

Central Office Leadership in Principal Professional Learning Communities: The Practice Beneath the Policy

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Background/Context: *Some school districts across the country have begun to convene principals in professional learning communities (PPLC) as a strategy to help principals develop as instructional leaders, and they have designated executive-level central office staff to lead the PPLCs. Extant research suggests the promise of PPLCs for supporting principal development but raises significant questions about what central office leadership of such PPLCs entails and if central office administrators are up to the task.*

Purpose/Research Questions: *This paper examines the following questions: To what extent are the central office administrators who run PPLCs actually doing so in ways consistent with the goal of supporting principals' learning to strengthen their instructional leadership? What conditions help or hinder them in the process?*

Research Design: *We explored these questions with an embedded, comparative, qualitative case study of six PPLCs convened by central office administrators in one urban district. We used a conceptual framework, derived from socio-cultural learning theory, to help us identify and understand central office administrators' practices in the PPLCs. Our data sources primarily included direct observations of 105 hours of PPLC meetings, supplemented with 46 semi-structured interviews and reviews of more than 150 documents.*

Findings: *We found that the central office administrators varied in how they participated in the PPLC meetings, particularly in terms of the extent to which they engaged in the teaching practices identified in our conceptual framework. The central office administrators who most frequently engaged in those practices were also the central office administrators we associated*

with such positive results as their principals' engagement in progressively more challenging instructional leadership activities during PPLC meetings, and principals' detailed reports of the value of the PPLC meetings to their development as instructional leaders. Key mediators of central office administrators' participation in the meetings include their executive-level positions, other central office staff and principal demands, the availability of professional development, and their own orientations to the work.

Conclusions: *Our findings suggest that central office administrators are able to buck institutional trends and productively lead PPLCs provided (1) they come to the work with a teaching rather than directive or managerial orientation, and (2) central offices intentionally create other conditions to foster their success. Future research should aim to further understanding of principal learning in PPLCs and how central office and other leaders can productively facilitate the process.*

District central office administrators across the country are increasingly working to shift their traditional roles from a primary focus on regulatory and business functions toward supporting teaching and learning improvement district-wide (Hightower, Knapp, Marsh, & McLaughlin, 2002; Honig, Copland, Rainey, Lorton, & Newton, 2010). As part of these efforts, some central offices have begun to convene principals in groups called “networks” or “principal professional learning communities” (PPLCs) to strengthen principals’ instructional leadership with the longer-term goal of enhancing the quality of classroom teaching and, ultimately, student learning. Rather than contract out for the leadership of such PPLCs or delegate that responsibility to the staff of a professional development unit, districts have designated executive-level central office administrators as main PPLC facilitators. In those roles, central office staff are charged with running their PPLCs in ways that help principals learn to incorporate instructional leadership into their own practice, rather than, for example, delivering information about district policies regarding the principalship or occasional workshops and otherwise playing hands-off roles in principals’ learning process. In some systems, the leadership of the PPLCs is explicitly framed as a teaching function, with district leaders calling on central office staff facilitating the PPLCs to teach principals in PPLCs how to strengthen their instructional leadership practice.

Though experience with PPLCs is still limited, such communities seem to be important arenas for improving principals’ leadership practice (Barnes, Camburn, Sanders, & Sebastian, 2010; Hubbard, Mehan, & Stein, 2006; Marsh et al., 2005). However, research and experience also raise serious doubts about the ability of central office staff to lead PPLCs in ways that support principal learning (Hubbard et al., 2006). Central office administrators appear in the few available studies of PPLCs in

hands-off roles, carving out time for PPLC meetings and mandating that principals participate. But those roles are a far cry from the efforts of some executive-level central office administrators to convene, facilitate, and “teach” in PPLCs. To what extent are the central office administrators who run PPLCs actually doing so in ways consistent with the goal of supporting principals’ learning to strengthen their instructional leadership? What conditions help or hinder them in that process?

We explored those questions with an embedded, qualitative case study of six PPLCs convened by central office administrators in one urban district. This district provided a strategic site for this inquiry because it made a significant investment in PPLCs focused on strengthening principal instructional leadership. The district charged a cadre of executive-level central office administrators with developing and running the PPLCs with an explicit focus on helping principals learn how to strengthen their instructional leadership practice. Our data sources included observations of 25 PPLC meetings, or approximately 85% of all meetings during our nine-month data collection period in this district (totaling 105 hours of observations), as well as 64 interviews with 46 respondents and reviews of more than 150 documents. We derived our conceptual framework for data collection and analysis from socio-cultural learning theory, which identifies specific practices within social groups that help deepen participants’ engagement in challenging work.

We found that socio-cultural learning theory helped capture specific practices of central office administrators within PPLCs that we associated with support for principals’ development as instructional leaders. We elaborate on those practices and main counterexamples and explore possible explanations for why principals in some central office administrators’ PPLCs were more engaged in the meetings and more likely to engage in progressively more challenging instructional leadership practices during meetings, and to report that the meetings supported their growth as instructional leaders. Overall, this study suggests the importance of PPLCs as vehicles for principal learning and the promise of central office administrators as PPLC conveners, provided that they are supported in facilitating such meetings from a teaching, rather than a directive or evaluative, stance.

BACKGROUND

Efforts by school district central office administrators to seed and support PPLCs reflect several developments in the practice and research of educational improvement and change. These developments suggest the promise of PPLCs for strengthening teaching and learning at scale, but

also raise questions about the extent to which central office staff have the capacity to design and productively run such communities.

First, the call for PPLCs reflects a growing consensus in research and among practitioners, especially over the last 10 years, that the work of the principalship should include instructional leadership. Variouslly defined, instructional leadership generally involves principals continuously supporting teachers in improving the quality of their classroom teaching, for example, by examining evidence of their practice and providing or marshaling supports to help them strengthen their teaching practice (Blase & Blase, 1999; Davis, Darling-Hammond, LaPointe, & Meyerson, 2005; Heck, 1992; Leithwood, Louis, Anderson, & Wahlstrom, 2004; Marsh et al., 2005; Waters, Marzano, & McNulty, 2003). For instance, Davis, Darling-Hammond, LaPointe, and Meyerson suggest that instructional leadership demands that principals support high-quality teaching in all classrooms, manage their school's curriculum in ways that support student learning, and ensure that the school organization "fosters powerful teaching and learning for all students" (2005, p. 5).

Second, more recent research in this area has turned to the question of how to help principals develop as instructional leaders. This sub-strand of the research suggests that strengthening principals' instructional leadership practice involves supporting principals' ongoing efforts to engage in such leadership (City, Elmore, Fiarman, & Teitle, 2009; Darling-Hammond, LaPointe, Meyerson, Orr, & Cohen, 2007; Fink & Resnick, 2001; Peterson, 2002). This learning focus contrasts with approaches that involve mainly monitoring principals' engagement in such work or delivering information to principals about what such work entails (Darling-Hammond et al., 2007; Davis et al., 2005; Fink & Resnick, 2001; Leithwood et al., 2004; Mangin, 2007; Peterson, 2002). Early research in this vein called generally for a learning approach that helps principals develop as instructional leaders. More recent work argues more specifically for professional development that involves embedding supports for principal growth as instructional leaders into principals' regular work-day and authentic work settings rather than, for example, pulling principals out of their schools to receive professional development (City et al., 2009; Darling-Hammond et al., 2007; Gallucci & Swanson, 2008).

While the research in this area is only emerging, PPLCs, sometimes called "networks," may be one promising strategy for helping principals learn how to engage in instructional leadership (Barnes, Camburn, Sanders, & Sebastian, 2010; City et al., 2009; Fink & Resnick, 2001; Hubbard et al., 2006). For example, Fink and Resnick (2001) associated improvements in principals' instructional leadership in New York City's Community School District #2 in part with small, ongoing principal

study groups. Using time logs and interviews, Barnes and colleagues (2010) found that such meetings led to some refinements of principals' engagement in instructional leadership.

PPLC facilitators seem to play particularly consequential roles in creating meetings supportive of principal learning (City et al., 2009). For example, Barnes and colleagues (2010) found that when facilitators created opportunities for principals to "*actively* engage with peers" in meetings, many principals developed a deep understanding of sometimes abstract instructional leadership concepts and devised strategies for integrating the concepts into their daily work (Barnes et al., 2010, p. 255). Marsh and colleagues (2005) argued that facilitators helped strengthen principals' instructional leadership when they supplemented theoretical concepts about instructional leadership with practical tools that helped principals engage in instructional leadership practices. However, we found few other discussions of what facilitators do when they support learning in PPLCs.

Likewise, we found little empirical evidence about how central office administrators lead PPLCs in ways that contribute to principal learning. The few studies that address central office facilitators present central office staff in limited, hands-off roles such as contracting with an outside provider for facilitation (e.g., Marsh et al., 2005) or establishing policies requiring the setting aside of time and other resources for PPLC meetings (e.g., Mishook, McAlister, & Edge, 2011). In one study of central office facilitators, researchers found that those staff lacked expertise in the curriculum they aimed to help principals use and, in PPLC meetings, they sometimes offered incomplete explanations of the material and otherwise did not ably facilitate principal learning (Hubbard et al., 2006).

