3% Asian/Pacific Islander	4
3	25	83	76% African American 14% Hispanic 10% White	Just entered

NOTE.—INI = in need of improvement.

Data Collection

Our study uses quantitative and qualitative data to examine the improvement processes, relationships (or social ties), and social climates of these schools under sanction. All data collection for the study occurred between 2009 and 2010.

Quantitative.—The quantitative data collection involved a survey instrument administered to school and district staff with both fixed-response items relating to organizational climate and technical aspects of organizational learning, as well as social network items. The organizational learning and climate items were developed based on our theoretical framework, as well as items used in other contexts that were adapted to the school and district setting (see, e.g., Garvin et al. 2008) or used in schools (e.g., Tschannen-Moran and Hoy's [2000] trust scale). For example, our instrument involved questions relating to technical aspects of organizational learning, for example, single-/double-loop learning and exploration/exploitation, as well as the overall climate of the school. In addition, the survey instrument involved social network questions based on prior network studies (Cross and Parker 2004; Cross et al. 2002; Hite et al. 2005) and targeted both instrumental (expertise) and expressive (vent) relationships. Respondents were asked to quantitatively assess a particular relationship with each individual on a 4-point frequency scale ranging from 0 (not at all) to 4 (1–2 times a week). For example, regarding expertise ties, respondents were asked to do the following: "Please select the frequency of interaction for each school/district staff who you consider a reliable source of expertise related to your work." The vent network was created based on

the prompt, "Please select the frequency of interaction with members of the school/district who you turn to when you need to vent."

The school-level survey was administered to all teachers and administrators within the three high schools ($n = 138$). In addition, we administered a survey to the district's leadership team ($n = 108$). We surveyed those in formal leadership positions in the district, including the superintendent, chiefs, and directors from the central office and principals at the school sites. For both the school and district leadership team online surveys, we used a bounded/saturated approach (Lin 1999; Scott 2000), meaning we listed all members of the particular group (school or leadership team), and respondents were not able to list any "outside" people that they connected to, for example, teachers from other schools or clerical staff. The benefit of using this strategy is that coupled with high response rates, it provides a more complete picture and more valid results compared with an unbounded approach (Lin 1999; Scott 2000). Response rates for the school- and district-level surveys range from 83% to 88%, thereby meeting the threshold for social network analysis (Scott 2000).

Qualitative.—Our qualitative work included case-study data from the three high schools participating in the study. We conducted interviews with staff across the three schools ($n = 30$), including classroom teachers, school administrators, and other school staff who provide instructional support in the school. Participants were identified by the school roster with the intent of including some individuals from each school who were part of the school's governing body, the school site council, and a variety of individuals based on subject area, grade level, or other emphases in the school, for example, special education teachers, science or ELA teachers, and so on. Identified individuals were contacted directly by e-mail and asked if they would participate. Interviews were frequently held during the planning period for classroom teachers and at the end of the school day for nonclassroom teachers. Each interview lasted approximately 45 minutes and was audio-recorded and transcribed verbatim. In addition to interview data, our case-study data involved field notes of observations at school meetings and review of documents relating to improvement efforts. Our qualitative data also included open-ended items on our survey at the school and district level.

Data Analysis

Quantitative.—We used SPSS to conduct the analysis of the survey items that related to organizational learning and climate and used UCINET software (Borgatti et al. 2002), including Netdraw (Borgatti 2002), for the social network analyses. Given that respondents tend to be more accurate at identifying

ongoing patterns than determining occasional interactions (Carley and Krackhardt 1999) and that we were interested in stable structural patterns, we dichotomized the data for our analysis to include only the most frequent ties between actors (i.e., data indicating individuals interacted at least once every 2 weeks).

Based on the different theoretical areas discussed above relating to tie structure and quality, a series of analyses were conducted in order to examine distinct network measures. For example, we examined density, the number of social ties between actors divided by the number of total possible connections, as a dense network is thought to be able to move resources more quickly than a network with sparse ties (Scott 2000). We also examined fragmentation, the ratio of the number of disconnected pairs to the possible number of fully connected pairs within a network (Wasserman and Faust 1994), and centralization, as highly central structures allow a few members disproportionate influence over the flow of resources (Raider and Krackhardt 2001). Finally, we examined reciprocity, or the proportion of mutual connections, and in-closeness/outcloseness, or the distance of an actor to/from all other actors in the network. We also examined differences relating to type of tie (instrumental vs. expressive) and compared the two schools that had been under sanctions for a long period with the school newly placed on sanction.

Qualitative.—We used Nvivo8 to analyze the qualitative data. Our coding involved an iterative process in which we coded the data based on the overarching thematic areas related to our theoretical framework, for example, exploration, reciprocity, or trust. We used a memoing process (Glaser 1998) as part of this coding stage to uncover important emerging themes and subnodes and recoded the data as needed. We analyzed the entire data set thematically to uncover patterns in these data relating to processes, relationships, and climate. Next we analyzed each school's data individually, writing a school-specific summary for each of the case-study schools. Using these individual case summaries, we conducted cross-case analyses, focusing primarily on the differences between the two schools that had been under sanction (schools 1 and 2) compared with the school that was newly placed under sanction (school 3). We attended to the reliability and validity of the qualitative data analysis by building off of the themes from the literature and by having multiple members of the research team code a few transcripts individually and then jointly discuss differences in interpretation of both data excerpts and codes. After this step, we revised the coding scheme to better capture the various themes and subthemes. We also codeveloped descriptions of each code as a research team to improve the consistency in coding across team members.

