Bringing Leaders Together: Social Capital Development in a Principal Network

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# Table of Contents

Abstract.............................................................................................................................................iii

Chapter 1. Introduction.................................................................1


Chapter 3. Are We in This Together? Developing Energy and Interdependence through Principal Collaboration............................................................................75

Chapter 4. Exploring Social Network Development Among Principals ................140


Appendices..................................................................................................................206

References..................................................................................................................220
Abstract

This thesis is made up of three articles that investigate one district’s attempt to promote collaboration among its principals. The first article uses the lens of design, focusing on the affordances and constraints of specific design features of the collaborative initiative. The second article investigates how several different groups of principals engaged in their work over time, and explores the conditions that promoted effective co-operation and learning among some groups. The third article focuses on principals’ social networks. It explores how principals’ advice networks change over the course of the initiative, and helps uncover the individual and group-level factors that account for network growth. The studies draw concepts from various literatures, including organizational theory, network studies, and teams. However, they are all held together by the concept of social capital, which serves as the overarching outcome of interest across the three studies. Results have implications for district leaders who are considering promoting collaboration among their principals. Results are also relevant for researchers who are interested in the relationship between the design of professional collaboration, group processes, and the development of social networks and social capital.
Chapter 1. Introduction

This thesis is about one district’s attempt to support its school leaders in a new way. I pursued this project for two reasons. First, I believe the modern school principal has one of the most complex, challenging, and important roles in the educational system. Second, I believe that many principals lack the robust professional supports that exist in other occupations. In many knowledge-based professions, individuals have regular opportunities to work with peers on authentic problems of practice over time. These opportunities can provide participants with an increasingly sophisticated understanding of their work, more robust connections to their colleagues, and stronger identification with their profession. Few principals have such opportunities.

Indeed, while educational scholars and practitioners have converged on the idea that teachers should have ongoing opportunities to engage with their colleagues about instruction (Bryk, Camburn, & Louis, 1999; Louis, Marks, & Kruse, 1996; Vescio, Ross, & Adams, 2008), no such consensus exists regarding the importance of principal collaboration. Some districts are experimenting with structures like professional learning communities (PLCs) for their principals, and there are a few mentions of productive principal collaborations in existing literature (e.g., Darling-Hammond, LaPointe, Meyerson, & Orr, 2007; Fink & Resnick, 2001). However, this topic has been given relatively little attention in the scholarly literature. Efforts to promote peer interaction among school leaders may be highly valuable for their learning, development, and retention. However, without examples from the field, how are researchers and
practitioners to understand the challenges and benefits of such efforts? With this thesis, I target this gap in our collective knowledge.

In this framing essay, I provide an introduction to the concepts that ground my investigation, describe why my study site provides an interesting and worthwhile setting for investigation, describe the three articles that make up my thesis, and comment on the implications and significance of these articles.

Core Concepts

The design of professional collaboration

Although promoting teamwork has the potential to benefit participants, not all collaborations are equally successful or productive. Thus, this thesis builds from previous research on professional collaboration to interrogate the specific design features of collaborative initiatives that might matter for participants’ learning and relationship development (Chapman & Hadfield, 2010; Curry, 2008; Datnow, 2011; Hargreaves, Parsley, & Cox, 2015). These literatures draw our attention to the importance of the membership of a collaborative group, the way in which that group is facilitated, and the type of accountability group members experience from managers. In particular, I examine the importance of autonomy in professional development. This thesis asks the question, “What aspects of collaboration should be left up to the participants, and what aspects should be controlled by managers?”

Team processes

Next, I use literature on teams in organizations to understand how individuals in collaborative groups work together over time. In particular, this thesis draws out the concepts of energy (Cross, Baker, & Parker, 2003; Quinn & Dutton, 2005) and
interdependence (Hackman, 2002) as important ingredients of successful, collaborative teams. In focusing on energy, the study draws our attention to the features of collaborative work that might motivate participants and encourage them to dedicate continual effort to their work. By highlighting interdependence, this study helps us understand the importance of how collaborative groups construct their task. It helps explain why some groups choose to pursue their individual interests and others develop a shared set of learning priorities that foster co-operation. In so doing, it helps us understand the mechanisms that underlie the development of interdependence.

Social capital and social networks

Finally, in order to conceptualize the benefits that principals might receive through participation in collaborative groups, this thesis draws on the concept of social capital. Social capital refers to the actual or potential resources that are inherent in social relationships (Bourdieu, 1986; Coleman, 1988; Lin, 1999). I conceptualize social capital as consisting of cognitive and social resources that individuals access through their social networks (Nahapiet & Ghoshal, 1998). First, relationships can provide individuals with cognitive resources such as advice, information and expertise (Coleman, 1988; Lin, 1999). Second, relationships can provide social resources to individuals such as emotional support, trust, and respect (Bryk & Schneider, 2002; Moolenaar, Sleegers, & Daly, 2012). The distribution and activation of these resources is facilitated by the “structural” aspect of social capital, which refers to the pattern and strength of social relationships possessed by an individual or organization. The structural component of social capital is not a resource in and of itself, but can be understood as the system of conduits that cognitive and social resources “flow” through. Theoretically, providing
principals with opportunities to collaborate with one another should strengthen their networks and provide them with greater access to cognitive and social resources.

**Affinity Groups in Greenwood**

This thesis focuses on one small semi-urban school district called Greenwood. In the year of the study, Greenwood’s new superintendent initiated an effort to promote principal collaboration called “affinity groups.” The previous superintendent was perceived as controlling and hierarchical, giving principals few opportunities to engage with each other in meaningful ways. In contrast, in affinity groups, principals were given the opportunity to self-select into groups based on common interests and then asked to pursue their own learning related to these interests over the course of the year. Although an outside consultant helped the principals select their topics, decide on research questions, and connect with resources, the affinity groups were largely able to manage themselves. This freedom was new for Greenwood’s principals, who were used to a very different type of leadership. The autonomy that principals were provided to organize their own learning had the potential to energize them and provide them with ownership over their own research process (Haas, 2010). At the same time, as has been documented in the extensive research on self-managed teams, autonomy can also lead to disorganization and individualized behavior (see, e.g., Wageman, 2001). Exploring the pros and cons of providing teams with freedom is one of the core goals of this thesis.

**Article Summaries**

The three articles in this thesis each emphasize different aspects of the affinity groups initiative. They follow a roughly chronological sequence (see figure 1). Article 1 focuses on the design of the affinity groups, drawing out salient characteristics of the
initiative and describing the affordances and constraints of these characteristics for principals’ learning and relationship development. Article 2 focuses on how principals engaged in the affinity group process over time. Article 3 examines changes in principals’ social networks that occurred over the course of the affinity groups initiative.

Article 1: How Much Freedom is Too Much? Investigating Tensions in the Design of Principal Collaboration

The first article focuses on specific design features of the affinity groups initiative: its approach to selecting group members, how it structured the nature of principals’ interactions, and how the work of principals was facilitated. Running through all of these design features is the larger design principle of autonomy. Greenwood’s superintendent and the consultant who ran the groups believed strongly in the importance of principals’ having independence and exercising choice regarding what they wanted to learn about. As such, they purposefully gave principals little supervision or direction, but instead placed their faith in principals’ ability to organize themselves. Providing such freedom to principals had both benefits and costs. On the one hand, it freed them up to
talk about important, controversial topics, engage in free-flowing conversations that could address their emergent concerns, and pursue resources that were highly relevant to their specific contexts. On other hand, some principals appeared less committed to their affinity group’s work because there were not district leaders present, conversations among principals generally lacked depth, and most principals reported that they wanted the affinity groups to be more structured. Findings from this study have implications for district leaders who are considering the design of collaborative initiatives for principals, and may help these leaders find the “delicate balance” between providing structure and freedom to collaborative groups.

Article 2: Are We in This Together? Developing Energy and Interdependence Through Principal Collaboration

The second article builds from where the first article left off. It focuses on understanding the processes that affinity groups engaged in over time. This chapter helps explain why certain groups were able to take advantage of the freedom provided by affinity groups while others were not. It focuses on two concepts from the organizations literature, energy (Cross et al., 2003; Daly et al., 2016), and interdependence (Kiggundu, 1983; Langfred, 2005) that help clarify how different groups of principals engaged in the affinity group process. One group of principals developed high levels of interdependence and devoted high levels of energy to their shared work—they pursued common resources, honed a shared focus, and stayed motivated and committed to their group through the year. The other two groups developed less interdependence and devoted inconsistent energy to their work, ultimately deriving less satisfaction from their participation and
demonstrating less evidence of shared learning. Findings from this study provide lessons about the conditions that support effective team processes among principals.

**Article 2: Exploring Social Network Development Among Principals**

The third article investigates the extent to which principals’ social networks changed over the course of the year. First, it draws on concepts from the literature on the relationships between organizational structures and social network development. Using these concepts, it makes a series of predictions about how affinity groups might be expected to change principals’ advice networks. Because affinity groups provided principals with time and space to interact, and encouraged them to develop a focus for their conversations, previous research would suggest that these groups would foster the development of social ties among the principals and improve the quality of their relationships (Small, 2009). Results of a social network analysis provide mixed support for these predictions. While some principals developed stronger social ties with their colleagues as a result of the affinity groups initiative, others did not. The paper explores the conditions that fostered the development of relationships among group members, finding that: (1) individuals who were new to the district were most likely to form new ties and strengthen their existing ties, and (2) groups in which members fulfilled each other’s expectations were most likely to promote social tie development. This article contributes to the literature on the relationship between organizational structure and social capital development by developing a nuanced story about the relationship between individual factors, group processes, and social network development.

**Looking Across the Studies**
Several conclusions can be drawn from this collection of studies. First, giving school leaders unconstrained collaborative time and encouraging them to pursue their own learning can be successful. Given the dearth of existing studies of principals’ collaborative opportunities, this finding is noteworthy. Some participants in the initiative received valuable cognitive and social benefits and, at the same time, built their peer networks. The experience of one of the three affinity groups in Greenwood is evidence of these positive possibilities. This group developed a more sophisticated understanding of how to lead culturally responsive schools, served as sources of social support for one another, and strengthened their professional relationship. These findings align with arguments suggesting educators should have control over their own professional learning (Calvert, 2016; Mezirow, 1997) and arguments suggesting school reform should build from the existing expertise and knowledge of local educators (Bryk, Gomez, Grunow, & LeMahieu, 2015; Hess, 2013).

Second, this thesis highlights a fundamental challenge that any attempts to foster principal collaboration must overcome. Principals have limited “natural” job interdependence. They have little inherent need to interact with one another in order to fulfill their professional responsibilities. As such, efforts to promote principal collaboration must manufacture conditions that foster interdependence. In this case, the designers of affinity groups encouraged principals to group based on shared interests. This strategy had some success. Two groups built on their shared interests, developing a more refined focus over time, pursuing common resources, and learning from each other. In contrast, one group that came together based on a shared interest in technology was not able to develop a sharper focus for their work together, and thus did not engage in a
coherent shared learning progression. Instead, each of the principals largely pursued their own individual areas of interest within their broader topic. Therefore, this thesis suggests that shared interests are not enough to foster interdependence.

Third, building on the prior point, this thesis suggests that creating optimal starting conditions for a team of principals is critical. In particular, it points to the importance of creating teams in which the level of expertise is not too varied among members because individuals who feel they have less to learn from their peers may be less motivated to engage with their peers. It also suggests that there are dangers of putting principals in groups in which the types of schools that are represented are too varied. Principals of high schools may have more trouble collaborating effectively with principals of middle schools, for example. Finally, it suggests that smaller groups may be more likely to cooperate successfully. Smaller teams more easily coordinate their work and more quickly develop intimacy, trust, and social connection, which may in turn facilitate effective teamwork.

Some existing depictions of professional collaboration put forward a simplistic vision of how these structures will lead to improvement. Bring people together, conventional wisdom suggests, and they will learn from each other. At the same time, existing discussions of how organizations can build social networks put forward a fairly simplistic vision of how this can be accomplished—bring people together, and they will develop social ties. This collection of articles seeks to bring nuance to the discussion of how professional collaboration structures matter for the development of social capital. Taken together, these articles highlight the potential as well as the challenges associated with efforts to support principals through peer collaboration. This thesis offers
suggestions to designers of such efforts and provides promising directions for future research.

Abstract

Some school districts have begun to give their principals opportunities to collaborate with peers. Theoretically, such opportunities could provide principals with valuable learning opportunities and professional connections. However, well-intentioned efforts to promote collaboration often fail. This study seeks to understand one urban district’s attempt to foster principal collaboration through an initiative called “affinity groups”. Affinity groups provided principals with high levels of autonomy and freedom to pursue their own learning. The current research uses a comparative case study design to investigate the positive and negative outcomes of providing such freedom to three collaborating groups of principals. Results indicate that some principals capitalized on their freedom by investigating controversial but important topics, engaging in authentic conversations, and drawing on informational resources that were deeply relevant to their local contexts. At the same time, the freedom provided to principals left them vulnerable to disorganization, disengagement, and internal conflict. Results have implications for districts who seek to find a balance between providing structure and freedom in their professional development offerings.
“As I look back on it, one of the chief residues of my own administrative experience is the memory of having felt alone, not in the simple physical sense of being by myself, without companions, but in the deeper psychological sense of being apart from others.”

– Philip Jackson (1977)

Principals have complex and challenging jobs (Bland et al., 2011; Drago-Severson, 2012). Tasked with great responsibility at their sites, they commonly have few opportunities to pursue their own learning (Spillane, Healey, & Parise, 2009). Furthermore, their roles are commonly described as isolating (Jackson, 1977; Stephenson & Bauer, 2010). One way to combat both of these challenges is to bring principals together in collaborative networks (Chapman & Hadfield, 2010; Hargreaves et al., 2015). Theoretically, encouraging principals to collaborate with a community of peers could provide them with strong learning opportunities (Brown & Duguid, 1991; Lave & Wenger, 1991) and, at the same time, help them develop sustaining professional relationships (Dika & Singh, 2002; Farag-Davis, 2013). However, despite its potential, very little research has been conducted on efforts to promote collaboration among school leaders. Such research is important because we know that well-intentioned efforts to promote collaboration often fail to lead to benefits in practice (Datnow, 2011; Hargreaves, 1994). Indeed, numerous scholars have asserted that collaborative initiatives may be especially prone to wishful, utopian thinking and, as such, do not prepare participants for the complexities and tensions inherent in collective work (Achinstein, 2002; Scribner, Hager, & Warne, 2002).

In his classic work on teacher collegiality, Hargreaves (1994) asserts that a primary reason why collaborative initiatives fail is that they are overly structured,
mandated, and centrally controlled, and as such do not empower participants or provide them with sufficient autonomy. He describes the type of collaboration that emerges from top-down efforts as “contrived collegiality,” and asserts that this type of collaborative work is unlikely to contribute to participants’ learning because it stiltts the authentic and spontaneous interactions that more bottom-up forms of collegiality support. Hargreaves’ ideas have had staying power in the field. In recent years, many other scholars and practitioners have advocated for professional development approaches that provide participants with high levels of agency and allow them to determine the purposes and processes of their own collaboration (see e.g., Calvert, 2016; Mehta, 2016).

More recent education scholarship has both challenged and validated Hargreaves’ portrayal of collaboration. First, in contrast to Hargreaves’ assertions, some research has found that collaborators benefit when their work is “structured” by managers. By structured, I mean managers provide clear, explicit directions to participants about how they should work together. For example, Datnow (2011) found that highly planned data-based decision making initiatives, in which school leaders required teachers to speak about specific topics in specific ways, could help teachers improve their instruction and more precisely target student learning needs. Similarly, Levine & Marcus’ (2010) found that protocols that structured teachers’ talk led to more interactions about instruction compared to talk that was unstructured. These findings, and others like them, provide counterexamples to Hargreaves’ portrayal of highly structured collaborative initiatives as necessarily leading to contrived collegiality. At the same time, more recent work has supported Hargreaves’ assertions. Curry (2008) and Little (2012), for example, find that the structure inherent in conversational protocols can limit the spontaneity of teacher
dialogue and, at times, constrain opportunities for learning that might lie in teacher conversation.

The picture that emerges from the larger body of work on collaboration is one in which managers must navigate the “delicate balance” (Datnow, 2011, p. 157) between providing structure and freedom to participants. While providing structure and direction might help participants consistently focus on important topics, too much structure might inhibit authentic interaction. But how should such a “delicate balance” be achieved? When is a steady hand from managers needed, and when should participants be given control over their own collaborative work?

One reason these questions may be difficult to answer is that the educational field has done little to explore when and how features of collaborative initiatives should be designed to provide participants with autonomy vs. control participants. Any designer of collaborative work makes decisions (either explicit or implicit) about various aspects of the collegial structures they provide. For example: Who should participate? How should they be selected? What should they talk about and how? Each of these questions can be answered in a way that prioritizes the freedom of participants or in a way that requires participants to adhere to a more controlled collaborative process (Datnow, 2011). None of these questions have simple answers, and any answer comes with inherent tradeoffs (Spillane & Coldren, 2011).

The current study seeks to extend our understanding of various design decisions associated with the collaborative work of principals, with a particular focus on the advantages and disadvantages associated with providing autonomy. I focus my investigation on one district’s creation of a collaborative structure for principals called
“affinity groups”. The affinity groups in this study were comprised of principals who shared interests in a particular topic. These groups were encouraged to pursue their own learning with their group over the course of seven months through research, knowledge sharing, and reflection. The groups were created based on the notion that principals deserved high levels of autonomy to pursue their interests in a way they saw fit, and leaders of the initiative provided participants with little direction, relatively few requirements, and took a “brokering” approach to coaching and supporting them. On the one hand, the freedom provided to these groups made it possible that they would feel ownership of their work and pursue learning opportunities that were deeply relevant to their specific contexts. At the same time, the relative lack of structure risked disorganization, as members were not held to specific standards, and were asked to manage themselves. This study asks the research question: What affordances and constraints does the design of affinity groups provide for principals’ (a) learning and (b) development of relationships with peers?

I investigated this research question through a seven month, embedded case study of one district that was creating affinity groups for the first time. In short, I find that the freedom and autonomy provided to principals was a “double-edged sword” (Haas, 2010). On the one hand, principals made use of this time to discuss controversial but important topics, engaged in free-flowing conversations that could address their emergent concerns, and drew on the resources of their broker/facilitator to expand their networks and access novel and valuable resources. On the other hand, the lack of authority figures may have reduced some participants’ commitment to their collaborative work, and the lack of structures for conversation failed to ensure that talk focused on consistent topics and engaged in
them with depth, and the effectiveness of the broker/facilitator was limited by her pre-existing network of resources.

The structure of this paper is as follows. First, I outline the potential benefits of principal collaboration by drawing on literature on the principalship and social capital. Then, I summarize research on collaboration that explores the benefits and costs associated with providing structure vs. freedom in such settings. Then, I pull from the literature on organizational routines (Sherer & Spillane, 2011) and formal collaborative networks (Chapman & Hadfield, 2010; Hargreaves et al., 2015) to specify sub-elements of collaborative initiatives and describe how they might be designed to provide autonomy to participants or to provide structure to participants. Then, I describe my sample, data collection procedures, and analytic approach. Next, I discuss my findings, summarizing four distinct design features of the affinity groups initiative and exploring the advantages and disadvantages of these features for the learning and relationship development of participating principals. I close with a discussion of the implications of these findings for our understanding of principal collaboration and the design of collaborative initiatives and suggest directions for future research.

**Literature Review**

**The Challenges of the Principalship and the Promise of Collaboration**

School principals have challenging, complex jobs (Drago-Severson, 2012; Hallinger, 1992; Rousmaniere, 2013). They are commonly tasked with being instructional leaders, disciplinarians, community liaisons, and facility managers, among other roles (Bland et al., 2011). The challenges of the principalship take their toll: a recent study suggested that nearly 50% of principals leave their positions within 3 years.
At the same time, at the school-level, principals are second only to teachers in the amount of impact they have on student learning (Leithwood, Louis, Anderson, & Wahlstrom, 2004). Given the complexity of principals’ work, and their importance, the educational field has recognized the necessity of improving how it trains and supports school leaders (Darling-Hammond et al., 2007).

Many of these efforts have focused on the early stages of a principals’ career—trying to improve principal preparation programs or induction programs for new leaders (see, e.g. Turnbull, Riley, & MacFarlane, 2013). In comparison, less energy has been dedicated to supporting principals in an ongoing way throughout their careers. One way to provide continuing support to school leaders is to allow them to interact with peers, in substantial ways, on a regular basis.

Indeed, while the educational field has converged on the notion that collaboration is important for teachers, this consensus has not been reached for principals. Dozens of studies indicate that teacher collaboration can contribute to teacher learning, and, ultimately, student growth (Bridwell-Mitchell, 2015; Horn & Little, 2010; Jackson & Bruegmann, 2009; Little, 2003; Louis & Marks, 1998; Ronfeldt, Farmer, McQueen, & Grissom, 2015; Sun, Loeb, & Grissom, 2016). In comparison, there is very little research on principal collaboration (see Fahey, 2011; Honig & Rainey, 2014, for exceptions). However, just like teachers and other professionals in complex roles, principals could benefit tremendously from engaging with role-alike colleagues (Brown & Duguid, 1991; Lave & Wenger, 1991).

Interacting with peers could provide principals with social capital, or the “resources for action that are attained through relationships” (Spillane, Kim, & Frank,
I conceptualize social capital as: (1) cognitive resources, such as advice, information, and expertise, and (2) social resources, such as emotional support, respect, and trust, that (3) are accessed through social networks (Coleman, 1988; Dika & Singh, 2002; Nahapiet & Ghoshal, 1998). Theoretically, providing principals with substantive opportunities to interact with their peers could provide cognitive and social resources and build their social networks. However, just bringing principals together and assuming collaboration will be successful is naïve. As extensive research on teacher collaboration has shown, interaction with peers is not always substantive or helpful (Little, 2003).

Many researchers and practitioners have argued that, in order for collaboration to be successful, participants must be provided with significant levels of autonomy to decide how they will interact and what they will interact about (Calvert, 2016; Hargreaves, 1994; Mehta, 2016; Mezirow, 1997). Theoretically, providing participants with such freedom leads to ownership, enthusiasm, and a choice of topics that reflect the true needs of practitioners (Hackman, 2002). Adult learning theory also supports such an approach to professional development because it suggests that providing learners with the ability to autonomously consume and interpret information is the primary goal of adult education (Mezirow, 1997). Given that school principals make leadership decisions at the building level, and as such may be accustomed to being highly autonomous in their professional lives, it may be especially important to provide them with choices and agency in their professional development. At the same time, previous research from the organizations literature indicates that such freedom can be challenging because it can lead to individualized behavior, disorganization, and disconnection from the broader goals of the
organization—particularly if participants are not accustomed to such freedom (Hackman, 1998; Wageman, 2001). Indeed, various studies have suggested that providing structure and direction to participants can help focus conversation and ensure that goals of collaborative interaction are achieved (Datnow, 2011; Levine & Marcus, 2010).

**Designing Collaborative Initiatives Under Conditions of Autonomy vs. Control**

Given the fact that providing autonomy to participants of collaborative initiatives may or may not lead to positive outcomes, how should designers of collaborative work think about the tension between freedom and control? This paper explores this question by describing the advantages and disadvantages of specific design features (see, Curry, 2008 for a similar approach). In order to frame my investigation, I draw on the existing literature on school-based networking initiatives (Chapman & Hadfield, 2010; Hargreaves et al., 2015) and organizational routines (Feldman & Pentland, 2003; Sherer & Spillane, 2011; Spillane, Shirrell, & Hopkins, 2016). I use these literatures to identify and describe design elements of collaborative initiatives that may matter. Each of these elements can be designed in order to provide participants with agency and control of their collaborative work, or to provide managers with control.

**Purpose.** The first and most important thing that a designer of collaborative initiatives should consider is the *purpose* of bringing people together (Hackman, 1998, 2002). Some collaborative efforts are created to help educators complete specific work-related tasks, whereas others have more general goals. Sherer and Spillane (2011), provide an example of a task specific collaborative initiative when they describe the “five week assessment routine” at a Chicago elementary school. This routine was created in order to provide a systematic means of administering formative student assessments,
making sense of student results, and adjusting instruction to target revealed gaps in student understanding. Other groups assigned specific tasks might include task forces, data teams, curriculum committees, or a variety of other groupings. In contrast to these task-specific groups, some groups have more general goals, such as providing learning opportunities to participants, or strengthening their professional relationships (Curry, 2008; Spillane & Coldren, 2011). Curry (2008), for example, describes how groups of high school teachers and administrators engaged in “critical friends groups,” in order to improve their instructional knowledge, provide each other with valuable criticism, and develop stronger professional relationships. An approach to designing collaboration that prioritized autonomy might allow participants themselves to define the purpose of their collaborative work, while in a more controlled approach managers would pre-specify goals and purposes (Hargreaves, 1994).

Membership. Another key consideration faced by designers of collaborative initiatives is the composition of the group. Group composition refers to the specific characteristics of group members, such as their demographic characteristics or professional roles (Kozlowski & Bell, 2003). Depending on their backgrounds, competencies, and interests, group members will bring different levels of knowledge, expertise, an interaction styles to their collaborative work. One importance dimension of group composition is its level of homogeneity/heterogeneity. Groups that are more diverse in their composition may bring a wider variety of skills and knowledge to their collaborative work. However, at the same time, diverse groups can have more challenges communicating smoothly and developing trust (Milliken & Martins, 1996). Further, prior research on teacher collegiality has suggested that individuals that are similar to one
another in terms of work responsibilities (i.e. they teach the same grade level) may be most likely to benefit from interaction, because they have “concrete things to tell one another and concrete instructional help to provide one another,” (Huberman, 1993, p.45).

Beyond the composition of the group, the way in which a group is selected for participation may be important for the success of any collaborative work. Chapman (2010) emphasizes what he calls “the dilemma between conscription and volunteerism,” as a key tension in efforts to build networks (p.321). He notes that, at times, the individuals or organizations that would most benefit from participating in collaborative work are the individuals who are least likely to volunteer to participate. While requiring group members to participate may help ensure that the benefits of participation are equally divided, it may also lead some participants to be less engaged and/or enthusiastic about participation (de Lima, 2010). A more autonomous approach to designing collaborative work would allow participants to volunteer to take part, while a more controlling approach might mandate participation.

The “What” and “How” of Engagement. Beyond setting the purpose of a group’s collaborative work, and determining the membership of the group, designers of collaborative work can consider what will be discussed and how it will be discussed. They might, for example, decide the topics of discussion in advance by supplying an agenda. Further, they might provide articles, data displays, or other artifacts to serve as the grist of conversation (Halverson, 2003). On the other hand, designers of collaborative initiatives might leave the conversational agenda up to participants themselves, and they might request that participants supply the resources for discussion themselves. As an example of this latter approach, Spillane and Coldren (2011) discuss the “breakfast club”
routine, during which a rotating set of teachers were asked to choose articles or book chapters for discussion and lead the discussion of those resources.

In addition to considering what participants will interact about, designers of collaborative initiatives may consider how members of the group will engage with each other. First, designers might consider how conversation among members will be structured, if at all. Many scholars of collegiality and educational leaders have highlighted the value of conversational protocols (Levine & Marcus, 2010; Steele & Boudett, 2008) for keeping conversation focused on relevant topics, encouraging broad participation, and fostering conversation at relatively high levels of depth. At the same time, scholars have suggested that overly structured dialogue can get in the way of “authentic conversation” (Clark, 2001). Little (2012), for example, writes, “structured discussion protocols and processes help to focus discussion and facilitate broad participation, but they also lend themselves to ritualized enactment, privileging form over substance” (p. 151). Similarly, after engaging in a long-term study of teacher collaboration in critical friends groups, Curry (2008) wrote that the use of protocols “constricted the pursuit of important emergent issues” (p. 769).

Accountability. Designers of collaborative initiatives may also consider how participants will be held accountable for their work, if at all. For example, participants may be held accountable during their moment-to-moment interactions by the presence of an authority figure or supervisor. Social psychologists call this type of accountability process based accountability (Lerner & Tetlock, 1999). The presence of actors that hold participants accountable for their process may encourage participants to stay focused on their tasks and complete work in a timely fashion. At the same time, the presence of
authority figures might diminish the creativity and spontaneity that can develop during collaborative discussion and emphasize compliance.

Beyond the presence of authority figures, designers of collaborative initiatives can hold participants accountable for their work based on the products they produce or the tasks they complete. On the one hand, participants might be asked to produce specific products, given guidelines for what these products should look like, and judged on the quality of their final form. On the other hand, participants might be left to determine the nature of their final products, if any, and not be given any judgement based on the quality of those products.

**Facilitation.** Finally, designers may consider how, if at all, a collaborative initiative will be actively led by a facilitator. The role of a facilitator may be primarily directive, in that the facilitator actively guides discussion, questions participants, and moves a group towards the achievement of specific goals (Honig, 2012). On the other hand, a facilitator may play a more responsive, support providing role, in which they help a groups achieve their goals by providing assistance or resources, but do little to direct the work when not asked (Mezirow, 1997). Prior research on the leadership of collaborative initiatives has suggested that strong leadership is adaptive to the needs of participants, such that leaders provide more structure and direction when groups are in need of strong guidance, and leaders step back when groups have a clear direction on their own (Hargreaves et al., 2015).

**Design Principle: Control vs. Autonomy**

Running through the five design elements discussed above is the broader design question: *who is leading the collaborative work?* In this paper I refer to initiatives in
which managers are leading the work as highly “structured” and initiatives in which participants are leading the work as “unstructured.” On the one hand, collaborative initiatives can be highly top-down and controlled such that: (1) the purpose of the collaborative work is defined and specified by managers of the work, (2) members are specifically selected by leaders for participation, (3) leaders define what participants will engage about and how they will engage, (4) collaboration is tightly supervised and groups are held accountable for the quality of their work, and (5) facilitators of the work are directive. I would describe these types of initiatives as highly “structured.” On the other hand, collaborative initiatives can grant high levels of autonomy to participants such that: (1) the purpose of the work is left somewhat broad and unspecified, (2) membership is voluntary, (3) leaders provide little control over how groups engage and what they talk about, (4) collaboration is left without supervision by managers and participants are not held accountable, and (5) facilitators of the work serve primarily as support providers. I would describe these types of initiatives as relatively “unstructured.”

Of course, most collaborative initiatives are neither fully autonomous nor fully controlled, and it is entirely possible for a particular initiative to be highly controlled in regards to one design element (the topics of discussion may be mandated, for example) while highly autonomous in another (participants may be given control over how they will discuss these topics). Here, my intention is to provide a framework for understanding certain design considerations the leaders of collaborative initiatives might consider. Previous models of team autonomy, such as Hackman’s (2002) authority matrix, provide relatively broad descriptions of teams with various levels of autonomy. For example, in Hackman’s framework, a “self-designing” team is defined as one that has
control over its own design and the design of its organizational context (p.52). In my framework, I seek to provide more specificity for managers as they consider how to design collaborative initiatives. Table 1 provides a summary of the design choices associated with conditions of control and conditions of autonomy.
Table 1: Collaboration under Conditions of Control and Autonomy

<table>
<thead>
<tr>
<th>Design Element</th>
<th>Conditions of Control</th>
<th>Conditions of Autonomy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purpose</strong></td>
<td>• Goal is chosen by managers</td>
<td>• Goal is chosen by participants</td>
</tr>
<tr>
<td></td>
<td>• What is the goal of collaboration?</td>
<td></td>
</tr>
<tr>
<td><strong>Membership</strong></td>
<td>• Group composition is determined by managers</td>
<td>• Group composition is determined by participants via self-selection</td>
</tr>
<tr>
<td></td>
<td>• Membership is voluntary</td>
<td>• Membership is voluntary</td>
</tr>
<tr>
<td></td>
<td>• Who will collaborate?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• How will these members be chosen?</td>
<td></td>
</tr>
<tr>
<td><strong>Content and Mode of interaction</strong></td>
<td>• Topics and artifacts under discussion are determined by managers</td>
<td>• Topics and artifacts under discussion are controlled by participants</td>
</tr>
<tr>
<td></td>
<td>• Mode of interaction is controlled by managers</td>
<td>• Mode of interaction is controlled by participants</td>
</tr>
<tr>
<td></td>
<td>• What will members interact about?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• How will members interact?</td>
<td></td>
</tr>
<tr>
<td><strong>Accountability</strong></td>
<td>• Managers oversee collaborative interaction</td>
<td>• Members collaborate without the supervision of managers</td>
</tr>
<tr>
<td></td>
<td>• Members are held accountable for their work by leaders</td>
<td>• Members are not held accountable for their work by managers</td>
</tr>
<tr>
<td></td>
<td>• Who supervises interaction, if anyone?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• How are members held accountable for their collaboration, if at all?</td>
<td></td>
</tr>
<tr>
<td><strong>Facilitation</strong></td>
<td>• Facilitator strongly guides discussion, directs participants.</td>
<td>• Participants lead discussion, facilitator (if they exist) provides support and assistance.</td>
</tr>
<tr>
<td></td>
<td>• How will collaborative work be guided and facilitated, if at all?</td>
<td></td>
</tr>
</tbody>
</table>

In summary, the principalship is challenging, complex, and commonly described as isolating. Principal collaboration has potential, but we know little about how to design collaborative initiatives for principals or how these initiatives support principal learning and the development of their professional relationships. The affinity groups represent a collaborative initiative that was designed to foster principals’ social capital in a relatively unstructured environment. Existing literature on professional collaboration and teams suggests that five design elements may be particularly important for the success of collaborative initiatives: (1) Purpose, (2) Membership, (3) The content and mode of interaction, (4) Accountability, and (5) Facilitation. Running through these five design elements is the broader design question: *Who is leading the work?* While collaborative initiatives emphasizing autonomy may push *participants* to make design choices relevant...
to the five elements, collaborative initiatives emphasizing control place the onus of
design on managers. Some researchers and practitioners advocate for initiatives that
provide high levels of autonomy to participants, while others see the direction and focus
of more structured collaborative initiatives as highly important.