These results are hardly surprising given that such PPLC facilitation roles represent nontraditional work for central office administrators and for central offices as institutions. Only in approximately the last 15 years have school district central offices assumed major leadership roles in teaching and learning improvement (Honig et al., 2010). Perhaps not surprisingly, researchers typically find central office staff struggling to work in ways that relate and matter to such results. For instance, in the early 1990s, central office administrators in San Diego aimed to help principals develop their instructional leadership capacity but generally failed to shift their own practice in ways that supported those outcomes (Hubbard et al., 2006).

Similarly, given the significant change that facilitating PPLCs involves for central office staff, they may tend to participate in such groups superficially (Grossman, Smagorinsky, & Valencia, 1999). For instance, central office staff might convene principals in groups and call them PPLCs, but

actually run them in ways that focus more on the delivery of information rather than principal learning. Such findings are consistent with central office participation in various other school improvement strategies of earlier reform periods. For example, studies of so-called “effective schools” (Purkey & Smith, 1985), teacher PLCs (McLaughlin & Talbert, 2001), and comprehensive school reform designs (Berends, Bodilly, & Kirby, 2002), among others, revealed in part how such reform efforts plateaued, lumbered, or outright failed absent central office administrators’ productive participation in implementation.

In sum, our literature reviews suggested the importance of helping principals develop as instructional leaders and that PPLCs may be an especially promising approach for realizing such results. Furthermore, central office staff could play vitally important roles as PPLC facilitators, but researchers have barely shined a light on what central office staff do when they try. The history of central offices suggests that when central office administrators engage in such work they are likely to struggle to realize results in terms of supporting principal learning. But do they in practice? Specifically, what do central office administrators charged with facilitating PPLCs to foster principal development as instructional leaders do when their work is consistent with such results? What conditions help or hinder them in the process?

Given the nascent stage of research in this area and the limitations of any one research study, we did not aim to associate changes in principals’ instructional leadership with improved student outcomes. Rather, our study started from the research-based premise, discussed above, that principal instructional leadership under certain conditions strengthens teaching practice and thereby may improve student learning. Presuming the value of principals’ engaging in instructional leadership, we asked: To what extent do central office staff facilitate PPLCs in ways that help principals grow as instructional leaders? Better specification of how the participation of central office staff matters to the interim outcome of strengthening principal instructional leadership could inform studies of how leadership by central office staff and principals might work in concert to realize the ultimate outcome of improving student learning.

CONCEPTUAL FRAMEWORK

We turned to ideas about “communities of practice” from socio-cultural learning theory as a conceptual grounding for our empirical investigation of these issues (e.g., Lave, 1998; Lave & Wenger, 1991; Rogoff, Baker-Sennett, Lacas, & Goldsmith, 1995; Wenger, 1998). Because these ideas are derived from research across institutional settings and

commonly used to understand professional learning in education (at least among teachers), we hypothesized that they would also help us see and understand features of PPLCs important to participants' learning in those groups (Grossman, Wineburg, & Woolworth, 2001; Little, 1990, 2003; McLaughlin & Talbert, 2001; Supovitz, 2002). Other conceptions of PLCs offer broad sets of prescriptive activities in which productive PLCs engage, such as maintaining a "focus on results" (DuFour, 2004). In contrast, the literature on communities of practice penetrates to the level of *practices* within communities that support participants' learning and, therefore, seemed particularly appropriate given our focus on what central office facilitators do in such communities that may matter to principal learning. This research base also focuses on communities that foster participants' ability *to participate* in new work practices as opposed to, for example, simply gaining new knowledge. Such an emphasis reflected the charge of some PPLCs to help grow not simply principals' knowledge of instructional leadership, but also their ability to engage in it.

Socio-cultural learning theory views learning as a process of shifting learners' engagement in social groups from novice to expert participation, a transition sometimes called "legitimizing peripheral participation" (Lave & Wenger, 1991). In the present case, principals move from other conceptions of the principalship or superficial engagement in instructional leadership practices to deeper participation. Learners engage in progressively deeper forms of work when they have opportunities to practice such engagement in real settings (Wenger, 1998).

Particular forms of assistance within communities help learners make this shift. We used these features to help us identify the extent to which the central office conveners of PPLCs were creating conditions at least theoretically conducive to principal learning instead of attempting to connect the PPLCs to changes in principals' actual instructional leadership practice or to changes in student achievement.

FOCUS ON JOINT WORK¹

Facilitators of communities of practice (such as central office administrators) help deepen participants' engagement in particular work practices (such as principals' engagement in instructional leadership) when they focus the group, over time, on "joint work," a "joint enterprise," or specific common activities of value to community members (J. S. Brown, Collins, & Duguid, 1989; Rogoff et al., 1995; Smagorinsky, Cook, & Johnston, 2003; Wenger, 1998). Focusing a community on joint work involves intentionally helping learners come to embrace the work as a common endeavor of the community and to see the value of the activities. In so doing, facilitators

help sustain learners' engagement in those activities in ways essential to their learning, since learners are more likely to participate in challenging activities if they see doing so as a collective responsibility that they value. As the work becomes collective, a culture emerges within the group including social norms that reinforce the importance of community members' engaging in the work. When they take a joint work approach, facilitators work alongside learners and view learners' practice improvements as truly *joint* work—as their own, as well as the learners', responsibility.

MODEL

Facilitators of PLCs help deepen participants' engagement in particular work practices by modeling or demonstrating those practices rather than, for example, just talking about them or directing people to participate in them (A. Brown & Campione, 1994; Tharp & Gallimore, 1991). By observing models in action, learners may develop “a conceptual model of the target task prior to attempting to execute it” (Collins, Brown, & Holum, 2003, p. 2) and “an interpretive structure for making sense of the feedback, hints, and connections from the master” (J. S. Brown et al., 1989)—both of which help a learner engage in new activities deeply and with progressively more independence. As part of their demonstrations of practice, particularly powerful models *employ metacognitive strategies* of bringing “thinking to the surface” and of making thinking “visible” (Collins et al., 2003, p. 3; see also Lee & Smith, 1995), such as calling learners' attention to the practices they are demonstrating and their rationale for those practices. Such strategies help learners deepen their sense of why they should engage in particular activities, essential to their ability to develop expertise in those areas.

DEVELOP AND USE TOOLS

Learning community leaders develop and use materials to facilitate participants' learning. Such materials, sometimes called “tools,” represent or “reify” new ideas learners are trying to integrate into their practice (Wenger, 1998). Tools focus learning by specifying “acceptable conduct,” thereby communicating what individuals should and should not do. They also operate as jumping-off points for individuals to define new conceptions of acceptable conduct. As such, tools “trigger” negotiations among community members about which actions might contribute to particular goals rather than prescribe action (J. S. Brown et al., 1989; Smagorinsky et al., 2003). For example, classroom observation protocols in some districts engage principals and teachers in learning how to collect evidence of teaching practice and understand the extent to which it reflects their district's definition of high-quality teaching.

ENGAGEMENT IN TALK THAT CHALLENGES PRACTICE

Certain kinds of talk, sometimes called “challenging conversations,” enable learning in communities (Horn & Little, 2010) and facilitators play key roles in fostering such dialog. Through such talk, individuals grapple with the meaning of new information (such as information about new practices being modeled and captured in tools) and how to integrate it into their own actions and thinking—processes essential to changes in people’s actual work practices. When participants challenge each others’ understandings of situations and offer competing theories about underlying problems and potential solutions, they increase the individual and collective knowledge they bring to bear on situations (Holland, Lachicotte, Skinner, & Cain, 2008; Lave & Wenger, 1991; Wenger, 1998).

CREATE OPPORTUNITIES FOR ALL MEMBERS TO CONTRIBUTE TO LEARNING IN THE COMMUNITY

Facilitators also enable learning in communities when they recognize each community member as important and valuable to the learning of others (Lave & Wenger, 1991; Wenger, 1998) and help community members learn from each other. Facilitators underscore that all community members are learners on a trajectory toward becoming more expert in particular work practices. In so doing, they do not operate with a fixed definition of “expertise” as an individual trait or an ability that a learner has across tasks. Rather, they view expertise as always in-development and variable by task. As an example of the latter, such facilitators would distinguish that one principal might be expert at understanding data on teacher quality but still novice at using those data to have challenging conversations with individual teachers about the implications of the data for their practice. Through such strategies, facilitators help community members adopt and eventually enact the identities of people progressively more expert in particular practices (Holland et al., 1998).

BROKER

Facilitators strengthen learning in communities by operating as brokers or boundary spanners. As such, they engage in bridging activities—bringing new ideas, understandings, and other resources into the community that might advance participants’ learning. They also buffer communities from potentially unproductive external interference (Wenger, 1998). Thus, facilitators increase and protect the resources available to support professional learning in communities.