Through our analysis, we integrated quantitative and qualitative data thematically. Our quantitative data provide us with more breadth of understanding, as we can represent the full staff at the three schools and the entire district-

wide leadership team. These data are also particularly useful for understanding the network structure and existence of particular processes or climate within schools and district-wide. The qualitative data provide us with greater depth of understanding in terms of the processes, relationships, and climate and help us to make sense of the internal conditions within these schools and the larger district. We used both types of data to inform as well as be informed by one another as a way to capture both breadth and depth.

Results

Our study, while exploratory, provides insights into the challenges facing low-performing schools across the country as they try to improve under accountability policy sanctions. In the following pages, we examine the technical elements related to organizational learning as well as the social relationships (or social ties) within these schools under sanction as well as differences in these areas based on length of time the school was under sanction. Finally, we examine the relationships and climate of the larger district and consider ways in which they may facilitate or hinder improvement in these schools.

Examining Organizational Learning: Processes, Relationships, and Social Climates

As illustrated in the following pages, our findings indicate limited evidence of the technical aspects of learning in schools under sanction, with schools more likely to revisit well-established perspectives than to discuss underlying assumptions or have a formal process for evaluating programs. We also find sparse ties, especially the expressive (vent) relationship, indicating a limited connectedness for staff in these schools, with some staff playing key roles in the flow of “expertise,” given the centralized nature of these networks. While we find some evidence of positive social climates, the variability in the perceptions of climate found in these schools may hinder improvement.

We began by examining the processes school staff use to identify and solve problems (i.e., single- or double-loop learning), as well as the extent to which they acquire new ideas or refine existing ones (i.e., exploration vs. exploitation). As mentioned earlier, a key aspect of organizational learning is the organization’s ability to detect and correct problems, including a process of examining underlying beliefs that shape processes and practices. This double-loop learning was rare in the study schools. In fact, only about one-half of staff in each school agreed or strongly agreed that the school frequently discussed underlying assumptions that might affect key decisions (school 1, 51%; school 2, 53%; school 3, 53%) or that the school had a formal process for evaluating

TABLE 2

Balance of Exploration vs. Exploitation (Percentage of School Staff)

	Primarily Explore (Ideas from Outside)	Primarily Exploit (Ideas from Inside)
School 1	70	30
School 2	56	44
School 3	53	47

programs and practices (school 1, 55%; school 2, 53%; school 3, 49%). A higher proportion believed that the school revisited well-established perspectives during discussions (school 1, 74%; school 2, 79%; school 3, 68%). A key aspect of organizational learning involves experimentation, yet only 65% of staff at school 1 agreed or strongly agreed that this occurred, compared with 88% at school 2 and 93% at school 3.

Our analyses also indicated that two schools (schools 2 and 3) had a balance of exploration and exploitation in terms of their search for new ideas and practices to bring about improvement. As table 2 shows, staff at school 1 were more likely to get their ideas from outside the school; thus, they were engaged more in “exploration,” in March’s (1991) terminology. However, both school 2 and school 3 (the newly sanctioned school) engaged in a balance of exploration and exploitation, including both acquiring ideas and practices from outside the school and refining (“exploiting,” in March’s terms) their school’s existing ideas and practices.

Our examination of the underlying social networks in these schools involved two network areas: venting and expertise. The expressive network question asked staff their frequency of interaction with members of the school to whom they turn when they need to vent. Venting represents an expressive relationship in which you can share your thoughts with someone you trust. The network maps for each school are included in figure 1. In the maps, light-gray circles, or nodes, are classroom teachers, while dark-gray ones are administrators and other staff (e.g., instructional support staff). Those nodes that are black in color did not provide information regarding a person’s position. The nodes are sized by in-degree, meaning the larger nodes represent the people who more people go to in order to vent. As figure 1 shows, all three schools have somewhat sparse vent networks, with individuals isolated on the far left because they did not report venting to anyone nor did anyone indicate they vented to them. A small number of classroom teachers play an important, as they are central in the networks—these individuals are represented by the larger-sized nodes in the maps.

Table 3 provides quantitative measures to support these visualizations. As shown in table 3 under “density,” these network measures show only 4%–5%