The designers of the affinity groups created a collaborative structure that, for the
most part, created conditions of autonomy for the participating principals. They provided
participants with significant freedom to decide what they wanted to focus on as a group,
what resources they wanted to engage in, and how their conversations should be
structured. At the same time, the designers of the groups did provide conditions of
control in certain areas, by, for example, requiring principals to participate. Within each
of the design elements outlined in table 1, the designers of the affinity groups made
distinct choices. But how did these design choices support the learning of participants, if
at all? And how did these design choices support the development of productive
professional relationships among principals, if at all? The current study sought to answer
these questions through a seven-month qualitative investigation of principal collaboration
in a small urban district.

Methods

Setting and Sample

This study takes place in Greenwood, a small urban district in the northeast
United States with a diverse student population of about 5,000 (see appendix A for more
detailed student demographics). The affinity groups initiative was put in place by a new
superintendent in partnership with a faculty member at a nearby university. Based on an
informal assessment of the district’s previous leader, the new superintendent determined
that the district’s principals had had minimal control over their own professional
development and minimal opportunities to develop social connections with one another.
The new superintendent felt that principals were isolated from one another and were not
looking to each other as sources of advice and support. She wanted to provide principals
with an opportunity to pursue learning that was relevant to them, and an opportunity to
develop social connections with one another.

The components of the affinity groups initiative were as follows. In December
2016, the district’s ten principals were required to self-select into groups based on
common interests. Following that session, principals were asked to spend 2-3 hours a
month with their groups pursuing their own learning, and to spend additional time
together as they wished for a total of 6-7 sessions per group. Throughout their time in
affinity groups, principals were provided with light facilitation and resources by an
affinity groups “coach.” This coach pushed principals to articulate a research question,
and connected them with relevant resources (books, websites, and other school leaders)
based on her personal network and her existing knowledge. Principals were also asked to
share a presentation at the end of the school year with a team of district leaders and with
each other. Beyond this minimal structure, principals were encouraged to pursue their
collective learning as they saw fit.

1 Before the affinity groups initiative began, the district’s principals had gathered at the central office
twice per month to engage with the superintendent and other central office leaders. However, when the
affinity groups initiative started, one of those monthly sessions was given over to affinity group work. Thus
the affinity groups initiative can be understood as a reapportionment of principals’ time as opposed to an
additional demand on their time
Although the affinity groups were not provided with strong directions about how to work together, I found that they all went through the same set of basic steps. I’ve included a diagram of the affinity group process below (see figure 2). This process became apparent during ongoing fieldwork in the district, and it was refined by consulting the literature on group development and organizational learning (March, 1991; Tuckman, Jensen, 1977; Tuckman, 1965). Although this sequence was not part of my study a priori, I include it here to provide my readers with a more concrete sense of how principals spent their time.

Figure 2: A sequence of affinity group processes over time

First, each principal had to *select into a group*. During the first affinity group meeting in December 2015, the ten principals in Greenwood self-selected into three groups based on common interests. These groups were focused on the general topics of: (1) technology and innovation, (2) effective instructional practices, and (3) culturally responsive teaching. Second, over the course of the first several months of the initiative, groups had to *find a focus* for their collaborative time together. Although the chosen topics provided a general direction for the work of the group, each topic left much up for interpretation. Through a mix of discussion amongst themselves, and some facilitation
from the affinity groups coach, each group developed a narrower focus over time. For example, over time, the culturally responsive teaching group shifted their focus to strategies for leading culturally responsive schools, and the effective instruction group honed their work to focus on a specific set of resources, the *Visible Learning* series of books by John Hattie and colleagues².

Third, based on their focus, each group spent time gathering external (i.e. from outside the district) and internal (i.e. from inside the district) resources. Resources from outside the district included (1) school visits and/or discussions with other school leaders who had completed relevant work, (2) books, videos, and websites relevant to the group’s focus, and, in one case, (3) auditing a graduate school course session relevant to the group’s focus. In some cases principals gained access to the external resources through the affinity groups coach. In other cases principals gained access to the external resources through their group members or through their own individual searching. Resources from inside the district included (1) the pre-existing knowledge of other principals in the district, (2) observations of practice in district schools, and, in one case (3) a survey that an affinity group member conducted of district teachers and administrators. Fourth, to varying degrees, each group spent time synthesizing the resources they gathered—deriving lessons from them together and determining the implications of these lessons for their work as school leaders.

Fifth, based on their synthesis of resources, each group created a product, which took the form of a presentation. During the last full affinity group session in May,

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participants presented their work to each other and to district leaders. This presentation took the form of various activities, handouts, and/or PowerPoint presentations. It was an opportunity for each group to summarize and share their work.

Data Collection

Data sources included observations, interviews, and artifacts. I completed a total of 29 interviews with a total 17 individuals. I completed at least two interviews with all principals (with the exception of one principal who left for maternity leave in March), and one interview with several key district administrators and the affinity groups coach. I also followed up with three principals during fall 2016 to check on how they continued to work with their groups, if at all.

I gathered observational data from 17 hours of affinity group meetings. I took field notes during all observations, and I audio recorded a subset of affinity group meetings (about 25% of total affinity group meeting time). I wrote “almost verbatim” (Honig, 2004, p.537) field notes, capturing the substance of communication between participating principals. All audio recordings were transcribed. Because teams generally met at the same time each month and thus I was not able to be physically present with each team, I rotated the team that I sat with each month and I audio-recorded the meetings of other teams, when possible. Using this strategy, I was able to either record or directly observe between 50% and 80% of each team’s total official affinity group meeting time during the 2015-2016 school year. See appendix B for a more thorough description of the observation time that was allotted to each group.

In addition to my observations of affinity group meetings, I also observed and took field notes during monthly “principals’ meetings” which included all principals and
district administrators, for an additional 14 hours of observational data. I completed a
total of 31 hours of observation. These meetings provided valuable context for my
understanding of the district as a whole, and helped me understand how the affinity
groups work fit in with the broader activities of the district. Whenever possible, I also
gathered documents that principals referenced during meetings.

Initial interviews with principals, which were conducted in December 2015,
focused on understanding: (1) principals’ previous experiences with peer collaboration,
and (2) the broader district context. I also conducted interviews with the superintendent
and the affinity groups coach that were designed to understand their goals for the affinity
groups and the rationale behind their design choices. Finally, I conducted round two
interviews with principals in May and June 2016. These interviews focused on
understanding (1) principals’ perceptions of how their groups engaged in the process over
time, and (2) principals perceptions of the benefits and costs associated with engaging in
affinity groups.

Study Participants

Below I describe the three affinity groups, and provide a brief summary of their
areas of focus and their members. One group, which I will hereafter refer to as the
“culturally responsive” group, focused on how to promote culturally responsive practices
across their schools. Although the group began with a focus on culturally responsive
instruction, over time they became more focused on how to “start the conversation”
among their staff and encourage a change in mindset before focusing on concrete changes
in instructional practice. The members of this group were: (1) Cassy, a principal who was
in her sixth year as a principal in the district, but was in her first year as the principal of
her current (K-8) school, and (2) Karen a school leader who had been a principal for 4.5 years in a nearby district, but was in her first year as a principal in Greenwood. She led the district’s only early childhood center.

The next group, which I will hereafter refer to as the “effective instruction” group, started with a shared interest in identifying instructional practice, and ultimately focused on building their knowledge of the “Visible Learning” book series. The members of the group were: (1) Lawrence, formerly the assistant principal of his current K-8 school and in his second year as the principal, (2) Jami, a highly experienced principal of a K-8 school in the district and in her 11th year as a principal in the district, and (3) Tanya, an experienced principal in her 6th year leading her K-8 school, and with an extensive history in the district (46th year). Tanya was set to retire at the end of the study year.

The third group, which I will refer to as the “technology” group, focused on the use of technology in the classroom, starting with an interest in understanding “hot topics” in the current educational landscape, such as “blended learning” and “flipped classroom”. The members of this group were: (1) Saundra, the principal of a K-8 school in the district, who was in her 4th year in the district and her 4th year as a principal in the district, (2) Van, the principal of the only K-5 school in the district, who was in his first year in the district and his 1st year as a principal in the district, (3) Anthony, The principal of the only high school in the district, who was in his 16th year in the district and his 4th year as a principal, (4) Jeremy, the principal of a K-8 school in the district, who was in his 4th year in the district and his 4th year as a principal in the district. Jeremy stopped attending group sessions after the first three meetings, and was not highly involved in the work of the group. (5) Elli, the principal of the alternate high school and middle schools
in the district that were focused on supporting students who are unsuccessful in traditional classroom environments. She was in her 16th year in the district and her 4th year as principal. She left on maternity leave after two affinity group sessions. See appendix A for more detailed demographic information on all the principals, the superintendent, and the affinity groups coach.

Analytic Approach

I conducted an embedded comparative case study of three groups in order to improve my understanding of the affinity groups initiative. This investigation took a “hybrid” approach to data collection and analysis, in which I started with a theoretical framework that provided me with a set of “sensitizing concepts” (Charmaz, 2006) that guided me as I collected and analyzed field data. Drawing on my grounding in social capital theory, I started my analysis with an interest in understanding how principals’ accessed social and cognitive resources through their interaction in affinity groups and an interest in the interaction conditions that influenced the extent to which their discussion in groups was beneficial. Over the course of the study, I allowed emergent findings to shape subsequent data collection (Miles, Huberman, & Saldaña, 2013; Yin, 2013), which refined my focus. It became apparent that different affinity groups were responding to the initiative in very different ways, and these different responses provided valuable analytical leverage. By describing how different groups engaged in the affinity group process over time, I was able to examine the affordances and constraints associated with specific design features of the initiative. The importance of some of these design features was apparent from the beginning of the study (e.g. the fact that principals were required
to self-select into the groups), while the importance of other design features surfaced during data collection and subsequently became a focus of my investigation.

Much previous work on professional collaboration has focused on successful or high functioning groups (Curry, 2008; Vescio et al., 2008). In contrast, this study draws on the experiences of several groups, all of which had varying degrees of success, in order to provide a broader picture of the affinity groups initiative. My primary phenomenon of interest in this paper are the design features of the affinity groups, and I triangulate interviews, observations, and documents to make inferences about these design features.

**Coding.** In order to answer my research question, I analyzed my field notes, transcripts, and documents in three phases. First, I created an initial list of 1st order (Miles et al., 2013) codes using qualitative coding software DEDOOSE (SocioCultural Research Consultants, 2014). These codes were derived deductively, using concepts drawn from the literature, and inductively, from an initial review of field data. I coded my observational field notes at the utterance level\(^3\) in order to ensure that I brought my attention to the finest details of principals’ interaction. Concurrently, I coded my transcripts at the episode level, in order to capture larger sets of dialogue that included multiple speakers. Specifically, I identified certain episodes as “key episodes” if they seemed particularly consequential examples of the exchange of social or cognitive resources, or if they signaled particularly important decision points in the affinity group.

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\(^3\) I define an utterance just as Levine & Marcus (2010) did, as what one person says during a conversation before there is a change in speakers.
process that principals engaged in over time. I coded interview transcripts with principals and district administrators using a parallel set of codes.

As mentioned above, my initial focus on immediate interaction conditions broadened to focus on specific design features of the initiative. Four design features emerged as especially consequential for the learning and relationship development of group members: 1) Self-selection based on similar interests, (2) Absence of authority figures, (3) Self-directed inquiry and (4) Coach as broker. Each of these design features align with one of the design elements outlined in table 1 (e.g. membership, accountability...etc.). These design features became core, inductive concepts that informed a second round of coding. During this phase, I identified sections of interview text and field notes that pertained to each design feature, and summarized the excerpts associated with that design feature in an analytic memo. These memos focused on the affordances and constraints each design feature held for principals’ learning and relationship development.

Throughout my analysis, I referenced the literature on the design of professional collaboration (Chapman & Hadfield, 2010; Datnow, 2011; Spillane & Coldren, 2011), in order to direct my analysis and interpretation of data. The design elements outlined in table 1 (e.g. membership, accountability) were drawn from this literature. Although the framework in table 1 is presented in the introduction to the current research, it is worth noting that its development was motivated by themes that emerged from the data. I present it early in the paper in order to clarify my theoretical contributions in advance, and provide my reader with conceptual scaffolds they can use to approach my findings,
but it should be kept in mind that the theoretical framework and the findings in this paper developed in tandem, as is common in inductive, qualitative research (Charmaz, 2006).

**Findings**

Affinity groups were intended to provide a unique opportunity for Greenwood’s principals to exert high levels of choice and agency over their own professional learning. In the eyes of the superintendent, the goals of the groups were to both encourage principals’ learning, and to provide them with an opportunity to develop professional connections with one another. The new autonomy associated with the initiative brought with it potential for learning and collaboration, but at the same time it conflicted with traditional norms of independence and compliance among principals in Greenwood. Principals were, at times, challenged to take advantage of the freedom that was provided through the affinity groups. Also, at times, the affinity groups design contained contradictions in that it did not maximize autonomy, but instead required compliance. I explore the tensions in the design of the affinity groups by highlighting four design features: (1) Self-selection based on similar interests, (2) Absence of authority figures, (3) Self-directed inquiry and (4) Coach as broker. In the following sections, I describe each design feature, provide the rationale for each choice, and explore the affordances and constraints each choice provided for principals’ learning and relationship development.

**Design Feature 1: Self-selection Based on Similar Interests**

**Description and Rationale.** All of Greenwood’s principals were required to self-select into affinity groups based on mutual interests. In November 2015, the affinity groups coach informally polled the district’s superintendent, top administrators, and principals in order to generate a list of potential focus areas. Then, she surveyed the
principals in order to determine which of these potential focus areas was most popular. Based on the most popular survey choices, the coach presented three options to the district’s principals in December 2015. During that meeting, principals self-selected into three groups, each focused on a different general topic: (1) Culturally responsive teaching, (2) Effective Instructional practices, and (3) Educational technology.

The affinity groups’ design feature of self-selection based on similar interests was based on two big ideas about what would make collaboration among principals successful. First, both the superintendent and the consultant believed in the importance of participants’ having a choice of what to focus on. The consultant, in particular, felt that traditional professional development for principals was overly top-down and not responsive to the authentic interests of school leaders. Reflecting on her previous experience as a principal in a nearby city, the consultant said that professional development for principals was typically created by, “Someone outside the organization [who] has an idea for what I need. I never got to be in an affinity group and I hated PD.” To the affinity groups consultant, then, principal choice was important because it ensured that the topics selected were relevant to participants. In her experience, districts rarely provided sustained opportunities for principals to engage in learning topics over time. This emphasis on choice is consistent with recent arguments about what makes professional development effective (Calvert, 2016; Mehta, 2016).

In addition to the importance of choice, the consultant believed in the importance of bringing principals with similar interests together. When she co-designed the affinity groups during her work in a previous district, she grounded her work in this statement, “If principals dive into an issue they care about, with other people who care about it, they
will make progress in solving that issue and they will do better by kids’” (Sherer, Nathan, & Torres, 2015). This notion, that similarity among individuals helps them work effectively together, is backed up by research from social psychology and organizational studies (Gehlbach et al., 2016; McPherson, Smith-Lovin, & Cook, 2001; Milliken & Martins, 1996). Such research suggests that individuals that are similar to one another tend to communicate more easily with each other, form social bonds more quickly, and derive greater satisfaction from their work, compared to more diverse groups. Recent work has sought to improve the quality of interactions between students and teachers by helping them see the ways in which they are similar to one another (Gehlbach et al., 2016). The affinity groups are based on a similar logic of intervention.

**Affordances.** In some ways, the designers’ requirement that principals self-select into groups based on similar interests played out as they had hoped. First, requiring principals to self-sort into interest groups allowed them to work with other principals who shared an enthusiasm for their topics and this shared enthusiasm fostered learning and the development of strengthened professional connections among some principals. In their closing interviews, all nine participating principals indicated that they selected into their groups because they felt their topic was important to them.

While providing principals with such choice might seem simple and straightforward, for Greenwood’s school leaders it was new and exciting. Karen, a member of the culturally responsive group, emphasized how valuable it was, “To be working with another leader in the district around a common interest” and then highlighted how rare such an opportunity was, asking rhetorically “How often do we ever get to talk to our colleagues about our passions?” Karen’s partner, Cassy, talked about
how having a choice of what to focus on allowed her to learn about a topic that was a serious need at her school and that she was not knowledgeable about.

Second, the fact that principals were required to participate in affinity groups helped principals reserve time for research and study, a type of activity that is commonly not part of principals’ jobs. Jami emphasized the value of the affinity groups being required, when she said,

I think [affinity groups] forced you to, when you think of the 7 habits of highly effective people, there’s that one quadrant [of potential activities] that’s, ‘important, but not urgent.’ In my job, that's the piece that often gets skewed, you don't do it.

Without the requirement that principals participate in the affinity groups, it may have been too difficult for principals to preserve time for reflection and study. Karen, a member of the culturally responsive group, similarly emphasized the importance of providing time for collaboration and requiring participation. She connected the importance of providing time for principals’ collaboration with the importance of providing time for teacher collaboration, saying,

Obviously [principal collaboration] is really important, this is the same thing we tried to do with teachers, this is a very important work. I know it's hard to be out of your classroom, but if we make it important and make it a nonnegotiable, then eventually people realize the value of the time... As a district, we can't force collaboration, but if you provide time and then a known expectation... Principals will never be able to get together with themselves, because every year, every
couple of years there's a new initiative and there's something new that we have to implement. It's hard.

**Constraints.** Although requiring principals to self-select into groups based on similar *interests*, at times, fostered shared enthusiasm among participants, this type of self-selection also had limitations. Specifically, encouraging principals to group with one another based on similar *interests* allowed for the possibility that principals would be very dissimilar to one another on other dimensions besides their common interest. The downsides of this type of self-selection were most apparent in the case of the technology group. Although they were all interested in technology, this group was highly diverse in terms of job responsibilities. It included an elementary school principal, a high school principal, and two middle school principals. Because they led different types of schools, these principals had trouble coming together around a specific, shared focus that was relevant to all of them. Van, the elementary school principal, was drawn to learn from other elementary schools who were using blended learning approaches, Anthony, the high school principal, sought out other secondary school principals who had implemented large-scale technology initiatives. Pursuing these individual interests, while valuable to specific members of the group, prevented members of the technology group from coming together around a set of common concepts or experiences. Van talked about occasionally feeling disconnected from the larger conversation in his affinity group, saying,

> It also really made me remember that I'm in an elementary school, and I'm the only one in the district, because, really, all the schools are K-8 or high school. I'm only K-5 next year, and a lot of these things affects the middle school years…When they talk about an eighth grader, I'm out of that conversation.
Second, the required nature of the affinity groups meant that the initial level of interest among participating principals was mixed. Although in their initial interviews, before their collaboration began, all principals indicated that they thought affinity groups had potential, some of them expressed concerns about how the work would ultimately play out. For example, in his initial interview, Lawrence, a member of effective instruction group, talked about how he was concerned about his ability to learn from the other principals in the district, and expressed some concern that he might not find collaboration useful. Referring to a hypothetical topic that his group might focus on, he said,

If I already either have that skill or don't have that problem or it's not really relevant to me... Preferably, I'd like to work with certain people, but I get that's probably not how [affinity groups] is going to work. I guess I just kind of feel like... What would be preferable to me is to work around really smart, driven people.

Ultimately, Lawrence’s initial hesitation about the affinity groups may have led him to devote less and energy and time to the work of the affinity groups compared to his colleagues. Indeed, Lawrence was the individual who was most likely to be late or absent from affinity group meetings. He also did not always follow through on commitments to the group, as he did when he helped plan the group’s final presentation, but then, at the last minute, told his groupmates that he was not able to help them present. There is some evidence that this inconsistent commitment caused disappointment in his group mates. Tanya, another member of the effective instruction group, talked about this negative feeling when she said,
I think that one of the things that with the affinity group, too, I think that people really have to be committed to it, and everybody has to do their share, and I don't necessarily think that always happened this year.

Regardless of whether or not they were interested in collaboration, some principals appeared to lack the ability or inclination to work in self-directed groups. The superintendent commented on this possibility during her interview. She said,

Some people just need more structure. They don't do as well with the inquiry and they actually need to be guided more, and told, ‘this is what you need to do.’ ‘You can open a gate and some people will stay in the yard… and you can open a gate and other people will be like [hand clap] gone!’

The affinity groups coach made a similar point, more succinctly, when she said, “if you're not interested in ideas, this isn't a very good approach for you.”

In summary, the requirement that principals self-select into affinity groups based on topics of similar interest had both affordances and constraints. On the one hand, allowing principals to choose their topics and choose their group members, at times, led to shared enthusiasm and excitement. Additionally, the fact that principals were required to participate made them reserve time for collaboration and reflection with peers, a process that may not have necessarily occurred in the absence of the requirement. However, this design feature also had limitations. Self-selection allowed for the possibility that principals would group with others who were dissimilar to them in consequential ways, such as the technology group, which contained principals from elementary, middle, and high schools. Further, the requirement that Greenwood’s principals participate had some negative consequences, as it brought together principals
with varying degrees of interest in and capacity for working collaboratively with their colleagues.

Design choice 2: Absence of Authority Figures

Description and Rationale. Traditionally, district administrators in Greenwood controlled conversation during meetings when principals were present. During my observations of bi-monthly “principals’ meetings,” it was typical for varied district administrators to stand up and make informational announcements to the principals. Principals were given limited opportunities to respond and/or discuss the information that was presented to them. This meeting structure constrained the type of free-flowing, collegial conversations that can form the basis of social connections. Indeed, over time, the lack of opportunities for substantive interaction created a situation in which principals, in general, “did not know each other,” in the words of the superintendent.

In contrast, district leaders were not present during affinity group meetings. Although a consultant offered resources to the principal groups, and provided some light guidance, this facilitator was not part of the authority structure of the district, and thus had no formal authority over the principals. The fact that principals were allowed to interact without the presence of district administrators was novel, and had rarely occurred before in Greenwood.

Giving the principals space and time for themselves was a deliberate design choice. The superintendent provided a rationale for this choice, saying, “I’ve insulated [principals] deliberately to give them some of their own ground to get to know each other as colleagues...giving them the safe space as colleagues outside of the rest of us, to form a bond.” The superintendent recognized that opportunities for principals develop
authentic social connections had been few and far between in the past, and hoped that the affinity groups initiative would rectify this. Adult learning theory supports the superintendent’s approach. As Mezirow (1997) writes, an important goal of adult learning is to help prevent learners from accepting any “uncritically assimilated explanation by an authority figure” (p.5). One way to foster a critical stance towards authority is to remove supervisors from a setting, and to provide participants with “free space” (Kellogg, 2009) within which to engage in discussion. I find that insulating principals from the authority structure of the district had both affordances and constraints.

**Affordances.** Social movement theorists have emphasized the importance of *free spaces*—locations where members of a non-mainstream group can gather in safety, develop feelings of solidarity, and strategize about potential acts of resistance (Futrell & Simi, 2004; Kellogg, 2009). Affinity groups may have served a similar function for principals. Freedom from the district’s hierarchy may have encouraged participants in affinity groups to question, push, and think deeply about their topics. As Cassy remarked:

I think people were comfortable to ask questions and pushback and kind of form it in a way they maybe wouldn't have been in front of [the superintendent].

….People I think really wrestled with the questions and were comfortable changing them and letting things evolve. I think people might have been less comfortable if [the superintendent] had been doing it. I know I would have been like, "No. We said we were going to [design] a PD. We need to do a PD even if we don't necessarily have a PD plan."… There was more room for evolution in the process
The benefits associated with the lack of strong administrative presence were especially apparent with the culturally responsive group. This group was focused on an important but sensitive topic: confronting bias in their teaching staff and the broader community. The principals in this group came together because they had a shared critique of behaviors they had witnessed among both teachers and parents. Cassy, in particular, had recently experienced a challenging event at her school. One of her students, an 8th grade student of Muslim descent, had made some threatening comments towards other students. In response, Cassy had given this student a multi-day suspension. Although inappropriate, the comments had not been outrageous or unprecedented for an 8th grade boy, in Cassy’s opinion. However, news of this student’s behavior was picked up by a local paper as evidence of a threat to the community. This paper ran several articles that described a “lurking” danger in the community’s public schools under the headline “terror watch.” Not surprisingly, many of the parents at Cassie’s school were unnerved, and she spent about a month doing “damage control” in collaboration with the district central office.

By allowing her to engage with a peer in an unsupervised space, the affinity groups provided a valuable setting in which Cassy could reflect on and make sense of her experience. When Cassy and Karen met in a larger space with other principals present, they commonly whispered to each other during their conversations, a sign that they were wary of their conversations being overheard. However, through the affinity groups initiative, Cassy was able to unflinchingly consider problems in her community with a like-minded peer, and develop strategies that she could use to combat them. The safe space that the affinity groups provided allowed these important conversations to occur.
In addition to giving them space to experiment with ideas and investigate controversial topics, freedom from district authority allowed principals to engage in a healthy critique of district policies (Futrell & Simi, 2004; Kellogg, 2009). For example, during their January meeting, both principals in the culturally responsive group talked about their experience with parent teacher conferences and expressed their dissatisfaction with the lack of time that was allowed to be apportioned to teacher-parent conferences according to the union contract. The principals spent time discussing ways that they and their teachers had “worked around” the issues associated with this limited time (by for example, reaching out to only the parents who have students who are most in need of the conference). Then, Cassy made an explicit connection to the topic of her affinity group, saying:

Cassy: I think it’s like related [to cultural responsiveness] cuz it’s like, this work takes time, and if you are already uncomfortable with someone of a different race and it’s in 5 minutes and you have to deliver some difficult information about their child, you just don’t do it.

Karen: mmmhmmm.

Cassy: You just don’t do it because that’s not comfortable, and they can’t hear it

Karen: And with someone next to you interpreting, yeah….

In this episode, Cassy and Karen develop a shared critique of a district policy, share strategies they have used to work around this policy, and connect the critique to their larger work in their affinity group. This episode represents an example of when freedom from authority figures provided participants with the space to engage in topics they might feel uncomfortable discussing with district administrators present, and gave them the
opportunity to connect their critique with the broader purpose of their group: in this case, creating culturally responsive school communities.

In addition to providing a free space in which principals could think flexibly and develop shared critiques of district policy, the unsupervised time associated with the affinity groups allowed principals to develop relationships with colleagues. The absence of authority allowed informal interactions that were not necessarily “on-task”—and these informal interactions may have helped principals connect with one another, come to see each other’s strengths, or, as one principal remarked, have “colleague time.” Van remarked on the value of getting a chance to know his colleagues in an informal social space, saying:

I think what was the most surprising [thing about affinity groups] was the ability to really, for me, brand new in the district, to get to meet my colleagues at a different level... To really sit down and talk with them, but not always about the affinity projects. Having some colleague time and agreeing on some points. It made me realize how freaking smart Saundra is... For me, too, it’s getting a chance to talk with her and Anthony, the high school principal. Sharing common themes about how students swivel, matriculate through the system. That was kind of neat.

**Constraints.** At the same time, the lack of authority figures and supervision occasionally constrained the ability of the affinity groups to foster learning. First, at times, the lack of authority figures may have encouraged principals to stray into topics that were not productive or helpful. For example, during one of their last meetings, one group of principals’ complained about a particularly challenging student and his parents
for an extended period of time. While a certain level of “venting” is normal and healthy, and can provide a sense of workplace camaraderie (Huberman, 1993) the lack of a strong administrative presence may have allowed principal groups to veer away from project-focused conversation to a greater extent than is desirable.

Second, for certain groups, attendance at affinity group meetings and general commitment to the affinity groups may have been lower compared to situations in which the superintendent was present⁴. Interviews with those principals who did devote significant energy to the affinity groups suggest that they noticed their peers absence and felt it detracted from their satisfaction with the overall affinity group experience. As Cassy said,

It was frustrating to me that there were meetings where not everyone came. That would never happen when we were having our official principals' meetings, so I found that really frustrating...Obviously if your child is in the hospital then you're in the hospital with your child, but it's not just like you're having a parent coffee hour, like that's not really [a good enough excuse] ... I just found that frustrating. Because I mean all principals are busy. There's plenty of things other people could have been doing.

In summary, the absence of district administrators in the affinity groups created both affordances and constraints. On the positive side, the affinity groups became a space

⁴ Attendance at “principals meetings” which included all principals, the superintendent, and other district administrators had higher attendance rates than “affinity group meetings” on average, especially for the technology group and the effective instruction group.
in which groups: (1) were able to think flexibly and reflect without the urgency of “performing” well in front of their supervisor, (2) could investigate controversial topics that may not have been as easy to discuss with the whole community, and (3) could develop a healthy critique of district policies. At the same time, the lack of administrative presence during the affinity groups: (1) may have allowed principals to dwell on unproductive topics for too long, and (2) may have reduced some principals’ commitment to the affinity group work.

**Design Choice 3: Self-directed Inquiry**

**Description and Rationale.** The affinity groups allowed principals to conduct their own research, as they saw fit, over time. As opposed to more traditional professional development, in which the sequence of content is planned out ahead of time by managers, the affinity groups allowed principals to organize themselves and pursue their own interests. This design feature, which I call *self-directed inquiry*, provided participants with two main types of freedom: (1) freedom to manage their moment-to-moment conversations as they saw fit, and (2) a longer-term freedom to pursue the topics they cared about and manage their own processes of investigation.

First, in the short-term, the affinity groups structure did not require principals to discuss their topics in any structured way. However, it was an important condition that influenced how principals interacted with one another. Many scholars of collegiality have argued that unstructured conversations tend to be unproductive, and have highlighted the value of conversational protocols (Levine & Marcus, 2010; Steele & Boudett, 2008) for keeping conversation focused on relevant topics, encouraging broad participation, and encouraging participants to engage in conversation at relatively high levels of depth. At
the same time, others have found that overly structured dialogue can get in the way of “authentic conversation” (Clark, 2001; Little, 2012, Curry, 2008). Thus, the decision to provide principals with minimal conversational structure risked both costs and benefits.

In addition to their freedom to structure their conversations as they saw fit, over the long term, participants in the affinity groups had the ability to choose their own research questions, choose how they would investigate those research questions, and select relevant resources. The coach provided principals with the freedom to conduct their own research over time because she believed that much of principals’ professional development was short term. Reflecting on her own time as a principal, she said that, during professional development sessions,

You got to hear Marzano once or this author one time. It was like, ‘Okay. That's interesting...but there's no real way’ ...I don't think I ever really had, in all my years in [my previous district], other than these one-shot interesting things, sustained PD except for what I developed myself.

The coach’s belief in the rarity (and importance) of sustained professional development and her belief in the importance of self-directed professional development led her to free up the affinity groups to direct their own research, on a consistent topic, over the course of the school year. This emphasis on sustained professional development is consistent with research on what makes professional development effective (see, e.g. Cohen & Hill, 2000). Further, the self-directed aspects of affinity groups aligned with recent arguments about the importance of providing participants of professional development with agency and control over their own learning (Calvert, 2016; Cochran-Smith & Lytle, 1999).
Affordances. Having the freedom of self-directed inquiry gave principals the flexibility to pursue their interests in a way that was responsive to their emergent concerns, both in the short-term and the long-term. In terms of their more immediate conversations, there appeared to be beneficial aspects of the lack of imposed conversational structure. For example, conversations could venture into unplanned areas that were highly meaningful to participants. This benefit was most apparent in the case of the culturally responsive group. For example, the culturally responsive group spent time engaging in profoundly personal and vulnerable discussions about experiences they had had with racism and bias in their communities and personal lives, a sequence of topics that was spontaneous, unlikely to be included in a conversational protocol, and appeared to provide participants with feelings of solidarity.

The following conversational chart, which describes a portion of the culturally responsive group’s February meeting, helps to illustrate the fortuitous and spontaneous path of an important conversation (see table 2). In this conversation, Cassy and Karen moved from a discussion of bias in their schools and communities, to the challenges of school change, to personal experiences in their own families, to the experiences of parents at their schools, and ultimately drew out the implications of these conversations for school leadership and reform. Studies of educators’ discourse in protocol-guided conversations have found that protocols “limited [the] pursuit of important emergent issues” (Curry, 2008, p.766). Indeed, it is unlikely that the valuable conversation documented in table 2 could have occurred if the group had been required to follow a protocol. The table provides an example of the two principals in this group engaging in a meaningful interrogation of their experiences that was possible because the principals
were able to address emergent issues. Because the affinity groups initiative allowed them to have unstructured conversation, these principals had the freedom to transition freely between personal stories, stories about their communities, and implications for school reform.