METHODS

We used these concepts to anchor an embedded, comparative case study of the implementation of six central office-facilitated learning communities for school principals in one mid-sized urban district involving almost 80% of the district's more than 100 principals. We conducted this case study as part of a broader cross-district study of institutional change in central offices (Honig, Copland, Lorton, Newton, & Rainey, 2010). All principals participated in one of the district's PPLCs, which increased the chances we would have access to contrasting cases of central office administrator facilitation, principal PPLC participation, and general PPLC implementation.

SAMPLING

This district provided a strategic site for our inquiry (Merton, 1987). First, in this district a cadre of central office staff, whom we call "instructional leadership directors" (ILDs), had been formally charged with convening PPLCs focused on strengthening principals' instructional leadership (as opposed to, for example, delivering curricular information or other professional development or technical assistance). Second, the district had made principal instructional leadership a cornerstone of its instructional improvement efforts, with central office administrators' work with principals one-on-one² and in PLCs as main supports for principal development. As partial evidence of the centrality of such support to the district's improvement agenda, the ILDs were executive-level central office staff who reported directly to the superintendent's cabinet. Accordingly, selection of this district suggested we might not run into the familiar roadblocks to ambitious reform efforts such as PPLCs; namely, the absence of a formal charge for staff to engage in the work or the limited centrality of the reform or political support for it.

We invited all eight of the ILDs to participate in this study, and six agreed. These ILDs represented two of the district's four elementary PPLCs and both the district's middle and high school PPLCs—capturing the breadth of the district in terms of grade distribution. The ILDs for the participating PPLCs did not differ from the whole ILD population in terms of tenure in the district or overall length of experience in education. All ILDs had been school principals.

DATA COLLECTION

Our data for this analysis came mainly from intensive observations of 85% of all the meetings of the participating PPLCs conducted between November 2007 and June 2008. In total, we observed for 105 hours

spread across 25 meetings. These 25 meetings afforded us the opportunity to observe the ILDs facilitating 35 PPLC gatherings since 10 of the meetings were joint meetings between two PPLCs.

We primarily relied on firsthand observation data for this analysis because we were concerned that self-report data could be unreliable evidence of work practices, particularly given that respondents tend to overstate their use of desired practices and may be unaware when they engage in counter-practices (Barley, 1990; Patton, 2002).

During each PPLC meeting observation, either one or two study team members typed verbatim transcripts of formal discussions in large and small groups as well as side conversations and other informal exchanges that occurred during the meeting. Team members also wrote low-inference descriptions of dynamics they observed among meeting participants. When simultaneous observation opportunities arose (e.g., during small group discussions), the note-takers joined the same group as the central office facilitator. Verbatim notes, by their nature, focus on language and communication patterns as “sensitizing concepts” but are generally low-inference data (Patton, 2002). We opted for this form of observation protocol over field notes using higher-inference constructs from our conceptual framework (e.g., “metacognition” or “joint work”) because we did not want to risk missing data that fell outside those constructs or that might be related to those constructs but hard to see in the moment.

Immediately following each observation, the note-takers cleaned observation notes and incorporated documents and other handouts distributed at the PPLC meeting into the observation notes to create a single data source for each meeting. Over the course of the study, we collected more than 150 documents the ILDs used in their meetings. These documents included protocols for observing classroom instruction, small-group conversation guides, and charts and frameworks for data analysis. We paid special attention to any documents that at the time of data collection appeared to meeting observers to fit the definition of a “tool” per our conceptual framework.

Very shortly after the initial note-cleansing process, a study team member who was not observing PPLC meetings reviewed all observation notes for errors and to ask for any clarifications to be added parenthetically to the meeting notes to help with subsequent analyses. This reviewer also provided feedback to note-takers to improve the quality and inter-observer reliability of subsequent observations. To further ensure inter-observer reliability, note-takers observed and cleaned notes in pairs.

We supplemented these observations and document reviews with semi-structured interviews. Five of the six ILDs in our study participated in three semi-structured interviews that ranged from 60-90 minutes and

one ILD participated in two interviews. We conducted interviews over time, with approximately three to four months between them. Our questions for these interviews tapped how ILDs understood their charge to convene principal PPLCs, their goals for their PPLC meetings, how they aimed to work with principals in the PPLC, self-reports of their actual participation, and conditions the ILDs believed mediated their work in the PPLC meetings. Appendix A includes examples of questions from our interview protocols. As noted above, given the limitations of interview data as a source of evidence about professional practice (Barley, 1990), we treated these data as supplemental to our direct observations. In interviews we also pressed respondents to move beyond simple claims about ILDs' work to provide concrete examples to substantiate the nature and scope of their claims.

We conducted interviews with 16 principals, distributed across the participating PPLCs. To capture a range of principal experiences in the PPLCs, we developed our principal sample by selecting one or two principals each ILD identified in interviews as principals they work with most closely, and one or two principals each ILD identified as working with least frequently. The principal interviews lasted 35-100 minutes and covered their reports of how their ILDs participated in the meetings, their own participation in the meetings, how (if at all) the meetings influenced their development as instructional leaders, and conditions that mediated their participation and their development. Appendix B includes examples of questions we used in our principal protocol.

We also drew on data from interviews with 31 other central office staff members and the staff of an intermediary organization that worked with the ILDs in this district to help them strengthen the quality of their work with school principals. The interview data for this analysis related to their perceptions of the ILDs' work in their PPLCs, based either on what they had heard from others or, in most cases, their attendance at one or more PPLC meetings, either as participants or observers.

DATA ANALYSIS

We coded our data using NVivo8 software in several phases. First, we marked all data by type of data source and date to help us triangulate our findings and track developments over time. Our main analytic work in this phase involved coding data using a set of relatively low-inference codes derived in part from our conceptual framework to segregate data related to: ILDs' plans for their PPLCs, their actual participation in those meetings, principal participation in the meetings, outcomes related to the PPLC, and conditions that seemed to mediate how central office staff

and principals participated in the PPLC. We used the following codes as the broad categories for our first round of coding: respondent background, dimensions of the policy design to create PPLCs, ILD participation in PPLCs, principal participation in PPLCs, outcomes related to principals participating in the PPLCs, and conditions that helped or hindered ILDs' facilitation of the PPLCs in the ways the policies designed.

Second, we went back into our data, this time through the codes used in the first phase, and used a set of higher-inference codes particularly related to ILDs' participation in the meeting. Some of these codes came from our conceptual framework. Those codes included: joint work, modeling (action, talk, thinking, metacognition), developing and using tools (data, guides for teaching and learning, learning walks, inquiry), and brokering (bridging, buffering, distributing information, translating). We developed other codes inductively when certain activities did not fit the categories from our conceptual framework, such as: compliance with district policy/mandates, assistance with operations in support of instructional leadership, assistance with operations not in support of instructional leadership, and differentiation.

During this second phase, we also inductively coded data about "PPLC outcomes." Per the research grounding summarized in the background section above, we focused on intermediate outcomes, or what some call "leading indicators" of school improvement—measures that indicate progress toward a longer-term goal (Foley et al., 2010). Our indicators included: researchers' observations of principal engagement in meeting activities over time; researchers' observations of principal engagement in progressively challenging instructional leadership activities during network meetings; central office staff reports of the network meetings as supports for principal learning; and principal reports of the value of the network meetings. We did not measure changes in principals' overall development as instructional leaders. Validated growth measures of such leadership changes were not available in the field at the time of our study nor, as we discuss below, in our focal district, which was relying on a general conception of principal instructional leadership. Developing such measures fell beyond the scope of our project. We discuss this limitation of our analysis in the concluding section as an important direction for future research.

In the third phase of coding, we collapsed redundant categories and eliminated categories we could not substantiate with at least three different data sources (either a combination of interviews, observations, and documents, or self-reports from at least three different respondents). See Appendix C for an example of how we coded observation data over these multiple rounds. During this third phase, we created multiple matrices to

link our outcome data with ILD practices and other conditions to discern patterns, and clarified the scope of our main claims, which we summarize at the start of the next section.

FINDINGS

We found that all ILDs convened their principals approximately twice monthly with the consistent, explicit goal to use their PPLC meetings to help principals build their capacity for instructional leadership. However, the ILDs varied in how they participated in these meetings, particularly in terms of the extent to which they reflected the teaching practices identified in our conceptual framework. The ILDs who most frequently engaged in those practices were also those we associated with positive results along our main indicators; those who inconsistently or infrequently engaged in those practices were those we associated with negative results. The ILDs' participation in the PPLC meetings appeared to be mediated by various factors including other central office staff and school principals and ILDs' own orientations to their work. While our methods do not allow us to identify a causal relationship between the practices of ILDs and the positive reports and observations, as noted above, the clear pattern in our data lends support for an association between the practices and the positive results. We summarize these findings below.