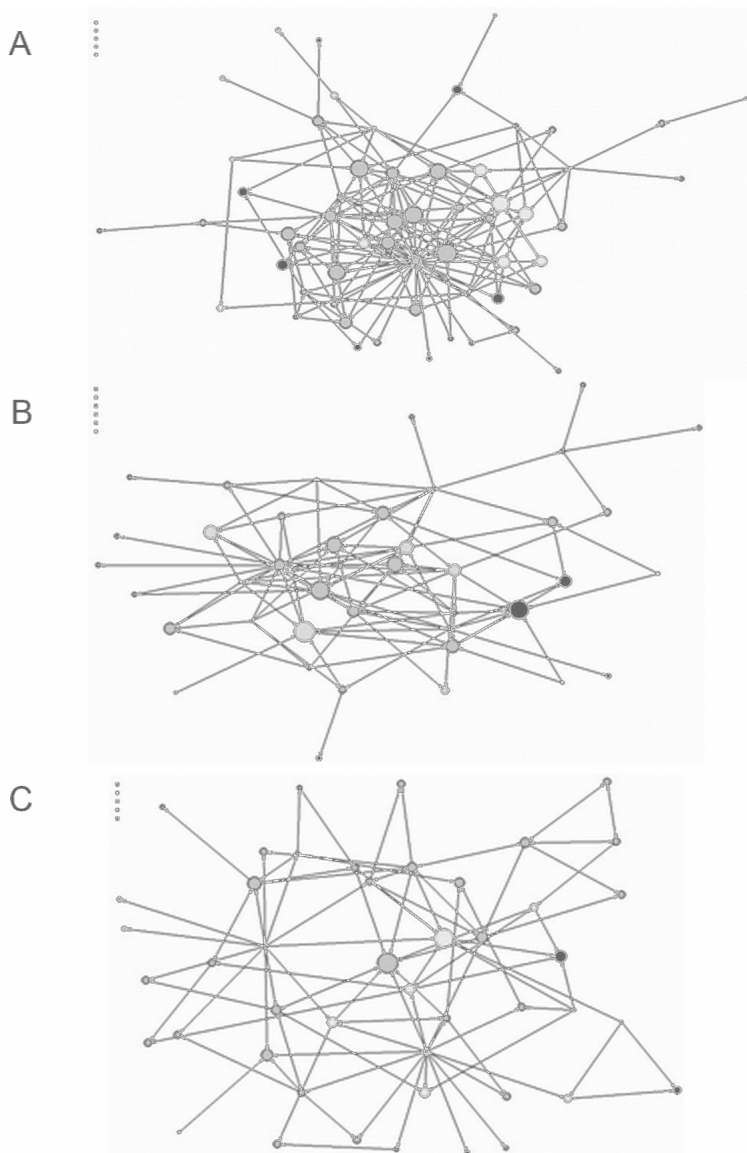


FIG. 1.—School maps: vent network. *A*, school 1; *B*, school 2; *C*, school 3. Light gray = classroom teachers, dark gray = administrators and instructional support staff, black = position data not available.

TABLE 3

Network Measures

Type of Network	School 1	School 2	School 3
Vent (expressive):			
Density	.048	.049	.040
Reciprocity	.152	.041	.171
Incloseness	2.239 (.50)	2.919 (.58)	2.921 (.43)
Outcloseness	2.613 (1.42)	3.340 (1.54)	4.637 (3.33)
Fragmentation	.665	.624	.292
Centralization (%)	52.35	32.02	24.04
Expertise (instrumental):			
Density	.064	.092	.069
Reciprocity	.086	.111	.197
Incloseness	3.732 (1.10)	4.000 (.79)	4.209 (1.02)
Outcloseness	4.760 (2.26)	6.763 (4.44)	6.384 (3.56)
Fragmentation	.352	.284	.291
Centralization (%)	45.52	52.42	23.39

of possible venting ties are present and low levels of reciprocity exist in these schools, especially in school 2, as seen by the only 4% of ties that are reciprocated.

The second network area we examined was an instrumental (i.e., work-related) network and focused on the frequency of connections to individuals who are a reliable source of expertise. As illustrated in figure 2, we find a similar network structure for both vent and expertise, with a sparse network structure, though greater density for the expertise network compared with the vent network. This suggests that individuals are more connected around the technical than the emotional aspects of their work and may indicate more shallow ties as discussed in our theoretical framework.

Both the school-level network maps and the measures included in table 3 suggest a limited flow of information, ideas, and practices within these schools under sanction. The schools have varying degrees of fragmentation or centralization, discussed further in the next section.

Our analysis of the survey data relating to the social climate in these schools provides important insights into their context. As table 4 indicates, school 2 had the highest agreement around trust, with staff generally agreeing that they look out for each other, can depend on each other, and respect each other. The high level of agreement around these positive aspects of social climate, however, seem to contradict some of our network results, for example, the low levels of reciprocal ties at school 2. Another important finding relating to the social climate within these schools has to do with the variability in perceptions of the social climate at all three schools, as evidenced by large standard deviations, meaning some staff had more negative perceptions of the climates