Table 2: Conversational sequence in the culturally responsive group

<table>
<thead>
<tr>
<th>Sequence</th>
<th>Topic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bias in the community</td>
<td>Cassy tells a story about an incident that motivated her to focus on cultural responsiveness. She talks about a Muslim student at her school who made some aggressive statements and was suspended. She says that the response by the community and local media to this incident had been vastly overblown, and had revealed to her anti-Muslim bias in the community.</td>
</tr>
<tr>
<td>2</td>
<td>Bias in the community</td>
<td>Cassy tells another story about a Muslim mother at her school that had her headscarf ripped off in public due to anti-Muslim energy in the community following the Paris attacks of November 2015.</td>
</tr>
<tr>
<td>3</td>
<td>Link to School practice</td>
<td>Karen makes a connection to school practice, asking how she can foster a school community that recognizes differences among students and families (because clearly some families have different experiences within the United States) without placing undue emphasis on these differences.</td>
</tr>
<tr>
<td>4</td>
<td>Personal connection</td>
<td>Cassy tells a story about her elementary-school age daughter, describing an incident in which her daughter made stereotypical judgments of others based on race.</td>
</tr>
<tr>
<td>5</td>
<td>Personal connection</td>
<td>Karen tells a story about raising her biracial daughter, and how her parenting style had shifted over time from emphasizing a &quot;colorblind&quot; view of race/ethnicity to a view of race/ethnicity that acknowledged and celebrated racial differences.</td>
</tr>
<tr>
<td>6</td>
<td>Conceptual question</td>
<td>Karen asks Cassy if she thinks that children should be raised to focus more on differences among people (along class lines, ethnicity lines) or if they should be raised to focus on the commonalities among all people.</td>
</tr>
<tr>
<td>7</td>
<td>Connection to broader societal change</td>
<td>Karen notes that society’s views change over time, and brings up the example of being biracial. Karen’s daughter viewed being mixed-race as a negative thing when she was in elementary school, but by the time she reached high school she viewed being mixed-race as something to celebrate. Karen attributes her daughter’s changing mindset to changing societal views towards being mixed-race.</td>
</tr>
<tr>
<td>8</td>
<td>Connection to school reform</td>
<td>Karen makes a connection to changing the mindsets of teachers at her school. She wonders how she can engage teachers in difficult conversations about the potential that some of their classroom practices may be racially biased even if that is not their intention.</td>
</tr>
<tr>
<td>9</td>
<td>Story from school</td>
<td>Cassy talks about how she spent some time learning about the life history of one of the Muslim parents in her school, and that story really helped her find common ground and feel a sense of connection with that parent.</td>
</tr>
<tr>
<td>10</td>
<td>Connection to school reform</td>
<td>Karen wonders if there is a more systematic process by which schools in Greenwood could: (1) gather the stories of parents, and (2) share those stories within the school community. She suggests that these actions might foster stronger connections between teachers and families that have different cultural backgrounds.</td>
</tr>
</tbody>
</table>
In addition to the short-term, conversation-level freedom that affinity groups provided to principals, the long-term flexibility of the affinity groups was also beneficial. Having the freedom and flexibility to engage in a longer-term research project gave the groups the opportunity to think deeply about their topics without the pressure of pursuing immediate action. Karen, a member of the culturally responsive group, commented on this when she said, “We didn't have an action plan, we didn't have the thing where, ‘Okay, you're gonna do some research and bring it to the table.’” She then emphasized the value of having time for reflection and flexibility, saying that the affinity groups provided “time to be able to be in other schools and have these really valuable conversations and to learn that you just don't bring in a plan and decide, ‘we're going to create a vision quickly in one year.’”

Second, in line with the hopes of the affinity groups coach, principals valued the opportunity that the affinity groups provided to focus on one topic for an extended period of time. During her second interview, Jami contrasted her work in the affinity groups with other, “one-shot” professional development she had received. She described how,

We had this person come and talk to us a few years ago about the book Improbable Scholars, but we didn't really engage in conversation about it. We went to what they presented and we read the book, but then we didn't come back and discuss it at the principals meetings or anything.

Jami emphasized that the affinity groups allowed her to spend time researching a topic she cared about for an extended period. In these ways, the data suggest that having the freedom of self-directed inquiry allowed principals to
**Constraints.** Although some principals were able to take advantage of the freedom that the affinity groups provided, having such unstructured opportunities also came with costs. First, regarding the short-term freedom that principals had over their conversations, I observed some negative trends that may not have occurred had principals used conversational protocols. Because principals’ conversations were not structured, they could be unfocused and casual. While casual conversation is not, in and of itself, a bad thing, at times this conversation could linger on unproductive topics. For example, as mentioned above, during one meeting, one of the affinity groups spent a large portion of their time discussing one troublesome student, and the troubling behavior of that student’s parents. This conversation seemed to be cathartic for the principal who was attempting to support the student, but the conversation was not focused on concrete improvement strategies or the topic of the affinity group.

A more fine-grained analysis of principals’ discourse suggests that, in general, principals’ conversations were rarely detailed enough to provide strong learning opportunities to participating principals. Principals spent considerable amounts of time discussing logistics related to their participation in affinity groups (e.g. when they would meet, how they would communicate with one another…etc.). The content of principals’ talk was also commonly expressive or emotional, as when principals voiced encouragement to one another, laughed or provided a humorous comment, or discussed frustration or disappointment. Other times, the content of principals’ conversations more clearly provided opportunities for principals to learn about leadership practice.

In order to identify these aspects of principals’ conversations, I draw heavily on Judith Warren Little’s (2003) notion of *representations of practice*. In her extensive
analyses of teachers’ dialogue, Little makes the point that much of teachers’ talk does not have the potential to make classroom practice visible to other teachers, and thus much of teachers’ talk does not provide peers with opportunities to learn. In order to hone in on the potential learning opportunities available through teacher dialogue, she focuses her analysis on understanding representations of practice. She defined these representations as “categories and aspects of practice that are made available for consideration in the topics taken up in conversation and through any material artifacts that teachers bring with them, create in the moment, or otherwise have available” (p.920). I draw on her approach in order to analyze principals’ dialogue for the learning opportunities there in.

Using Little’s (2003) framework and Coburn and colleagues work on conversational depth (2008; 2014), I identified utterances that offered principals concrete opportunities for learning. I identified utterances in which principals made specific reference to: (1) their leadership or management practice, (2) external resources such as books, articles, visits to others schools, and (3) concepts related to their work (see appendix C for coding definitions and examples). Out of a total of 3,295 utterances captured in my field notes, 1,062 (32%) referred to one or more of these topics. I refer to these utterances as cognitive utterances. Out of this set of 1,062 cognitive utterances, I identified only 142 that had a high level of detail. Utterances were judged to be high in detail if they included: (1) clear definitions of terms, (2) discussion of rationale for specific actions, and/or (3) connections between concepts and leadership practice. See figure 3 for a representation of the nested nature of these codes and their numbers. This figure represents the fact that principals rarely engaged in discussion of their practice that
were detailed enough to provide them with concrete opportunities to learn. See appendix C for a more detailed description of these codes and examples.

Figure 3: Analyzing principals’ utterances for learning opportunities

In addition to the disadvantages of free-flowing conversations, the long-term freedom provided to affinity groups was difficult for some principals to manage. For example, in the case of the technology group, principals never reached a clear focus for their inquiry. Individual members pursued their own research interests, preferring to

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5 Utterances by the affinity groups coach are not included in my count of cognitive utterances, despite the fact that she occasionally provided principals with information and ideas. I exclude these utterances because my focus is on the benefits that principals might receive from peer interaction.
divide their responsibilities for their project instead of investigating specific resources together. As Anthony, a member of the technology group, remarked:

We were like, we are just going to make this frickin thing happen. Let's figure out how we could best divide up what we want to do. That's kind of how it was, I would say it was necessity driven. [I said] I'll take this piece… Saundra had done some stuff, I think for maybe another class or something, so she had some research on that. I think Van knew some stuff. It just sort of played to what our strengths were and what we've done a little bit of research on in the past.

This quote also demonstrates that for this group, the affinity groups became, to a significant extent, compliance-driven. The group’s tasks became another “frickin thing” the principals had to get done.

Most principals wanted more direction and guidance. During their closing interviews, six out of nine participating principals indicated that they wanted a clearer and more defined collaborative experience. For example, Tanya from the effective instruction group described the work of her group as unfocused and said she wanted a clearer schedule and a more concrete work plan. She said,

I thought we could have accomplished more than we did. I think just setting the parameters ahead of time, and I think maybe if you started it right at the beginning of the year, or even during some of the August meetings, come up with a topic and plan some of what you’re doing during the year around it might have been more helpful.

Most other principals voiced similar sentiments, requesting more direction from district leadership and the affinity groups coach.
One of the reasons that the self-driven nature of the affinity groups structure was challenging for principals was that it required the energy and drive to come from the principals themselves as opposed to from an external facilitator. Anthony, a member of the technology group, said that he would have appreciated professional development in which someone else provided the content for him:

I almost wouldn't mind if it was just a class that we went and listened to stuff. I think it was just the work was harder… I'm like, 'Ah shoot, I got to get that Affinity research done tonight and I've got a building meeting until 8:00.' Then, 'God dammit, I've got this in the morning. When am I going to squeeze it in?'

Where there was almost a seminar that we listen to or we can talk where we didn't have to do research, I would love that!

With this quote, Anthony clearly communicated that he desired professional learning opportunities, and wanted exposure to new ideas and concepts. However, the hectic nature of his professional life, and the large set of responsibilities associated with the principalship, made it very difficult for him to pursue the affinity group’s work with enthusiasm. He was primarily responding to the pressure he felt to get affinity groups work done for compliance sake. Jeremy, another principal from the technology group, talked about the difficulty of devoting time to the affinity groups in the context of striving for work life balance, saying

I will tell you that it was hard balancing time. I'm not going to lie to you, there were points where it felt like undergraduate class where it was doing a lot of research when there wasn't a lot of time to do it… As principals... we do not work a seven, eight hour day. Trying to find time to really have fidelity to the group
with what we were working on, but also have fidelity to our loved ones and our families and our lives. That, for me, was probably the most challenging.

Just like Anthony, Jeremy had trouble fitting affinity groups work into his existing set of responsibilities. However, Jeremy emphasized the difficulty of pursuing affinity groups work while meeting family obligations in addition to professional responsibilities.

In summary, giving groups the ability to self-direct their own conversations and their own longer term research process was a double-edged sword. While some groups took advantage of this freedom to address their emergent concerns and pursue their topics over an extended period of time, other groups had trouble reaching a clear focus, most principals reported wanting a clearer structure, and several principals had trouble devoting the energy required for such a self-directed inquiry.

**Design Choice 4: Coach as Facilitator and Broker**

**Description and Rationale.** The coach believed in the importance of principals having control over their own professional learning. As such, she pursued a largely non-directive style of facilitation with the affinity groups. She (1) helped the principals select their groups, (2) pushed principals to articulate a research question, (3) connected principals with relevant resources, and (4) assigned deadlines and a basic set of expectations for principals’ work. Many of these actions were designed to channel the energy of the affinity groups in productive directions, as opposed to providing them with explicit information or telling them how to go about their work.

In many ways, the coach did not fit the classic definition of a coach. Hackman (2002), for example, argues that coaches of teams provide three main types of support: motivational, consultative, and educational. In motivational coaching, coaches help to
“launch” teams, help them get excited about their work, and provide some basic guidelines. In consultative coaching, coaches provide specific feedback on team strategy and process. The goal of consultative coaching is to help redirect teams that may be moving in an unproductive direction. Finally, in educational coaching, coaches help team members learn from their experiences. The affinity groups coach functioned as a motivator, but she did little to fulfill the other two coaching functions. In addition the coach worked as a broker or boundary spanner (Burt, 1992; Honig, 2006). She had a wide and diverse network of other school and district leaders that she was willing and able to connect principals to. Thus, the affinity groups coach had a distinctive approach that combined elements of more traditional team coaching with an emphasis on providing resources and making social connections between principals and individuals with relevant experience or expertise.

In her interview, the coach emphasized that she was a motivator and a connector, not an expert on subject matter. For example, during one meeting a principal asked her to give specific feedback on a professional development plan he was working on. Reflecting on the experience, she voiced her discomfort with being asked these types of questions, saying, “He was actually asking me sort of as an expert….I don't really see myself as knowing very much, and I don't really know very much.” Instead, the coach described how she was motivated to connect principals with novel, stimulating resources. She said,

I don't really have the answers, what I have is…lots of excitement about connecting people to stuff. That's what I live for, is if I can help Van listen to [a principal] from Utah talk about technology and get a new idea, I'm done, that makes me so excited. That's what the affinity groups are, is connecting people,
places, ideas. That's what I think most people like to do, is to learn about something deep. If I can help them in that trajectory, then that's great.

A more fine grained analysis of the coach’s discourse supports the notion that she did not serve as an “expert” but preferred to lightly facilitate, motivate, and connect principals with resources. The following graph was constructed by coding each utterance of the coach from field notes based on the function of that utterance (see figure 4). As can be seen from the chart, only a small minority of the coach’s utterances were associated with providing information and/or serving as an expert. It was far more common for the coach to attempt to connect principals with resources, or to facilitate the affinity group process (by communicating with principals about meeting dates, providing them with a basic set of expectations for their presentations, etc…) compared to providing them with information. This chart is meant to represent the fact the coach served as more of a facilitator and broker of resources as compared to being an “expert” or provider of information (see appendix C for coding definitions and examples).
Affordances. The coach’s work as a motivator and a broker had affordances for principals’ learning and relationship development. First, the coach was able to connect some affinity groups with valuable resources that matched their interests. In several cases, these connections would never have happened if not for the coach’s existing strong network. For example, she connected the culturally responsive group with two nearby principals who had worked on culturally responsive instruction at their schools. Through the coach, Cassy and Karen met these principals, visited their schools, and talked to them about their approaches. These visits were highly valued by the principals in the culturally responsive group. Although both of these principals deeply desired to create schools in which diverse student populations were celebrated and respected, they were unsure about how to begin the change process. By seeing concrete examples of other schools and school leaders that had attempted such changes, the principals in the culturally responsive group were able to identify and bring back specific leadership strategies to their schools. Cassy described how valuable these visits were in combination with other, more traditional resources (e.g. books), saying,

If I read something that I don’t have any context for, I’ll read it; I’ll get it on a certain level, but then if I see it in action or talk to someone about it and then go back and read it, it’s so much more meaningful.

Indeed, in their closing interviews, when asked which of the resources that they had accessed were most valuable to them, both principals identified the visits with the school leaders. Without the assistance of the affinity groups coach, the principals would not have had access to these schools.
Beyond connecting principals with resources, the affinity groups coach could also help to motivate participants of the affinity groups. This motivation took two main forms. First, the coach motivated principals by voicing excitement and affirming suggestions that principals made during conversation. The coach commented on her tendency to help principals get excited about their own ideas, describing herself as someone that was interested in all ideas. She said, “I'm excited by all of them, and that helps people. There's nothing people would say that I'd be like, ‘Eh, why would you want to study that?’” A principal from the culturally responsive group commented on how the coach helped to keep her motivated by constantly asking what she could do to help, saying the coach was “Always positive, [asking] ‘;What more can I do for you? Have you called so and so? Do you want me to text them for you?’ [she provided] that energy.”

Second, the coach motivated principals by giving them deadlines and following up with them occasionally to check on their work. As Karen said, the coach helped by, 

Just emailing and calling or texting or whatever she did, the variety of different things that she did to so to say, ‘So where are you in this?’ We're adults, we're leaders, but yet it was great to have that accountability.

**Constraints.** Although the coach connected principals with valuable resources and motivated them to stay engaged with their work, the coach’s role had tradeoffs. First, although the coach could provide principals with valuable resources, her ability to do so depended on her existing network of connections. If she had a weaker network related to one group’s topic, she had fewer relevant resource available for the principals. In situations where there was a strong match between the coach’s network and the desires of the principals, the coach’s brokering approach appeared to be highly successful. For
example, during their final interviews, members of the culturally responsive group identified the five most valuable resources they accessed. Of these five resources, four originated from the coach. Figure 5 is a diagram that connects a group’s most valued resources (in the light colored boxes) with the source of those resources (in the dark colored boxes). In the case of the culturally responsive group, the coach was connected to a group of school leaders who were working on a directly related topic. As such, she was able to provide principals with immediate connections to other principals with highly relevant experiences.

Figure 5: Resources identified as most valuable by the culturally responsive group

In comparison, the coach did very little to connect the effective instruction group to relevant resources. In their final interviews, members of the effective instruction group identified seven resources as most valuable to them, and not a single one of those resources came from the coach (figure 6). As discussed in the description of the study sample above, the effective instruction group became highly focused on a specific set of
resources related to the *Visible Learning* series of books by John Hattie and colleagues (see, e.g. Hattie, 2008; Hattie, Masters, & Birch, 2015). *Visible Learning*, like many other books oriented towards school reform, advocates for a specific model that schools can use to move their teachers towards instructional improvement, with specific steps and terminology. The effective instruction group was very interested in finding another school that had experience with the Visible Learning improvement model. However, the affinity groups coach did not have existing connections to any such schools. As such, she may have been less useful as a broker to the effective instruction group compared to the culturally responsive group.

![Diagram](image)

*Figure 6: Resources identified as most valuable by the effective instruction group*

In comparison to these two groups, the technology group had a moderate amount of its most valued resources brokered by the affinity groups coach (see figure 7). Of the eight most valuable resources identified by the technology group, three originated from
the coach. Interestingly, if we look more closely at the specific individuals that named each resource, we can see that the coach was a highly effective broker for one of the members of the technology group, Saundra. Three out of four of Saundra’s most valuable resources were offered up by the coach (Saundra identified #1, #2, #7, and #8 from appendix D, Table D3). Saundra was highly interested in alternative school models that placed the integration of technology and pedagogy at their core. The coach had strong connections to leaders with experiences designing such schools. As such, when the coach offered to broker connections with these educators (see resources #7 and #2 in appendix D, table D3), Saundra jumped at the chance to speak with them. In comparison, two other members were interested in pursuing conversations with school leaders that led schools more similar to their own and chose to access these schools through their own personal networks.

The technology group, then, represents a case in which the coach’s effectiveness as a broker was influenced by both her pre-existing network of resources and principals’ desire to use her existing connections. During affinity group meetings, the coach offered many different resources related to technology to the group (including articles and visits with local and national leaders with extensive experience in technology). The coach’s existing network included educators that used technology in innovative ways. However, because some principals did not choose to use her as a resource or had a preference for seeking out resources on their own, they were not able to take advantage of her
connections.

Figure 7: Resources identified as most valuable by the technology group

In addition to the fact that the coach’s effectiveness as a broker of resources was limited by her existing network, the coach’s stance towards principals may have been overly expansive, and not sufficiently geared towards getting principals to arrive at a specific focus. Indeed, during the early stages of the affinity groups’ work together, the coach had a tendency to offer up dozens of different potential schools, books or websites that might be relevant to the groups’ work. As the coach said, “I just throw it out there and hope something sticks. I think I threw out a lot of ideas.” Although this type of resource-focused, idea-generating approach was meant to inspire principals and expose them to new possibilities for their work together, it may have, at times, made it more difficult for groups to come to a clear and specific focus. Thus, in certain cases, the coach did not provide sufficient direction and structure to participating groups. Anthony, a principal from the technology group, suggested that the coach provided too many resources when he said,
When we went to her with questions we ended up ... We were trying to narrow and she would kind of widen. We said, ‘We’re looking at this,’ [and she would say] you might want to look at so and so's research.

In her closing interview, the coach commented on the possibility that she put too much emphasis on providing groups with resources and ideas, saying, 

Because that's what I also really struggle with in my own thinking and my own writing because my tendency is to be expansive..... At some point, you've got to get people to get to a center. That's actually the job of a facilitator I think. It's too easy for [the groups] to be moving and mushing and moving and mushing.

In summary, the coach took a non-directive approach to facilitating the affinity groups. She focused on motivating principals to pursue their chosen topics and providing them with resources. This approach had several affordances. First, the coach was able to build principals’ networks, in some instances, by connecting them with other leaders, and these connections could serve as valuable sources of novel learning for participants.

Second, the coach was able to motivate participants through encouragement and providing light accountability and structure. The coach’s approach also had constraints. First, the coach’s ability to effectively broker was limited by the composition and size of her own network and the preferences of participating principals. The team that was focused on a topic for which the coach had many connections and was motivated to access the coach’s connections was able to take advantage of the coach’s network. In contrast, the other two groups were less able and/or inclined to do so. Finally, the coach’s expansive, idea-generating approach to coaching may have prevented some groups from finding a focus or slowed them down in their attempts to focus.
Discussion

Scholars of professional learning have long argued that districts and schools should provide educators with high levels of autonomy to control their own learning (Cochran-Smith & Lytle, 1992; Hargreaves, 1994). In many ways, the affinity groups appeared to align with such arguments. The affinity groups provided principals with unprecedented freedom. However, this freedom came at a cost. The following table summarizes the affordances and constraints associated with the design of the affinity groups initiative, and serves as a summary of my findings. Each row represents a specific design choice that the managers of the affinity groups made, and each choice is aligned with a specific design element that was discussed in the literature review (see table 3).
Table 3: Affordances and Constraints Associated with the Design of Affinity Groups

<table>
<thead>
<tr>
<th>Design Choices</th>
<th>Affordances</th>
<th>Constraints</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Membership:</strong></td>
<td>• Shared enthusiasm for topic among group members.</td>
<td>• Some groups were too diverse in terms of job responsibilities.</td>
</tr>
<tr>
<td>Required Self-Selection</td>
<td>• Principals reserved time for collaboration amid hectic work lives.</td>
<td>• Mandated participation led to uneven interest among group members.</td>
</tr>
<tr>
<td><strong>Accountability:</strong></td>
<td>• Encouraged experimentation</td>
<td>• Allowed principals to linger on cathartic but unproductive topics</td>
</tr>
<tr>
<td>Lack of Authority Figures</td>
<td>• Allowed investigation of controversial topics</td>
<td>• Reduced the commitment of some principals to their affinity groups work</td>
</tr>
<tr>
<td><strong>Content and Mode of Interaction:</strong></td>
<td>• Conferences were spontaneous, could proceed in beneficial and unplanned directions</td>
<td>• Conversations rarely included detailed discussion of practice</td>
</tr>
<tr>
<td>Self-Directed Inquiry</td>
<td>• Groups could address emergent concerns</td>
<td>• Groups might not develop a clear focus</td>
</tr>
<tr>
<td></td>
<td>• Groups could retain focus on a consistent topic over time</td>
<td>• Most principals wanted more structure and direction</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Principals had trouble devoting energy to self-directed inquiry</td>
</tr>
<tr>
<td><strong>Facilitation:</strong></td>
<td>• Coach could build networks</td>
<td>• Coach’s ability to broker was limited by her existing network and by principals’ interest in drawing on her connections</td>
</tr>
<tr>
<td>Coach as Broker</td>
<td>• Coach could energize groups through encouragement and light accountability</td>
<td>• Brokering approach to coaching may have hindered groups’ efforts to find a focus</td>
</tr>
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</table>

Looking across the set of design features associated with the affinity groups, two larger observations emerge. First, the agency that affinity groups provided to participants was both an asset and a limitation. For example, the lack of authority figures present during principals’ collaborative time encouraged experimentation, and gave principals the freedom to discuss controversial but important topics. However, this same lack of administrative presence may have reduced some principals’ commitments to their affinity group work and made them less likely to attend group meetings. Each design choice associated with the affinity groups, as summarized in table 3, created a similar tradeoff.
Second, in important ways, the affinity groups did not provide freedom to participants. In particular, principals were not given the option of whether or not to participate in affinity groups at all. Although principals were given choices about which topics to select into, they were not given the option of selecting nothing. In the case of at least one group, the *required* nature of group participation led to a group composition in which different members had different levels of interest in collaborative work. These different levels of interest, in turn, contributed to uneven dedication of effort to the work of the group and ultimately reduced principals’ satisfaction with their participation.

The designers of the initiative believed that it was critical for principals to act as autonomous, self-directed professionals. Thus, the success of affinity groups depended on the capacity of principals to use their freedom well. As many scholars of *school* autonomy have asserted, granting actors autonomy appears to be most effective only when school systems build the capacity of those actors to use that autonomy effectively (Honig & Rainey, 2011). Given that principals in Greenwood had minimal experience with such initiatives, it is perhaps not surprising that many of them had challenges using their time effectively.

Indeed, if district leaders are to create such a professional development structure with a broader level of success, it may particularly important for them to provide more directive supports to teams that are struggling. The findings in this article provide important examples of when and in what situations principals had trouble with the freedom provided by affinity groups. As such, the findings in this paper can help district leaders predict when their initiatives might face similar challenges and when to intervene. For example, in the absence of a facilitator, principal’s conversations may linger on
topics that are unrelated to their group’s work. As such, district administrators should consider appointing external support providers to actively facilitate principals’ conversations. Such a strategy might also increase some participants’ commitment to their affinity groups work. In a second example, the finding that the affinity group coach’s “brokering approach” may have made it challenging for some principals to find a focus has implications for how an affinity groups coach should support principals. In particular, it suggests that affinity group coaches should prioritize helping principals develop a specific, shared focus early on in their work together and de-prioritize offering principals a huge variety of resources.

**Conclusion**

Many scholars of collaboration have asserted that participants should be given high levels of freedom and autonomy as they pursue their own professional learning (Calvert, 2016; Hargreaves, 1994; Mehta, 2016; Mezirow, 1997). Others have emphasized the value of formal structure (Datnow, 2011; Levine & Marcus, 2010). Clearly, a balance between these two approaches to designing collaboration must be reached. The affinity groups initiative provided an excellent opportunity to study principal collaboration under conditions of high autonomy. Findings provide insight into the affordances and constraints of specific design features of principal collaboration, and should prove useful to district leaders considering providing collaborative time for their school leaders. The freedom provided to participants was used to pursue relevant, important, and at times, controversial topics. At the same time, the lack of structure made it challenging for some groups to find a compelling focus and engage in productive conversations. Relatively unstructured, highly autonomous initiatives like affinity groups
may be most effective when used in combination with more structured approaches to professional learning.

Future research should investigate the conditions under which groups are most able to take advantage of the autonomy that initiatives like affinity groups offer. Given the high level of freedom that affinity groups provide participants, it may be particularly important to study interpersonal dynamics within principal teams to understand how these groups operate over time (Honig & Rainey, 2014). Indeed, the next chapter takes up this question. Continuing work in this area will help leaders of professional learning find the delicate balance between providing structure and granting freedom.
Chapter 3: Are We in This Together? Developing Energy and Interdependence through Principal Collaboration

Abstract

Some school districts have begun to provide their principals with opportunities to collaborate with peers in order to foster principals’ learning and provide them with social support. Existing studies of principal collaboration emphasize the importance of the district administrators who lead principal groups. In contrast, there is little research on self-managing groups of principals. This case study explores one district’s attempt to foster principal collaboration through an initiative called affinity groups. The district’s three affinity groups provided principals with high levels of freedom to manage their own learning. Results suggest that groups developed different levels of interdependence and devoted different levels of effort to their shared work. The group that worked together most closely and devoted the most energy to their shared work appeared to derive the greatest benefits from participation, while the other groups were less satisfied with collaboration. Implications for research and practice are discussed.
School principals have complex and challenging jobs (Drago-Severson, 2012) that are commonly described as socially isolating (Jackson, 1977; Stephenson & Bauer, 2010). Recognizing the need to support principals’ ongoing learning and provide them with social support, some school districts are giving their principals opportunities to learn from their peers (Barnes, Camburn, Sanders, & Sebastian, 2010; Darling-Hammond et al., 2007; Fink & Resnick, 2001; Honig & Rainey, 2014). Existing research suggests that principals’ opportunities to learn from role-alike colleagues can be highly beneficial, helping them build their leadership competencies and develop practical strategies that they can “bring back to their schools and apply immediately to their practice” (Darling-Hammond et al., 2007, p. 51).

Research on principal collaboration is rare, but a small body of existing studies has started to explore the factors that make it effective. First, principals learn most if the district administrators who lead them are skillful teachers of adult learners (Honig, 2012; Honig & Rainey, 2014; Hubbard, Stein, & Mehan, 2006). For example, Honig and Rainey (2014) describe how central office administrators can promote substantive conversation by helping principals draw on each other’s knowledge. In contrast, Hubbard, Stein, and Mehan (2006) argue that ineffective district leaders promote environments that do not allow for experimentation, stymying principals’ opportunities for learning. Second, some studies suggest that districts can support principals’ learning by creating a coherent set of organizational structures that align with a district’s overall instructional vision. For example, Fink and Stein (2001) describe how principals’ conferences and principals’ institutes in New York City’s District Two helped principals stay focused on issues of instruction and promoted a common vision of pedagogy across
the district. These studies suggest that principal collaboration is most powerful when
district leaders skillfully facilitate principals’ conversations and create structured
opportunities for principals to acquire instructional knowledge.

Existing work has started to build our understanding of how districts can
intervene to support productive peer-learning experiences among principals. However,
because existing research focuses on the role of district administrators and district
structures, it neglects the potential of allowing principals to organize their own
collaborative learning experiences. Numerous educational scholars have argued that
professional learning should be highly directed by participants as opposed to
administrators (Calvert, 2016; Cochran-Smith & Lytle, 1992; Hargreaves, 1994).
Similarly, research from the management literature tells us that “Self-directed” groups
can energize participants by providing them with ownership over their work and
providing them with autonomy to pursue their goals as they see fit (Haas, 2010;
Wageman, 2001). Thus, allowing principals to lead their own collaborative work might
increase their motivation and interest compared to collaborative initiatives that are highly
directed by district leaders. However, the freedom provided to self-managed groups can
also be a “double edged sword” (Haas, 2010). Such groups can encourage individualistic
behavior, disorganization, negative peer pressures, and disconnection from the broader
goals of the organization (Barker, 1993; Hackman, 1998).

Although allowing principals to direct their own collaborative work has potential,
certain characteristics of principals’ roles may complicate their efforts to cooperate
effectively. First, principals have little “natural” reason to work together—they generally
operate in separate facilities and have very little overlap in their professional
responsibilities (Stein & Nelson, 2003). As such, principals may have trouble coming together around a common objective or plan for collective work. Furthermore, principals’ jobs are notoriously challenging and time-consuming (Drago-Severson, 2012; Lavigne, Shakman, Zweig, & Greller, 2016). Thus, principals may have trouble devoting effort to collaborative work with other school leaders if they feel fully occupied by school-level responsibilities. Indeed, how do groups of principals maintain commitment to shared work? And how do they dedicate effort to collaboration given their extensive site-level obligations?

I investigated these questions through an embedded, qualitative case study of one small urban district that was initiating a new collaborative structure for principals’ learning. This structure, called affinity groups, provided principals the opportunity to self-select into groups of principals that cared about the same topic, and gave them considerable autonomy in deciding how to pursue their own learning over the course of seven months. The site was purposefully selected because it offered a “rare” case (Yin, 2013)—an opportunity to observe the creation of these groups, ushered in by a new superintendent. To aid my investigation, I draw from the literatures on social capital, self-managed groups, and positive organizational scholarship. Concepts from these literatures help clarify key differences in how the groups self-organized over time, and how the nature of this self-organization related to the cognitive and social benefits that participants’ received.

In short, I find that different principal groups developed different levels of *interdependence* (Wageman, 1995; Yuan, Fulk, Monge, & Contractor, 2011) and devoted different levels of *energy* (Cross et al., 2003; Daly et al., 2016) to their group’s work. The
members of one group designed their learning tasks to be highly interdependent and devoted significant levels of effort to those tasks. The members of another group developed a moderate amount of interdependence, and devoted less energy to their shared work. A third group developed little interdependence in their tasks and gave inconsistent energy to shared efforts, preferring to pursue their individual interests. The group that developed the most interdependence and devoted the most energy to the group's shared work appeared to derive the greatest benefits from participation in affinity groups, while the other groups were less satisfied with their participation.

These patterns resulted in part from principals’ struggle to balance two tensions related to their affinity group work. First, principals were challenged to negotiate the intense, urgent demands of work at their schools, while also engaging in the opportunities that affinity groups provided for the shared exploration of new ideas. Second, within the affinity groups, principals felt a tension between pursuing their own individual interests and pursuing shared work.

The roadmap of this paper is as follows: First, I provide more background on districts’ nascent efforts to support principals through collaborative opportunities, drawing on the concept of social capital as a way to conceptualize the broad set of benefits that may accrue to principals because of their participation. Next, I draw out the concepts of energy and interdependence from organizational scholarship because they help to clarify key differences I observed in how these groups of principals engaged over time. Then, I discuss my setting, sample, and methodology. Next, I discuss my findings, describing key differences in how the groups engaged in the affinity group process over time, and describing how different ways of engaging provided different opportunities for
principals to derive cognitive and social benefits from their participation. I explore how different groups engaged in their work, and how contextual conditions helped or hindered them in their efforts to learn together. Throughout, I pay particular attention to the affinity group whose members experienced the greatest benefits from participation. I close with a discussion of the implications of my work for the research on principal collaboration and provide recommendations for districts that are interested in developing self-managed learning groups among their school leaders.