THE STRUCTURE AND INTENDED FOCUS OF THE PRINCIPAL NETWORKS

Central office leaders required all principals to participate in one of 8 PPLCs comprised of 9-18 principals. Principals were assigned to PPLCs based on grade level, resulting in four elementary, two middle, and two high school PPLCs. The elementary school PPLCs in our study had 15 and 18 schools while the middle school PPLC included 10 and 9 and the high school PPLCs involved 11 and 13. Each PPLC included a mix of higher-income, higher-performing schools and lower-income, lower-performing schools. Calendar and agenda reviews and our observations of most of these meetings confirmed that the meetings occurred approximately twice each month. At times, two of the elementary PPLCs, two of the middle school PPLCs, and one middle school and high school PPLC met together. Principal attendance at all the meetings we observed was high, with most principals attending all meetings and a handful of principals occasionally missing from each meeting for such reported reasons as attending conferences or illness.

Central office leaders charged the ILDs with convening these PPLCs explicitly to help principals strengthen their ability to lead for improved instruction as part of a broader strategy to improve teaching and learning

in all schools (Honig et al., 2010). According to a district-wide professional development plan, written by senior central office administrators, the district

invested heavily in creating small networks of schools, in which principals participate every two weeks in professional development activities led by [ILDs]. . . . These activities are grounded in a cycle of inquiry, with principals analyzing data from their schools, learning about effective instructional practices, and working with their peers to develop strategies for accelerating student achievement. . . . The [PPLC] meetings are designed to develop individual principals' capacity as well as the capacity of the group of principals as their own professional learning community.

Central office leaders similarly described the focus of the PPLCs. As one reported,

within their group of schools, they [ILDs] bring the principals together twice a month at least. They create a professional learning community where the schools are actually networking with each other. And they're [principals are] in each other's schools, observing each other's practice, giving each other feedback, engaging in professional development together and they sort of self identify as a subgroup of schools within the broader district. And over time that is supposed to be a leveraging strategy to raise student achievement.

All the ILDs reported in interviews that they in fact aimed to use their PPLC meetings to focus on strengthening principals' ability to lead for improved classroom instruction, often using the term "instructional leadership" as the label for that focus. When asked to elaborate on their definition of instructional leadership, the ILDs offered fairly general descriptions. For instance, one ILD described his/her goals for the PPLC meetings as helping principals adopt an "instructional focus, which includes teaching practices, leadership practices, and organizational practices." Another ILD described instructional leadership as working intensively with teachers to improve the quality of instruction, but that, given the newness of such work for some principals, they mainly focused on increasing the time principals spent out of their offices and in classrooms looking at the quality of instruction.

The ILDs all also reported that they explicitly aimed to keep their meetings focused on instructional leadership and to actively limit the time they spent on compliance or the delivery of information to principals.

One ILD elaborated that prior to the creation of the ILD positions, principal meetings had largely focused on compliance, but now,

For the compliance stuff, I put 90+% of those expectations in writing. At the end of all my [PPLC] meeting agendas I have 'Here are upcoming key dates—pay attention—here are some really important reminders,' and I don't spend any time [on them]. I just in the beginning said [to my principals] "Don't make my conversation be about compliance or operational stuff. Take care of this stuff."

All principals reported that at least one intended purpose of the PPLC meetings was, as one principal put it, "to help us become better instructional leaders" and "to think about teaching and learning together." Another reported, "I think the whole idea is for there to be a common understanding of what our purpose is as principals, what our role and responsibility is as far as instructional leadership." Several principals also noted that they believed the PPLCs were intended to keep them up to date on, in one principal's words, "what is happening in the district," and, according to another, to "distribute information."

DIFFERENCES IN OUTCOMES

While all the ILDs intended that their PPLC meetings would strengthen principals' instructional leadership, in practice, the PPLCs varied in the extent to which we associated them with positive results along the following indicators related to that overall outcome: principals' engagement in their PPLC meetings over time, principals' participation in progressively challenging instructional leadership activities during PPLC meetings, and principals' reports of the value of the PPLC meetings in that regard. Two PPLCs were consistently high on all counts and two PPLCs were consistently low, while the results for the other two were mixed. Similarly, the PPLCs varied in how the ILDs participated in the meetings, specifically in the extent to which we observed the ILDs engage in the practices consistent with our conceptual framework. We summarize these results in Table 1.

First, we observed strikingly different levels of principal engagement in the activities of PPLC meetings, especially over the course of the year. In the high-engagement PPLCs, principals consistently came to the meetings prepared with the requested materials. For instance, to prepare for one meeting an ILD had asked that principals bring a poster outlining their school-wide goals for the year, the leadership actions they took to meet those goals, the progress they made in achieving those goals, and

Table 1. Variations in PPLC Outcomes and ILD Engagement in PPLCs

Outcomes				ILD engagement in PPLCs
PPLC	Researcher observations of principals' engagement in meeting activities over time	Researcher observations of principal engagement in challenging instructional leadership activities in meetings over time	Principal reports of value of the PPLC meetings	ILD engagement in practices consistent with conceptual framework (See Table 2)
1	High	Progressively challenging	Mixed	Consistent
2	High	Progressively challenging	High	Consistent
3	High	Regressively challenging	Mixed	Occasional
4	High	Regressively challenging	Mixed	Occasional
5	Low, decreasing over time	Regressively challenging	Low	Rare/Inconsistent
6	Low, decreasing over time	Regressively challenging	Low	Rare/Inconsistent

evidence supporting their claims that they had made that progress. At this meeting all but two principals attended with a completed poster, and those who did not quickly created one using other materials they had brought to the meeting. Similarly, principals rarely departed early from these meetings, and our observations of small group discussions among principals suggested that the principals consistently engaged in the focal meeting tasks.

By contrast, we observed consistently low principal engagement in two of the PPLCs. In a joint meeting of these two PPLCs, only 3 out of 18 participating principals and their leadership teams brought the requisite “homework” on their schools’ instructional focus and related performance goals, even though their ILD had informed them that a significant portion of that PPLC meeting would be organized around those materials. The two ILDs running this meeting ended up abandoning most of their agenda and dedicating the majority of the meeting time to principals’ completion of the materials. At another meeting of these PPLCs, several principals and leadership team members wondered aloud in small groups of colleagues about the value of the meeting tasks. For instance, one principal said, “You guys, this is really a joke” and sparked a prolonged conversation in the small group about matters unrelated to

the target task of working to develop a professional development plan for the next school year. At another of these meetings over 25% of the attendees left a full hour early.

Our observations over the course of the year suggest that in two of the PPLCs, ILDs assisted the principals as they engaged in progressively demanding instructional leadership activities during the meetings. For instance, at one PPLC meeting early in the year, principals used a single data point, mid-year school progress reports, to reflect on how they might improve their leadership to advance their school-wide goals. Other principals responded to the reflections mostly with clarifying questions. By contrast, at a meeting later in the year, the ILD led principals through an activity that asked them: (1) to array multiple data sources to provide an evidence-based rationale for their school-wide goals, (2) to present multiple forms of evidence of their leadership in support of those goals, and (3) to make evidence-based claims about their schools' progress toward those goals. During the meeting, the ILD guided the principals in asking each other probing questions to challenge the validity of their claims and help them see areas to further deepen their thinking about how their leadership matters to teaching quality and student learning.

By contrast, principals in the other PPLCs did not engage in progressively challenging activities over time; in fact, we found that the activities in those PPLCs became less challenging over time, referred to in Table 1 as "regressively challenging." For example, in two PPLCs, we observed large sections of meetings late in the school year devoted to paperwork related to budgeting and other compliance matters.

Principals also varied in their reports of the value of the PPLCs in helping them develop as instructional leaders. In one PPLC, all principals interviewed reported the meetings were beneficial, and in two PPLCs, all principals reported the meetings were not beneficial. To illustrate the negative reports, one principal described the meetings plainly as "not effective" in getting principals to "calibrate their thinking about high-quality teaching and learning." According to another principal, "I'm not a sit-and-get person and it [the PPLC meeting] seems more like sit and get. So every time that I come here . . . it's drudgery. . . . It should not be that I dread it." In another typical comment, a principal reported that the meetings were "really extremely frustrating because we could be doing a lot of good work focused on our goals and analyzing the data that we have collected and determining what our next steps are. So, in theory, I think it's a great idea. In practice, it's been terribly frustrating."

Principals from the remaining three PPLCs were mixed in their reports of the meetings' usefulness. Some of these principals reported that they found their PPLC meetings important supports for their development

as instructional leaders. For example, one principal reported that the meetings

are very much like a professional learning community. We get input around different pedagogical issues. Different administrative issues. We talk about them. We look at our data. . . . So, a big part of what we do in those meetings are around school improvement.

Other principals reported that they appreciated having a forum to talk and share ideas and knowledge with other principals, but that the meetings could have been far more relevant and otherwise useful to them in their efforts to improve instruction. As one principal reported, “A continual gripe for me is that there is a whole lot of stuff that doesn’t pertain to me and I have to sit through meetings and listen to it.” A principal from a large school reported, “Most of the walk-throughs were with small schools and so I didn’t need to do that month after month.”