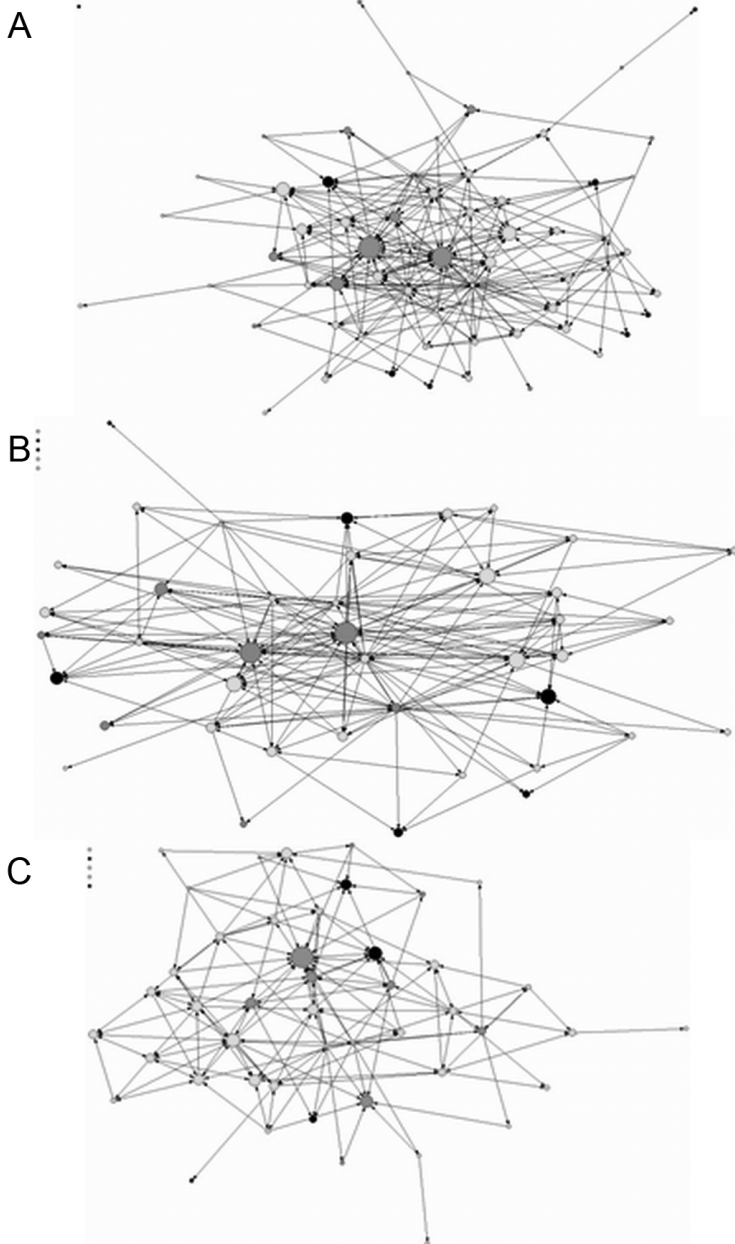


FIG. 2.—School maps: expertise network. *A*, school 1; *B*, school 2; *C*, school 3. Light gray = classroom teachers, dark gray = administrators and instructional support staff, black = position data not available.

TABLE 4

Social Climate

	MEAN (SD)		
	School 1	School 2	School 3
Staff in this school typically look out for each other	2.84 (.574)	3.03 (.647)	2.79 (.470)
Even in difficult situations, staff in this school can depend on each other	2.78 (.652)	3.03 (.647)	2.74 (.497)
Staff in this school respect each other	2.74 (.539)	3.00 (.525)	2.76 (.538)
Staff in this school have faith in the integrity of their colleagues	2.71 (.508)	2.97 (.547)	2.74 (.497)
Staff in this school trust each other	2.56 (.590)	2.90 (.651)	2.59 (.547)

NOTE.—4-point Likert scale: 1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree.

within their schools. The standard deviations (or variability in perspectives) were highest in school 2. Furthermore, at schools 1 and 3, we find lower perceptions of trust and the social climate, overall.

Our qualitative data hint at some of the negative aspects of these climates, as well as provide more depth to our understanding of the pressures relating to the high-stakes accountability policies felt within these schools. We heard mixed results based on our different data sources as to the social climates, with greater emphasis in the interviews on the negative aspects of the climate. This may be due, at least in part, to the timing of our interviews, as there was increased uncertainty around the economic downturn and potential lay-offs. At school 1, several people mentioned the school was “cliquey” in terms of groups of people who only had ties with each other, as well as “competitive,” suggesting more of a disconnected subgroup structure. Across all three schools, people would often qualify their answers when asked if the school was a trusting place, offering comments such as “most would say it is” or “some people feel that way,” supporting the quantitative findings that there was not a collective or consistent perception of trust across the schools. When probed, school staff were more likely to share the tensions between staff and dysfunction within the organization. For example, when asked whether people are able to “speak up” when they have concerns, one teacher offered, “Since I’ve gotten to this building people are like, ‘well, you know, I don’t want to say that because I might get in trouble.’” Another educator noted, “I think we have a lot of burned out teachers this year, a lot of burned out teachers who have just been frazzled by the way they’ve perceived they’ve been professionally treated.” Several people mentioned tension between newer staff and those who had been there a long time, while others mentioned issues between teachers and administrators. One teacher described confronting another staff member about

the way she was treated, providing some insights into how people interacted in this school: “Just last week I confronted a teacher about the way that this person was treating me, I mean they were treating me incredibly poorly and immediately this person started saying, ‘well, I feel the same way about you and I’m going to write down everything that you’re saying now and then I’m going to write up a report and report you.’ And I was like, ‘I would never do that to you, I don’t know why you’re going to do that now and if you are the conversation is over.’” While we do not have data to indicate these kind of interactions were frequent occurrences at these schools, they suggest that the quantitative data may overstate the climate or, at the very least, that there were some staff in the school who experienced negative social climates that would hinder organizational learning.

Do Schools Persistently under Sanction Differ from a Newly Sanctioned School?

In this section, we examine differences in the technical and social aspects of organizational learning based on the length of time on sanction by comparing two schools (schools 1 and 2) that had been on sanction for a few years with the newly sanctioned school (school 3). As the following pages indicate, our results are quite similar with regard to most technical aspects of organizational learning, with the exception that staff in the newly sanctioned school had more opportunities to share information or data with other staff through structured meetings/forums. While we did not find differences in the social climate of the school, with school 3 having lower agreement around positive aspects of climate compared to school 2, the newly sanctioned school exhibited important differences in terms of its underlying relationships with social ties that were more dispersed, less fragmented, and more reciprocated.