**Literature Review**

**The Imperative for Principal Collaboration**

In recent years, researchers and practitioners have converged on the notion that teachers need opportunities for social engagement with colleagues and can derive great benefits from participating in professional learning communities (Little, 2002; Louis & Marks, 1998; Spillane, Shirrell, & Hopkins, 2016). Far less attention has been paid to principals’ opportunities to learn from and with their peers. However, just like teachers and other professionals in complex roles, principals can gain important social and cognitive benefits from meaningful engagement with role-alike colleagues (Brown & Duguid, 1991; Lave & Wenger, 1991; Wenger, 1998). Unfortunately, districts typically follow “the egg carton organizational norm in which principals are…isolated from substantive interaction with peers,” (Barnes et al., 2010, p. 274).

Allowing principals to interact with one another in substantive ways could provide *social capital*, or the “resources for action that are attained through relationships” (Spillane, Kim, & Frank, 2012, p.2). I conceptualize social capital as: (1) cognitive resources, such as advice, information, and expertise, and (2) social resources, such as
emotional support, respect, and trust, that (3) are accessed through social networks (Coleman, 1988; Dika & Singh, 2002; Nahapiet & Ghoshal, 1998).

Recognizing the potential value of bringing principals together and fostering social capital, some districts have created organizational structures that allow principals to engage with one another on issues of instruction, leadership, and school management (Barnes et al., 2010; Fink & Resnick, 2001; Honig, 2012; Honig & Rainey, 2014; Hubbard et al., 2006; Umekubo, Chrispeels, & Daly, 2015). Existing studies of such groups have tended to emphasize district leaders or external facilitators as “teachers” of principals, and have described how skillful “teachers” can lead group of principals to engage with content and each other in order to build knowledge (Honig & Rainey, 2014; Hubbard et al., 2006). While such studies make an essential contribution to the literature on principal collaboration, in their focus on an external facilitator, they neglect the potential for principals to lead collaborative learning groups themselves. For example, research on “self-managed” teams helps us understand how providing groups with autonomy about how best to accomplish their goals can be motivating to participants and make teams more effective (Balkema & Molleman, 1999; Cohen & Bailey, 1997; Haas, 2010; Wageman, 2001).

The potential and challenge of self-managed learning groups

A self-managed team is defined by its “Freedom and discretion and ability to organize its internal work and structure to best accomplish goals,” (Langfred, 2007, p.885). In theory, team’s with this freedom gain a greater sense of responsibility and accountability for their work, and derive greater satisfaction from their participation in the group (Cohen & Bailey, 1997). As such, giving groups of principals the freedom to
pursue their learning in their own ways might provide feelings of ownership and motivate them to engage in the learning process. However, creating self-managed groups, "particularly in organizations with histories of individualistic, manager-directed work," can lead to "poor performance, individualistic behavior, and avoidance of the decision making necessary for effective, cooperative teamwork," (Wageman, 2001, p.559). So, contrary to expectations, working in self-managed teams might undermine principals’ willingness to rely on one another and engage in cooperative work. Likewise, principals may feel de-motivated or even drained by the experience. Thus, the concepts of 

**interdependence** (Hollingshead, 2001; Wageman, 1995; Yuan et al., 2011) and **energy** (Cross et al., 2003; Daly, Liou, & Brown, 2016; Quinn & Dutton, 2005) can help us understand the elements of group process that might be particularly important for self-led learning groups of principals.

**Interdependence and energy**

Efforts to promote collaboration in schools and districts are based on the notion that participants have valuable resources to offer one another through interaction. However, depending on the nature of a group’s task, group members may have frequent and substantive opportunities to interact and exchange those resources, or they may have few opportunities to do so. One particularly consequential aspect of a group’s task is its level of **interdependence**. Organizational theorists define task interdependence “as the degree to which the interaction and coordination of team members are required to complete tasks” (Langfred, 2005, p.514). An example of a team with low interdependence would be a group of salespeople who all cover different regions; an example of a team with high interdependence would be a basketball team. Teams with
more interdependent tasks tend to cooperate more (Wageman, 1995) and are more likely to share knowledge among team members (Yuan et al., 2011) compared to groups with low levels of task interdependence. Although typical studies of work groups treat interdependence as a stable function of the group’s task, given the self-managed nature of affinity groups, in the current study I treat interdependence as a feature of principals’ collaborative work that may develop over time. We might expect that principals who develop more interdependence will have increasingly frequent and substantive interactions, resulting in a positive feedback loop, which provides more opportunities to learn from each other through interaction, compared to groups of principals that do not.

Principals’ jobs generally lack “natural” interdependence—principals do not depend on each other to do their work. While classic studies of teachers’ work lives have described them as isolated from one another (Lortie, 1975), teachers have significantly greater opportunities for interaction compared to principals. Teachers share a building, while principals do not. Teachers commonly share students across subjects, while principals do not. Finally, while the educational field has come to the consensus that teacher collaboration is highly valuable, no such consensus exists when it comes to principal collaboration (Barnes et al., 2010; Stein & Nelson, 2003). Thus, principal work groups, and affinity groups specifically, represent a rare opportunity for principals to develop interdependence when the “natural” state of principals work gives them little reason to work together. Yet, there is no guarantee that self-managed teams will develop the interdependence that encourages participants to engage with each other in substantive ways.
Even if a group develops a shared task and its members’ work is interdependent, in order for them to receive benefits from collaboration, they must also have the motivation to continually engage in shared work over time. The concept of energy (Cross et al., 2003; Quinn & Dutton, 2005) from positive organizational scholarship helps us understand the importance of principals’ exerting effort towards their work with other principals. In this paper, I use the term energy to capture the extent to which group members are “positive, inspired, and motivated” (Daly et al. 2016, p. 413) as indicated by their behavior and how they describe their collaboration. Interactions that produce energy also create enthusiasm and encourage participants to be fully engaged in tasks (Daly et al., 2016). Individuals are more likely to devote discretionary time and effort to individuals and groups that provide them with energy (Cross et al., 2003). Thus, principals that find interacting with their peers energizing may have the greatest potential to benefit from their collaborative work.

Given the demands of principals’ day-to-day professional lives, it may be especially important for affinity group meetings to be energizing in order for principals to devote time to them. Principals are constantly confronted with immediate, urgent needs in their jobs, such as dealing with student misbehavior, safety concerns, or talking to angry parents (Drago-Severson, 2012). It is easy to see how these pressing issues, as well as the myriad other responsibilities associated with running a school (Drago-Severson, 2012; Leithwood, Jingping, & Pollock, 2017; Rousmaniere, 2013), might feel more important than the “lofty” goals of learning and self-development which affinity groups are designed to foster. Indeed, studies of teacher communities have found that these groups are challenged to negotiate the tension between developing broad, theoretical ideas
related to pedagogy versus pursuing more immediately applicable, practical classroom strategies (Grossman, Wineburg, & Woolworth, 2001). Past studies of principals’ professional development have found principal attendance to be a serious problem (Camburn, Goldring, Sebastian, May, & Huff, 2015), which indicates that principals’ may have trouble devoting time to learning opportunities when other tasks feel more pressing. Thus, it might be especially important for interaction in affinity groups to be *energizing* in order keep principals engaged.

In summary, principals may derive substantial benefits from collaboration, but few models of principal collaboration have been documented. Existing research on principals’ opportunities to learn from one another tend to emphasize the role of district administrators as “teachers” of principals. In contrast, self-led learning groups of principals have great potential to provide a sense of ownership and motivation to participants. At the same time, these groups may be subject to individualized behavior and poor performance. Groups that develop *interdependence* and devote high levels of *energy* to participation may be most likely to benefit from participating in these groups. Using these concepts as a base, I investigated how principals interacted in three collaborative groups over the course of seven months. My overarching research questions were:

1. How do principals engage in the affinity group process over time?
   a) How do principals develop interdependence, if at all?
   b) Why and how do principals devote energy to their affinity groups work?
2. How does principals’ engagement in the affinity group process provide them with cognitive and social resources, if at all?
Methods

Setting and Sample

This study takes place in Greenwood, a small urban district in the northeast United States with a diverse student population of 5,000 (see appendix A for demographic information). In the fall of 2015, affinity groups were put in place by the new superintendent in partnership with a faculty member at a nearby University. Affinity groups were based on a prior initiative that both of these individuals had created in a nearby district. Both individuals believed in the value of autonomy for school leaders and saw autonomous learning groups as “professionalizing” the principalship. They each felt that helping principals gather with other principals who had similar interests would foster productive collaboration. Additionally, the superintendent believed it was important to help school leaders develop relationships with one another, and chose to initiate affinity groups because she felt the principals in her new district “didn’t know each other.”

The components of the affinity groups initiative were as follows. In December 2015, the district’s 10 principals were asked to self-select into groups based on common interests. Following that session, principals were asked to spend 2-3 hours a month with their groups pursuing their own learning, and to spend additional time together as they wished for a total of 6-7 sessions per group. Throughout their time in affinity groups,

6 Before the affinity groups initiative began, the district’s principals had gathered at the central office twice per month to engage with the superintendent and other central office leaders. However, when the affinity groups initiative started, one of those monthly sessions was given over to affinity group work. Thus
principals were provided with light facilitation and resources by an affinity groups “coach.” This coach asked principals to articulate a research question, and connected them with relevant resources (books, websites, and other school leaders) based on her personal network and her existing knowledge. Although the coach played a facilitative role, the groups’ chose which resources they would pursue, how they would engage in these resources over time, and generally managed their own conversations, which suggests that affinity groups can be conceptualized as self-managed groups despite the coach playing a role. Principals were also asked to share a presentation at the end of the school year with a team of district leaders and with each other. Beyond this minimal structure, principals were encouraged to pursue their collective learning as they saw fit.

Although the affinity groups were provided with relatively little structure, I found that they all went through the same set of basic steps. I’ve included a diagram of the affinity group process below. This process became apparent during ongoing fieldwork in the district, and it was refined by consulting the literature on group development and organizational learning (March, 1991; Tuckman, Jensen, 1977; Tuckman, 1965). Although this sequence was not part of my study a priori, I include it here to provide my readers with a more concrete sense of how principals engaged in the affinity group process over time (see figure 2).

the affinity groups initiative can be understood as a reapportionment of principals’ time as opposed to an additional demand on their time
First, each principal had to select into a group. During the first affinity group meeting in December 2015, the ten principals in Greenwood self-selected into three groups based on common interests. These groups were focused on the general topics of: (1) technology and innovation, (2) effective instructional practices, and (3) culturally responsive teaching. Second, over the course of the first several months of the initiative, groups had to find a focus for their collaborative time together. Although the chosen topics provided a general direction for the work of the groups, each topic left much up for interpretation. Through a mix of discussion amongst themselves, and some facilitation from the affinity groups coach, each group developed a narrower focus over time.

Third, based on their focus, each group spent time gathering resources such as books, videos, and articles, or conducting visits with other school leaders. Fourth, to varying degrees, each group spent time synthesizing the resources they gathered—deriving lessons from them together and determining the implications of these lessons for their work as school leaders.

Fifth, based on their synthesis of resources, each group created a product, which took the form of a presentation. During the last full affinity group session in May, participants presented their work to each other and to district leaders. This product took
the form of various activities, handouts, and/or PowerPoint presentations, and was an opportunity for each group to summarize and share their work.

Data Collection

Data sources included observations, interviews, and artifacts. I completed a total of 29 interviews with a total 17 individuals: at least two interviews with all principals (with the exception of one principal who left for maternity leave in March), and one interview with several key district administrators and the affinity groups coach. I also followed up with three principals (one from each affinity group) during the fall of 2016 to check on how they continued to work with their groups, if at all.

I gathered observational data from 17 hours of affinity group meetings. I took field notes during all observations, and I audio recorded a subset of affinity group meetings (about 25% of total affinity group meeting time) (see appendix B for fuller description of the amount and type of observational data I gathered for each group). I wrote “almost verbatim” (Honig, 2004, p.537) field notes, capturing the substance of communication between participating principals. All audio recordings were transcribed. Because teams generally met at the same time each month and thus I was not able to be physically present with each team, I rotated the team that I sat with each month, and I audio-recorded the meetings of other teams, when possible. Using this strategy, I was able to either record or directly observe between 50% and 80% of each team’s total official affinity group meeting time during the 2015-2016 school year.

In addition to my observations of affinity group meetings, I also observed and took field notes during monthly “principals’ meetings” which included all principals and district administrators, for an additional 14 hours of observational data, I engaged in a
total of 31 hours of observation. These meetings provided valuable context for my understanding of the district as a whole, and helped me understand how the affinity groups work fit in with the broader activities of the district. Whenever possible, I also gathered documents that principals referenced during meetings.

My initial interviews with principals, which were conducted in December 2015, focused on the organizational conditions in the district—specifically the extent to which principals had opportunities to interact with other principals. I also conducted interviews with the superintendent and the affinity groups coach; these interviews were designed to understand the goals for the affinity groups and the rationale behind their design. Finally, I conducted a second round of interviews with principals in May and June of 2016. These interviews focused on understanding (1) principals’ perceptions of how their groups engaged in the process over time and (2) principals’ perceptions of the benefits and costs associated with engaging in affinity groups.

**Describing the groups**

Below I describe the three affinity groups, and I provide a brief summary of their areas of focus and their members. One group, which I will hereafter refer to as the “culturally responsive” group, focused on how to promote culturally responsive practices across their schools. Although the group began with an interest in changing classroom instruction, over time they became more focused on how to “start the conversation” among their staff and encourage a change in mindset before focusing on concrete changes in instructional practice. The group was made up of two members: (1) Cassy, a principal who was in her sixth year as a principal in the district, and (2) Karen, a school leader who
had been a principal for 4.5 years in a nearby district, but was in her first year as a principal in Greenwood.

The next group, which I will hereafter refer to as the “effective instruction” group, started with a shared interest in identifying and implementing effective instructional practices, and ultimately focused on building their knowledge of the “Visible Learning” book series by John Hattie and colleagues (Hattie, 2008; Hattie et al., 2015). The group was made up of three members: (1) Lawrence, who was in his second year as the principal of his school, (2) Jami, who was in her 11th year as a principal in the district, and (3) Tanya, an experienced principal in her 6th year, and with an extensive history in the district (46th year). Tanya was set to retire at the end of the study year.

The third group, which I will refer to as the “technology” group, focused on the use of technology in the classroom, starting with an interest in understanding “hot topics” in the current educational landscape, such as “blended learning” and “flipped classroom.” The group was originally made-up of five members: (1) Saundra, who was in her 4th year as a principal in the district, (2) Van, who was in his first year as a principal in the district, (3) Anthony, who was in his 4th year as a principal, (4) Jeremy, who was in his 4th year as a principal in the district. Jeremy stopped attending group sessions after the first three meetings, and was not highly involved in the work of the group. (5) Elli, the principal of the alternate high school and middle schools in the district that are focused on supporting students who are unsuccessful in traditional classroom environments. She was her 4th year as a principal in the district. She left on maternity leave after only two affinity group sessions, and was not highly involved in the group. See appendix A for demographic information on all the principals and their schools.
Analytic approach

I conducted an embedded comparative case study of three groups of principals. This investigation took a “hybrid” approach to data collection and analysis, in which I started with a theoretical framework that provided me with a set of “sensitizing concepts” (Charmaz, 2006) that guided me as I collected and analyzed field data. Drawing on my grounding in social capital theory, I started my analysis with an interest in understanding how principals accessed social and cognitive resources through their interaction in affinity groups and an interest in the “interaction conditions” that influenced the extent to which their discussion in groups provided principals with learning opportunities. Over the course of the study, I allowed emergent findings to shape subsequent data collection (Miles et al., 2013; Yin, 2013), which refined my focus. I came to see that the most salient interaction conditions were defined by how the groups engaged in the affinity group process over time. Thus, my focus broadened to understanding the longitudinal development of these groups, and why their engagement in the process differed in substantial ways. The concepts of energy and interdependence emerged as important differences between groups, and important determinants of the value that principals received from interacting with one another. My core units of analysis for this chapter are the processes that each group went through over time. I triangulate interview transcripts, observational field notes, and documents to make inferences about these processes.

Coding. I coded my data set of field notes, transcripts, and documents in three phases using the qualitative coding software DEDOOSE (SocioCultural Research Consultants, 2014). First, I created an initial list of first order (Miles et al., 2013) codes that were derived both deductively, from my initial literature review and inductively,
from an initial review of field data. As mentioned previously, my initial focus on immediate interaction conditions broadened to trying to understand how principals engaged in the affinity group process over time, in particular how principals went through the five phases identified in figure 1. Thus, my initial set of “big bucket” codes included codes on outcomes (e.g. social and cognitive benefits) and codes on process (e.g. finding a focus, gathering resources). I coded relevant sections of interview and observational data within these first order codes. Next, I created second and third order codes to further refine my coding structure and to provide a more detailed description of my discourse and interview data. Throughout the coding process, I also allowed inductive codes to emerge. I wrote analytic memos describing each code and justifying its inclusion in my codebook.

I coded my observational field notes at the utterance level in order to ensure that I brought my attention to the finest details of principals’ interaction. I define an utterance just as Levine & Marcus (2010) do, as what one person says during a conversation before there is a change in speakers. Concurrently, I coded my transcripts at the episode level, in order to capture larger sets of dialogue that included multiple speakers. I identified certain episodes as “key episodes” if they seemed particularly consequential examples of the exchange of social or cognitive resources, or if they signaled particularly important decision points in the affinity group process that principals engaged in over time. I coded interview transcripts with principals and district administrators using a parallel set of codes.

Based on my first round of coding of field notes and interview data, I drafted narrative, chronological case summaries of each team, describing how they selected into
their group, how they found a focus, how they decided to gather which resources, how they made sense of those resources, and how they created their final product. I also summarized the cognitive and social benefits that participants received. I constructed matrices to facilitate the comparison of groups along various dimensions (Miles et al., 2013).

Throughout my fieldwork, my initial rounds of coding, and my development of case summaries, I looked for patterns in how the principals engaged in the affinity group process over time. It was at this stage in the analysis that the importance of interdependence and energy emerged as primary differences across my case study groups. These patterns became core inductive codes that informed a second round of coding of my transcript and interview data. After this second round of coding, I revised my case summaries, and developed within-case and across-case themes related to interdependence and energy. These themes form the basis of my findings.

Findings

I organize my findings section in the following ways. First, I focus on my first research questions, “How did principals engage in the affinity group process over time?” I describe key differences in how the groups worked together over the course of the year, focusing on differences in interdependence and energy. I explore the conditions that fostered energy and interdependence across the groups. Next, I focus on my second research question, “How does principals’ engagement in the affinity group process provide them with cognitive and social resources, if at all?” I discuss the social and cognitive benefits that principals received from participation, arguing that interdependence and energy were key aspects of the affinity group process that
influenced the extent to which principals’ derived benefits from their participation. Although, like most factors that influence group processes, interdependence and energy are not mutually exclusive and can influence each other, here I discuss them separately for purposes of conceptual clarity.

**Interdependence**

**Context.** Before the initiation of the affinity groups initiative, principals in Greenwood had been given limited opportunities to work together in meaningful ways and thus limited opportunities to develop interdependent working relationships. In the past, principals had come together during bi-monthly principals’ meetings, but these meetings had provided little opportunity for substantive interaction. Instead, during these meetings various district administrators provided information to principals, typically updates related to new rules, policies, or compliance issues, and these administrators often read straight from a piece of paper. As one principal remarked, in prior years, meetings,

…Were completely data dumps to the point where often [the principals had] already been sent all of the information and then people were making copies of emails and giving them to us, Which I remember being so frustrated by.

Furthermore, interviews with principals suggested that even when they were given an opportunity to speak, the former superintendent had not promoted collaborative, open discussion.

The affinity groups, then, represented a new opportunity for principals to work together in meaningful ways. At the same time, this was a type of opportunity that they were not used to. Time during affinity groups meetings was largely unplanned, and
principals could spend it how they wished. The superintendent and other district administrators were not present during affinity group meetings, giving principals some freedom from the control of leaders who were above them in the district hierarchy. In this new context, principals had the opportunity to develop interdependence, when in the past there had been scant time to do so. However, the open-ended nature of the affinity groups did not explicitly require principals to work closely together. The success of the affinity groups depended on principals’ ability to develop a shared focus and effectively coordinate their work.

**Developing interdependence.** Within the freedom provided by the affinity group structure, the three groups developed different levels of interdependence. The culturally responsive group came to a sharp focus that was informed by their development of a shared understanding of a problem in their district. Together, they sought out and found a common set of resources and experienced a coherent learning progression together. The effective instruction group honed their shared general interest in instructional practices by focusing on a common set of books. They read and discussed these books together, increasing their knowledge of these resources over time. In comparison, members of the technology group did not develop a shared focus and opted to pursue different resources than one another, largely preventing them from engaging in a shared learning experience. See figure 3 for a heuristic representation of the different levels of interdependence developed by different groups. In the following sections, I focus on how the groups: (1) found a focus for their work, (2) developed a shared definition of a problem, and (3) accessed relevant resources.
Finding a focus. During their first meeting in December 2015 principals self-selected into groups based on common interests. However, each of these topics was relatively broad. In order to coordinate their activities for the next few months, the groups attempted to find a more specific area of focus. I argue that groups that reached relatively narrow areas of focus became more interdependent compared to groups that reached broad areas of focus. Groups with narrower foci had clearer direction and clearer intentions about the topics and resources they wished to pursue. While the culturally responsive group and the effective instruction group were able to hone their initial interests towards a more specific topic, the technology group was largely unable to do so.

The members of the culturally responsive group, a K-8 school leader and a pre-K school leader, initially came together because they were interested in culturally responsive instruction. However, they quickly decided that they wanted to focus on leading culturally responsive schools, and, to that end, wanted to work together to develop a training for their staffs that would build their awareness of culturally responsive practices. The effective instruction group, which consisted of three leaders of
K-8 schools, came together around a shared interest in identifying effective instructional practices and measuring their impact. In line with this interest, at the suggestion of Lawrence, one of their members, the group came to focus on a specific set of resources, the series of *Visible Learning* books by author John Hattie and his colleagues. For the rest of the year, the effective instruction group focused on building their knowledge of this resource and beginning to share it with their faculties.

In contrast, the five members of the technology group, who came from widely varying school types, were unable to focus on a specific aim or set of resources. In their first meeting, the group came together based on a shared interest in “technology and innovation.” During that meeting, different members of the group suggested various more specific topics. For example, Jeremy voiced an interest in developing stronger vertical articulation between middle schools and high schools when it came to technology, while Elli and Saundra discussed a desire to learn more about “blended learning.” At the same time, Anthony discussed his interest in developing high quality professional development for teachers around the use of technology. At the end of the first meeting, the technology group did not decide to focus on one or two of these topics, but instead opted to start their work by defining various terms related to technology, such as “blended learning” and “flipped classroom.” Over the course of the rest of the year, the technology group was unable to refine its general interest in technology into a more focused, compelling topic. Instead, they each opted to pursue individual learning related to technology. As Anthony, a member of the technology group, said,
We all took a different focus, so I took sort of an implementation piece as to how [technology] was actually implemented. I think Saundra focused on the philosophical foundation. That just sort of played itself out….

**Developing a shared problem definition.** All the affinity groups oriented their focus towards a common problem. I argue that one important indicator of interdependence in affinity groups was the degree to which members developed a view of their problem that was both *shared* and *specific*. If members did not hold a shared view of the problem, they were pulled in different directions as they sought varied solutions. If members did not have a *specific* view of the problem, they lacked clear direction as they decided which resources to pursue and what to talk about. Although all three groups were generally oriented towards a problem, the three groups varied considerably in the extent to which their problem definition was shared and specific.

The culturally responsive group developed an increasingly sophisticated understanding of their problem over time. Early on, the group agreed that many educators in Greenwood viewed low-income students of color from a “deficit” mindset. Cassy articulated this view when she suggested that teachers, when faced with the poor performance of these students, “Do not look to themselves but look to parents and students.” However, over time, the group came to a more refined and specific problem—teachers’ classroom practices did not celebrate student and family diversity. Part of this refined diagnosis involved identifying the limitations of *typical* attempts at accommodating diverse cultures in the classroom. For example, during the group’s January meeting, Karen discussed the limitations of treating all students from different cultures the same (i.e. being “colorblind”) vs. truly appreciating student difference.
You can’t, I think, teach children well unless you really know them… it’s about being interested in them and other people, not about, as we say, ‘colorblindness.’ Now we know that that doesn’t work, that’s not honoring the culture of another.

Because they had both identified limitations in teacher classroom practice as a primary problem, Cassy and Karen were able to hone their focus even further. They came to ask: How could they change the beliefs and behavior of their teachers? They realized that teachers’ initial reactions to the suggestion that their practices might be biased would likely be defensive and unproductive. As such, both principals wanted to promote gradual change that was not overly disruptive. For example, during the January meeting, their affinity groups coach suggested that they start the conversation with their staffs by presenting student achievement data showing that non-white students were not performing as well as other subgroups. In the following passage, Karen pushes back on this suggestion, because she feels it is too aggressive,

Karen: Because that is a little bit accusatory, I think that is accusatory to staff…This is something that they need to come to themselves, to understand how to be responsive to the students, and not say, “look at this data, this is what you are not doing because you are biased.”

Cassy: Yeah.

Karen: Because the other part of it is, say you have [state test] data and you have certain subgroups [that are not performing as well], it’s easy to say, “what can you do for these kids?” Which is different from the work that we are talking about right now.
Karen first notes that showing teachers achievement gaps and suggesting they might be caused by cultural bias would be overly “accusatory” and prevent earnest reflection. After Cassy agrees with this first assertion, Karen goes on to suggest that such an aggressive tactic is also a bad decision because it might push teachers to immediately think about “what can you do for these kids,” instructionally as opposed to thinking more deeply about ways in which they might be biased themselves. As these examples suggest, the principals developed a progressively more nuanced view of the problem they wanted to solve, and came to some agreement on how they wanted to solve it.

Like the culturally responsive group, the effective instruction group identified a common problem that they were driven by, but they did not define this problem with a high level of specificity or develop a more sophisticated understanding of it over time. In the beginning, the members of the effective instruction group came together because they felt it was challenging to choose high quality instructional strategies and measure their effectiveness. As Jami said, speaking for her group during the January Affinity group meeting, “We are facing multiple innovations and multiple changes in context every day. We want to know why we got the results that we got..” Lawrence voiced a similar concern during the group’s February meeting, when he said, “My instructional leadership team is at a place where, we’ve done a few PDs on, for example, giving feedback, but how do we know it worked?” This shared interest in a common problem motivated these principals to pursue a common set of resources. However, compared to the culturally responsive group, the problem that the effective instruction group discussed remained at a relatively high level of generality. They did not, for example press each other on why it
was so hard to know if something worked, or what the most important things to measure were if they had an interest in assessing the effects of a specific initiative.

The technology group only ever developed a general, loosely understood problem, and never came to a specific, shared view of the challenge they were trying to resolve. Throughout their time together, members of this group suggested that a core challenge of using technology was, the “changing world.” By this, they meant the fact that cutting-edge technology was always advancing, so today’s devices would soon be outdated and ineffective. The principals in this group were motivated to focus on technology in part, in order to stay up-to-date. However, in comparison to the other groups, the problem remained at a high level of generality. As such, it did not provide a clear guide to the technology group as they sought out resources and pursued learning opportunities.

Common resources. Driven by their foci and their views of the problem, the groups sought out and accessed relevant resources. I argue that one indicator of the interdependence of the affinity groups is the extent to which group members accessed, discussed, and valued common resources. When members of the same group shared an interest in the same resources, they were motivated to interpret these resources together and learn from each other’s perspectives. In contrast, when individuals focused on different resources, they were unable to directly discuss those resources and build a common understanding of them. As Grossman et al (2001) write, “Common experiences provide a foundation on which to build community” (p.69). In two groups, central resources served as “common experiences” that brought principals together, provided grist for conversation, and helped them engage in related ideas, but in one group,
individuals accessed different resources that were only loosely linked by the theme of technology.

The culturally responsive group accessed a wide variety of resources, and both members of the group derived the greatest value from their visits with other school leaders. Driven by their interest in creating culturally responsive schools, these principals sought out books and other media that described culturally responsive pedagogy and explored the development of bias in society, among other topics (see appendix D for a full list and descriptions). While some of these resources were seen as highly valuable by the principals, none of them were as deeply meaningful as visits with other school leaders. In their closing interviews, Karen and Cassy spoke glowingly about what they learned from visits with two principals in nearby districts. These principals had both attempted to promote culturally responsive practices across their schools, and Cassy and Karen reported learning much from their efforts. Cassy, in particular, emphasized that visits were an extremely valuable and necessary complement to written materials, saying, “If I read something … I'll get it on a certain level, [but] if I see it in action or talk to someone about it and then go back and read it, it's so much more meaningful.” Because both principals in the culturally responsive group highly valued their visits with other school leaders, they were excited to discuss these visits with one another. As such, these two principals worked together (i.e. interdependently) to derive a set of lessons from these visits, such as the importance of “going slow” in the beginning of the change process, and the understanding that teachers might have an initial, defensive reaction to the topic of bias in classroom instruction.
During their second interviews, I showed all principals a list of resources that their group accessed and asked them to identify which resources were most valuable to them. Not surprisingly, both principals in the culturally responsive group mentioned the visits with other principals as among their most valued resources. Figure 8 presents a “resource map” which connects each member of the group to the resources they identified as being most valuable. This diagram is meant to demonstrate that the two principals in the culturally responsive group were connected to one another by two of their most valued resources (in this case, the school visits).

![Resource Map Diagram]

Figure 8: Resources identified as most valuable by the culturally responsive group

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7 The data used to create this figure was gathered by: (1) showing each principal a list of the resources their group accessed collectively (see appendix C, tables C1, C2, and C3), and (2) asking them, “Which of the resources your group accessed was most valuable to you and why?”
Like the culturally responsive group, the effective instruction group was brought together by their interest in common resources. Driven by their focus on identifying implementing and measuring the effectiveness of instructional practices, this group read the *Visible Learning* series of books by John Hattie, as well as supplementary readings and articles pertaining to this book series (see appendix D for a full list). The first book in this series, *Visible Learning: A Synthesis of over 800 Meta-Analyses Relating to Achievement*, specifies a broad set of factors that influence student achievement and provides an estimate of their relative effect sizes. It is meant to help educators focus on the factors that are “proven” to be most effective at raising student achievement. Later books in the series highlight a smaller set of factors, or provide more practical guidelines for their implementation in schools and classrooms, but they all draw on the same core arguments about what variables are the “highest impact.”

When the principals in the effective instruction group were asked to identify the resources they most valued, they all identified resources pertaining to *Visible Learning* (see figure 9). Unlike the culturally responsive group, the specific resources identified by members of the effective instruction group were often different. However, all but one of this group’s most highly valued resources were connected to the same author and the same underlying Visible Learning framework. This framework provided the effective instruction group with a common set of ideas and strategies to discuss, thus promoting interdependence.
Figure 9: Resources identified as most valuable by members of the effective instruction group

In contrast to the effective instruction and culturally responsive group, members of the technology group were largely driven to separate resources. These principals, who led schools of different grade spans, seemed particularly motivated to talk to principals who led the same types of schools as they did. Anthony, a high school principal, was interested in how other high schools had implemented one-to-one laptop and iPad initiatives, with a particular interest in the cost of such initiatives and the logistics of device distribution and security. As such, he pursued interviews with other secondary-level principals (see figure 10). Van, an elementary principal, was interested in how flipped and blended learning models had been implemented in elementary schools, and so he pursued interviews with other elementary school principals. Saundra had an interest in new school models that had the classroom integration of technology at their core. As such, she pursued interviews and online research with a California Charter school that “blends the best of a rigorous, college-preparatory, comprehensive high school
environment with on-line curriculum." By pursuing their individual interests, these principals were able to access resources that were relevant to them, but they did not benefit from the shared engagement in ideas that other groups enjoyed. Compared to the other two groups, they spent little time making sense of specific resources together.

Figure 10. Resourced identified as most valuable by members of the technology group

**Conditions that fostered interdependence.** All three affinity groups came together because of their shared interests in a common topic. Indeed, a key part of the theory of change behind the affinity groups was that individuals with similar interests would work well together. However, despite the fact that all members of the groups shared interests, they did not all share interests to the same degree. Groups that shared *broad* interests were less likely to develop narrow foci and, in turn, interdependence compared to groups that shared *narrow* interests.

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8 Quote from charter school website
For example, the technology group shared a broad interest in understanding new educational technology. However, as evidenced by their difficulty in finding a more refined focus over time, the members of this group were pulled in different directions by the nature of their somewhat different interests. From their very first meeting, the different members articulated different interests, and these different interests made it more challenging for the group to come to a narrow focus. In turn, this group’s broad focus translated into pursuing different resources, which in turn made it less likely that group members would interact with one another about common ideas and concepts. As discussed previously in the section on common resources, Anthony pursued conversations with other principals at the secondary level, Van pursued conversations with other principals at the elementary level, and Saundra’s interest in alternative school models led to her to pursue conversations with the leader of a California charter school that was dedicated to instructional technology.