VARIATIONS IN ILDS’ PARTICIPATION

The PPLCs also varied in terms of how the ILDs participated in the meetings, as we summarize in the last column of Table 1 and elaborate in Table 2 and in the following subsections. While no one ILD’s participation was completely consistent with the practices in our conceptual framework, the ILDs whose PPLCs we associated primarily with positive outcomes far more frequently engaged in those practices than the other ILDs. Specifically, in two PPLCs, we observed the ILD consistently engage in the practices identified in our conceptual framework; in two PPLCs, we observed the ILDs occasionally engage in the practices; and in the remaining two PPLCs, we rarely observed the ILDs engage in the practices, or we observed them engage in practices that ran counter to those identified in our conceptual framework. As we qualified earlier, we cannot claim that these practices caused the differences in outcomes. However, the starkness of the contrast supports that conclusion.

Focusing on Principals’ Instructional Leadership as Joint Work

Consistent with our conceptual framework, our indicators of ILDs focusing on principals’ instructional leadership as joint work included: (1) the extent to which the ILDs focused their actual meeting activities on building principals’ instructional leadership capacity, and (2) intentional moves ILDs made during meetings to help principals understand and value instructional leadership as something they worked on together—as a group of principals and also in partnership with their ILD.

Table 2. Variations in ILD Practices in PPLCs

		Consistent	Negligible/Inconsistent
Practices	Focusing on principals' instructional leadership as joint work	• Focused meeting activities on increasing principals' instructional leadership capacity • Intentionally worked to help principals understand and value instructional leadership as something they worked on as a group of principals and in partnership with their ILD	• Focused meeting activities on increasing principals' instructional leadership capacity • ILD played relatively minor role in facilitating meetings; used outside consultants to facilitate several meetings
	Modeling	• Frequently modeled thinking and actions • Always or frequently used meta-cognitive strategies	• Seldom modeled actions • Seldom or never used meta-cognitive strategies • Missed opportunities to model by directing principals
	Developing and using tools	• Consistently used classroom observation protocols as main tools • Engaged principals in conversations that pushed their understanding of quality instruction and their leadership • Used data-based protocols to anchor challenging conversations about instructional leadership practices	• Did not consistently use classroom observations • Engaged principals in general discussions of classroom surface features • Used data-based protocols but did not generally engage principals in challenging conversations or used too many protocols
	Creating opportunities for principals to be learning resources	• Created opportunities for all principals to serve as learning resources • Distinguished principals by their instructional leadership practice around specific tasks • Emphasized that all principals are on a trajectory toward deepening their performance	• Created opportunities for some principals to serve as learning resources • Identified some principals as expert across tasks • Did not emphasize that all principals were on a trajectory toward deepening their performance
	Brokering	• Linked to various materials and resources to support principals' development as instructional leaders • Helped guests take a teaching rather than telling approach • Significantly limited outside guests and other resources not clearly relevant to principals' instructional leadership development	• Linked to various materials and resources to support principals' development as instructional leaders • Did not frequently or ever help guests take a teaching rather than a telling stance • Did not significantly limit outside guests, especially those not directly relevant to principals' instructional leadership development

We found that all the ILDs *focused the vast majority of their PPLC meetings over the course of the academic year on helping their principals learn to become stronger instructional leaders*. For example, one ILD conducted all of his

or her meetings at a rotating school site and dedicated approximately half of each meeting to a structured classroom observation focused on a strength of the host school and on areas where the host principal wanted targeted feedback. The ILD dedicated the second half to an instructional content area with an explicit emphasis on teaching principals how to lead for stronger instruction in that area, rather than, for example, a focus on delivering information about it or mainly honing in on teachers' roles in that context. During the last 15 minutes of the meeting the ILD typically reviewed the contents of folders in which he or she had put various announcements, information about deadlines, and other compliance matters.

In one such session, the host principal, whom the ILD had identified as having expertise in supporting teachers in improving their instruction for English language learners (ELLs), spent approximately 30 minutes framing the classroom observations. As part of the frame the principal highlighted specific teaching practices she considered high-leverage for ELLs and reviewed a classroom observation protocol she had developed with the assistance of the ILD to help her principal colleagues notice them during the observations. The principal asked her colleagues to practice looking for those teaching moves and also to collect evidence to provide her with feedback on particular areas of focus in her school improvement plan. The principals then spent 90 minutes observing classrooms, debriefing what they saw, and providing the principal with feedback.

During the next meeting segment, staff from the central office's curriculum and instruction unit engaged principals in a discussion that they framed as aiming to help principals understand the demographics and needs of ELL students across the district, the district's process for moving students out of ELL status, and high-leverage practices for working with ELL students, such as those they had begun to discuss during the earlier classroom observations. The central office staff did not simply deliver information, but rather engaged principals in various small- and large-group conversations about such issues as their beliefs about ELL students, ways they could support their teachers in improving instruction for ELL students, and feedback for central office staff on the kinds of services the central office could provide to schools in order to support such instruction. The ILD then spent approximately 15 minutes on announcements and a review of information provided to principals in folders, and adjourned the meeting.

Another example of the instructional leadership focus of these meetings comes from a PPLC that typically met in the central office headquarters. The ILD opened the meeting by asking principals and their leadership teams to post charts that represented their instructional goals and

the evidence they used to help them construct their goals. For instance, one team presented the goal, “100% of students will take an academic vocabulary assessment during English class two weeks before the end of each semester and score a minimum of 80% correct” and elaborated the data they used to arrive at that goal. Principals then circulated around the room, reading and writing comments on the postings related to the quality of the goals and supporting evidence. The school groups read through the comments together and looked for patterns and discussed implications. During the next segment, the whole group and individual school groups discussed qualities of effective professional development for teachers and then worked in teams to begin designing professional development with those qualities around the goals they had posted earlier in the meeting. The school groups then spent 30 minutes each sharing their professional development plans in pairs for feedback.

In the main deviation from this focus, the two networks whose ILDs somewhat consistently engaged in the practices in our conceptual framework held two spring meetings in a computer lab. During meeting time, principals worked with staff from the accountability and budget offices to complete end-of-year paperwork. These ILDs reported that they set these meeting agenda in response to some principals’ requests for more time and assistance with compliance matters. However, because neither the ILDs nor principals framed these meetings as being in service of principals’ instructional leadership, and because we could not make such connections ourselves, we considered these meetings to lack a focus on principals’ instructional leadership.

The ILDs we consistently associated with positive reports and other positive results were those who *regularly made moves during meetings to help principals understand and value instructional leadership as something they worked on together—as a group of principals and also in partnership with their ILD*. As one of these ILDs underscored in an interview, while they worked with their principals individually in their school buildings, the PLC meetings fostered collegial support and pressure that was important to their learning:

It’s a professional learning community model that you learn together and we help each other and we look at student learning results together and we try to improve our practice together and share best practices. . . . The principals definitely feel a little pressure. They want to show themselves well to their colleague. And they’re [the principals are] learning how to give feedback to each other, which helps them do it for their teachers.

The other ILD in this subgroup likewise expressed:

So the stuff we do in network meetings supports the work we do individually. When I'm at the site I may go with the principal to see their focus teacher, ask them what they're doing with their focus teacher. Then in our [PPLC] meetings they get in their critical friends group and they actually share feedback they've given to a focus teacher with their critical friends team to get feedback. They may share a success story they've had with the focus teacher, or in our last meeting on Thursday, the focus teacher was one way to look at the data to see if the impact of their leadership with that focus teacher actually impacted the student-level data.

These ILDs also reinforced the joint nature of the work by regularly signaling to their principals that instructional leadership was not just work for the principals that they were monitoring, as in more traditional supervisory relationships, but their own main work focus. For example, in a typical comment, one of these ILDs shared with principals at a meeting that just as the principals were working to increase the amount of time in classrooms, the ILDs were similarly actively resisting detractors that kept them from focusing their meeting on principals' development as instructional leaders. As this ILD explained to his or her principals, "I am carefully scrutinizing, what can I change in my work day to spend more time working with you?"

By contrast, the ILDs we associated with consistently negative results turned approximately half their meetings over to outside consultants and only lightly participated in those meetings themselves. For instance, during the consultant meetings, our observation notes show that the ILDs were frequently out of the room or sitting on the margins of the room and not with their principals. During the meetings they facilitated themselves these ILDs also played a relatively minor role. For example, during one such meeting, one of these ILDs briefly framed an activity related to working with school-wide data. Then he or she broke the principals into small groups and walked around the room listening to the small-group discussions. When principals asked the ILD questions, he or she was occasionally dismissive. For example, one principal asked the ILD about the accuracy of his or her math data. The ILD responded by telling principals the data were accurate and to just work with what they had. One principal asked if the PPLC could debrief the last meeting and the effectiveness of the outside facilitators. The ILD responded that they would do that some other time. The principal later reported that while the debrief did occur, the ILD focused the discussion on the principals' work in those meetings rather than critical feedback about the facilitators or the ILD.