As discussed previously, most aspects of double-loop learning were uncommon across all three schools, with about half of the staff reporting that the school discussed underlying assumptions or had a formal process for evaluating programs. School 3 indicates a balance of exploration and exploitation, but results were similar to school 2, and therefore no clear pattern relating to time on sanction emerges. Similarly, all schools in the study had similar proportions of teachers indicating that time was available for education/training activities for staff (school 1, 81%; school 2, 84%; school 3, 86%). However, when asked whether forums were available for sharing information among staff, our data indicate an interesting difference. In school 3, 77% reported that these forums were available, while only 65% (school 1) and 58% (school 2) reported opportunity for the exchange of this type of information. At school 3, a formal structure of vertical teams had been implemented for several years, and 90% of teachers reported that they got new ideas from these meetings, while 88%

reported that they explored new ways of thinking about practice with their vertical teammates. These data were supported by our qualitative data and suggested that these vertical team meetings—that is, time set aside to meet with other staff to discuss student work—were an important aspect of the exchange of ideas and practices at the school newly placed under sanction. This type of collaborative exchange of ideas and practices supports the type of double-loop learning noted in our theoretical framework.

As discussed previously and shown in figures 1 and 2 and table 3, we found general patterns that were similar across the three schools in terms of the underlying relationships, with the social network analyses indicating sparse networks, although the expertise networks were slightly more dense than the vent networks. However, these maps and measures display a few important distinctions for school 3 compared with schools 1 and 2. First, school 3's vent network was more dispersed and less centralized, as seen by the higher out-closeness measure and lower centralization measure. School 3's vent network is also more cohesive, as suggested by a significantly lower fragmentation score (0.292 compared with 0.665 for school 1 and 0.624 for school 2). In addition, we see differences in the expertise network, with higher levels of reciprocity (almost double) for school 3 (0.197 compared with 0.086 and 0.111). As with the vent network, greater dispersion is evident for school 3, as indicated by the lower centralization scores, suggesting more availability and equal access to social support as measured through this relationship.

In contrast, schools 1 and 2 exhibit somewhat centralized and sparse (less dense) networks with a lack of reciprocal ties and high levels of fragmentation for the vent network in particular. These differences suggest that resources (knowledge, ideas, practice) would more quickly spread through school 3 in comparison to schools 1 and 2. In fact, school 3's networks illustrate greater connectivity among staff, as well as more dispersion of ties, suggesting that there is less "control" over the flow of resources by a few individuals compared with the other two schools. Figure 3, which shows the expertise network and only includes the relationships among teachers in these schools, illustrates some of the structural differences at school 3 a bit more clearly. In these network maps, the clustering of individuals in school 3 stands out, as well as the more reciprocal relationships, as indicated by a large (in comparison to schools 1 and 2) number of bidirectional arrows.

Examining the Social Ties and Climate of the District

While school-level network maps and measures show important findings relating to the social ties *within* these schools, the district-wide leadership networks provide a contextual lens to the limits on organizational learning across the

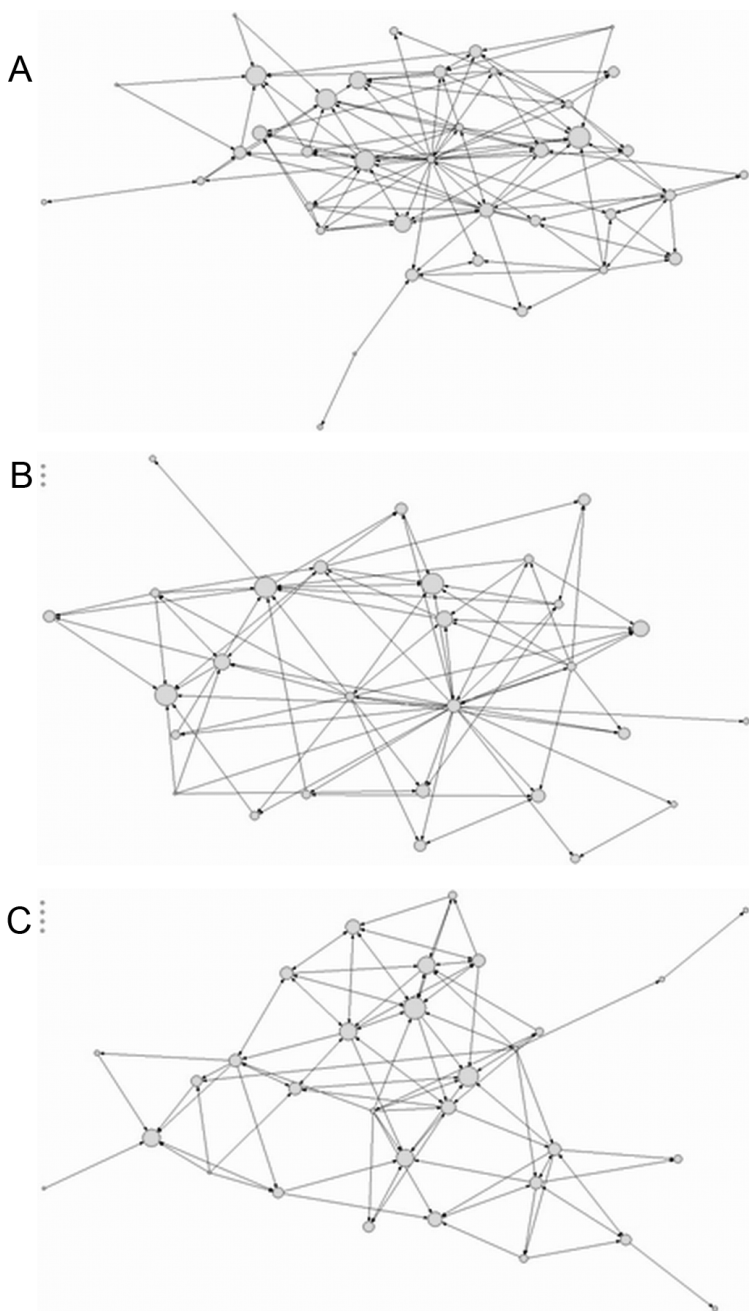


FIG. 3.—School maps: expertise network (teachers only). *A*, school 1; *B*, school 2; *C*, school 3.