In contrast, the members of the culturally responsive group shared a specific interest in pushing their faculties to celebrate the diversity of students and families. This narrow interest was evident from the group’s very first meeting, when they agreed that they would work together to develop a summer training for their teachers. Although, over time, this group’s members shifted their views of how to promote change, they remained targeted on the idea of promoting more culturally responsive practices at their sites. Their shared interest, in turn, led them access and value similar resources, especially visits with experienced school leaders who had pursued reform efforts the likes of which they wanted to duplicate. Throughout the affinity group process, their shared interests led them to pursue resources interdependently and make sense of them together.
Similarly, the effective instruction group shared a relatively narrow interest. They were all interested in identifying, implementing, and measuring the impact of promising instructional approaches. This shared interest found a vessel in the Visible Learning book series, which provided the principals with specific instructional guidance, as well as frameworks for guiding full faculties towards the implementation of these strategies, and tools to help them measure the impact of these strategies. Because of their shared interests, and the relevance of the Visible Learning book for their shared interests, the principals structured their learning tasks to be interdependent.

In some cases, principals’ interests seemed linked to the types of schools they led. Certainly, in the case of the technology group, affinity group members were most interested in learning from principals who led similar schools to themselves. Van sought out elementary principals because of their experience bringing blended learning to young children. Similarly, Anthony sought out high school principals because they could speak to specific issues associated with expanding access to tech for teenagers (such as the possibility of laptop theft).

In other cases, though, even if principals led different types of schools, they were still able to work interdependently. The culturally responsive group, for example, was made up of one principal who led a pre-k school, and one principal who led a K-8 school, yet these principals engaged in common resources throughout the affinity groups process. Cassy commented on how her and Karen leading different types of schools did not hold them back, saying,

Because Greenwood…Because this [culturally responsive] work hadn't really been done very actively here, it was just at such a beginning level that I don't
think we really even ... We didn't get to a point in the conversation where the fact that our schools are so different really was an issue.

Indeed, the culturally responsive group’s focus was not grade-level specific. Ultimately these principals were interested in building their faculties knowledge of culturally responsive practices, but during their affinity group work, they focused on “starting the conversation” about culturally responsive schools among teachers, and helping teachers see that there was indeed a problem. Neither of these areas of focus were dependent on the school-level, and thus Cassy and Karen remained engaged in the same resources over time.

These cases indicate that if principals develop a focus that is applicable to all of their schools, then they are more likely to work interdependently. The experiences of these two groups suggest that principals do not necessarily need to lead the same types of schools to pursue their work interdependently. Because Cassy and Karen’s interests in building awareness of biased practices was equally relevant to a pre-k school and a k-8 school, they found the same resources relevant, and were able to provide valuable input to one another as they pursued a deeper understanding of this topic. In contrast, because members of the technology group were interested in how technology was implemented in specific grade levels that only their schools possessed, they were not driven engage in the same resources or engage in substantive discussion about those resources.

Finally, larger groups may have broader shared interests by default, and, as such, may be less likely to develop narrow foci, and, in turn, interdependence. The technology group started out with five people, all with slightly different interests, which in turn appeared to make it more challenging for them to develop a sharp focus. This finding is
in line with the research on group size, which suggests that as group size increases, it becomes more difficult to coordinate groups around shared goals (Levine & Moreland, 1990). In comparison, the culturally responsive group, with its small size of only two members, began their work with significantly less variation in their interests, and very rapidly converged on a shared notion of what they wanted to accomplish during their affinity group time.

**Energy**

When principals structured their groups to be interdependent, they created conditions that helped them learn from one another. However, for principals to maximize the benefits of affinity groups, they also needed to devote *energy* and effort to their collective work (Cross, Linder, & Parker, 2007; Daly et al., 2016). Energy is often portrayed as a positive emotional state (Quinn & Dutton, 2005) that can come about in response to specific events. However, here, because I do not directly measure individuals’ affect, I rely on individuals’ behavior as an indicator of energy. Recall that groups that provide individuals with energy are more likely to encourage participants to devote discretionary effort and time to them (Cross et al., 2003). In this section, I describe differences in energy both across and within groups, and suggest why these differences occurred. First, though, I situate affinity groups—and the opportunities these groups offered for research and exploration—in the context of principals’ daily lives.

**Context.** Principals’ jobs entail a large set of distinct responsibilities (Spillane, Healey, & Parise, 2009) that take a considerable amount of time—a recent nationally representative survey found that principals work an average of 60 hours a week (Lavigne et al., 2016). A small percentage of that time is typically devoted to principals’ own
professional development, with a recent study finding that principals spent just 6% of their time on their own learning (Spillane & Hunt, 2010).

Interviews with principals suggest that these broader trends also hold true in Greenwood. These interviews made it clear that: (1) affinity groups were a novel opportunity for inquiry and research that was atypical for the district’s principals, and (2) it was, at times, difficult to devote time to affinity group’s because of the urgency they faced at their school sites. For example, Saundra, a principal that dedicated a large amount of effort to affinity groups work, discussed why it was difficult for the average principal to prioritize affinity groups over other, more pressing tasks. She said that an affinity group

Is one of those things where it's not to make a difference in your day-to-day, [like] when you have student issues coming up... but it does [make a difference] in the bigger picture. It's hard, as a principal, I think, for most principals to put time into something like this when you've got a whole bunch of other day-to-day stuff that you're dealing with... you need to put effort to prioritize it. It's not going to prioritize itself.

Jami, a principal from the Effective instruction group who also exerted high levels of effort toward her group’s work, described affinity groups as unique in the context of principals’ typical work lives. She said that without a structure like the affinity groups, it was easy for her to not do any research or deeper reflection on her work. She described the urgency that was typical of her job saying,

When you think of the 7 habits of highly effective people, there's that one quadrant [of things on your to do list] that's ‘important, but not urgent.’ In my job,
that’s the piece that often gets skewed, you don’t do it. Honestly, most practitioners don’t discuss [theory or research] that much....We might do some research, but right away it’s ‘What are we going to do? What are we going to do? What are we going to do?’

These findings echo classic research on the conditions of teachers’ work, which found that the *immediacy* and *urgency* of the classroom environment demanded quick action from teachers, which in turn made deliberation and reflection difficult (Jackson, 1990; Lortie, 1975). These findings also resonate with past studies of teacher collaboration, which found that collaborative groups had to navigate the “Contrast between the promise of direct applicability and the more distant goal of intellectual renewal” (Grossman, Wineburg, Woolworth, 2001, p.16). The affinity groups offered principals the potential for substantive professional learning and shared inquiry, but the day-to-day challenges of their work demanded their constant attention. As such, the conditions of principals’ work lives suggest that devoting energy to affinity groups may be challenging.

**Differences across groups in energy.** Given the challenges associated with pursuing inquiry in the context of principals’ hectic professional lives, it is not surprising that some principals had trouble devoting energy and effort to their affinity group work. I found that different groups devoted different levels of effort to their collective work, with the culturally responsive group committing relatively high levels of effort, the effective instruction group devoting a medium level of effort, and technology group dedicating a low level of effort. These estimates are based on attendance and tardiness at meetings and the voiced perceptions of principals during interviews.
I collected suggestive evidence of energy as indicated by principals’ absence from group meetings and tardiness. The culturally responsive group had by far the highest attendance rate, followed by the effective instruction and technology groups (see figure 11). The culturally responsive group also had no instances in which a member of the group arrived late. For comparison, it is worth noting that the attendance rate at the monthly principals’ meetings which were led by district administrators had an attendance rate of nearly 100% for all principals. This suggests that, on average, principals were less drawn to participate in affinity groups compared to principals’ meetings.

![Bar chart showing attendance rates](image)

*2 significantly late (>30 minute) arrivals, **1 significantly late (>30 minute) arrivals

Figure 11: Average Attendance Rate by Group

It is reasonable to argue that, because the culturally responsive group only had two members, they felt more accountability to attend the meetings (because if one of them did not attend then there essentially was no meeting), and thus it is not “fair” to compare their attendance rate to the other groups. That is a reasonable argument. Nevertheless, regardless of the reasons behind the variations in teams’ attendance, attendance is still a valid indicator of the energy that different groups committed to affinity groups work.
Another indicator of energy was the extent to which members of the affinity groups talked about their participation with enthusiasm and satisfaction. In this regard, there were clear patterns across groups, with members of the culturally responsive group giving the most positive responses, and members of the effective instruction and technology groups voicing less enthusiasm for the affinity groups work.

Two out of the three of the final members of the technology group portrayed the affinity groups as an activity that was highly challenging to devote energy to in the context of their work as principals. Reflecting on his time in the group, Van said, “The overall feel for my group was too much work. A lot, a lot of work with what we had going on the rest of the year, with the stuff we really felt was necessary.” Anthony felt similarly, simply saying, “I don't think any of us were thrilled with doing this project.”

In comparison, the other two groups, on average, described the affinity groups initiative with more positivity and enthusiasm. For example, only one out of three members of the effective instruction group described the affinity groups as de-energizing. Lawrence said that affinity groups, “Wasn't something I looked forward to, it didn't get me buzzing or get me going.” Finally, both members of the culturally responsive group described their time in affinity groups positively. Karen, for example, described how exciting the work was for her and how unique the opportunity felt, rhetorically asking, “How often do we ever get to talk to our colleagues about our passions?”

**Differences within groups in energy.** Within groups, different members of affinity groups devoted different levels of energy to affinity groups, resulting in energy expenditure that was either *consistent* or *inconsistent*. When I say groups exerted *consistent* energy I mean that all group members put forth a similar amount of effort
towards their collective work. Group’s exerted inconsistent energy when one or more of their members devoted a substantially different amount of energy (either more or less) compared to their group mates. While one of the affinity groups appeared to devote consistent energy to their work, two groups had one member that appeared to devote considerably less or more effort towards the group compared to his or her peers. I base my assessments of energy consistency on the attendance and tardiness of individual members of the affinity groups, and also descriptions that principals gave of their groupmates’ behavior and commitment to affinity groups work.

Members of the technology group exerted inconsistent levels of energy towards their group work. As described in the section on common resources, Van and Anthony both expended effort pursuing an individual set of resources but put limited energy into the group’s collective work, while Jeremy disengaged from the project completely. In contrast, Saundra devoted high levels of energy and effort towards the group’s collective work. She created an online document that served as a repository of the resources that the group had accessed, and also wrote a document that summarized the “take-aways” that the group arrived at related to technology. She created the PowerPoint presentation that the group shared with the larger group of district leaders. Throughout the affinity group process, she helped organize the group by sending out emails with meeting agendas, scheduling meetings, and generally providing some structure for the other group members. As Van said in his closing interview, “I really feel Saundra did the lion’s share, with the framework and the presentation of it, [Anthony] and I filled in the blanks where needed.”
Members of the effective instruction group were also *inconsistent* in the energy they devoted to the affinity groups work. Lawrence, especially, was not as consistently engaged in the affinity group process in comparison to the other principals in his group. His attendance was less consistent than the other members; he missed one meeting and was late to another\(^\text{10}\). There were also several instances in which he appeared highly engaged in the affinity group process up to a certain point, but then did not follow through. For example, Lawrence was highly involved in preparing his group’s presentation, but then he did not attend the presentation. Lawrence’s particular combination of behavior—being highly involved in the work in one instance, and then disengaging the next—was challenging for the other members of his group. In their closing interviews, Both of Lawrence’s groupmates’ mentioned his inconsistent attendance and commitment, and described it as disappointing.

In contrast, members of the culturally responsive group appeared to be consistently engaged in the affinity groups work. Each member had perfect attendance at the meetings, and never arrived late. In contrast to the technology group, both members of the culturally responsive group committed equal amounts of energy to the creation of the final product—they crafted their PowerPoint presentation jointly and decided on its contents together. Finally, in contrast to the other groups, in their final interviews neither of these principals suggested that one of their groupmates had exerted and unequal level of energy to their collective work.

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\(^\text{10}\) Lawrence missed a second meeting when he was out on paternity leave, but I have opted not to count this absence as an indication of a lack of energetic engagement in the affinity group process.
In summary, the nature of the affinity groups initiative—the fact that it was focused on research and inquiry as opposed to principals’ day-to-day work—made it difficult for principals, at times, to commit time and energy to it. Collectively, different affinity groups devoted different levels of energy to their group work (i.e. different energy expenditure occurred “across” groups). At the same time, “within” groups, different members devoted different amounts of energy to their work. See figure 12 for a heuristic representation of the energy expended within and across affinity groups.

Figure 12: Energy expended within and across groups

11 I estimated groups’ overall energy expenditure based on group attendance at meetings and group members’ descriptions of the affinity groups initiative in interviews. I estimated the consistency of energy by comparing individuals’ attendance and tardiness to their group mates and drawing on interviews in which one or more group member commented on the effort expended by groupmates. In both the effective instruction group and the technology group, one group member devoted substantially different amounts of energy to their work.
Conditions that fostered energy. Affinity groups were created to provide principals with opportunities to learn new things about topics that mattered to them. Given the hectic nature of principals' work lives, prioritizing affinity groups appeared to be generally challenging for Greenwood's school leaders. However, given the large differences in energy expenditure that emerged both across and within groups, it is valuable to explore that factors that may explain these specific differences. I find that in some groups, principals did not feel they were focused on vital subjects, and did not feel interested in accessing the knowledge of their peers. When principals felt passionate and engaged in their topic and they felt their peers could provide them with new insight, affinity group work was energizing, but when these conditions were not met, affinity groups could feel draining.

Principals appeared to devote more energy to their collective work when their group developed a focus that was highly relevant to their day-day work. Van, for example, described how members of the technology group would have preferred to focus on a topic that had more immediate relevance to their daily practice, saying:

We all kind of agree it's really too bad we couldn't have something more specific to the needs of ... to, maybe what we were doing, like supervision and evaluation and stuff like that, where we could have actually done [affinity groups] with what we're doing ... it would have helped us in our day-to-day work here.

energy to the work of the group compared to his/her groupmates, which is why these two groups ranked equally in terms of energy consistency.
It is perhaps surprising that Van indicated his topic did not feel relevant, given the fact that he and the other principals self-selected into their groups and topics. However, as the previous section on interdependence explained, groups’ varied considerably in how they developed a more refined focus for their work, if at all. It appears that developing a focus that was deeply relevant to participants was important for the development of energy as well as interdependence.

The culturally responsive group provides a contrasting case to the technology group, and exemplifies a group that found a compelling and deeply relevant focus for their work. Karen, for example talked about how central the topic of her affinity group was to her work as a principal. When describing *why* she chose to take part in the culturally responsive group, she said,

> The anti-bias and culturally responsive thing is very important to me so I knew that I would get personal gains from that, and then talking to someone else who had the similar thing. …I picked it more because it was a personal interest and I knew it would be core for other things that I do.

Given the importance of groups finding a focus that is deeply relevant to their work, it is worth asking the question, “What makes certain topics feel “core” to the work of a principal?” The experience of the culturally responsive group provides one answer to this question. This group developed a strong sense of purpose tied to their groups’ work. This sense of purpose seemed linked to the consistently high levels of energy and enthusiasm in their collaboration. Because this behavior did not emerge in the other groups, I hypothesize that this group remained so engaged because they connected their
affinity group work with deeply held values. Below I provide brief vignette describing how the culturally responsive group developed this commitment.

Through their initial conversations, Cassy and Karen described personal experiences with bias in their communities, and affirmed a shared commitment to pursuing social justice. For example, during the February meeting, Cassy talked about an event that had happened at her school that year that helped her understand the depth of the problem in Greenwood. That year, a Muslim student at her school had made some aggressive comments towards other students. As a result, this student had been suspended and put under increased monitoring by the school staff. In Cassy’s view, the behavior of this student had been unfortunate, but not particularly egregious or worthy of further alarm. However, someone from her school had alerted a small local newspaper, and this paper had in turn published several alarmist articles about the “Danger lurking in Greenwood” under the headline “Terror watch.” The articles portrayed the school and the school district as not doing enough to protect its students and as putting the community at risk. When describing the episode, Cassy noted that tension in the community had already been high because it was “about the same time as Donald Trump started saying some of his stuff” about the dangers that the Muslims posed to the country. Understandably, these articles caused high levels of anxiety and worry for parents at Cassy’s school, and she spent nearly a month working with district administrators to address those concerns and craft a message that would comfort the community while also standing up for the 8th grader that had been described in the negative press.

This experience had shaken Cassy. When describing the incident to Karen, she noted the clearly biased nature of the communities’ response, saying “If a white kid had
been suspended, none of that would have happened.” This incident forced Cassy to confront the stark problems the community had around acceptance and honoring of all cultures, and brought an urgency to her affinity group work.

While Karen had not had such a dramatic recent experience, she had had personal experiences with cultural and racial bias that brought her a deep conviction in the importance of her work. Karen was Caucasian, but she shared the fact that her late husband had been African American, and that through long conversations with him, she had learned about a common problem that members of racial minorities faced in the United States—the notion that all members of a given ethnic group were similar to one another or could be lumped together. Based on the experience of her husband, she was particularly interested in promoting classroom environments that encouraged students to engage deeply with their classmates and explore the complexity of their lives and cultures. The personal connection that Karen felt to issues of bias and stereotypes ensured that she, like Cassy, felt a powerful sense of purpose around addressing issues of cultural bias in her school and community.

The group’s shared belief that their work was of critical importance and urgency appeared to make their topic feel continually relevant to them, and helped them stay enthusiastic and engaged over time. This shared sense of deep purpose also created feelings of solidarity between Cassy and Karen. While the other affinity groups voiced interest in their topics, they did not discuss them with as strong sense of urgency and necessity.

Developing a compelling and relevant focus appeared to energize affinity group participants, but they were also motivated to engage in their collective work based on
how they assessed their peers. Specifically, principals appeared to be motivated to participate when they felt they could learn something valuable from their peers. Karen, for example, described the value that working with her partner provided for her, saying,

> I've heard Cassy talk about introducing [the] responsive classroom [program] to her school and that's exactly what I want to do here, I'm at a different capacity level. She has a lot of capacity in Greenwood, from her previous work, so I have to build upon that.

This feeling—that one’s affinity group peers could be of substantial help—was not shared by all principals. Not surprisingly, principals’ appeared to devote less energy to the affinity groups work when they felt they would not be able to learn something from their peers. This feeling was most apparent in the case of Lawrence, the member of the effective instruction group who was most likely to be absent or tardy. As discussed in the section on “finding a focus” above, Lawrence felt that he was an expert in the group’s chosen set of resources, the Visible Learning series of books by John Hattie and colleagues. Because of his expertise, Lawrence felt less motivated to engage in the work of the group. Indeed, Lawrence compared his experience of being in affinity groups to the experience of high achieving students in a group with lower achieving students, saying:

> I felt like I'd come in there[to the affinity group] and I was teaching everybody else, it didn't feel like ... It made me think...what are kids doing that are in other subjects that they know and they're just doing the same thing, they're teaching it to other kids.

To Lawrence, opportunities to learn new and interesting things were what got him “buzzing,” and he felt that his affinity group peers were unable to provide such
opportunities. He explicitly contrasted his experience of learning in his affinity group with his experience of learning with his mentor in the district, a district administrator in charge of instruction named Ethan. Lawrence said:

[If] I meet with Ethan, and we go out to lunch for 1 hour, I come out of those meetings and I'm like, "Whew! Yeah, we got this idea and man I'm struggling with this and I've got a great plan for this!" It's invigorating. It's the learning, the challenge, the teamwork.

This quote demonstrates that for Lawrence, interacting with colleagues could be “invigorating” and energizing, but working with the affinity groups did not provide this type of valued interaction.

Cognitive and Social Outcomes

Given my interest in how principals develop access to social capital, my second research question was focused on understanding the cognitive and social resources that principals gained access to through their participation in affinity groups. Some examples of cognitive resources are advice, information, or expertise (Cross, Borgatti, & Parker, 2001; Nebus, 2006), and some examples of social resources are trust, emotional support, and peer recognition (Bryk & Schneider, 2002; Moolenaar et al., 2012).

Cognitive outcomes. I find that the affinity groups that constructed their work as interdependent had a greater potential of exchanging cognitive resources (Yuan et al., 2011). Across groups, three different types of learning took place. While the culturally responsive group engaged in shared learning, the effective instruction group’s learning would be more accurately described as a spread of ideas, while members of the technology group experienced individualized learning. I based my analysis of the
cognitive benefits that principals received on two primary sources of evidence: (1) closing interviews with principals, and (2) an analysis of the form and content of each group’s final presentation.

Structuring their learning task as interdependent allowed the principals in the culturally responsive group to engage in a truly shared learning experience—they learned similar things in a similar sequence. When they began their affinity groups work, Cassy and Karen wanted to find a set of “best practices” for creating a culturally responsive school and develop a training for teachers that drew on those best practices. However, over time, the group realized that creating schools that truly celebrated the diversity of their communities was not a set of steps or a “checklist,” but rather an ongoing, holistic approach to school leadership. As Cassy said,

We started out thinking that we were going to do some research, do some thinking, put together some PD… but I think through our research and our conversations we realized we had to slow down and really do the work ourselves and think about … Yeah. We weren’t even really ready for that next step.

In this passage, Cassy describes a progression, saying that the group started out focused on how to develop a professional development for teachers, but over time chose to step back and focus more on their own learning. Cassy uses the word “we” continuously, indicating her belief that that work and thinking of the group was shared between herself and Karen, and suggesting that they altered their groups focus together, over time.

The change in the group’s collective thinking was communicated during the group’s final presentation using a visual aid. This visual aid was designed to represent the fact that the group had shifted from a focus on implementing discrete “best practices” to a
view of culturally responsive leadership as a holistic, all-encompassing endeavor. It took the form of an umbrella with strips of paper attached around the rim (see figure 8). Each piece of paper had a different school function written on it (e.g. “curriculum”, “parental engagement,” “professional development.”). This umbrella represented the notion that, for these leaders, culturally responsive leadership had become an overarching framework through which they viewed their work. This visual aid was a concrete representation of a change in the group’s thinking—what social learning theorists would call a “reification” (Wenger, 1998).

![Figure 13: Cassy presents the umbrella](image)

Like the culturally responsive group, the effective instruction group was able to learn from one another because of their interdependent focus on a common set of resources. In particular, Jami and Tanya were able to leverage Lawrence’s pre-existing knowledge of the Visible Learning series of books, as well as the knowledge of his faculty, in order to further their understanding of the framework and begin to build their
teachers’ understanding of it\textsuperscript{12}. However, in comparison to the culturally responsive group, learning was not shared evenly across the three members. Because Lawrence already had considerable experience with this school improvement framework, as did his faculty, he and his school served as valuable resources to others. But, as described above in the section on energy, Lawrence did not feel he learned very much himself, given the relative lack of experience both Jami and Tanya had with the model.

In their closing interviews, Tanya and Jami both indicated that they gained valuable ideas from the Visible Learning series. They also shared that they intended to continue to use Visible Learning at their schools. Jami, for example, was planning to send a dozen of her teachers to a Visible Learning training over the summer, and Tanya had already given a presentation about visible learning to her staff, hoping to stir their interest in the Visible Learning Framework. These examples suggest that participating in the affinity groups had facilitated the spread of ideas from one principal to others.

The final presentation given by the effective instruction group represented a spread of ideas. In this final presentation, Jami and Tanya (Lawrence was absent) presented a summary of the Visible Learning framework on a PowerPoint presentation, and gave out several handouts describing the model (see appendix E for an example). The presentation served a concise summary of Visible Learning and a clear introduction of

\textsuperscript{12} For example, during their March meeting, the effective instruction group gathered at Lawrence’s school, where they observed the instruction of one of Lawrence’s teachers who was an expert in the Visible Learning approach.
the model to the other Greenwood principals. It suggested that Jamie and Tanya had become strong advocates of the model.

In contrast to both the culturally responsive and effective instruction groups, the technology group was limited in their ability to engage in shared learning or a spread of expertise, because each member of the group focused on different resources. Although members of the technology group reported learning valuable information from the resources they did access, these lessons largely remained at the individual level, and were not shared across group members. The structure of the technology group’s final presentation represented this individualized learning. In this presentation, each member of the group got up, in turn, and discussed the resources they had accessed and what they had learned. There was little evidence that the members of the technology group had synthesized across their resources to derive larger lessons about technology.

**Social Outcomes.** Interaction and collaboration can produce social benefits, such as the development of friendship and trust (Bryk & Schneider, 2002; Little, 1990). By the same token, interaction can yield social costs, such as disappointment and a loss of trust (Bryk & Schneider, 2002). As Bryk and Schneider (2002) articulate, *expectations* are a key factor in the development or dissolution of trust. If colleagues meet the expectations of their peers, then trust is established and strengthened. However, if expectations are not met, then the quality of peer relationships may be reduced.

The culturally responsive group and the technology group reported experiencing social benefits and improved relationships with their colleagues as a result of the affinity groups work, but the effective instruction group experienced social costs. The key determinant of social outcomes in these groups appeared to be *whether or not*
expectations were met. The groups that had expectations of interdependent work created the potential for greater shared learning compared to groups that worked more independently, but they also ran the risk of bearing social costs. The culturally responsive group constructed their work to be interdependent and each member devoted high levels of energy to the affinity groups work. Both members reported enjoying their time with the affinity group and developing stronger relationships with each other. In contrast, members of the both the technology and the effective instruction group devoted inconsistent energy to the affinity groups work. However only members of the effective instruction group bore social costs from their participation. My findings suggest that this group experienced social costs because they had expectations for interdependence that were not met.

Because some members of the effective instruction group had expectations for shared work and had a desire for more collaborative interaction and one member did not share these feelings, some members of the group experienced frustration and disappointment. For example, it was clear that Jami and Tanya were hurt by Lawrence’s inconsistent commitment and attendance. In her final interview, Jami talked about the fact that Lawrence had been engaged in the creation of their final presentation, but then did not show up for the actual presentation, saying:

Even when we planned that presentation...I felt like he had a very strong idea about how he wanted the whole thing to go. Then he wasn't there [for the presentation] and I know Tanya was really upset.

This particular episode is representative of a larger pattern in the way that the effective instruction group interacted over time. The group’s members, especially Tanya
and Jami, conceived of the group’s work as shared. In fact, each of these group members voiced a desire for greater engagement with each other than actually occurred over the course of the year. For example, during her second interview, Tanya talked about how she had hoped to work with the other principals in her group more consistently, saying:

I think we all bought the idea of the project... If we could go and visit each other’s schools and things like that, and maybe then set up a focus group of teachers as well, that could have really been very powerful, and I think Jami [felt] the same thing.

During affinity group meetings, Jami had also voiced a desire for more group engagement, proposing that idea that the group schedule conferences calls in between official group meetings. However, despite the desire that both Jami and Tanya voiced for more collective engagement in the topic of their affinity group, there is evidence that Lawrence was less enthusiastic about the work group. During a March affinity group meeting, for example, Jami mentioned that other group members had not been responding to her emails, and she voiced frustration at the challenges of trying to coordinate the group’s work.

In comparison to the effective instruction group, members of the technology group did not report experiencing social costs as a result of their work together, despite the fact that members of the technology group devoted inconsistent levels of energy to the group’s work. In fact, they reported that they had developed slightly stronger relationships with one another as a result of their work together. The work of the technology group can be described by the phrase “easy come, easy go.” The group conceived of the affinity groups work primarily as a compliance activity, as opposed to
an opportunity for shared inquiry. Over time, they became focused on just “getting this done” (Anthony). The technology group developed a tacit agreement that they did not expect the group to engage in shared learning, but merely needed each member of the group to gather their separate resources and pull them together into a presentation that would satisfy the superintendent. As Van said during his second interview,

The same thing came up repeatedly [in] the group. [affinity groups] was great, but how do we tell [the superintendent] that it was almost too much? No one dares to.

Because they did not have expectations of truly interdependent work, the members of the technology group were not disappointed when one or more of their members devoted inconsistent levels of energy to the work. In comparison, the effective instruction group, which had expectations that their group members would truly work together, experienced negative feelings when one or more of their members appeared to commit less effort to the affinity groups work. This contrast between the effective instruction and technology groups indicates that the relationship between energy and social costs was contingent on the perceived interdependence of the groups. By developing an expectation for interdependent work, members of the affinity groups made themselves vulnerable to the possibility that their peers would not meet their expectations, and as such, left themselves open for disappointment.

Summary and Discussion

My study focused on how autonomous groups of principals engaged in a collaborative inquiry process over time. I found that Greenwood’s three affinity groups developed different levels of interdependence, and devoted different amounts of time and
energy to their collective work. I argue that affinity groups seemed more likely to engage in their work interdependently if they began their work with relatively narrow interests that, in turn, encouraged the development of a specific area of focus. At times, principals’ were interested in resources that were only relevant to the type of school they led (e.g. elementary, high school), which made it more difficult for them to engage interdependently with colleagues that led different types of schools. At other times, principals’ interests were not linked to their specific school type, and as such could be compatible with group members who led different types of schools.

Principals devoted different levels of energy to their collective work both across and within groups. I found that when the focus of the affinity group felt deeply relevant to the day-to-day work of principals, and when principals were interested in accessing the knowledge of their colleagues, they were more enthusiastic about the shared work of the group. I argue that the culturally responsive group developed strong sense of purpose tied to their group’s work, which helped ensure that they sustained high levels of engagement and interest in their work.

My findings suggest that because the culturally relevant group was driven to pursue common resources and draw out shared lessons from them, they were able to benefit from each other’s knowledge of and interpretation of these resources. Indeed, the way in which groups constructed their work: whether they engaged in a shared learning task vs. a set of individual learning tasks, had implications for the extent to which principals exchanged cognitive resources with one another. Similarly, because the effective instruction group came together around a common set of books that Lawrence had considerable knowledge of, members of the group were able to learn from his
experience and the experience of his teachers. In contrast, I found that members of the technology group engaged in separate resources, which generally precluded them from learning from each other.

My findings indicate that the interaction between energy and interdependence had implications for the social outcomes experienced by Greenwood’s principals. The members of the culturally relevant group viewed their work as shared and they both committed high levels of energy to it, resulting in feelings of mutual satisfaction. The technology group devoted inconsistent levels of energy to their collaboration, but because they viewed their affinity groups work as independent, they had lower expectations of their group members, and did not experience disappointment. In contrast, because members of the effective instruction group viewed their work as interdependent, when one member devoted lower levels of energy to the work, other group members experienced disappointment and frustration. See figure 14 for a process model that summarizes my arguments. This model links factors that promote energy and interdependence, to indicators of these factors, and illustrates the link between the interaction of interdependence and energy and potential social and cognitive outcomes.
This work contributes to the research on professional collaboration in education in several ways. First, it is one of few studies to investigate the dynamics of professional learning communities among principals—a professional group whose social learning opportunities have been neglected in the existing literature. In particular, it extends prior work on principal collaboration, which has tended to emphasize the role of the facilitators of principal learning (see, e.g. Fink & Resnick, 2001; Honig & Rainey, 2014), by exploring the collaborative processes of self-managed groups of principals. My findings suggest that these groups can be highly successful because they give principals the opportunity to pursue topics that are deeply meaningful and relevant to their specific

Figure 14: Process Model of Energy, Interdependence, and Social Capital Outcomes
contexts. In line with researchers that suggest that educators should be given control over their own professional learning opportunities (Calvert, 2016; Marilyn Cochran-Smith & Lytle, 1992; Hargreaves, 1994; Mezirow, 1997), I find that empowering structures like affinity groups have the potential to promote deep, authentic engagement in topics that participants are passionate about.

Second, because the open-ended goals of these self-managed groups did not explicitly require interdependence, this study was able to investigated interdependence as an emergent condition of principals work. Above all, my analysis highlights the importance of finding a clear focus. When principals developed a shared focus that was both specific and compelling they came together around a set of ideas and stayed motivated even in the midst of their overwhelming professional responsibilities. But when this focus was elusive, collaborating principals lacked direction in their work, and were easily pulled in other directions.

My analysis indicates that accessing common resources are a key ingredient of interdependence in self-directed inquiry groups like the affinity groups in my study. Previous work in the communities of practice tradition has emphasized how materials and artifacts can serve as boundary objects that connect one community (or one set of ideas) with another (Coburn & Stein, 2006; Lave & Wenger, 1991; Wenger, 1998). My findings indicate that even within the same group, artifacts can serve as a valuable bridge between participants that allows them to develop an understanding of common concepts and promote interdependence.

More broadly, my analysis of the conditions that fostered independence and energy highlight a perennial tension in collaborative groups: the conflict between
individual and collective priorities. Principals in the technology group felt pulled towards different resources because they had distinct individual interests, and, in turn, the fragmented nature of the group’s focus prevented them from developing the interdependence that could have helped them learn from one another. Similarly, it appeared that Lawrence suggested that his group focus on Visible Learning because of his individual priorities; he was already familiar with this resource and valued it highly. However, this focus appeared to make engaging in the collective work of the affinity group less motivating for him, because he did not feel he could learn from his peers. This finding validates prior work. Indeed, in their study of teachers’ professional communities, Scribner et al (2002) call the tension between the individual and the group the “paradox of professional community.” However, given the fact that principals are commonly socialized into an individualized culture (Jackson, 1977), and are generally not provided with collaborative opportunities (Barnes et al., 2010), it may be particularly difficult for principals to sacrifice individual priorities for the sake of the group.