MODELING

The ILDs whose PPLCs we most frequently associated with positive indicators often participated in their PPLC meetings by modeling particular actions as a strategy to help principals learn how to engage in instructional leadership. For example, during one PPLC meeting, school principals participated in classroom observations at a school site guided by a protocol that prompted them to enter classrooms and ask students what they were doing and why they were engaged in those activities as a strategy for collecting evidence regarding the extent to which teachers were teaching for conceptual understanding. During the actual classroom visits, none of the principals followed the protocol, but rather entered the classroom and stood on the perimeter. When the ILD arrived, he or she demonstrated how to enter the classroom by walking directly to a table of students and engaging the students in a discussion of their work that the protocol prompted. This ILD reported that he or she routinely had to demonstrate such practices, even when principals were prompted by protocols to engage in them, because seeing demonstrations was what ultimately helped principals truly understand what the protocol was asking them to do.

Also, for example, school principals in another PPLC in this subgroup typically reported that their ILD routinely modeled for them how to work with evidence to ground their decisions about instructional improvement. Consistent with their self-reports, we frequently observed the ILD lead classroom observations by engaging principals in a series of routine questions that they encouraged the principals to internalize and use themselves. The idea was to prompt them to back up their claims about teachers' practice with concrete observational and other data.

Two ILDs not only modeled actions, but also frequently used the metacognitive strategies of identifying and explaining the practices they were demonstrating. With their metacognitive strategies, these ILDs called their principals' attention to their specific moves in ways that, according to the research underlying our conceptual framework, increased the likelihood that their principals would notice their demonstrations and develop a deep understanding of the actions they were demonstrating.

For example, one ILD interrupted a presentation by a math coach to help his or her principals connect the presentation to their work in schools. He or she said,

I really want to highlight what [this math coach] is doing at the schools. She is doing walk-throughs with a very specific lens. She is focusing on what the teacher is trying to do, and how that looks in the classroom.

This ILD went on to highlight particular ways such a focus was highly relevant to the principals' own efforts to strengthen math instruction.

In another example, an ILD first explicitly explained to principals that in facilitating the PPLC meeting on that day, he or she was going to model quality instruction for them by demonstrating some specific teaching techniques. The ILD then demonstrated those techniques while facilitating the meeting and followed up the session by reviewing those techniques and elaborating why such techniques were part of quality instruction.

By contrast, other ILDs more often or typically engaged with principals by directing their practice. For instance, at one PPLC meeting, principals and teams of teachers from their schools engaged in an activity in which they displayed main elements of their school improvement plans, posted written comments on one another's work, and then reconvened as a school team to discuss the comments. During the discussion period, the two ILDs briefly engaged some small groups to instruct them about what changes to make in their plans. In one such instance, one of those ILDs instructed a team "to broaden the statement" about their instructional focus so that it applied to all teachers in their school, even though the school team had designed the statement to intentionally target particular teachers the principal saw as leverage points for overall school improvement. At another meeting, a small group of principals was grappling with the pros and cons of different approaches to improving instructional rigor at one school. The ILD walked by the group, overheard part of the discussion, and interrupted the debate with specific instructions that the principal should focus on using best practices to support reading comprehension.

Developing and Using Tools

All the ILDs in their PPLC meetings frequently used "tools," materials that engaged principals in ways of thinking and acting consistent with instructional leadership. Almost all of the ILDs developed "local tools"—materials designed for particular meetings generally for one-time use and to take advantage of specific opportunities as they presented themselves (Honig & Ikemoto, 2008). For instance, some ILDs shared copies or created written summaries of books or articles and led their principals through a series of questions to prompt their thinking about implications for their own practice. In another example, two ILDs developed a slideshow with ideas and images from their then-recent trip to another district that illustrated how principals there were leading for rigorous instruction in schools where students were majority African American. They then

used those materials to focus a conversation on how PPLC principals could lead in ways that address significant inequities in achievement between white students and students of color.

We observed three main differences in the ILDs' use of tools. First, the ILDs we associated with positive or mixed outcomes consistently used classroom observation protocols as main tools in their meetings while the ILDs in the other PPLCs did not. Classroom observation protocols may be used for various purposes such as monitoring and evaluation (Fink & Markholt, 2011), but these ILDs used them specifically to help principals sharpen their ability to observe classroom instruction and use evidence from the observations to help teachers strengthen the quality of their teaching.

In a typical example, one ILD organized a PPLC meeting by working with the host principal in advance to adapt a classroom observation protocol to prompt principals to collect evidence on the school's needs and strengths. Such work aimed to generate feedback for the host principal on her work with teachers, but also to help the visiting principals learn from the school's experience. At the start of the actual PPLC meeting, the host principal introduced the principals to the school by highlighting how the protocol emphasized particular opportunities and challenges the school faced in its instructional improvement efforts. The host principal asked PPLC members to

look for our learning targets and at the student interactions. We'd like your feedback on how you think that these are impacting learning. . . . Regarding our learning targets, the first step in this strategy is to make sure teachers are checking for understanding. When looking at student interactions, we want to know if students engage with each other to think more deeply.

The principals then divided into smaller groups and rotated through three to four classrooms each with principal observers documenting evidence related to the focal questions on the protocol about teaching for conceptual understanding and student engagement. The ILD subsequently led the principals in a conversation around the protocol prompts and implications for all the participating principals' work with their teachers.

Second, the ILDs who used classroom observation protocols varied in the quality of the conversations they facilitated while using those tools. The ILDs we consistently associated with positive results typically engaged their principals in conversations that pushed their understanding of the quality of instruction and their own leadership; those in the groups with mixed results engaged principals in more general discussions.

To elaborate, the ILDs in the former group debriefed their classroom observations by pressing principals to consider the quality of the evidence they collected in classrooms and the implications for their own practice. For instance, after one series of classroom observations, an ILD asked principals what they saw with regard to a protocol prompt related to student engagement. Principals initially responded with general comments about the classroom such as “there’s too much stuff on the board.” One principal said that they thought the objective of the lesson was unclear because they had asked some of the students what the objective was and they didn’t know. The ILD pressed further, asking principals to articulate more precisely how their comments provided evidence specifically related to student engagement.

The ILD then asked if principals saw any evidence related to particular grade-level standards. The principals all replied quickly that they did not. The ILD asked, “What’s your evidence?” and pressed the principals to “show me” and “convince me” that those teachers may not be teaching to standards. Several principals shared that they saw standards written on the board in one classroom. The ILD challenged the principals to share if they saw specific evidence that the standards on the board related to what the teacher was doing. The principals agreed that they did not see other evidence. Several principals pointed out specifically that when they asked students what they were working on they got different answers, with one group indicating that they didn’t know. The ILD asked whether or not those comments from students count as solid evidence of teachers teaching to grade-level standards. When no principals responded, the ILD asked them to turn and talk to each other in small groups and then return to the whole group prepared to share their consensus on that question.

Over the course of the academic year, we observed the principals in that PPLC move beyond discussion of superficial classroom features with progressively less prompting by their ILD. Principal reports confirmed our observations. For example, one described how the protocols and the challenging conversation with their ILDs helped them better scrutinize the quality of their evidence of classroom teaching and improved their ability to use that evidence to help teachers critically reflect on their practice.

By contrast, the other ILDs—both those who worked with a protocol and those who observed classrooms without one—prompted only minimal discussion, mainly about surface features of classrooms. For example, one of these ILDs asked principals to share “wows,” or positive comments, and “wonders,” or areas the principal may want to consider improving. Principals reported out on each in “popcorn” fashion, often

sharing one-word responses without the ILD or other principals questioning the basis for the principals' comments or asking principals to reconcile any possible inconsistencies among their comments. In one of these discussions, we recorded the following in our observation notes:

During the Wows, the principals offer different compliments, including, "Hopeful," "Nice vibe," "Paying attention," "No distractions," "Great celebration of student work," "The hallways look great." . . . Several comments from principals relate to how the teachers are, in the words of one, "really connecting with the kids."

The ILD did not follow up on these comments to ask the principals what evidence they saw to substantiate their assessments, or to prompt the principals to consider the extent to which what they noticed related to the quality of classroom instruction. Nor did the ILD probe what the principals thought were the implications of what they saw for the host principals' leadership.

Third, all of the ILDs also used various data-use protocols—tools that aimed to help principals work ably with various data to ground their school-improvement decisions. But the ILDs we consistently or occasionally associated with positive results were also those who frequently used such protocols to anchor challenging conversations with principals about their instructional leadership practice; the others used the protocols in ways that did not foster such engagement by principals.