district. As we show in the following paragraphs, principals within La Con-fianza school district report being isolated from one another, as well as from the central office, with few connections around the instrumental expertise network. In addition, our data show that the schools that would likely most need to build their capacity around improvement, and therefore benefit from more instrumental connections, are even more likely to be isolated. Finally, the negative social climate we found overall, as well as variability in perceptions of this district wide, indicate an important shortcoming related to organiza-tional learning, as the quality of relations between organizational members is a key factor in supporting the learning and inquiry among organizational members (Collinson et al. 2006).

Figure 4 includes maps that illustrate the expertise connections of the dis-trict-wide leadership team, which included principals and central office staff. The light-gray nodes represent central office staff, and the dark-gray nodes are principals. Every node to the left-hand side is isolated, meaning they select others neither for expertise nor in terms of the exchange of expertise. As figure 4 shows, principals do not tend to connect to each other, and the interactions that do exist among principals are rarely reciprocated. In addition, very few principals connect with central office staff, and those ties that do exist are mostly principals connecting to central office around expertise rather than vice versa. This may suggest a devaluing of the expertise that resides with school leaders.

In addition, all schools under sanction in the district at the beginning of 2009–10 are indicated with a square in figure 4, while those not under sanction at that time are indicated with a circle (since school 3 went under sanction during the study, it is designated with a circle). As these data indicate, limited ties around expertise in best practices exist for schools under sanction to any schools, let alone higher performing ones. Moreover, these schools are also only weakly connected to central office staff. Of our case-study schools in particular, the principal of school 1 does not seek out anyone, and only one administrator of another low-performing school seeks out this principal. The principal at school 2 is connected to one (noncentral) central office staff and one other administrator of a low-performing school—both of them also seek out the school 2 principal for expertise, but the principal does not seek anyone out. And finally, the principal of school 3, the newly sanctioned school, has a principal that does not connect with any other principals and is sought out by one central office administrator. In an interview, the school 3 principal commented that the district was just not conducive to the sharing of ideas across schools, in part because all secondary schools are schools of choice and therefore are, in some sense, in competition with each other around both teachers and students.

These findings showing weak linkages among principals, as well as sparse

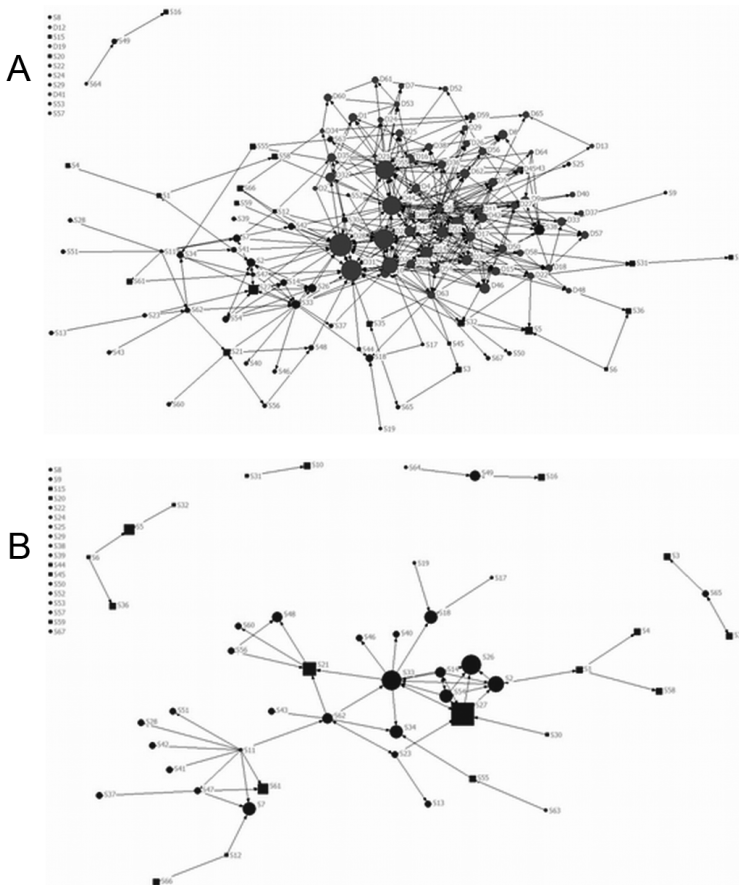


FIG. 4.—District maps: expertise network. *A*, district-wide leadership team; light gray = central office leaders, dark gray = principals, squares = schools under sanction (case-study schools: school 1 = S4, school 2 = S36, school 3 = S67). *B*, principals; squares = schools under sanction.

connections between principals and central office staff, are supported by our qualitative data. One respondent's comments in the open-ended survey responses represented the view of several respondents: "There exists a huge gap between Central Office and Schools, much more than I have ever seen in the many years I have worked in the district. That network between the two needs repairing and those who are interested in doing so need to become aware of the real issues around relationship building and the work that in-

dividuals are doing and not doing; more importantly HOW they are doing it and HOW they create good or ill will.” In the open-ended survey prompt of how to strengthen the networks of leaders in the district, several central office respondents called for more informal get-togethers so administrators could socialize outside of the workplace, as well as greater inclusion of different perspectives and more positive recognition of the various departments and divisions.