A limitation of this research is that some of the group factors that I suggest influence interdependence and energy covary within my sample, and thus it is difficult to isolate the impact of these factors. For example, the technology group was both the largest group and the most varied in terms of school type—both of these conditions might make it more difficult for groups to develop interdependence. Additionally, the group with the narrowest set of shared interests, the culturally responsive group, only consisted of two members. Research has demonstrated that dyads operate differently than larger groups—members of dyads find it easier to discuss intimate, vulnerable issues, for example (Taylor, de Soto, & Lieb, 1979). It also may be more difficult for one group
member to “free ride” in a group of two, which would encourage the consistent expenditure of energy across group members (Bertucci, Conte, Johnson, & Johnson, 2010). Future work on principal collaboration might attempt to hold team structure factors (like group size) constant in order gain a more precise understanding of the conditions that foster interdependence.

This study points several other areas of potential research. For example, this study suggests several factors that seem to lead to energy and interdependence, but it does not identify which of these factors is most important. For example, how important are shared interests in comparison to factors like group size in determining the development of interdependence? Perhaps more importantly, how might groups of principals without narrow shared interests be encouraged to work interdependently? Additionally, this study does little to investigate the extent to which principals’ learning in their affinity groups went on to influence their leadership practice, their teachers instruction, or their students’ outcomes. Future work that more clearly investigates the links between principals’ collaborative learning opportunities and these other outcomes might more clearly justify districts’ investment in principal collaboration.

This work has implications for central office managers of principal professional development. It suggests that, in certain conditions, letting principals manage their own collaborative learning can have positive results. To that end, it pushes central office leaders to pay particular attention to the pre-existing interests and priorities of participating principals. Specifically, it suggests that there are benefits to bringing principals together when their interests converge in relatively narrow areas, but principals with more dispersed interests may be less likely to organize themselves successfully.
Furthermore, it suggests that by encouraging principals to develop foci that are deeply relevant for their day-to-day work, and helping principals develop an urgent sense of purpose around their work, central office leaders may be able to foster energetic engagement in collaborative work. This study also highlights the dangers of promoting collaboration. Specifically, it suggests that grouping principals with heterogeneous levels of expertise may be a double-edged sword. While having an “expert” in a group may facilitate the spread of innovation or valuable ideas, principals that do not feel they are learning something new may become disengaged.

Conclusion

Given the complexity and challenge of principals’ professional roles, the field needs new ways to provide school leaders with ongoing support and learning opportunities. Creating collaborative groups of principals that are led by principals themselves is a promising idea that has rarely been studied. In theory, self-led groups of principals might lead to high levels of energy and commitment to shared work, and, in turn, increase principals’ access to social capital (Hackman & Oldham, 1976; Wageman, 1995). However, for the promise of such groups to be achieved, principals need to devote energy to truly interdependent work (Cross et al., 2003; Daly et al., 2016; Yuan et al., 2011).

I found that affinity groups developed different levels of interdependence, and devoted different amounts of energy to their collective work and that these differences in group process influenced the extent to which principals benefited from their participation. I also uncovered factors that promoted interdependence and energy in self-managed groups of principals. Results have implications for district leaders who are considering
promoting principal collaboration in their districts—they provide suggestions about how best to group principals. They also underscore the importance of creating conditions in which participating principals can hone a shared focus, engage in common resources, and develop a strong sense of purpose. Future work should continue to explore the conditions under which such collaborations are successful, and more clearly investigate the links between principals’ collaborative learning opportunities and their leadership practice. Such research promises to improve our knowledge of principals as social professionals and help us understand how to best support the learning and development of our school leaders.
Chapter 4: Exploring Social Network Development Among Principals

Abstract

Increasingly, researchers argue that building educators’ social networks and increasing their access to social capital is an important strategy for school and district improvement. Given that school principals are commonly isolated from one another, peer relationships among principals are an unleveraged source of organizational capacity. However, district leaders need stronger guidance about how to intervene to foster network growth. This study investigates one district’s attempts to foster growth in its principal network by promoting principal collaboration. It draws on a combination of egocentric interview data, observation of principal interaction, and semi-structured interview data to understand how principals’ relationships with their peers changed over the course of seven months. Findings indicate that principals’ pruned their advice networks over the course of the year, going to fewer others, on average, for advice. Contrary to expectations, the overall principal network did not become more cohesive over time. However, within certain affinity groups, principals developed network connections and improved the quality of their relationships. Results also indicate that groups that met each other’s expectations for collaborative work were most likely to experience network growth. Implications for policy and research are discussed.
Principals have complex jobs that are commonly described as socially isolating (Drago-Severson, 2012; Jackson, 1977; Stephenson & Bauer, 2010). At the same time, they have highly important roles, crafting school cultures and influencing teachers, who in turn influence student achievement (Leithwood et al., 2004; Leithwood, Jingping, & Pollock, 2017). Given the importance of principals’ roles, districts and researchers are increasingly concerned with how to support their development and learning over time. One strategy to support principals that has rarely been studied, is bringing principals together in collaborative peer groups (Honig & Rainey, 2014).

Hypothetically, promoting principal collaboration could provide them with considerable benefits. Collaboration could help promote quality peer relationships among principals, and encourage them to see their network of peers as a source of advice and social support. Such relationship development could increase principals’ social capital, or the “resources for action that are embedded in relationships” (Spillane, Kim, & Frank, 2012, p.2; Coleman, 1988; Lin, 1999). A voluminous body of research has demonstrated that increased social capital (in the form of robust social networks) can lead to a variety of positive outcomes at both the individual and collective level (Bryk & Schneider, 2002; Daly & Moolenaar, 2010; Pil & Leana, 2009). However, despite the potential of peer networks, existing evidence suggests that many principals are given few opportunities to interact with one another in meaningful, enduring ways (Barnes et al., 2010; School Leaders Network, 2014).

Given the benefits that robust social networks can have on educational outcomes, it is important to understand how these networks can be fostered and developed. However, existing social network research has done relatively little to explain why
networks develop in particular ways. Perhaps more importantly, very little research has been conducted on how organizations can intervene to build their members’ social networks (for exceptions see Coburn, Mata, & Choi, 2013; Spillane, Shirrell, & Hopkins, 2016). Most existing social network research emphasizes networks as emergent, developing outside of formal organizational boundaries (Small, 2009). However, in order to provide practical guidance to educational organizations that hope to increase the social capital of their members, more research is needed on the relationship between formal organizational structures (e.g., weekly grade-level meetings among teachers) and social network outcomes (Coburn et al., 2013; Spillane et al., 2012).

A small body of work in education has investigated links between formal organizational structures, such as professional learning communities (PLCs), and the development of social ties (Bidwell & Yasumoto, 1999; Spillane, Kim, & Frank, 2012; Spillane, Shirrell, & Sweet, 2017). This body of work has found, for example, that individuals with formal leadership roles in schools, such as principals and instructional coaches, are more likely to be sought out by teachers for instructional advice compared to their peers without such roles (Spillane et al., 2012), and that teachers’ who co-participate in organizational routines, such as PLCs, are more likely to develop social ties with one another compared to teachers who do not co-participate in such routines (Spillane et al., 2016). However, existing work in this area has important limitations. First, much of it relies solely on social network surveys. These surveys allow researchers to document the association between organizational structures (such as regular PLC meetings) and social networks, but they provide limited insight into how these organizational structures promote changes in social networks. As such, social network research that relies solely
on survey data provides limited insight into how the nature of interaction within formal organizational structures is linked to social network development. Spillane and colleagues (2016) comment on this limitation when they write that research on professional collaboration “would benefit from longitudinal designs that followed the implementation of the routine through in-depth observation and interviews” (p.117).

Second, much research in this tradition investigates whether or not formal structures are linked to the development of social ties, but it does not discuss the substance of the content that flows through these social ties. Existing research has prioritized understanding changes in network structure without developing a substantive understanding of how these structural changes matter for individuals’ experiences. As Coburn writes, “we know almost nothing about what actually happens in social network transactions,”(Coburn et al., 2013, p.315).

This study seeks to fill both of these gaps. First, it focuses on understanding how the nature of interaction in a collaborative structure is linked to social network development. It uses longitudinal observational data and in-depth interviews to understand how principals interact in a collaborative structure called affinity groups. Second, it draws on qualitative network interview data to understand the substance of network change that does occur. In addition to addressing these two existing limitations in social network research, this study makes a contribution because it focuses on social network development among school principals. As far as this author knows, this is the first study to investigate an intentional effort to foster principals’ network ties with peers. This study asks the following research questions:
1. How do principals’ social networks change after participating in affinity groups, if at all?
2. How does the nature of principals’ interaction in affinity groups relate to the development of their social networks, if at all?

In short, I find that the collaborative effort had mixed effects on principals’ networks. I find minimal change in the overall pattern of social ties in the principal network. At the same time, I find that some individuals in the collaborative groups reported that their social ties had developed or strengthened with their peers. My findings suggest that principals were more likely to develop network ties with their peers if their interactions in groups encouraged them to see their peers as sources of valuable knowledge, and if their interactions in groups fostered trust through the fulfillment of shared expectations. Furthermore, within collaborative groups, strengthened social ties seemed especially likely to develop from principals new to the district to principals with more experience.

The rest of this paper proceeds as follows: First, I review relevant literature on the principalship, social capital, and social networks. Next, I discuss my methods and the setting and sample of the study. Next, I discuss my findings, focusing on changes to the content and structure of principals’ advice networks over time. Finally, I consider the implications of my findings for research and practice.

**Literature review**

**The need for principal support**

Principals have challenging, complex jobs (Drago-Severson, 2012; Hallinger, 1992; Johnson, 2005; Neumerski, 2012). Typically they serve as including instructional
leaders, human resource managers, community liaisons, fundraisers, and facility managers, among other roles. They serve all of these responsibilities in a policy environment that increasingly holds them accountable for student outcomes. The pressure and challenge of the principal role takes its toll on many members of the profession. Recent research suggests that as many as 50% of principals leave their roles after 3 years (School Leaders Network, 2014). At the same time, principals’ actions are highly consequential for student learning (Leithwood et al., 2004; Leithwood, Jingping, & Pollock, 2017).

Given the challenge of their roles and their importance, it is essential that organizations that support principals, such as school districts, develop strong supports for principal learning, development, and social support. In recent years, school districts, with the support of researchers and funders, have experimented with a variety of strategies for producing and maintaining a high-quality principal workforce (see, e.g. Turnbull, Riley, & MacFarlane, 2013). These efforts have tended to focus on how to support principals before they begin their work or in the early years of their careers. Studies of these efforts have built important knowledge about how to create a strong principal pipeline, for example, and how to support novice principals through strong supervision and mentorship (Turnbull et al., 2013). In comparison to such efforts, relatively little time and study has been devoted to ongoing attempts to support principals throughout the course of their careers.

One potentially promising strategy to support principals’ ongoing development and learning is to bring principals together in collaborative groups. Such efforts could help provide principals with social support from peers, improve their relationships with
other principals, and provide them with valuable, relevant advice that applies directly to their current work (Darling-Hammond et al., 2007; Honig & Rainey, 2014). The current study focuses on one district’s attempt to foster principal collaboration through an initiative called affinity groups. This district asked its principals to self-select into groups based on a topic of common interest, and supported them as they spent six months pursuing their own learning related to this topic. The goals of affinity groups were to provide opportunities for principals to learn about topics they cared about, while at the same time fostering principals’ relationships with their peers.

**The value of social capital**

I draw on the concept of *social capital* to understand the benefits that may accrue to principals’ through peer collaboration (Coleman, 1988; Dika & Singh, 2002). Following other organizational scholars (Burt, 2000; Lin, 1999), I conceptualize social capital as having a *network structure*. Although different research traditions tend to emphasize different aspects of social capital, network scholars typically define the concept as the “resources for action that are attained through relationships” (Spillane, Kim, & Frank, 2012, p.2; Coleman, 1988; Lin, 1999). I conceptualize social capital as: (1) cognitive resources, such as advice, information, and expertise, and (2) social resources, such as emotional support, respect, and trust, that (3) are accessed through social networks (Coleman, 1988; Dika & Singh, 2002; Nahapiet & Ghoshal, 1998).

Social networks with certain characteristics have been found to provide benefits to both individuals and organizations (Bryk, Camburn, & Louis, 1999; Bryk & Schneider, 2002; Daly & Finnigan, 2011; Louis & Marks, 1998; Moolenaar, Daly, & Sleegers, 2010). For example, at the individual level, some studies have found that having a large
number of social connections leads to job satisfaction and improved performance because these connections provide individuals with superior access to information and status in an organization (Andrews & Ibarra, 1993; Brass, 1984; Rice & Mitchell, 1973). Other research has found that individuals who have diverse social networks, with connections to a broad set of individuals outside their immediate organizations, have greater career success, higher salaries, and greater access to economic opportunity (Burt, 1992; Eagle, Macy, & Claxton, 2010). Other studies have found that the quality of one’s network relationships, as measured by the extent to which they provide career and social support, is linked with job satisfaction, retention, and overall career success (Higgins & Thomas, 2001). At the collective level, more socially cohesive networks have been found to foster improved organizational performance by facilitating communication and reducing the “transaction costs” associated with collective effort (Dika & Singh, 2002; Nahapiet & Ghoshal, 1998). Research on schools has documented that having many social ties among adults is associated with improved student performance (Moolenaar, Sleegers, & Daly, 2012) and school faculties that exhibit strong relationships and trust are more likely to successfully engage in school reform efforts (Bryk & Schneider, 2002; Pil & Leana, 2009).

**Fostering social capital through organizational structures**

Given the positive effects that social capital can have on educational outcomes, it is important to consider how school districts might foster the development of social capital among their principals. However, as several organizational sociologists have pointed out (e.g. Coburn, 2010; Small, 2009; Spillane et al., 2012) much existing research has focused on understanding the effects of social capital as opposed to understanding
how social capital can be created. Traditionally, the field has spent little time understanding how organizations, such as school districts, can intervene to promote the development of social networks and social capital among their members (see Coburn et al., 2013 and Spillane et al., 2012, for exceptions).

That said, in recent years, a small but growing body of work has emerged focusing on the relationship between organizational characteristics and the development of social capital. Sociologist Mario Luis Small (2009) and other network scholars have proposed various organizational characteristics that influence social network and social capital development. These characteristics can be split into formal organizational conditions, such as explicit rules and standardized procedures, and informal organizational conditions, such as social norms (Scott & Davis, 2007).

Organizations can foster the development of social networks in formal ways by providing: (1) time, (2) space, (3) a social focus, and (4) defining formal roles. First, if organizations provide individuals with opportunities to spend time together consistently, they are more likely to develop ties and come to trust one another (Rivera, Soderstrom, & Uzzi, 2010). Second, organizations can influence the development of ties by bringing individuals into close physical proximity, which encourages interaction (Spillane et al., 2017). Third, organizations can influence the development of social capital by providing a focus for interaction (Feld, 1981). This social focus provides groups with something to talk about, and, over time, can lead to the development of social ties and trust. Fourth, organizations can structure the roles of their members in order to encourage them to see certain others as similar. It is well documented that individuals are likely to seek out others who they see as similar to themselves (McPherson et al., 2001). By assigning
individuals to similar roles, organizations can promote social tie development, though this strategy may be difficult to implement given limited resources (Coburn et al., 2013; Gehlbach et al., 2016). In addition to these formal conditions, informal conditions may influence the development of ties. For example, in organizations in which there are norms of cooperation, the development of social networks may be accelerated and sustained compared to organizations with norms of competition (Small, 2009).

More recent work in the educational field has built on Small’s work, using precise empirical methods to understand social network development in school organizations. Spillane and colleagues have made considerable progress in this area of research, publishing a collection of related studies on the relationship between network development and organizational structures (Hopkins, Spillane, Jakopovic, & Heaton, 2014; Spillane et al., 2012, 2016, 2017). This research can help us anticipate how a collaborative intervention, such as the affinity groups under study in the current study, may contribute to network development. Findings from this research suggest that a variety of formal organizational characteristics are associated with the development of social ties.

For example, in a study of the social networks of 30 elementary schools, Spillane, Kim, and Frank (2012) found that teachers who taught the same grade level were more likely to develop advice ties with one another compared to teachers who taught separate grades. In more recent work, Spillane, Shirrell, and Hopkins (2016) demonstrate that teachers who participate in the same organizational routines (in this case, professional learning communities) are more likely to develop social ties with each other, compared to teachers who do not participate. Spillane, Shirrell, and Sweet (2017) documented the role
of physical proximity in predicting social tie formation in schools, finding that school staff whose workplaces were located physically closer to one another were more likely to talk to each other about instruction compared to individuals whose workplaces are further away. Taken together, these studies suggest that formal organizational characteristics matter a great deal, and that providing time and space for individuals to interact with one another can lead to the development of social ties between those individuals.

But is providing time and space enough? Beyond these relatively simple actions, what else should managers consider? Existing social network research provides little precise guidance. Indeed, social network studies document associations between formal organizational characteristics and social tie development, but they rarely delve into the specific mechanisms through which these organizational features foster social connections. Nor do they explore cases in which participants are brought together by organizational structures but do not develop and sustain social ties. Such work is important because it will help provide more granular guidance for administrators that hope to promote the development of networks. For example, if it is found that certain group dynamics lead to a lack of social capital development, then managers may choose to intervene in groups to prevent these dynamics. By the same token, if it is found that certain types of group interactions are associated with social tie development, managers may seek to promote these types of interactions.

Although research on the nature of group interaction and the development of social ties is limited, research on the development of advice networks can help us hypothesize about how collaboration might lead to network growth. In their studies of knowledge sharing in social networks, Cross, Borgatti and colleagues argue that several
key qualities of relationships lead to the spread of information among peers: (1) Knowledge (2) Value, and (3) Safety\(^{13}\) (Borgatti & Cross, 2003; Cross, Parker, Prusak, & Borgatti, 2001). First, an individual is more likely to reach out to a colleague if she has knowledge of what that person knows—otherwise reaching out for information may not feel justified. Second, individuals are more likely to reach out to peers if they value the knowledge that another person has. Third, Cross and colleagues argue that individuals are more likely to reach out to their peers if they feel safe asking for advice. Asking for help can create feelings of vulnerability, and if trusting relationships exist between peers they are more likely to reach out to one another (Nebus, 2006).

Drawing on this framework for knowledge seeking, I suggest that collaborative experiences in which participants: (1) learn what their colleagues know, (2) value what their colleagues know, (3) feel trusting and safe asking for help, are more likely to lead to the development and maintenance of advice networks (Borgatti & Cross, 2003; Cross et al., 2001). Borgatti and colleagues framework helps us understand the relational qualities that are associated with knowledge seeking, but it does not help us understand what types of collaborative experiences might develop those qualities. This study seeks to understand how collaborative interactions may help principals understand and value each other’s knowledge, and feel safe asking for advice from their peers.

\(^{13}\) I draw on only part of Cross and Borgatti’s (2003) framework in this paper, they also emphasize the importance of engagement (the expectation that an individual will spend time working with you on a problem) and accessibility (the feeling that an individual will respond to you if you reach out to them).
Another limitation of many existing network studies is that they tend to focus on changes in network structure (i.e. the strength and pattern of network ties) as opposed to the content of network ties (Coburn et al., 2013). The content of network ties consists of the actual substance of the information or social support that is flowing through social connections, and thus understanding the content of social ties helps us understand the value that social connections provide for individuals.

More research that addresses the limitations of current network studies is critical. Such work promises to help provide more specific guidance to managers who hope to promote social capital development in their organizations. At the same time, such research can increase our understanding of how organizational conditions foster social capital development. This study attempts to fill these gaps in our understanding by exploring the relationship between interaction processes in collaborative groups, and changes in social network structure and content.

**Methods**

To understand the relationship between collegial interaction among principals and social network development, I conducted a longitudinal, mixed methods study of one district's creation of a collaborative structure for its principals.

**Setting and Sample**

This study draws on a dataset collected in a small, semi-urban school district in the northeast United States called Greenwood\(^\text{14}\). During the 2015-2016 school year, Greenwood created a new structure for principal collaboration under the direction of a

\(^{14}\) Pseudonym
new superintendent. Given the lack of existing studies on principal collaboration, this research site was selected because it represented a “rare” case (Yin, 2013). The sample for this study consists of all ten principals in Greenwood, a group of key district administrators, and the consultant who facilitated the affinity group process. The principals varied in terms of experience, gender, and the types of schools that they led (see appendix A for principal demographic information).

Below I describe the three affinity groups, and provide a brief summary of their areas of focus and their members. One group, which I will hereafter refer to as the “culturally responsive” group, focused on how to promote culturally responsive practices across their schools. Although the group began with a focus on culturally responsive instruction, over time they became more focused on how to “start the conversation” among their staff and encourage a change in mindset before focusing on concrete changes in instructional practice. The group was comprised of two members: (1) Cassy, a principal who was in her sixth year as a principal in the district, but was in her first year as the principal of her current (K-8) school, and (2) Karen a school leader who had been a principal for 4.5 years in a nearby district, but was in her first year as a principal in Greenwood. She led the district’s only pre-K Early Childhood center.

The, next group, which I will hereafter refer to as the “effective instruction” group, started with a shared interest in identifying instructional practice, and ultimately focused on building their knowledge of the “Visible Learning” book series. The group was comprised of three members: (1) Lawrence, formerly the AP of his current K-8 school, and in his second year as the principal of that school, (2) Jami, a highly experienced principal of a K-8 school in the district and in her 11th year as a principal in
the district, and (3) Tanya, an experienced principal in her 6th year leading her K-8 school, and with an extensive history in the district (46th year). Tanya was set to retire at the end of the study year.

The third group, which I will refer to as the “technology” group, focused on the use of technology in the classroom, starting with an interest in understanding “hot topics” in the current educational landscape, such as “blended learning” and “flipped classroom.” The group was originally comprised of five members: (1) Saundra, the principal of a K-8 school in the district, who was in her 4th year in the district and her 4th year as a principal in the district, (2) Van, the principal of the only K-5 school in the district, who was in his first year in the district and his 1st year as a principal in the district, (3) Anthony, The principal of the only high school in the district, who was in his 16th year in the district and his 4th year as a principal, (4) Jeremy, the principal of a K-8 school in the district, who was in his 4th year in the district and his 4th year as a principal in the district. Jeremy stopped attending group sessions after the first three meetings and was not highly involved in the work of the group. (5) Elli, the principal of the alternate high school and middle schools in the district that are focused on supporting students who are unsuccessful in traditional classroom environments. She was in her 16th year in the district and her 4th year as principal. She left on Maternity leave after only two affinity group sessions, and was not highly involved in the group. See appendix A for more detailed demographic information on all the principals, the superintendent, and the affinity groups coach.

The Affinity Groups initiative
The components of the affinity groups initiative were as follows. In December 2015, the district’s ten principals were asked to self-select into groups based on common interests. Following that session, principals were asked to spend 2-3 hours a month with their groups pursuing their own learning, and to spend additional time together as they wished for a total of 6-7 sessions per group\textsuperscript{15}. Throughout their time in affinity groups, principals were provided with light facilitation and resources by an affinity groups “coach.” This coach asked principals to articulate a research question and connected them with relevant resources (books, websites, and other school leaders) based on her personal network and her existing knowledge. Although the coach played a facilitative role, the groups chose which resources they would pursue, how they would engage in these resources over time, and generally managed their own conversations, which suggests that affinity groups can be conceptualized as self-managed groups (Ruth Wageman, 2001). Principals were also asked to share a presentation at the end of the school year with a team of district leaders and with each other. Beyond this minimal structure, principals were encouraged to pursue their collective learning as they saw fit.

Although the affinity groups were provided with relatively little structure, I found that they all went through the same set of basic steps. I’ve included a diagram of the affinity group process below. This process became apparent during ongoing fieldwork in

\textsuperscript{15} Before the affinity groups initiative began, the district’s principals had gathered at the central office twice per month to engage with the superintendent and other central office leaders. However, when the affinity groups initiative started, one of those monthly sessions was given over to affinity group work. Thus the affinity groups initiative can be understood as a reapportionment of principals’ time as opposed to an additional demand on their time.
the district, and it was refined by consulting the literature on group development and organizational learning (March, 1991; Tuckman & Jensen, 1977; Tuckman, 1965). Although this sequence was not part of my study “a priori,” I include it here to provide my readers with a more concrete sense of how principals engaged in the affinity group process over time (see figure 2).

![Diagram of the affinity group process]

**Figure 2**: A sequence of affinity group processes over time

First, each principal had to select into a group. During the first affinity group meeting in December 2015, the ten principals in Greenwood self-selected into three groups based on common interests. After gathering ideas from principals and district leaders, and surveying the principals to ascertain their preferences, the affinity groups coach provided participants with three options. The groups were focused on the general topics of: (1) technology and innovation, (2) effective instructional practices, and (3) culturally responsive teaching. Second, over the course of the first several months of the initiative, groups had to find a focus for their collaborative time together. Although the chosen topics provided a general direction for the work of the groups, each topic left much up for interpretation. Through a mix of discussion amongst themselves, and some facilitation from the affinity groups coach, each group developed a narrower focus over time. For example, over time, the culturally responsive teaching group shifted their focus
to strategies for leading culturally responsive schools, and the effective instruction group honed their work to focus on a specific set of resources, the *Visible Learning* series of books by John Hattie and colleagues\textsuperscript{16}.

Third, based on their focus, each group spent time gathering external (i.e. from outside the district) and internal (i.e. from inside the district) resources. Resources from outside the district included (1) school visits and/or discussions with other school leaders who had completed relevant work, (2) books, videos, and websites relevant to the group’s focus, and, in one case, (3) auditing a graduate school course session relevant to the group’s focus. In some cases principals gained access to the external resources through the affinity group’s coach. In other cases principals gained access to the external resources through their group members or through their own individual searching. Resources from inside the district included (1) the pre-existing knowledge of other principals in the district, (2) observations of practice in district schools, and, in one case (3) a survey that an affinity group member conducted of district teachers and administrators. Fourth, to varying degrees, each group spent time synthesizing the resources they gathered—deriving shared lessons from the books and articles they read and the school visits they conducted in order to draw out implications for their work as school leaders.

Fifth, based on their synthesis of resources, each group created a product, which took the form of a presentation. During the last full affinity group session in May, participants presented their work to each other and to district leaders. This product took

\textsuperscript{16} http://visible-learning.org/
the form of various activities, handouts, and/or PowerPoint presentations, and was an opportunity for each group to summarize and share their work.

**Data collection**

**Interviews.** I interviewed both principals and district administrators. I interviewed principals twice, both before and after the one-year affinity groups initiative. The principal interview protocol contained both structured and semi-structured components (Patton, 1990). The structured portion of the interview protocol consisted of *egocentric* social network questions that took the form of a *name generator* (Borgatti & Ofem, 2010). This network interviewing technique is designed to elicit a list of whom principals seek out and what they discuss, and allows principals to name anyone as a source of advice (see Burt, 1984; Coburn et al., 2013; Coburn, 2010, for related measures). As such, these questions provided insight into both the *structure* (e.g. who do principals talk to?) and *content* (e.g. what do they talk about?) of leaders’ social network ties (see protocol in appendix E). In their first egocentric interview, principals were asked an unbounded social network question, in which they generated all the names of the individuals to whom they had gone to for advice. In their first egocentric interview, I focused solely on the potential presence of strong social ties by limiting the names generated to individuals whom principals had sought out in the last month. In their second egocentric interview, in addition to the original protocol, principals were asked to comment on the presence of weak advice ties within their affinity groups—they were asked if they had gone to their affinity group mates for advice in the last six months.

The semi-structured portion of the principal interview protocol drew on Small’s (2009) framework on the relationship between organizational conditions and social
network development. It included questions on the broader set of district conditions that facilitated and/or constrained the development of social networks among principals, such as: (1) other opportunities principals had to interact with one another and (2) the extent to which there were norms of collaboration or competition in the district. These interview questions were included in the protocol in order to help me develop a better understanding of organizational context in Greenwood, and help me develop a fuller understanding of the “base-state” of social relations in the district (Daly, 2010). In their second interview, principals’ were asked to provide their perceptions of the cognitive and emotional benefits that affinity groups provided, if any. They were also asked to reflect on how they had engaged in the affinity group process over time, and to comment on how their relationships with their peers had changed, if at all.

I interviewed district administrators once. Interviews with district administrators were semi-structured and focused on understanding the conditions in the district that facilitated and/or constrained the development of social connections among school and district leaders. District administrators were asked about formal and informal opportunities that principals had to interact with one another and district administrators. These questions helped me develop a better understanding of how and why principals’ social networks changed as a result of affinity groups work, if at all. I also interviewed the affinity groups coach in order to understand the design of the affinity groups initiative. Interviews varied in length from 30 minutes to 90 minutes. I completed 29 interviews with 17 individuals.

**Observations.** In order to understand the nature of principal interaction in affinity groups, I conducted 17 hours of non-participant observations of affinity group meetings.
During these meetings, I took “almost verbatim” field notes, recording who interacted with whom about what (see Honig & Rainey, 2014; Coburn et al. 2013 for similar methods). I audio recorded meetings when possible. I also collected documents that were referenced during affinity group meetings. In order to gain a better understanding of the district context, I also observed traditional “principals’ meetings” in Greenwood, which included all of the principals in the district and district administrators. I observed 14 hours of principals’ meetings, for a total of 31 hours of observation.

Data analysis

Analysis for the current study occurred along two distinct but complementary pathways. First, I conducted a “traditional” social network analysis that drew on principals’ responses to egocentric interview questions, focusing on changes in the structure and content of principals’ social ties. Second, I conducted a thematic analysis of semi-structured interview data and observational data. Social network data serves as the primary data source for this analysis and I use the interview and observational data to contextualize and explain the network findings.

Social Network Analysis. Social network analysts commonly distinguish between sociocentric network analysis and egocentric network analysis. In sociocentric analysis, an entire network of interest is sampled (e.g. all the employees of a company) and then various statistics are calculated to describe patterns of connectivity within that network. In contrast, in egocentric network analysis, researchers sample individuals from within a larger population, ask these individuals to produce a list of actors to whom they are connected and describe the nature of their relationships with these actors. Based on these data, researchers calculate statistics to describe the ego networks of this set of
sampled individuals (Borgatti & Ofem, 2010). In this study, I am able to combine these different approaches, as has been done in a few previous studies (see, e.g. Kirke, 1996). Because I conducted egocentric interviews with all of the districts principals, I can conduct sociocentric analyses of the principal network. At the same time, because my egocentric interviews allowed principals to name anyone as a source of advice, I am able to characterize the full range of principals’ ego networks.

I structured my sociocentric analysis around my expectations about how principals’ social networks might change as a result of the affinity groups initiative. First I expected the principal network to become more cohesive over time. Cohesion is a measure of how “tight knit” a network is. Cohesive networks are characterized by many ties between members, while sparse networks are characterized by few ties between members (Hanneman & Riddle, 2005). Because affinity groups provided principals with an opportunity to interact with the full community of principals over time, I expected the overall cohesion of the principal network to increase. Further, because affinity groups provided principals with considerable time to interact with their smaller group, I expected the cohesion of each affinity group to increase. I also expected principals to become more central (Freeman, 1978) in the advice network. Centrality is an indicator of prominence in a social network. Individuals that are highly central generally have a large number of connections to others, and have a substantial influence on others in their social network (Freeman, Borgatti, & White, 1991; Freeman, 1978).

Next, I expected principals’ ties with one another to become stronger and more mutual over time. Stronger ties allow for more information to flow from actor to actor in a network. In this study, I operationalize tie strength based on principals’ reported
frequency of interaction. Given that my egocentric interview item assessing frequency of interaction was open-ended, I coded principals' answers into six categories of frequency to aid in analysis: as coded into six categories: (6) multiple times a week, (5) weekly, (4) two to three times a month, (3) monthly, (2) three to five times a year, (1) one to two times a year. I also expected the principal network to include more mutual advice ties over time. Mutual ties, in which both members of a dyad nominate each other, are indicative of reciprocal interaction, trust, and improved communication (Daly, 2010).

Finally, I expected the content of principals' advice ties to change. I expected the overall range of topics that principals discussed with one another to grow as result of their participation in affinity groups. Because affinity groups gave principals the opportunity to develop improved relationships with one another, I expected their advice ties to become richer and more multiplex. Typically, network scholars define multiplex ties as ties that include both instrumental content (such as advice) and expressive content (such as emotional support) (Cross, Borgatti, et al., 2001). However, I argue that even within ties that remain purely instrumental, ties that come to consist of a broader array of topics can be described as more multiplex than ties that consist of a narrower array of topics.

My egocentric analysis was also structured around my expectations about how principals’ individual networks might change as a result of participating in affinity groups. I expected the composition of principals’ networks to become characterized by a greater percentage of advice ties with other principals, compared to the percentage of advice ties with teachers, district administrators, and other professional colleagues.
Finally, in addition to my sociocentric analysis and my egocentric analysis, I conducted a meso-level analysis of the networks of each group. For this analysis, I focused on the ties among group mates, looking for changes in cohesion, the strength of ties, and the content of ties. For each team, I constructed detailed social network profiles that displayed both the content and the structure of the group’s social networks in two time periods. These social network profiles were used to facilitate an in-depth understanding of how group members’ relationships with their peers had changed, if at all, as a result of the affinity groups initiative.