As an example of the former, an ILD developed a protocol that prompted principals to create a poster board to display goals, strategies, and progress made throughout the year in three key leadership areas. Principals then presented student performance data and other evidence to support their claims about their progress. As the ILD described the process in an interview, the main ground rule for the exercise was that principals "were not allowed to talk about anything that they did not have evidence to support that they did it." During the meeting, the ILD continuously engaged principals in discussing their work and the extent to which it reflected the kind of evidence-based practice prompted by the tool. We observed principals routinely asking each other for deeper evidence of their progress and exchanged strategies specifically for improving their own use of data in their decision-making. Principal comments during the meeting and in interviews suggested that they found this activity an important opportunity for them to learn how to work with data in the ways that instructional leadership demanded.

By contrast, the other ILDs developed and incorporated data-use protocols into their meetings. But we associated their meetings and specifically their use of those materials with such negative results as reports

by principals that the materials were not useful or our observations of principals' limited engagement with those materials during and between meetings. The design of these protocols did not differ substantially from those in the other PPLCs. Instead, the ILDs seemed to use so many of them at one time—between 7 and 12 in the 4-5 hour meetings—that they did not engage principals in much conversation about any one of them; principals visibly struggled to manage the sheer quantity of work the multiple protocols demanded and generally did not engage deeply with any one of them.

For example, in one meeting, consultants brought in by the ILD led principals through five separate documents (some of which were several pages), each of which asked principals to make sense of different school-performance data and the implications for their practice. We observed principals expressing confusion about how the tools fit together and actually related to their practice. For instance, during one small-group conversation, a principal referred to the materials as “paperwork” they were required to complete rather than tools for their learning. Over time, most principals in this PPLC stopped bringing the evidence they needed to work with the tools, even though their ILD had assigned such evidence-gathering as homework in preparation for the meeting.

We also observed principals progressively disengage from discussions around the tools during the meetings. For instance, in several observations toward the end of the academic year, we captured principals completing the tools rapidly, without consulting the other staff from their school in attendance, and without discussion or reference to the sources of evidence that the tools directed them to use. During one of these observations, one principal turned to another and commented, “This is really a bad situation.” With regard to how to fill out the multiple forms involved with one of the tools, another principal suggested to colleagues, “I think we should just start repeating ourselves,” meaning that they should just provide the same information on all of the forms because they could not distinguish among them.

Creating Opportunities for All Principals to Participate in Their Network as Learning Resources

All the ILDs created opportunities during meetings for principals to assist one another's learning in ways that, at least on the surface, appeared consistent with socio-cultural learning theory's emphasis on helping all learners participate as valued members of the community. As one ILD explained,

[O]ften times I'll say to [one of my principals] . . . "Make sure you sit down next to [another principal] and talk to her about how she set up her last PD because you could really learn a lot about bang, bang, bang or whatever it is." You know what I mean? They learn so much more from each other than they do from me.

As an illustration, we observed how, at one meeting, a principal asked their ILD what level of detail to include when developing meaningful instructional goals. Instead of giving a specific answer, the ILD called on another principal, whom he or she knew had been working on the same issue, and asked that principal to share his or her strategies. During another meeting, an ILD intentionally paired principals and assigned each pair a topic related to instruction that he or she thought the pairs had in common. One pair received a topic that related to an area of growth for both of them while other pairs had topics related to areas of shared expertise such as "languages," "teacher feedback," "standards," and "using data." During the activity, each principal we observed shared specific strategies he or she might use with teachers to strengthen the quality of instruction related to the topic.

However, only in the two PPLCs that we consistently associated with positive results did we find ILDs regularly creating opportunities that moved beyond simple sharing and discussion to strategically positioning *all* principals as learning resources for the community. In the other PPLCs, ILDs typically identified certain principals as generally more expert than others across the entire year and various tasks—suggesting they had a relatively fixed definition of expertise not consistent with our conceptual framework.

As an example of the positive case, one of the ILDs held his or her PPLC meetings at each of his or her school sites throughout the year and used the visits, in part, to showcase areas of each school's strengths. This ILD reported that all his or her principals had something to teach the others about aspects of instructional leadership, regardless of their level of instructional leadership experience or expertise and their schools' student achievement scores.

In another example, during one meeting, an ILD was observing classrooms with a group of principals, not including the host, who frequently commented about the extremely low quality of instruction in most classrooms and expressed concern about the ability of the host principal to lead for better instruction. The ILD validated their observations, complimenting them on their use of evidence to support their claims. But the ILD also shared that this principal has some strengths as an instructional leader, particularly in the area of knowing his or her students. The ILD

elaborated that he or she had observed at the principal's school how "A student came in one morning to [the principal's] office and the first thing he said was, 'Good morning. Are you hungry?'" The ILD went on to explain that in this instance and in other ways the principal demonstrated the importance of understanding the out-of-school conditions his or her students faced and acknowledging and addressing them as part of his or her instructional leadership. The ILD said, "That's the level that he knows his kids" and elaborated that good instructional leaders continuously seek to understand root causes of each student's school performance, even those outside the classroom.

Consistent with novice-expert distinctions in socio-cultural learning theory, these two ILDs distinguished principals by their demonstrated instructional leadership practice, not by their test scores or tenure in the principalship. They also reflected that they saw principals as more or less expert at certain aspects of instructional leadership rather than as wholly more or less expert. For instance, one described that for each of his or her meetings he or she grouped principals, depending on the activity, in order to ensure that they paired principals who were strong *at the given activity* with principals who were weak *at the given activity*. In so doing, the ILD aimed to give principals weak at certain tasks the opportunity to work with principals stronger at that task, and to ensure that each principal had an opportunity to share areas of strength at some point during the year. As this ILD reflected, "it's just like setting up a classroom." Similarly, in framing another activity, the ILD introduced one of the principals as "far along" in the particular process he or she was demonstrating and another as earlier in that particular process. The principals then had an opportunity to share how they were going about the particular task, challenges they were facing, and supports that were helping them. Throughout the exercise, the ILD frequently reiterated to his or her principals that such examples, whether far along or in the beginning stages, all provided them with ideas to consider in their own practice, and that the purpose of the presentations was not to evaluate the principals but to help them work together. Among the positive comments principals offered about these PPLCs, several principals noted that they particularly appreciated the opportunities their PPLC created for them to learn from their peers.

By contrast, the other ILDs tended to feature the same small number of principals as "expert" learning resources in ways that seemed to reflect a relatively fixed definition of expertise inconsistent with our conceptual framework. For example, one ILD repeatedly highlighted a particular principal as a model of various practices for the other principals, and only occasionally called on other principals as models. Some ILDs put their principals into critical friends groups at the beginning of the year

and kept principals in the same groups for the whole year across tasks. We viewed that strategy as not consistent with creating opportunities for principals to assist one another because those critical friends groups did not change depending on the issue at hand or principals' developing expertise. Instructions to the critical friends groups to, in one example, "chat and work together" did not reinforce the pairs as an explicit opportunity for principals to assist each other's learning.

Brokering: Bridging and Buffering

All the ILDs *bridged* their PPLCs to various materials and people to help principals strengthen their instructional leadership. As one principal recounted,

[My ILD is] always reading and . . . [my ILD has] always got some acquaintance that can bring in some new ideas. Look at all the people [my ILD] brought from [his or her] own part of the world to speak to the principals at different meetings. So once you know [him or her], you are very lucky because [my ILD] comes with a big bag of information.

Most commonly, those resources were instructional coaches from the curriculum and instruction unit. For instance, we observed how one ILD involved a math coach to help focus the learning walks during their PPLC meetings on mathematics content. Learning walks in the absence of the coach focused generally on the visibility of goals in the classroom, use of the blackboard, and the extent to which students seemed to be on task as evidenced by the frequency of their talk—dimensions of teaching not specific to mathematics content. During the sessions with the math coach that we observed, the coach invariably pressed principals to consider teacher moves specific to mathematics content. For instance, after one classroom observation, the coach explained,

Here's what the kids were doing. They had two points, and they were going through the point slope formula to determine the equation of the straight line. They were doing this over and over again. So I spoke individually with three students. . . . I'm quite certain that those students did not know that what they had created was the equation to come up with the line to connect the two points. . . . I think it's a question for all of us: How do we help our teachers understand all of that?

However, ILDs varied in the extent to which they actively engaged those resources as learning resources—in ways that promised to help

principals actually deepen their instructional leadership practice. In what we considered the most extreme counterexample to ILDs' active engagement, two ILDs turned over approximately half of their PPLC meetings to outside consultants who ran the meetings with very limited participation by the ILDs. As noted above, on occasion, the ILDs were not even present for significant portions of the meetings. Principals were particularly disengaged in these meetings, as evidenced by their late arrivals and early departures, the frequency of their off-task conversations, and disparaging comments regarding the content of the meetings. When principals asked to share feedback on their experience with the outside consultants, the ILDs provided limited opportunities for such discussion.

More specifically, the PPLCs we associated with positive versus negative results along the indicators we measured differed in the extent to which the ILDs took what elsewhere we call a "teaching versus telling" approach in bringing in outside resources (Honig, in preparation). Those who took a teaching approach actively mediated the resources in ways that created opportunities for principals to deepen their instructional leadership practice—reflecting a focus on learning consistent with our conceptual framework. ILDs who frequently took a telling approach tended to engage outside resources in a mode that involved the delivery of information.