The second map in figure 4 illustrates the magnitude of isolation and fragmentation in this district. This map displays the isolation of leaders in schools under sanction (represented by a square) even more clearly because it shows just the principals’ social ties. Given these underlying networks, the sharing of innovative ideas and practices that would be necessary for organizational learning to occur within and across these schools appears rare. Several respondents noted that they needed structured time to support this practice. As one principal pointed out, “We never have time to network with one another. We are very isolated to our buildings and when in meetings there is always a strict agenda.” And according to another site leader, “Give us time to connect with each other. We are overworked and isolated at our school sites.” While the principals meet regularly in this district, according to one of the principals, they never had control over their own agenda at these meetings. It is possible that the formal structures in place for sharing ideas and practices in *La Confianza* could potentially result in more meaningful interactions among principals; however, the social climate must be conducive to this, as discussed in the following paragraphs.

Our data point to system-wide issues relating to the social climate of *La Confianza*. As table 5 indicates, *La Confianza* exhibits low levels of trust among district leaders (principals and central office staff). While many of the results hover close to the neutral position (2.5) between agreement and disagreement, several means are closer to disagreement, particularly those around the quality of staff (e.g., whether principals are competent and whether central office staff do their jobs well) and their social connectedness (e.g., whether staff can depend on each other, look out for each other). In fact, leaders in *La Confianza* did not believe that their colleagues (at either the school site or central office) could be trusted at their word, would support them, or could be counted on in difficult situations, suggesting a toxic culture district wide that likely permeated throughout these schools under sanction. However, these data show high levels of variability (or lack of consensus) in responses relating to the social climate of the district, as represented by the large standard deviations in table 5.

Our qualitative data support the negative perspectives of the district’s social climate (with few respondents offering more positive perspectives of the climate).² As one school leader reporting an oft-noted idea shared, “I sometimes

TABLE 5

District-wide Perceptions of Social Climate

	Mean (SD)
Principals in La Confianza help and support each other	1.96 (.584)
Principals in La Confianza trust the superintendent	2.50 (.717)
Principals in La Confianza do not respect central office staff	2.66 (.671)
Principals in La Confianza are competent in their jobs	2.08 (.568)
Central office staff in La Confianza help and support each other	2.38 (.680)
Central office staff in La Confianza trust the superintendent	2.51 (.654)
Central office staff in La Confianza do not respect the principals	2.83 (.641)
Central office staff in La Confianza do their jobs well	2.26 (.530)
Central office staff in La Confianza are suspicious of each other	2.26 (.769)
Central office and school site staff in La Confianza care about each other	2.30 (.571)
Central office and school-site staff in La Confianza help and support each other	2.47 (.603)
Administrators in this district typically look out for each other	2.30 (.639)
Even in difficult situations, administrators in this district can depend on each other	2.34 (.620)
When administrators in this district tell you something, you can believe it	2.43 (.646)

NOTE.—4-point Likert scale: 1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree.

feel like we, as principals, are being purposely pitted against each other, so we don't stand together." Some respondents mentioned that principals needed more support from central office to be able to connect across schools in a meaningful way. In their open-ended responses to the survey, several respondents blamed central office staff for not providing enough support, sharing ideas, or even getting a sense of the types of things that they faced within their schools.

Several administrators mentioned that the district needed to focus more on working as a team. A few respondents' words summarized a feeling of many that people in this district are not treated with respect and that there is a lack of a collective sense of purpose:

I think there should be a resource in the district responsible for checking in on how people are being treated, and to work with those who do not treat others well. There are Cabinet level managers and principals that really need support on working effectively on a team, rather than using bullying as a leadership strategy.

Too many are worried about serving their self-interests or fearful of being called out to take the risks that they need to take, to be creative,

Mind the Gap

to trust others, and to work beyond the daily responsibilities. Much of it is people skills, a great deal of it is lack of skills in leadership, and too much if it is personally driven, rather than for the good of the organization.

Somehow make it a team. People are not operating that way now. A few people have way too much power and they use it to advance their agendas, rather than to collaborate (with each other or the buildings). In the end I rarely feel supported.

The district needs to have a more supportive environment all the way around. It should feel that there is support and that you are encouraged to get support rather than feel uncomfortable or that you don't know something. I feel that we are not a very supportive group in the way we treat administration throughout the entire district.

Many responses focused on the way in which people communicated or the lack of communication about important decisions. As one said, "Communication is key. We need to build better relationships with the schools and central office so that communication can grow. Right now there is a lack of communication." According to another, "If we are to develop a true Professional Learning Community a culture must be developed in which there is a genuine interest in listening to all the voices in the field regardless of gender, ethnicity, or age."

Discussion and Implications

Our mixed-methods study provides important insights into the reasons why so many schools are on sanctions and why so few schools are able to move off. In answering our first and second questions about the processes, relationships, and social climates in these schools, we found limited attention to the technical aspects of organizational learning, especially at the schools that had been on sanction the longest. We also found sparse ties, especially for the expressive relationships, greater centralization and fragmentation, and lower levels of reciprocity for the schools that had been on sanction the longest. While we found some indication of positive social climates, the variability in perceptions suggested that there was not a collective sense of trust, support, and respect in these schools. In fact, the school-level data were reflective of the larger district context in which the schools reside.