**Analysis of interview and observational data.** My analysis of interview data occurred in two distinct stages. First, I analyzed the first round of principal and district administrator interviews, collected in fall and winter 2015, in order to understand the organizational conditions in the district that pre-dated the creation of the affinity groups.

In my second stage of interview analysis, I analyzed semi-structured interview data collected in the summer of 2016. These interview data focused on principals’ perceptions of the benefits they received from their participation in affinity groups, the challenges they experienced in their affinity groups, the process that principals engaged in over time in their groups, and their perspectives on how their relationships with their colleagues had changed as a result of their participation in affinity groups. This second round of interview data allowed me to understand how the principals engaged in the affinity group process over time, and how they felt their relationships (i.e. their networks) had shifted as a result of their time with their peers.

In both rounds of interview analysis, I used a hybrid approach to coding in which I started with coding categories that I drew from prior literature, while also allowing
inductive themes to emerge from the data. For example, my initial codes drew on Small’s (2009) framework, which explains how organizational conditions are related to social network development (e.g. spending time together, being in physical proximity), but they grew to include a broader set of codes (e.g. the role of prior district leadership, principals making connections with each other based on having shared staff members).

Observational and interview data were used to draft narrative summaries of how each affinity group engaged in the affinity group process over time. These narrative summaries were compared to the social network profiles I created for each team, and the interview quotes in which principals described how and why their relationships with peers had changed. Observation data helped thicken my understanding of how and why participation in affinity groups changed principals’ relationships with one another, if at all.

Findings

I organize my findings section as follows. First, I describe the organizational context of Greenwood before the affinity groups began. I do this in order to clarify the extent to which these groups represented a novel opportunity for principals to interact. Next, I describe the affinity groups initiative, focusing on how it provided the potential for new and more meaningful types of interaction among principals. Next, I share social network results, focusing on changes to principals’ networks at the sociocentric, egocentric, and group levels. Throughout, I incorporate qualitative data alongside social network data in order to contextualize and explain my network findings.

Understanding the organizational context: structural and cultural factors
As Small (2009) argues, organizations can foster the development of social ties by making changes to organizational structure (e.g. by providing time and space for interaction), by promoting a collaborative culture, and by minimizing competition. Drawing on Small’s arguments, in winter 2015 I asked all principals in the district to describe: (1) opportunities they had had to interact with other principals in the district and (2) the culture of the district. Several clear themes emerged. First, in the past, principals in Greenwood had been given very few opportunities to interact with each other in substantive ways. Second, the previous superintendent had created a hierarchical, individualistic culture that did not encourage principals to think collectively. Third, a new superintendent had joined the district during the year of the study, and she offered a more collaborative vision. Taken together, initial interview findings suggest that the social context in Greenwood was not likely to foster substantive relationships among principals or a cohesive, well-connected principal network. At the same time, changes made by the new superintendent offered the potential for more meaningful interaction and stronger connections.

A lack of time and space to interact in meaningful ways. In their initial interviews, six out of nine principals suggested that they had minimal opportunities to interact with other principals, and when they did talk with peers their discussions remained on a surface level. Although district leaders had traditionally brought principals together twice a month for “principals’ meetings,” these meetings were highly procedural and focused on ensuring that principals complied with district and state regulations. As one principal said,
In the last two years our principal meetings have been pretty much one-way communication. ‘We [district administrators] are giving you information. We're telling you stuff. Maybe we want to hear [from you], but mostly we really don't.’ There wasn't really anything that I would call professional development [for principals].

Other principals echoed this sentiment, and lamented the fact that they had had so few opportunities for meaningful collaboration with peers. For example, Lawrence, a principal in his second year leading his school, described his opportunities for peer collaboration as “slim to none.”

**An individualistic culture.** Beyond the fact that they had been given limited structural opportunities for substantive interaction, several principals acknowledged that the culture among school and district leaders was individualistic and slightly competitive. According to principals, two primary factors had driven this culture. First, the previous superintendent had promoted a culture of compliance and hierarchy, and had aggressively responded to principals if any of them questioned his decisions in a group environment. One principal described the prior superintendent in particularly evocative terms, saying that during past principal meetings,

> There was fist pounding sometimes on the table... There was a lot of, ‘I'm the smartest guy in the room type of stuff.’ I think some people in the room were immediately cut off. [The previous superintendent’s] body language and face would contort in certain ways when he'd get a question, and he would go through this long explanation. He's like, ‘It better be a
question of substance, because a question like this, I'm not going to answer that.’ It immediately stifled any [questioning].

Other principals echoed this statement. Although most principals acknowledged that the prior superintendent had been supportive in one-on-one situations, they described him as highly controlling in any sort of group context.

In addition to the controlling atmosphere promoted by the previous superintendent, several principals also suggested that some competitive pressure existed in the district. Principals suggested that this competition was exacerbated by the districts’ school choice policy. Although most schools in Greenwood followed a geographically based feeder pattern in which students were assigned to specific schools based on their address, one elementary school did not have a “natural” middle school that it fed into. As a result, parents at this school were able to choose where their children went to middle school. According to several principals, every year there was a slight feeling of competition among principals about which schools these parents chose. As one principal said, “When you hear…all the kids are going to [one school] and not [the other], by default it's a little bit of a competition.”

The lack of substantive opportunities to interact and a culture that did not promote collective thinking had led to a social context in which principals generally did not discuss substantive issues with one another. If principals did talk to one another, generally, many of those interactions remained at the surface level. One principal voiced her desire to have more substantial conversations with her peers, saying,

I've been wanting to have some meatier conversations around what we are doing. And not sort of this mode of ‘Well, this is what I'm
doing in my school.’ That kind of comes out sometimes. It's like, okay great but let's talk about the practice that we need to be talking about..

**A new leader with a collaborative vision.** Although most principals acknowledged that they had been given few opportunities for peer interaction in the past, several principals suggested that the new superintendent was making positive changes. According to interviewees, the new superintendent had begun to make meetings more interactive and substantial. Tellingly, the two principals who were new to the district and thus had not been socialized by the previous superintendent, spoke most positively about opportunities they had had to interact with their peers. For example, when asked about principals’ meetings, Karen said,

> The way they've been set up has been very interactive. It's not a ‘talk-down’ informative meeting. There is a bit of nuts and bolts that happens, but then there's usually an interactive [portion] around data or, right now we're talking about school improvement plans.

Other, more experienced principals also acknowledged that the new superintendent was running meetings that had become more interactive and inclusive.

**The potential of the affinity group process.** As part of her new, collaborative approach to district leadership, Greenwood’s new superintendent created affinity groups. These affinity groups required principals to self-select into small groups based on shared interests. The affinity groups put very few requirements on participating principals. They were asked to develop their own research questions, pursue their own learning, and share
a presentation of what they had learned at the end of the year. Beyond these minimal requirements, principals were given autonomy over their own activities. These types of highly autonomous teams can be successful, providing a sense of ownership to participants that can energize and motivate them (Haas, 2010; Hackman, 2002). At the same time, the freedom of self-managed teams can lead to disorganization and individualized behavior (Wageman, 2001).

The affinity groups, then, provided potential but not guaranteed conditions for the development of principals’ social networks. Affinity groups provided time and space to interact, and helped principals develop a social focus, conditions that are theorized to lead to social network development (Coburn et al., 2013; Feld, 1981; Small, 2009; Spillane et al., 2012). However, beyond these basic conditions, the initiative itself did very little to structure the nature of principals’ interaction.

Cross and colleagues (2001) suggest that individuals are more likely to share ideas and information with one another if their peer relationships are characterized by (1) knowing what others know, (2) valuing what others know, and (3) safety. Although interacting in peer groups might promote these relational qualities, we know from research on teacher collaboration that such qualities may not be fostered. For example, collaboration can be stymied when individuals pursue their own needs at the expense of collective efforts (Scribner et al., 2002), or group conflict goes unresolved or unacknowledged (Achinstein, 2002). Thus, affinity groups might or might not promote the development of principals’ social networks. Next, I investigate this potential by exploring how principals’ advice network’s changed after participating in the affinity groups.
Egocentric analysis

First, I looked for changes in the composition of principals’ advice networks. Theoretically, after having opportunities to engage with their peers over time, principals’ ego networks would come to include a greater proportion of ties with other principals as compared to individuals in other roles. However, my analysis provided little support for this prediction. Indeed, I found that principals’ were not more likely to go to other principals for advice in summer 2016 when compared to winter 2015.

Figure 15 presents the roles of individuals to whom principals went for advice in Winter 2015\textsuperscript{17}. As is evident, by far the largest proportion of principals outgoing advice ties are to district administrators, followed by teachers at their own schools and administrators at their own schools. Principals only make up 13% of principals outgoing advice ties. Re-analysis of the composition of principals’ advice ties in Summer 2016 provided limited support for the prediction that principals started to seek out their peers at greater rates after participating in affinity groups. The composition of principals’ networks did change at the end of the school year (see figure 16). However, the most dramatic change to the composition of principals’ advice networks was a reduction in the proportion of advice ties that principals had with district administrators. This reduction is explored more below.

\begin{footnotesize}
\begin{itemize}
\item[17]The “other” category includes parents, family members, members of the clergy, and educators from other districts.
\end{itemize}
\end{footnotesize}
Sociocentric analysis

Similar to the egocentric analysis, looking at the principals’ advice networks at the sociocentric level suggests that’s principals’ advice networks changed over time, but this
change was largely driven by a change in the number of district administrators principals sought out. Figure 3 is a sociogram that includes only principals and district administrators\textsuperscript{18}. District administrators are represented by blue squares, and principals are represented by pink circles. The size of the symbols represents the in-degree centrality of individuals. Individuals have higher in-degree centrality if they are sought out by a greater number of individuals (Freeman, 1978). Figure 17 suggests that a group of key district administrators are highly central in the network of leaders in Greenwood. These district administrators are far more central than any principals.

\textsuperscript{18} This network diagram is entirely constructed from principals’ egocentric network interviews, and thus it cannot capture ties that originate from district administrators. Thus, the diagram does not represent the full advice network among school and district leaders, but it does provide a valid representation of which school and district leaders principals go to for advice.
Figure 17: The principal advice network including district administrators, winter 2015

Figure 18: The principal advice network including district administrators, summer 2016
Figure 18, a sociogram of the same individuals in summer 2016, indicates that these key district administrators remained highly central in principals’ advice networks. However, principals’ ties to more peripheral district administrators had largely disappeared. For example, in Figure 17, you can see that Cassy, a principal, has connections to Cindy, Wendy, Peggy, and Greta, who are all district staff people. However, Cassy’s connections to these four individuals disappear in Summer 2015. Upon a closer inspection of the ties to district administrators in both time periods, it appears that principals’ connections to district administrators with certain types of administrative roles, namely roles in human resources, operations, and finance, completely disappear at the end of the year (see table 2). This may be a result of changes in seasonal demands associated with principals’ work. The budgeting process, for example, was completed in early spring in Greenwood.

Table 7: Number of Outgoing Advice Ties to District Administrators by Role, Winter 2015 and Summer 2016

<table>
<thead>
<tr>
<th>Role</th>
<th>Winter 2015</th>
<th>Summer 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instruction related (Special Education, Curriculum, English Language Learners)</td>
<td>22</td>
<td>16</td>
</tr>
<tr>
<td>Student services related (Student support, Attendance)</td>
<td>13</td>
<td>11</td>
</tr>
<tr>
<td>Superintendent</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Operations, Human Resources, and Finance</td>
<td>11</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>52</strong></td>
<td><strong>35</strong></td>
</tr>
</tbody>
</table>

In summary, when we look at the composition of principals’ advice networks over time, we see a minimal change in the proportion of advice ties that are targeted at other principals. When we look at the social network of district and school leaders and exclude school level staff, we can see that several key district staff remain highly central in
principals’ advice networks over time, but that more peripheral district staff members are dropped from principals’ advice networks over time. Because affinity groups did not change the way in which principals interacted with district staff, it is unlikely that the reduction in advice ties to district administrators was caused by the affinity groups.

When we restrict our investigation to a sociocentric analysis of the principal advice network, we see that the overall structure of principals’ advice ties changed over time, but only slightly. In winter 2015, 16 advice ties exist across the 9 principals in our sample (see figure 19). In Summer 2016, the number of advice ties connecting principals went down to 14, contrary to our prediction about the effects that affinity groups might have on principals’ advice networks (see figure 20). If we calculate the cohesion of the principal network using non-weighted network data, we find that cohesion goes down over time from .22 to .19\(^{19}\). However, when we take into account the strength of ties between principals, we see that although the number of ties has gone down over time, the average strength of the ties that remain has increased from 3.3 to 3.9\(^{20}\).

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\(^{19}\) Cohesion is defined as the ratio of all possible ties to the number of observed ties in the network data (Hanneman & Riddle, 2005). With nine principals in the network, the maximum number of ties is represented by \(\frac{(9) \times (9-1)}{2} = 72\). Thus, in winter 2015, cohesion is \(\frac{16}{72} = .22\), and in summer 2016, cohesion is \(\frac{14}{72} = .19\).

\(^{20}\) Tie strength was calculated based on frequency of interaction. Frequency of interaction came from an open-ended interview question which was coded into six categories: 6= multiple times a week, 5=weekly, 4= two to three times a month, 3=monthly, 2= three to five times a year, 1= one to two times a year.
Figure 19: Principal advice network, winter 2015

Figure 20: Principal advice network, summer 2016
Taken together, the findings of the egocentric and sociocentric network analyses suggest that Greenwood’s principals “pruned” their advice networks over the course of the year. Over time, their advice networks grew smaller, on average, a reduction in network size that was appeared to be driven by a reduction in the number of district staff members that principals sought out. Within the principal network, the overall number of ties connecting principals was reduced, which was unexpected. However, the ties that did remain became stronger, on average. These changes suggest that the affinity groups did not increase the number of advice ties between principals. However, looking at network changes in the aggregate can mask changes that occur at the group level. Next, I zoom in and look at social network changes within specific affinity groups.

Understanding Group-Level Interaction Dynamics and Network Change

In the following section, I describe how principals in each group engaged in the affinity group process over time, and make connections between this engagement and social network changes. After summarizing key group dynamics, I discuss how principals’ relationships changed in three ways. First, I discuss *structural* network change—changes in the patterns and strength of social ties within groups. Second, I discuss the *content* of principals’ advice ties—what they go to each other about. I represent these within-group network changes with social network profiles (see figures 7, 8, and 9). Finally, I use semi-structured interview data to discuss how and why principals’ relationships changed.

The culturally responsive group. Karen and Cassy came together to learn about how to lead culturally responsive schools. Over the course of six months, their shared
interest developed into a shared focus on making change at their school sites. Both principals felt that Greenwood was not doing enough to equip its educators with the skills and dispositions to properly serve a diverse student and parent population. They each sought to begin a reform process in their schools that would engage teachers in difficult and meaningful conversations about how to truly celebrate students from diverse cultures and ethnicities.

Based on their shared interests, Cassy and Karen pursued and learned from a set of common resources together. Although both principals were interested in leading reform at their schools, neither of them had experience doing so. They knew that it would be difficult to facilitate conversations about race and bias in classrooms and the community. As such, these principals visited other school leaders who had led such reform at their sites, and gathered books, articles, and videos that they could use to educate themselves and their teachers about culturally responsive schools. These principals made sense of these resources together, focusing on materials that seemed particularly relevant and useful for their work.

Both principals were excited by and continuously engaged in their affinity groups work. They both had perfect attendance at affinity group meetings. They worked closely together to synthesize the resources they accessed and prepare a dynamic presentation for district administrators and principals at the end of the school year. In their closing interviews Cassy and Karen described their time in the affinity groups as highly valuable and satisfying.

The shared focus, mutual satisfaction, and continuous engagement that the members of the culturally responsive group exhibited seemed to improve their
relationship. Over time, the members of the culturally responsive group developed stronger social ties and sought each other out for advice on a wider variety of topics. These strengthened relationships were reflected in the principals’ advice networks at the end of the year, and in the principals’ verbal descriptions of how their relationships had changed.

As illustrated figure 21, there was growth in the advice network between the members of the culturally responsive group. In December, Karen estimated that she went to Cassy for advice about once a month. In June 2016, Karen estimated that she went to Cassy for advice two to three times a month. Karen’s advice tie with Cassy was also more multiplex in the summer in that it contained more topics and a more diverse set of topics. For example, in time 1 Karen went to Cassy to learn about: (1) district rules (2) professional development planning, but in time 2 Karen went to Cassy to learn about (1) parent-teacher conferences, (2) student behavior issues, (3) when to involve parents in student discipline, and (4) re-integrating “escalated” students back into the classroom. In time 2, Cassy also indicated that she had gone to Karen for advice over the last six months. Thus, the advice relationship in the culturally responsive group was mutual.21

21 Cassy’s outgoing advice tie with Karen in time 2 is what I classify as a “weak” tie, because she only indicated that she went to Karen for advice when specifically probed about her ties to Karen. In contrast, the other advice ties in this set of diagrams (and the advice ties in the preceding egocentric and sociocentric analyses) were generated from an open-ended egocentric network protocol in which specific ties were not brought to an interviewees’ attention. Nonetheless, the fact that Cassy went to Karen for advice at all suggests that these principals’ advice relationship had become more robust overtime.
In discussing how their relationship had changed, Karen and Cassy indicated that they came to: (1) know what their partner knew, (2) value their partner’s knowledge, and (3) trust each other more. Cassy, for example, spoke about becoming more familiar with Karen’s skills and becoming more comfortable talking to her about hard issues. She said, “We were thinking a lot together, talking together. I definitely feel like it built our collegial relationship so I would be comfortable talking to her about issues related to [cultural responsiveness] …

Figure 21: Advice network changes in the culturally responsive group over time
now that I've had the experience of working closely with her I think it's much more likely that I would call her about things.

Cassy also spoke about getting a better sense of Karen’s expertise and broadening the set of topics that she felt she could go to Karen about. She said,

I learned about her responsive classroom background, her interest in that…I know that although she's an early childhood expert she actually has had experience in elementary, like across the range…I would now probably contact her about other things as well and not just my kindergarten student who is struggling.

Karen also spoke about her increased understanding of Cassy. Karen gained a deeper understanding of the core values that drove Cassy in her work, and gained a respect for Cassy's knowledge about how to promote change initiatives across the district. She said,

I have a better understanding about [Cassy’s] ideas around anti-bias, her passion for wanting to bring her entire school community into this work…She's been here for five or six years so she knows a lot about the district and the safe way to bring things to staff by taking risks and pushing people.

Taken together, Karen and Cassy’s interviews suggest that their relationship improved in several ways. One, they gained a greater understanding of each other’s skills, knowledge, and values. Two, they had developed a greater propensity to reach out to each other for help and assistance in the future. Finally, according to their closing
interviews, they became more comfortable discussing challenging topics such as bias and racism with each other, which suggests they became more trusting of one another.

**The effective instruction group.** The effective instruction group came together based on their shared interest in identifying and implementing “high-impact” instructional strategies. This initial interest developed into a shared focus on the Visible Learning series of books by John Hattie and colleagues (e.g., Hattie, 2008; Hattie, Masters, & Birch, 2015). Jami, Tanya, and Lawrence all felt drawn to these books because they included an “evidence-based” set of instructional practices that the book claimed had the highest impact on student achievement, and provided guidance for teachers and leaders about how to implement those practices on a wide scale. The principals read and discussed several of these books.

However, despite their shared focus on the Visible Learning books, the effective instruction group demonstrated uneven commitment to the work of the affinity group. Compared to the culturally responsive group, attendance at affinity group meetings was consistently lower and individuals were more likely to be late. While Jami attempted to organize the group, sending emails to the other members to set up extra meeting times—at times she got minimal responses from her peers. In another case, Lawrence was highly involved in the creation of the group’s final presentation, but then told the other principals he would be absent from the presentation at the last moment. These types of situations represent a larger theme in this groups’ dynamics—individual members did not consistently meet the expectations of their peers. While some members (especially Jami) expected their group members to be continuously engaged in the group’s work,
commitment was inconsistent. This inconsistency translated into feelings of dissatisfaction among group members.

Unlike the culturally responsive group, the effective instruction group demonstrated little to no change in the strength of their relationships. As shown in figure 22, there is no discernable change in the advice network of the effective instruction group. Jami retains a strong, multiplex advice tie with Tanya over time, and retains a weak tie with Lawrence. There is no evidence of new advice ties forming among members, or existing ties becoming stronger or more multiplex.
Figure 22: Advice network changes in the effective instruction group over time
In interviews, members of the effective instruction group suggested that their relationships with their group mates changed minimally, if at all. Jami and Tanya had been in constant contact before the group work began. As such, neither of them felt that the affinity groups work had significantly strengthened their bond. Lawrence, on the other hand, was a relatively new colleague for both Jami and Tanya. Jami acknowledged that “I feel like I got to know Lawrence better,” through the affinity groups process. Tanya suggested that her time in the affinity groups had made her more likely to call Lawrence if she encountered a work situation that was relevant to both of them. For example, Tanya mentioned that she had called Lawrence to discuss a music teacher that they shared across their schools, but that before the affinity group experience, she would not have felt comfortable making that call. In contrast to Tanya and Jami, Lawrence suggested that his relationships with both colleagues had not been changed as a result of the group’s work.

Lawrence appeared to devote inconsistent energy to the work of his affinity group, in part, because he did not feel he could learn more about Visible Learning from his colleagues. Before the affinity group initiative began, he had been using the Visible Learning framework at his school, and thus already felt highly knowledgeable about this resource. In his closing interview, Lawrence suggested that his motivation to work with his affinity group members was reduced because he did not feel he could learn more about Visible Learning from his colleagues, who were less experienced in this particular school improvement approach.

Overall, the closing interviews with the effective instruction group gave the impression that none of the principals had become much closer as a result of their time
together. Jami, especially, indicated that she was disappointed in her group mates because she felt they had not been “particularly responsible” in fulfilling their group related tasks. Lawrence too, had suggested that he had trouble connecting with his colleagues, and that they had very different “work styles.”

**The technology group.** The technology group came together because of their shared interest in learning about new strategies for incorporating technology into the classroom. Despite this initial shared interest, the technology group was not able to reach a more specific shared focus. Their individual interests pulled them in different directions. Van, an elementary principal, was particularly motivated to learn from other elementary school principals, while Anthony, a high school principal, sought out other principals at the secondary level. In addition to their lack of a refined interest, the members of the technology group also demonstrated uneven commitment to the work of their group. They were more likely to be tardy or absent compared to members of the culturally responsive group and the effective instruction group. One of their members, Saundra, did most of the group’s work on their final presentation.

Although members of the technology group demonstrated uneven commitment to the work of the affinity group, the members of this group also had lower expectations that they would work as an interdependent team. For example, in describing how the technology group worked together, Anthony said that they all focused on “How we could best divide up what we want to do” as opposed to focusing on shared work. Because they had lower expectations for their group mates, members were less disappointed by the inconsistent effort demonstrated by other members. Indeed, over time, members of the technology group came to see the affinity group process as primarily a compliance
activity. In order to complete their final presentation, they divided their responsibilities and concentrated on just “getting this done,” in the words of Anthony. Thus, despite the fact that the technology group demonstrated uneven commitment to the group’s work, members of the group did not voice serious dissatisfaction with their peers after the affinity groups were complete.

Some of the members of the technology group developed stronger relationships with each other over time. In particular, Van developed a stronger relationship with Anthony and Saundra, but Saundra did not appear to develop a stronger relationship with Anthony. As can be seen in figure 23, there is some evidence of advice network growth within the technology team. Specifically, Van developed a strong advice tie with Saundra over the course of the year. In December, he indicated that he did not go to Saundra for advice, but in June he indicated that he went to her for advice weekly. In addition, his advice tie was filled with several types of content, which suggests that it had some multiplexity. Jeremy indicated that he had a strong advice tie with Saundra in both the winter and the summer, but he did not report growth in his tie with Saundra in either the frequency of interaction or the content that flowed through the tie.
Figure 23: Advice network changes in the technology group over time

In interviews, some but not all of the principals in the technology group indicated that their relationships with their peers had been strengthened. Even though advice ties
did not exist between all members in either the winter or the summer (see figure 23), members of the technology group still spoke about how the affinity group process had strengthened their relationships with their peers. An important exception to this trend is Jeremy. Because he did not take part in much of the group’s work over time, other members of the group did not indicate that their relationships with him strengthened over time.

Van, the principal who had just come to Greenwood, learned a great deal about his colleagues personally and professionally. In his closing interview, Van spoke about the new quality of his relationships with both Anthony and Saundra, emphasizing the fact that he had developed a friendship with Anthony, and that he had developed great respect for Saundra’s abilities and knowledge. Van emphasized how much respect he had gained for Saundra, saying, “It made me realize how freaking smart Saundra is…she's on a different level than I think I could ever be. She has this high level of thinking.” Beyond gaining knowledge of and respect for his colleagues, Van also indicated that he felt these colleagues had become more accessible to him over time and that he was more likely to reach out to them for advice. Summarizing his experience in the affinity groups, Van said,

I think the point is… I now have a relationship with Anthony where I can pick up the phone and call him, give him a head’s up in a professional manner, or anything, and he’d be there as a support. I feel exactly the same way about Saundra. I could say, ‘Hey, Saundra, I really don't know what to do here.’ I feel that she would be an excellent resource for me.
Anthony, for his part, spoke about gaining a greater understanding of both Saundra and Van as professionals. Anthony indicated that the collaborative work associated with affinity groups had “brought us together.” He suggested that his knowledge of Van’s professional practice had increased, saying, “It was really good to get to know Van and see how he operates and his thought process.” In addition, like Van, Anthony emphasized how much respect he had gained for Saundra as a result of completing the affinity groups process because she had served as the, “project leader.”

Compared to the other two principals in her group, Saundra suggested that she experienced minimal relationship growth with her group mates. She recognized that, “it was nice to be able to get to know [Van] more than I might otherwise have if we weren't in the same group,” but did not elaborate on what she had learned about Van. She also did not indicate that her relationship with Anthony had been strengthened at all.

In summary, the technology group demonstrated inconsistent growth in their advice networks. Van, a principal new to the district, experienced the most advice network growth, and also spoke the most positively about how his relationships with peers had improved. Van and Anthony spoke very positively about Saundra, and suggested that they had gained considerable respect for her expertise and knowledge. Saundra, in contrast, suggested that her relationships with her affinity group peers had changed minimally. Compared to the effective instruction growth, the technology experienced more growth in their social networks and more substantially improved relationships.

Summary of Findings
The affinity groups were initiated in a social context that appeared ripe for network growth. In initial interviews, Greenwood’s principals suggested that they had rarely been able to work with one another. They also said they were interested in collaborating with each other. By providing principals with time, space, and helping them focus their interaction on a common topic of interest, affinity groups seemed to offer the ingredients that were needed for social tie development and improved collaborative relationships.

However, at the whole-network level, growth was minimal. Principals did not become a larger proportion of other principals’ advice ties over time. District administrators remained the most central individuals in the advice network over time. Unexpectedly, the number of advice ties between principals went down over the course of the year, though the social ties that remained were stronger, on average.

Although the whole network experienced minimal change over time, within some affinity groups members developed new and/or stronger ties with their colleagues. In some situations, affinity groups did appear to encourage principals to seek each other out for advice and make the content of their advice ties richer. However, social network growth seemed especially likely only for certain individuals and certain groups. At the individual level, principals new to the district seemed most likely to develop and/or strengthen ties with affinity group peers. Both Karen and Van indicated that the frequency with which they went to group mates for advice had increased, and the types of content that they discussed with colleagues also increased.

At the group level, two out of three groups experienced conditions that fostered relationship growth, while one did not. The culturally responsive group and the technology group experienced some structural growth in their advice networks, came to
discuss a greater variety of content in their advice networks, and at the same time members of these groups spoke positively about changing relationships with their peers. In contrast, members of the effective instruction group experienced no growth in their advice networks, and did not speak positively about changing relationships with peers. The way in which these groups engaged in the affinity group process over time provides clues as to why these groups had different relational outcomes. Members of the effective instruction group, in particular, did not meet each other’s expectations for group work—with some members not following through on important group tasks. In contrast, members of the technology group and the culturally responsive group largely met each other’s expectations. In comparison to the effective instruction group, members of the other two groups also spoke more about developing an increased respect for the knowledge and expertise of their peers.

Even if individuals did not form new advice ties with their group mates, participating in affinity groups still could improve the quality of their relationships with peers. For example, several individuals, such as Cassy and Van, emphasized that their experience in affinity groups made them more likely to go to their peers in the future. Further, group members suggested that they had increased their understanding of what their group members knew and were expert at (Cross, Parker, et al., 2001). Finally, several members suggested that their level of trust of their colleagues had increased (Bryk & Schneider, 2002). Increased levels of relational trust have been found to lead to greater comfort with risk-taking and more ease transmitting complex information (Bryk & Schneider, 2002).
Interestingly, although pruning occurred across the principal network when analyzed at the socio-centric and egocentric levels, principals did not reduce the strength of or lose any social network ties with the peers in their affinity groups. When looking at the entire network, it is clear that principals, on average, sought out fewer other principals for advice at the end of the year (see figures 19 and 20). However, when we look at network development within specific affinity groups (see figure 21, 22, and 23) we see no reduction in tie strength or the number of ties. This finding suggests that affinity groups may have played a role in social tie maintenance (Small, 2009) even in cases where they did not promote social network growth.

Discussion and Conclusion

Principals have complex, challenging roles and are commonly isolated from the professional support of peers (Barnes et al., 2010; Drago-Severson, 2012; Stephenson & Bauer, 2010). Bringing principals together in collaborative groups has promise because such efforts could help build social networks and social capital. Existing research in this field has done little to explore the “black box” of peer interaction within collaborative groups and describe its relationship to social network development. Additionally, existing work has tended to emphasize changes in social network structure at the exclusion of changes in the content of social ties. This study attempts to fill these gaps by following collaborating groups of principals over time and using a combination of social network, interview, and observational data.

Although the affinity groups initiative studied here appeared to possess the necessary characteristics to foster network growth, at the level of the entire principal network, social tie development was minimal over the course of the year. Principals did
not come to make up a greater proportion of each other’s advice ties over time, nor did the principal network become more cohesive over time.

However, principals who were new to the district were likely to form and/or strengthen advice ties as a result of participating in the affinity groups. This is not surprising, given that we would expect individuals who are new to an organization to have the most rapidly changing social networks. New principals may have been particularly motivated to make new connections because they had limited pre-existing connections in the district. Furthermore, they had not been socialized into the district under the previous, more hierarchical superintendent, and thus may have been most receptive to the new superintendent’s collaborative approach. Finally, principals new to the district may place an especially high value on the knowledge of their peers, given that new principals know the least about their organizational context. Valuing another person’s knowledge promotes advice seeking (Borgatti & Cross, 2003; Nebus, 2006).

This study suggests that the nature of interaction within collaborative groups has important implications for the development of that group’s social networks. The interaction dynamics of the two groups that experienced network growth were distinct from the group that did not experience growth. Members of these two groups met each other’s expectations for collaborative work. This finding validates prior work on the importance of fulfilling obligations to peers in order to foster trust (Bryk & Schneider, 2002). Trust may be an important pre-requisite for advice seeking, given that asking for advice can be a form of social vulnerability (Nebus, 2006).

Importantly, it was common for principals in affinity groups to perceive that their relationships with their peers had improved even if they had not begun to seek these
individuals out for advice, suggesting the potential for positive long-term benefits beyond the scope of this study. Many principals in affinity groups came to know and value the expertise of their peers, and feel that their peers had become more accessible. These positive developments suggest that relational improvements were occurring in the principal network, even if “formal” advice network growth had not yet occurred. This finding has methodological implications. Researchers that study network growth and rely solely on quantitative social network data collection methods, may miss out on important improvements in collaborative relationships that are occurring outside of the specific social network measures included in the study.

Indeed, one limitation of the current study is its social network data collection strategy. Because “name generator” techniques rely on respondents to generate a list of names, they are less likely to detect weak social ties compared to social network methods that provide individuals with a roster (Burt, 1984). As such, this method may have been less likely to detect changes in principals’ advice networks compared to other methods. Although this limitation was lessened because I asked principals specifically about the possibility of weak ties with their affinity group partners, “weak” network growth outside of the affinity groups may have been hard to detect. Future work exploring the nascent stages of network growth might benefit from social network methods that more easily pick up on slight strengthening of advice networks.

Another limitation of this study is that it does not isolate the impact of various factors that might account for the development of social ties. For example, with the data in this study it is difficult to disentangle the individual-level effect of being a new principal in the district from the group level effect of interaction dynamics, because these
factors covaried within my sample. For example, the fact that members of the effective instruction group did not meet each other’s expectations for collaborative work might explain the lack of network growth in that group. At the same time, it is also true that there were no principals who were new to the district in that group. Considering the fact that the other groups had principals new to the district, it is difficult to say with certainty whether or not it was the group dynamics of those groups that explain the development of social ties, or the individual characteristics of principals in those groups. It may also be the case that new principals in a group might be most likely to develop their social ties and at the same time most likely to improve interaction dynamics within those groups. Finally, one of the affinity groups only had two members. Dyads may be particularly likely to promote intimacy and social connection compared to larger groups, and thus group size may partially account for relationship growth in the culturally responsive group (Moreland, 2010; Taylor et al., 1979). Smaller groups such as dyads may be more likely to prevent “free riding” and thus encourage high levels of commitment and effort from both group members (Bertucci, Conte, Johnson, & Johnson, 2010). Future work might try to isolate the impact of one or more of these factors or clearly elucidate how they are intertwined.

These findings have implications for practice. The finding that principals new to the district appeared most likely to experience network growth suggests that these principals may be most likely to gain social capital from principal collaboration. Interestingly, both of these new principals had been assigned a formal mentor (another principal) at the beginning of the year, but over the course of the year started going to this formal mentor less and instead going to the affinity group member to whom they felt
drawn. It’s long been recognized that developing relationships with more experienced “insiders” can help newcomers to an organization “learn the ropes” and develop a clearer understanding of their roles (see, e.g., Morrison, 2002). Affinity groups may serve as a strong socialization mechanism that connects new principals to more experienced principals in a district and help new principals identify more strongly with their peer group. Compared to more traditional mentorship programs, affinity groups may be more likely to promote substantive interaction between new and experienced principals because they focus participants on a common topic of interest, providing grist for compelling conversations. Finally, these findings also suggest that district leaders should strive to create conditions in which members of collaborative groups fulfill each other’s expectations around collective work, and come to know and value each other’s expertise.

Increasingly, educational scholars argue that building educators social networks and increasing their access to social capital is an important strategy for school and district improvement (Bridwell-Mitchell & Cooc, 2016; Moolenaar et al., 2012; Spillane, Healey, & Kim, 2010). Given that school principals are commonly isolated from one another, peer relationships among principals are an unleveraged source of organizational capacity. However, district leaders need stronger guidance about how to intervene to foster network growth. This study has begun to provide that guidance. It finds that mixing more experienced and less experienced principals in the same group may promote network growth. Concurrently, it suggests that ensuring principals’ meet each other’s’ expectations for collaborative work may encourage the development of their advice networks. Future research that links network development to improvements in principals’
professional learning, retention, and leadership practice, will help districts better understand how to support their school leaders.

In the fall of 2016, Greenwood ended affinity groups. In their place, the district created a new professional development structure for principals with a clearer plan. District administrators split the year into topics, and each month a different principal was asked to present to his or her colleagues on this topic. Principals were allowed, but not required, to work with district administrators on the creation of this presentation. According to one principal, this change was made because several of her colleagues said they had been “spinning their wheels,” in affinity groups.

Greenwood’s decision to discontinue affinity groups suggests that district leaders did not feel the initiative was working as desired. The results of this thesis partially validate the districts’ decision. Affinity groups, as implemented, had important limitations. However, affinity groups also provided new and valuable opportunities for shared learning and peer relationship development. In this chapter I look across the three substantive papers in this dissertation and make some assertions about how to maximize the effectiveness of affinity groups. Although overall the affinity groups may not have “worked” as planned, we can learn from Greenwood’s efforts and identify the conditions that make success most likely.

A clear theme across the chapters is that one group was particularly successful. Compared to the other groups, the culturally responsive group was more focused, more engaged, demonstrated stronger evidence of shared learning, and enjoyed stronger social benefits compared to the other groups. Given the success of this group, I use it as a case example to develop my assertions about the conditions that make affinity groups
effective. I draw comparisons to other groups when appropriate to clarify my assertions and further substantiate them.

**Assertion 1: Affinity groups should be small.** Evidence from this dissertation suggests that smaller groups are better able to take advantage of the affordances of self-management while avoiding its downsides. In particular, the experience of the culturally responsive group suggests that dyads may be particularly effective group sizes for an initiative like affinity groups. The literature on dyads helps us understand why this might be the case. First, compared to members of larger groups, members of dyads interact with each other more frequently, are more likely to disclose personal details to one another, and overall have a greater impact on each other. These interaction characteristics, in turn, promote social closeness and intimacy (Moreland, 2010; Levine & Moreland, 1990). As such, members of dyadic affinity groups may be most likely to build their professional networks by creating strong social connections with one another. Second, dyads may be especially likely to discourage “social loafing,” (Bertucci, Conte, Johnson, & Johnson, 2010). Because it is clear to both members of a dyad who is contributing effort and energy to the group, it may be especially difficult for a member of dyad to rely on others to complete the group’s work. Recall that the larger affinity groups in this study had an inconsistent expenditure of energy across members. Dyads may be less likely to experience complications around mixed effort among group members. Third, decision-making in dyads is *simpler* than in larger groups (Moreland, 2010) because there is less information to process and less need to engage in a formal decision making processes.
such as voting. As such, dyadic affinity groups may more efficiently find a focus and choose which resources to pursue.

Assertion 2: Affinity groups should have a mix of experience levels. In chapter four, I found that social network ties were most likely to develop from principals who were new to the district to principals who were more experienced. Indeed, newcomers to organizations typically have fewer relationships than more experienced members, and thus may be most open to developing connections with colleagues. Combining experienced principals and newcomers may help foster social connections among participants.

Assertion 3: Affinity groups should have similar levels of expertise in group’s topic. Although bringing together principals with different levels of experience may foster network growth, managers of affinity groups should also try to ensure that the level of expertise related to the affinity group topic is similar across group members. The effective instruction group in Greenwood had one member with a very high level of expertise in his group’s chosen area of focus. Because his expertise was so high in comparison to his peers, he did not feel drawn to continue with the group and ultimately became disengaged. The culturally responsive group, in comparison, had similar levels of expertise related to their topic.

Assertion 4: Affinity groups should have narrow shared interests. Affinity groups were more likely to thrive if they reached a clear, specific focus that promoted interdependent engagement in shared resources. However, coming to a clear focus was challenging for some groups and the technology group in particular. The members of this group began their work with separate interests tied to the separate types of schools they
led. These diverse interests made coming to a specific focus more complicated. As such, affinity groups will be most likely to successfully organize themselves if members start out with a narrow set of shared interests. Districts can promote the development of narrow shared interests in two ways. First, districts might allow principals significant periods of time to discuss their interests with each other before they commit to working together and communicate to principals that groups with narrow interests are most likely to succeed. Second, early in an affinity group’s work, districts might actively coach these groups to come to a specific focus.

Assertion 5: Affinity groups should focus on topics relevant to their day-to-day work. As described in chapter 3, principals in affinity groups felt a tension between the demands of their responsibilities as site level leaders and the opportunities for learning provided by affinity groups. My findings suggest that principals will be most likely to continually engage in their groups if they feel that they are learning things that are directly relevant to their day-to-day work. While the culturally responsive group was motivated by the fact that their work was “core” to their leadership practice, members of other groups—particularly the technology group—did not feel that their topic was similarly urgent or vital. Managers of affinity groups might try to ensure principals focus on relevant topics in at least two ways. First, managers could be selective about the list of potential topics affinity groups could engage in, and align these topics with principals’ core work responsibilities. For example, if principals will be working on observing teachers and providing instructional feedback, then district leaders might suggest that principals focus their affinity groups work on this topic. Second, managers of affinity
groups might provide more directive coaching to groups that are not developing a focus that feels deeply relevant to their work.

**Assertion 6: Affinity groups should create and uphold shared norms.**

Findings from Chapter 3 and chapter 4 indicate that groups that met each other’s expectations for collaborative work were more likely to experience social benefits such as the development of trust (Bryk & Schneider, 2001) and social network growth. As such, this thesis suggests that making norms of collaboration explicit and holding participants to these norms may help to ensure that social benefits accrue to principals that take part in affinity groups.

Table 8 lists and summarizes the five conditions that this research suggests will promote successful affinity groups. Looking across these conditions, we can make a few observations. First, two of these conditions promote simpler and more efficient decision making (conditions one and four). Given the challenges of self-management (Wageman, 2001), efficient decision-making may be especially important for keeping affinity groups moving towards their goals and ensuring they retain their momentum, especially in the early stages of their development. Second, these conditions suggest different types of intervention by managers of affinity groups. The first three conditions all relate to team composition (Kozlowski & Bell, 2003). As such, managers of affinity groups should strive to promote these conditions at the very beginning of group work, during the initial topic selection and team sorting process. The fourth, fifth, and sixth conditions, in comparison, may be more amenable to intervention during later stages of affinity groups work. A coach might push principals to develop narrower shared interests over time (condition four). Similarly, an affinity groups coach could intervene to help
groups develop a focus that is deeply relevant (condition five), or intervene to help

Table 8: Conditions that support the success of affinity groups

<table>
<thead>
<tr>
<th>Conditions for affinity group success</th>
<th>Rationale</th>
</tr>
</thead>
</table>
| 1. Affinity groups should be small (2-3 members) | • Promotes social closeness  
• Reduces social loafing  
• Simplifies decision-making |
| 2. Affinity groups should have a mix of experience levels | • Promotes social network development |
| 3. Affinity groups should have similar levels of expertise in group’s topic | • Promotes consistent effort across group members |
| 4. Affinity groups should have narrow shared interests | • Simplifies finding a focus |
| 5. Affinity groups should focus on topics relevant to their day-to-day work | • Promotes continual engagement in affinity groups work |
| 6. Affinity groups should develop and uphold shared norms | • Promotes the development of trust and social networks |

Indeed, this table helps us understand when active intervention in an affinity group may be most important. Chapter two of this thesis suggests that managers must find a “delicate balance” between providing freedom and autonomy to participating principals (Datnow, 2011). This table helps managers understand how to find that balance. Specifically, it helps identify when affinity groups need more directive supports (i.e. less autonomy). First, it suggests that providing directive supports to groups that have trouble developing narrow shared interests may be appropriate (condition four). Second, it indicates that providing clearer guidance to groups that are not finding a relevant focus may also be important (condition five). Third, it indicates that helping groups develop shared norms for their work and holding group members to those norms
may help principals develop trusting relationships and encourage network growth (condition six). Finally, my findings emphasize the fact that managers have an important role to play in deciding on a group’s composition, by: (1) limiting group size (condition one), (2) striving to ensure mixed experienced levels (condition two), and (3) trying to bring together principals with similar levels of expertise in their topic (condition three).

These conditions are not a “blueprint” or “checklist” that will ensure affinity groups are successful. Instead, they are intended to encourage managers to focus on high leverage actions that will make their affinity groups more likely to: (1) engage deeply in their topics over time and (2) develop stronger professional connections with one another. Bringing leaders together is not enough. The conditions identified in this thesis help us understand how to bring leaders together in order to maximize their potential for social capital development.
Appendix A: Demographic Information for Greenwood

Table A1: Student demographic information for Greenwood

<table>
<thead>
<tr>
<th>Student Demographic Characteristic</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>36%</td>
</tr>
<tr>
<td>African American</td>
<td>11%</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>9%</td>
</tr>
<tr>
<td>Latino</td>
<td>42%</td>
</tr>
<tr>
<td>Other</td>
<td>2%</td>
</tr>
<tr>
<td>Economically Disadvantaged</td>
<td>36%</td>
</tr>
<tr>
<td>English Learner</td>
<td>17%</td>
</tr>
</tbody>
</table>

**Total Number of students in district** 5,000

Table A2: Research participants

<table>
<thead>
<tr>
<th>Name</th>
<th>Gender</th>
<th>Years of experience in district</th>
<th>Years of experience as principal in district</th>
<th>School Type</th>
<th>School Demographics</th>
<th>Affinity Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karen</td>
<td>F</td>
<td>1</td>
<td>1</td>
<td>Pre-K</td>
<td>English Learners: 28% F/R Lunch: 35%</td>
<td>Culturally Responsive</td>
</tr>
<tr>
<td>Cassy</td>
<td>F</td>
<td>6</td>
<td>6</td>
<td>K-8</td>
<td>English Learners: 4% F/R Lunch: 38%</td>
<td>Culturally Responsive</td>
</tr>
<tr>
<td>Jami</td>
<td>F</td>
<td>11</td>
<td>11</td>
<td>K-8</td>
<td>English Learners: 31% F/R Lunch: 45%</td>
<td>Effective Instruction</td>
</tr>
<tr>
<td>Lawrence</td>
<td>M</td>
<td>5</td>
<td>2</td>
<td>K-8</td>
<td>English Learners: 3% F/R Lunch: 30%</td>
<td>Effective Instruction</td>
</tr>
<tr>
<td>Tanya</td>
<td>F</td>
<td>46</td>
<td>6</td>
<td>K-8</td>
<td>English Learners: 29% F/R Lunch: 33%</td>
<td>Effective Instruction</td>
</tr>
<tr>
<td>Saundra</td>
<td>F</td>
<td>4</td>
<td>4</td>
<td>K-8</td>
<td>English Learners: 22% F/R Lunch: 47%</td>
<td>Technology</td>
</tr>
<tr>
<td>Van</td>
<td>M</td>
<td>1</td>
<td>1</td>
<td>K-5</td>
<td>English Learners: 0.0 F/R Lunch: 16%</td>
<td>Technology</td>
</tr>
<tr>
<td>Anthony</td>
<td>M</td>
<td>16</td>
<td>4</td>
<td>9-12</td>
<td>English Learners: 14% F/R Lunch: 31%</td>
<td>Technology</td>
</tr>
<tr>
<td>Jeremy</td>
<td>M</td>
<td>4</td>
<td>4</td>
<td>K-8</td>
<td>English Learners: 27% F/R Lunch: 43%</td>
<td>Technology</td>
</tr>
<tr>
<td>Eli</td>
<td>F</td>
<td>16</td>
<td>4</td>
<td>6-12</td>
<td>English Learners: 1% F/R Lunch: 60%</td>
<td>Technology</td>
</tr>
<tr>
<td>Coach</td>
<td>F</td>
<td>1</td>
<td>0</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Superintendent</td>
<td>F</td>
<td>1</td>
<td>0</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>
Appendix B: Time spent observing each affinity group\textsuperscript{22}

<table>
<thead>
<tr>
<th></th>
<th>Affinity group time with the whole group of principals</th>
<th>Time the technology group spent together</th>
<th>Time the culturally responsive group spent together</th>
<th>Time the effective instruction group spent together</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total time group met</td>
<td>5.5 hours</td>
<td>5 hours</td>
<td>7 hours</td>
<td>5.5 hours</td>
<td>23 hours</td>
</tr>
<tr>
<td>Total time captured with field notes or audio recordings</td>
<td>5.5 hours (100%)</td>
<td>3 hours (65%)</td>
<td>5.5 hours (80%)</td>
<td>2.75 hours (50%)</td>
<td>17 hours (74%)</td>
</tr>
<tr>
<td>Total time captured with audio recordings</td>
<td>1.5 hours (28%)</td>
<td>2 hours (40%)</td>
<td>2.5 hours (35%)</td>
<td>2 hours (35%)</td>
<td>8 hours (28%)</td>
</tr>
</tbody>
</table>

\textsuperscript{22} Percentages are given of the values in the second row of the table.
### Table C1: Description of utterance level coding for learning opportunities in principal dialogue

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Examples</th>
</tr>
</thead>
</table>
| Low detail representation of practice | Principals describing past professional experiences or speculating about future experiences without specificity. Principals reporting on something that they did or will do in a general sense, without elaborating or providing the reasoning behind their actions. These types of turns of talk provide little opportunity for listeners to get an authentic “window” into another’s professional practice (I. S. Horn, 2010; J. W. Little, 2003). | **Cassy:** “I find myself talking about my kids with teachers, to relate to them.”  
**Jami:** “The data walls we did, I felt there were a lot of problems with them, parents were very upset.”  
**Tanya:** “We have done a lot of work with teachers at our school about how to improve teaching together. We’ve tried to push the notion that it’s OK if something doesn’t work.”  
**Anthony:** “We are doing a committee at the high school, it’s the building cultural proficiency committee, I know it’s a bit corporate sounding…but that’s what you are talking about.” |
| High detail representation of practice | Principals describing past professional experiences or speculating about future experiences in a manner that is specific and complete. Principals reporting on something that they did or will do in a precise manner, and with elaboration and/or attention to the reasons why an action was or will be taken. | **Jami:** “I was in the entire day [data] meetings, and in every single one [teachers said], “well we’ve done the strategies…dah dah dah, and then when you give [students] the work independently, they can’t do it!” And I said well, it seems like, maybe we are overscaffolding here…you know what I mean? Like, students are so used to sitting there and waiting, [students tell themselves] ‘If I act like I don’t know what’s going on, someone is going to come over and tell me what to do and I will write it down.’ Right? That’s what’s going on, a lot.”  
**Karen:** “In my first couple of months, [a district leader] handed me the book, Anti-bias curriculum for early education, she said just to work with people and I was like, I feel pressured to do that, but I just I first thought the capacity [was not present among teachers], I can’t just bring it to the teachers and say these are the five things we are doing number one…and number two, that’s…that’s not really at the top of the list, there are other instructional practices, and other things,” |
| Low detail reference to resources | Principals referencing or mentioning resources (e.g., books, articles, visits to other schools) with little specificity about these resources, or giving an unsubstantiated opinion about these resources. | **Jami:** “I didn’t finish reading it, I got it not so long ago either, I have to admit I forgot about it over the holidays and I got it about a week ago, it’s extremely dry…”

**Anthony:** “I mean, I’ll be honest, in talking with [another principal] I didn’t get that this was really helping them per se, other than it sounds good that every kid has a device”

**Karen:** “So, **courageous conversations** was really the piece that I really went through from beginning to end” |
| --- | --- |
| High detail reference to resources | Principals describing resources with a high level of specificity, referencing specific features of those resources, and/or making connections between resources and their own professional practice. | **Lawrence:** “Did you see the part about mind frames on page 78? These visible learning mind frames. This will be our mantra, every new hire will have to know these. I think in urban ed, you have to have these things rooted in your soul. As far as staff goes, you have to have it rooted in your soul. I have some teachers who just like to vent in meetings, and that’s OK, but we need to get them moving.”

**Cassy:** [describing one of her school visits]

“I was like, this is the one, I’m going to get the playbook, it’s going to be great, I went in, a very pleasant gentleman, he was talking about establishing their core values… [the principal] had an end vision in mind, but brought people together, he brought the school council together, thinking about what academic excellence looks like…His way of talking about cultural proficiency, he embedded it in their core value definitions—making sure that they were all about valuing other cultures. He said it was a long process, took a long time…At first he was upset, some of the conversations didn’t go well, but he stayed the course and continue to go early, and in the second year he invited people in to start the conversation, he stressed the importance of opening a dialogue, and having someone from outside do it. He said there were some uncomfortable conversations—talking about what to do for the school, people were holding each other accountable and keeping their kids in mind…” |
<table>
<thead>
<tr>
<th>Low detail reference to a concept</th>
<th>Principals mentioning a concept or “buzzword” without elaborating what that concept means or providing an incomplete definition.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lawrence</strong> [answering a question about the definition of the term “Acceleration”]: “<strong>Acceleration</strong>, the other phrase that might be used is mastery learning.”</td>
<td></td>
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<tr>
<td><strong>Van:</strong> “I talked about flipped classroom with these two principals.”</td>
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</table>

<table>
<thead>
<tr>
<th>High detail reference to a concept</th>
<th>Principals mentioning a concept or “buzzword” and discussing its meaning and/or its application to their professional practice.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Karen:</strong> “you can’t, I think, teach children well unless you really know them, in order to really know them you have identify this [cultural proficiency] work, I think, and you know, it’s more about being interested in them and the other people, not about, as we say, “colorblindness” now we know that that doesn’t work, that’s not honoring the culture of another”</td>
<td></td>
</tr>
<tr>
<td><strong>Jami:</strong> “I’m looking for, there is something called an innovation configuration based on the [concerns based adoption model]. It’s old research but it still applies, the concerns based adoption model says, when you are going to implement anything new, in terms of presenting to the staff, people are at varying levels of concern related to an innovation. Let’s say you were going to do co-teaching, the first level of concern is, ‘what is it?’ then next level of concern is, ‘how do I do it?’, ‘Is this gonna work?’ skepticism, Then its like, ‘how could you make that work?’”</td>
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<tr>
<td>Code</td>
<td>Description</td>
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</table>
| Providing social support     | Coach: (1) voicing enthusiasm for principals’ ideas, (2) affirming, complimenting or encouraging an individual or group’s work, or (3) saying something humorous. | 1. “No I get what you are doing. I think its great!”
|                               |                                                                                                 | 2. [talking about a potential school a group could visit] “This is cool, well we got to get you guys to go..” |
|                               |                                                                                                 | 3. “I love that because that’s a very different type of presentation than group 1, so it would be fabulous to involve us in a text based discussion…” |
| Asking Questions              | Coach asking questions of a group to either: (1) elicit their ideas, (2) ask for their in-the-moment feedback on her facilitation, or (3) acquire factual information about the group’s work | 1. “What do you need support on?”
|                               |                                                                                                 | 2. “OK, so you’ve done some good research. Now what do you have to do?”
|                               |                                                                                                 | 3. [helping one group develop a research question] “In your guys’ minds, what’s the bigger question, something about diversity? Or culturally responsive pedagogy? Which word gets you to a meatier place? Which broadens you more?” |
| Providing information or ideas| Coach providing ideas about what a group might work on, or how they might work together. Coach sharing her own personal knowledge of a topic. | 1. “I was hired by Microsoft, they have just bought Mexico all these devices. That’s the plan to reform education, through devices? I’m like really, that’s the question? Rural schools don’t even have internet, that’s the question? Microsoft, I’ve been trying to say, what’s the purpose?”
|                               |                                                                                                 | 2. “Why don’t you tell Saundra you need a google doc, to define your terms.”
|                               |                                                                                                 | 3. “Because I don’t believe in the world without arts, I think it would be really interesting to give your [research] question to an artist in your building, and see what they would [come up with]” |
### Facilitating Affinity Group Process

Coach providing guidelines for groups, requesting specific documents such as meeting notes, announcing deadlines, or otherwise asking groups to participate in specific activities.

| 1. | “Let’s talk about Feb, March, April. Let’s talk about what you want…” |
| 2. | “So you can email me your reading, what your scope and sequence is.” |
| 3. | “So can all of the presentations…, can we have a bibliography, for all the groups, can I make it a little more specific, and say annotated bibliography?” |

### References Resources

Coach referencing specific resources, such as books, articles, videos, or mentioning specific school leaders who have relevant experience for one of the affinity groups.

| 1. | “If you want to see a principal whose sole focus is cultural proficiency, I would visit [this principal]. That’s what he does. He… is thinking about cultural proficiency, that that’s what he is teaching his faculty.” |
| 2. | [referencing a book] “It looks, you know, it looks fine, it doesn’t look different than other things I may have seen, but I don’t care. Like that to me isn’t a reason not to use this, I think that’s fine.” |
| 3. | “There is a book by Gary Stager, he wrote it. His name is Gary Stager, he has just written this cool book about tinkering. I just love the book,” |

### Offering Resources

Coach explicitly offering to connect principals with resources by making introductions, helping to schedule visits, or suggesting specific websites or book titles.

<p>| 1. | “I could convene a panel, if you say, you want a panel. If you want me to get the best minds on something related to your topic” |
| 2. | “I would look at high tech high, I have a friend there. It is really cool what they are doing there. They are building amazing stuff,” |</p>
<table>
<thead>
<tr>
<th>Other</th>
<th>Coach talking about topics not related to affinity groups, or coach not responding to a direct question from a principal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. “I don’t know if I have told you this, but I am heading up a program at [a local college] for emerging leaders, and if you guys have people, that you would want to connect, it doesn’t have to be for principals but it can be, it’s a really good program”</td>
</tr>
</tbody>
</table>
## Appendix D: Resources accessed by each affinity group

### Table D1: Resources Accessed by the Culturally Responsive Group

<table>
<thead>
<tr>
<th>Resource title</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Greenwood High School Building Cultural Proficiency Committee</td>
<td>School visit</td>
<td>A committee of district and school staff described their efforts at fostering culturally responsive practices at Greenwood High School.</td>
</tr>
<tr>
<td>2. Principal of K-8 school in neighboring urban district</td>
<td>School visit</td>
<td>A nearby principal discussed her efforts to change classroom instruction to be more culturally responsive.</td>
</tr>
<tr>
<td>3. Principal of 6-8 school in neighboring semi-urban district</td>
<td>School visit</td>
<td>A nearby principal discussed his efforts to orient his entire school towards fostering culturally responsive practice.</td>
</tr>
<tr>
<td>5. The Dream Keepers: Successful Teachers of African American Children by Gloria Ladson-Billings</td>
<td>Book</td>
<td>A book that describes teachers who are exemplars of culturally relevant teaching.</td>
</tr>
<tr>
<td>6. &quot;Raising Awareness of Cultural Proficiency&quot; From, The Data Coach's Guide to Improving Learning for All Students, by Katherine Stiles and Susan Mundry</td>
<td>Book Section</td>
<td>A chapter meant to provide school leaders with a framework for using data to address issues of race, ethnicity, and class.</td>
</tr>
<tr>
<td>7. “Teaching Social Justice to Privileged Students Necessary for Change”</td>
<td>Article</td>
<td>An article describing the work of Prof. Katy Swalwell, which suggests that focusing social justice education efforts only on low-income students is misguided.</td>
</tr>
<tr>
<td>8. “White Privilege: Unpacking the Invisible Knapsack,” by Peggy McIntosh</td>
<td>Academic Article</td>
<td>Classic article intended to help readers consider the taken-for-granted ways in which white people are privileged.</td>
</tr>
<tr>
<td>9. “The Danger of a Single Story” by Chimimanda Ngozi Adichie</td>
<td>Video</td>
<td>In this talk, Adichie discusses the development of biased thinking and stereotypes by drawing on her own experiences in South Africa and the U.S.</td>
</tr>
<tr>
<td>Resource title</td>
<td>Type</td>
<td>Description</td>
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</tr>
<tr>
<td>1. Visible Learning: A Synthesis of over 800 Meta-Analyses Relating to</td>
<td>Book</td>
<td>Is a &quot;meta-analysis&quot; describing many different factors that influence student achievement</td>
</tr>
<tr>
<td>Achievement by John Hattie (2008)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Visible Learning for Teachers: Maximizing Impact on Teachers by John</td>
<td>Book</td>
<td>Describes key factors that influence student achievement and are under teachers' control</td>
</tr>
<tr>
<td>Hattie (2012)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Visible Learning Into Action: International Case Studies of Impact by</td>
<td>Book</td>
<td>Consists of case studies of schools that use the visible learning framework to guide improvement</td>
</tr>
<tr>
<td>John Hattie, Deb Masters, and Kate Birch (2015)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Formative Classroom Walkthroughs: How Principals and Teachers Collaborate</td>
<td>Book</td>
<td>Provides guidance to school leaders that seek to improve their schools through the observation of classroom instruction</td>
</tr>
<tr>
<td>to Raise Student Achievement by Connie Moss and Susan Brookhart (2015)</td>
<td></td>
<td></td>
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<tr>
<td>Kingdom</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Summary of John Hattie’s Book Visible Learning for Teachers by the Ealing</td>
<td>Handout</td>
<td>Short Summary of Visible Learning for Teachers</td>
</tr>
<tr>
<td>Council, United Kingdom</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. The Myth of Walkthroughs: 8 Unobserved Practices in Classrooms by</td>
<td>Article</td>
<td>Describes how to use classroom walkthroughs for improvement with specific reference to John Hattie's framework</td>
</tr>
<tr>
<td>Peter Dewitt (2015)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resource title</td>
<td>Type</td>
<td>Description</td>
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</tr>
<tr>
<td>1. Two directors of school library services in a nearby, large, urban district</td>
<td>Conversation</td>
<td>Two experienced school librarians discussed the integration of technology into curriculum and instruction, with a focus on curriculum mapping for technology standards.</td>
</tr>
<tr>
<td>2. Charter school principal of grades 6-12 school in California</td>
<td>Conversation</td>
<td>This school leader described how her school implemented a blended learning model and described the challenges they faced in doing so.</td>
</tr>
<tr>
<td>3. Principal of grades 6-8 school from nearby suburban district</td>
<td>Conversation</td>
<td>This school leader described the 1:1 laptop initiative that he started at his school, with an emphasis on the cost of the initiative and acquiring financial resources support the effort.</td>
</tr>
<tr>
<td>4. Principal of grades 9-12 school from nearby suburban district</td>
<td>Conversation</td>
<td>This school leader described how his school implemented a 1:1 laptop initiative, with an emphasis on cost, logistics of material distribution, and classroom usage.</td>
</tr>
<tr>
<td>5. Principal of grades K-5 school #1 from nearby suburban district</td>
<td>Conversation</td>
<td>This school leader described blended learning and how his teachers used technology in their instruction.</td>
</tr>
<tr>
<td>6. Principal of grades K-5 school #2 from nearby suburban district</td>
<td>Conversation</td>
<td>This school leader talked about his plans for implementing flipped classrooms.</td>
</tr>
<tr>
<td>7. Lecture at Local University</td>
<td>Lecture</td>
<td>During this class lecture at a local university, an expert in school design discussed how to create a school that had the integration of technology and instruction at its core.</td>
</tr>
<tr>
<td>8. “Blended Learning: Changing the Face of Education” by Arlene Karidis</td>
<td>Article</td>
<td>This Huffington post article provided a definition of blended learning and presented various examples of how it was being implemented in schools across the country.</td>
</tr>
<tr>
<td>9. “Blended Learning” from <a href="http://www.blendmylearning.com">www.blendmylearning.com</a></td>
<td>Website</td>
<td>This article described blended learning and provided examples.</td>
</tr>
<tr>
<td>10. “Four Essential Principles of Blended Learning” by Katrina Schwartz</td>
<td>Article</td>
<td>This article from KQED.org describes the core components of blended learning and how to implement at the school-level.</td>
</tr>
<tr>
<td>11. “Blended Learning: Combining Face-to-Face and Online Education” by Heather Wolpert-Gawron</td>
<td>Article</td>
<td>This article from edutopia.org discussed core components of blended learning at the classroom level.</td>
</tr>
<tr>
<td>12. “The Flipped Classroom” by Bill Tucker</td>
<td>Article</td>
<td>This Education Next article provides guidelines for implementing a flipped classroom.</td>
</tr>
<tr>
<td>13. “Should you Flip your Classroom?” by Ramsay Mussalam</td>
<td>Website</td>
<td>This article from edutopia.org describes the pros and cons of using a flipped classroom.</td>
</tr>
<tr>
<td>14. Survey of district teachers and principals</td>
<td>Survey</td>
<td>A survey that Van conducted of the district’s teachers and principals regarding their use of technology.</td>
</tr>
</tbody>
</table>
Appendix E: Visible Learning Handout

Visible Learning: The Five Strands

John Hattie

Visible Learning means an enhanced role for teachers as they become evaluators of their own teaching. Visible Teaching and Learning occurs when teachers see learning through the eyes of students and help them become their own teachers (Hattie, 2014).

What does Visible Learning mean?

Visible Learning means an enhanced role for teachers as they become evaluators of their own teaching. Visible Teaching and Learning occurs when teachers see learning through the eyes of students and help them become their own teachers (Hattie, 2014).

What does Visible Learning look like?

The Five Strands

2. Know Thy Impact
   What teachers do matters:
   Teachers should be evaluators of their own teaching

3. Inspired and Passionate Teachers
   How teachers think matters:
   How can we give feedback that has the biggest impact on student learning?

4. Effective Feedback
   How teachers think matters:
   How can we give feedback that has the biggest impact on student learning?

5. Visible Learning Schools
   What are the major factors that influence student achievement?
   What strategies and systems do we have in our school to implement visible learning?

1. Visible Learners
   How can we build assessment capable learners?

The key message of Hattie’s research is that our students are assessment capable learners and that this is the most important thing that we can do to raise student achievement.

Visible learners have high expectations of their learning and are not afraid to ask questions or make mistakes; visible learners are guided to self-regulate their learning. Hattie suggests that “the learning aim of any set of lessons is to get students to learn the skills of teaching themselves the content and understand” (Hattie, 2012). This requires explicitly teaching students important meta-cognitive skills and strategies; therefore, time spent learning about the learning process and developing a shared language of learning is considered essential in establishing students’ ownership of their learning and the ability to drive their learning forward.
of the language of learning

Recommended reading:
Appendix F: Egocentric interview protocol

Introductory comments: “One of the things I’m interested in is who principals talk to about their work. In order to get at that, I’m going to ask you to provide a list of people who you talk to, just the list, and then I’m going to ask you about your relationship with each of those people in turn. Does that make sense?”

i. When you think back over the last month, since about [e.g., mid November] how many people have you gone to for advice?* This could be for a question or concern, or just to talk through something about your work as a principal. Can you name some of those people? Anyone else inside the school? Anyone else outside the school?

ii. For each person mentioned, ask the following questions
   1. What role does that person play?
   2. Why did you go to this person?
   3. What did you talk about?
   4. How frequently have you talked with this person about your work in the last month?

iii. This question was asked only in second round interviews
   1. [if any affinity group members not mentioned].
      Thinking back over the last six months (so since December), have you reached out to the other member(s) of your affinity group for advice about your work as a principal? If yes, which ones?
      a. Why do you go this person?
      b. How frequently do you talk with this person?
      c. What do you talk about?
References


Coburn, C. E. (2010). “I Would Go to Her Because Her Mind is Math.” In A. J. Daly


Spillane, J. P., Shirrell, M., & Hopkins, M. (2016). Designing and deploying a professional learning community (PLC) organizational routine: Bureaucratic and