With regard to our third question, about the ways in which the relationships and climate of the larger district facilitate or hinder improvement in schools

under sanction, we found that principals were isolated not only from each other but also from central office staff, with few connections around the instrumental expertise network. In fact, the schools under sanction were the most isolated. Finally, we found a negative social climate district wide based on our data from district leaders, suggesting that the climate did not support the social processing of knowledge that is necessary for improvement. Our findings in combination suggest that organizational learning in these highly turbulent contexts is extremely challenging given both the lack of technical aspects of organizational learning and limited exchanges around expertise. Moreover, given the sparse instrumental ties within these low-performing high schools, it will be difficult to exchange innovative ideas and practices to bring about improvement under these accountability pressures.

Examining underlying assumptions and evaluating practices was uncommon at these schools, suggesting single-loop learning was occurring, and, as a result, one would expect only incremental or routine changes rather than the more radical changes likely needed to move off of sanctions. Furthermore, while schools 2 and 3 exhibited both exploration and exploitation, in school 1, exploration was more prominent. One can imagine a trajectory of reform in which early improvement efforts may involve more exploration, and as those external ideas become “internalized,” there may be an increase in exploitation and spreading of existing practices within the system. The idea of exploration and exploitation ebbing and flowing within a system has not been adequately examined and warrants further investigation.

Beyond these technical aspects of learning, however, our findings suggest that the structure and quality of social relationships within schools and district wide play a crucial role in schools’ capacities for organizational learning and improvement. While greater attention may be needed in terms of identifying root causes and solutions and exploring and exploiting ideas and practices, these efforts will be extremely limited without attention to the underlying relationships and social climate that allow for the social processing of these knowledge and practices. District leaders must develop supportive structures and processes for educators to engage in risk taking (Frank et al. 2004), as risk-tolerant climates are critical in the exchange of expertise and creation of knowledge (Bryk and Schneider 2002; Frank et al. 2004; Moolenaar et al. 2011).

Accountability policies target the technical aspects of learning and improvement, for example, the development of plans and goals for performance, yet the social aspects are often overlooked. Therefore, a parallel emphasis in the policy on strengthening the social norms and structures within these schools and incentives for school leaders who have strong experience and skills in developing the necessary culture that allows for the sharing of ideas and practices by buffering staff from the external pressures may be critical to the

improvement of these schools. Emphasizing the development of norms and cultures that are trusting and supportive may facilitate the development of dense ties that allow the flow of complex knowledge, as well as strengthen both instrumental and expressive ties to enable multiple resources to flow through the system and increase reciprocity.

While there is language to suggest that NCLB accountability required a combination of pressure and support (Goertz and Massell 2005; Le Floch et al. 2008), the end result in this district and others has mostly been pressure without the accompanying support. Perhaps this is the reason that we see little evidence that the schools that have been on sanction the longest exhibit either the technical or the social aspects of organizational learning. In fact, our data indicate that the newly sanctioned school had the greatest likelihood of improving given the results discussed above. As such, school accountability policies should ensure that support is provided at the district and state level to facilitate building the necessary capacity within schools under sanction to bring about improvement. As our sample is small, additional research examining differences in underlying networks, and the length of time schools are under sanction may provide a fruitful line of inquiry.

At the school and district level, greater attention should be paid to developing the formal structures within schools that allow for collaboration and the exchange of ideas. For example, at the newly sanctioned school, these meetings were viewed very positively as a way to share knowledge and practices. This type of sharing, however, is not automatic, particularly in schools where teachers historically have operated in isolation without a collective sense of improvement. For sharing to occur, an intentional and formal approach to making sure time dedicated to “collaboration” actually results in the useful exchange of practices requires the building of supportive social norms to enhance the quality of ties between actors.

Our study also illustrates some of the ways in which schools are embedded in their district context in a way that shapes their broader learning environment and can enhance or limit the organizational learning of schools under sanction. Across the district, we found fragmentation, isolation, and reliance on a few organizational members for the spread of ideas and expertise. The principals of schools under sanction were the most isolated from other principals and from central office staff. These findings suggest limited opportunity for new ideas and practices to enter the school building, and thus these schools often end up recycling their old ideas and practices. Accountability policies should reduce the emphasis on individual schools and increase the emphasis on the larger system given the district controls on the flow of human resources to these schools, as well as the broader norms and movement of ideas and practices throughout the system. Greater emphasis on district-level account-

ability for each school may shift the emphasis of central office from pressure to support at the school level.

Finally, to change the patterns of isolation within this urban district and others like it, central office staff must make a concerted effort to increase the connectivity of principals in the lowest performing schools—connecting them with other principals or key central office staff. However, strengthening the formal structures will have limited impact unless the district also addresses the negative social climate. The building of positive social relationships takes time and is especially challenging given a history of disrespect and distrust. Without attention to the social norms and relationships within the school and across the district, deep and sustained improvement seems unlikely.

Notes

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1. This district name is a pseudonym.

2. This is perhaps not that surprising when considering our case-study data only includes the perspectives of principals and teachers in schools under sanction, who potentially had the most strained relationships with central office, and, as mentioned above, these schools had some of the least central principals in a quite sparse network. However, our open-ended data from the surveys, which allowed both principals and central office staff to share thoughts (both positive and negative), also lean toward negative perspectives.

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