To illustrate the distinction between telling and teaching, at two different PPLC meetings, we observed the same central office staff people talk about writing assessments. At one meeting their presentation was a 30-minute announcement of procedures for the assessment and its scoring, an approach we considered consistent with a telling approach, which is counter to the learning orientation fundamental to our conceptual framework. But at the second PPLC meeting, the same central office staff facilitated a two-hour session on helping principals understand the process for administering and scoring writing assessments, and reviewing a series of tools they had developed to help principals and others work with teachers to improve writing instruction.

In that session, we observed the presenters begin by sharing learning goals for the session—what they designed the session to help principals know and be able to do. They then asked the principals to orient themselves to the work ahead by reviewing the writing assessment rubric and reflecting on where they thought their school fell on the rubric and what evidence they would cite to support their claims. Throughout the session, the presenters gave the principals different small- and large-group opportunities to talk through what they were hearing and how it related to current practice at their school.

The ILD interjected throughout the session with framing comments and other linking statements to help the principals connect what they

were hearing with their own leadership practice. For example, at one point the ILD clarified that the rubric was not just a tool for their teachers to use for individual student assessments, but one intended to help principals in their professional development of teachers:

Each of these processes [described during this presentation] of getting teachers engaged in scoring helps them to calibrate with their colleagues. . . . As instructional leaders, you need to push on its level of importance to make sure it [writing instruction] really takes hold.

In an interview, the ILD for this PPLC explained that he or she was working with several principals on improving their support for writing instruction, so he or she proactively sought out those central office staff whose work aligned with his or her learning goals for the principals. The ILD described how he or she worked actively with the central office staff to develop a session that promised to engage principals in integrating the ideas into their own practice.

All the ILDs also *buffered* or shielded their PPLCs from the myriad requests and demands they all faced, mostly from other central office staff, for time on their PPLC meeting agendas for various matters, including announcing new or changed district policies, compliance-related tasks, and other information that did not obviously relate to the instructional leadership focus of their meetings. As one ILD put it, too many other central office staff think ILDs are “in charge of collecting stuff” such as budget forms and other district paperwork from principals and delivering it to other central office staff. In their words,

And, yeah, they want us to go out there and I guess do instructional walk-throughs and, you know, teach the principals how to get better teaching out of their teachers and that kind of thing. But they give us so much other crap to collect and deliver.

As one ILD reported, “I think that the core job description of being an instructional leader to the principals has to be protected and it has to be respected. . . . It takes fighting our bosses sometimes.” Another described how an executive staff member encouraged them to work with an outside consultant, but they disagreed with that advice:

Well, I mean first of all, I already knew the principals didn’t like it [the work the consultant was doing elsewhere in the district]. But then the second thing is that I met the leadership of [the outside professional development program] and I thought, “Oh, there’s no way I can put my principals in front of these guys.”

Well, so [another ILD] and I fought it. We fought it furiously. Luckily, we were united and they [the central office leadership] backed off. . . . I'm absolutely determined not to turn over my [PPLC] and sit back. I just won't do that.

When they did not outright decline others' requests for PPLC meeting time, some ILDs buffered their PPLCs by significantly limiting the time they or guests spent on non-instructional issues to the last 15-30 minutes of their meeting. As one described:

So what I did to buffer is every month we have two [PPLC] meetings, right, and one is professional development and one is coordinating or compliance-type issues. What I did last year is I took the second one, which was compliance coordination, out and I said we're doing two professional development sessions and no coordination. So they get the information because most of the stuff you get are things that you can read and my principals, really, quite honestly, are never going to get a skylight in their schools so they don't need to hear [the gas and electric company] talk about how that makes the school better. So I just tell everybody, "No, you're not coming." So last year I would not allow anyone into the meetings. I just kept them away, and if there was something that was absolutely essential they got it the last 30 minutes of the second PD meeting. But most of it's not that essential, to be quite honest.

Another ILD described that such announcements had taken up most of the meeting time at previous meetings of principals convened by the central office, but that given the learning focus of the new PPLC meetings, they "worked hard" to keep informational and compliance issues to a short period at the end of each meeting. Otherwise, as this ILD described, they "take on a life of their own and take over the meetings. You would be surprised how many people don't show up for their allotted time. Imagine if we gave them more of the agenda and they didn't show up."

However, by the spring, the ILDs we associated with mixed or negative results focused substantial parts of their PPLC meetings on operational and compliance matters. As noted above, two of the ILDs held at least two meetings in computer labs and provided time for principals to complete different paperwork and other "deliverables" such as budget reports, staffing projection worksheets, and centrally mandated satisfaction surveys. Some principals praised their ILDs for giving them such time, especially when other central office staff were on hand to help them

complete their budget forms or their school-improvement plans. Other principals, especially veteran principals, complained that such activities were not a good use of their time since they already knew how to complete the paperwork.

MEDIATORS OF ILDS' WORK

Specific conditions emerged in our data as particularly prominent mediators of ILDs' work with their PPLCs. Some of these conditions were common for all the ILDs. Those included: the ILDs' hierarchical positions as executive-level staff, central office interference, principal demands that worked against the instructional leadership focus of the PPLCs, and the absence of professional development for the ILDs. The ILDs varied in their conceptions of their roles in ways that may also explain their differential participation in their PPLCs.

First, at least according to ILD reports, the ILDs' position as executive-level central office staff supported their work with their PPLCs. The ILDs generally explained that the assignment of such high-level staff to focus on principals' instructional leadership sent an unprecedented and powerful message to principals that their development as instructional leaders was a top priority for the district. ILDs also reported that their position helped them in their efforts to bridge their PPLCs to central office resources and buffer them from some unresponsive central office staff.

Second, while central office leaders had positioned principal instructional leadership as a district priority and PPLCs as main vehicles for principal development, in various ways, the rest of the central office interfered with the ILDs' efforts to focus their PPLC meetings on instructional leadership and principal learning. Among them, as discussed above, various central office staff placed demands on ILDs to access their meetings for non-instructional purposes. Those that did have an instructional focus typically did not come ready to take a teaching stance in the meetings without assistance from an ILD.

Toward the end of our data collection, the ILDs' supervisors on the district cabinet took steps to buffer the PPLCs from such interference. As one other central office staff described their charge from one of those supervisors to engage in such buffering,

So one of the roles I've been playing this year is to vet people that want to present to the principals. So no more is it like, "You need to present to the principal? OK, set it up with the [ILDs]." Everyone who wants to have time with principals actually [now] comes through me because we have a lot of people who come and present to our

principals and it's horrendous—I mean it's really just talking heads, no clear sense of agenda or purposes or outcomes. The pedagogy is often very one-dimensional, and our principals complain. I mean they're like, "This is bad—this is bad teaching! We are just sitting here wasting our time and not learning what we need to learn." So as a result, [an executive-level central office administrator has] . . . given me the charge to work with anyone who wants to present to our principals and they have to share their agendas with me, and then I can make suggestions and help tune the materials.

However, ILDs often reported that the executive central office staff themselves, especially as the year wore on, urged ILDs to spend more PPLC time on operational and compliance issues.

Principals also placed demands on ILDs to use their PPLC meeting time to help them with operational and compliance issues rather than teaching them how to strengthen their instructional leadership. As one principal described,

There was a grumbling at the first couple of meetings from principals that there should be more time dedicated to specific things. For instance, one of the big complaints was that when it was close to teacher evaluation time, there wasn't enough time devoted to explaining how teacher evaluations should be done. There wasn't enough information about FC [faculty council] and their role in [the process].

Principals also occasionally asked the ILDs to stop teaching them and simply tell them how to complete various activities, and, as noted above, some ILDs responded to these requests in ways that detracted from the PPLCs' learning focus. As an example of such a request, at one meeting an ILD encouraged principals in one small group working on school-wide goals to push beyond "bumper sticker" or general and superficial descriptions of their goals and progress and delve more deeply into the kinds of classroom practices they want to foster. Several principals complained that the ILD should just tell them how to write their goals even though the purpose of the activity was to prompt principals to grapple with their own school data and experience and develop appropriate goals themselves. One central office administrator reflected that principals had myriad reasons to avoid the learning focus of the meetings: Some said it was, in the words of one, "a journey that the schools were going on before" that did not involve a focus on instructional leadership. Some principals reported that they did not want to be part of any organized professional development.

Additionally, despite the priority the district placed on principal instructional leadership and PPLCs as a main vehicle for their development, the ILDs received no professional development to help them design or execute their PPLCs. We observed 31 hours of meetings focused in part on ILD professional support, and at none of them did conversations even address the PPLC meetings, let alone support the ILDs in facilitating them.

Given these mediating conditions and the institutional histories of central offices described earlier, it is particularly remarkable that some ILDs engaged in PPLC facilitation as teaching at all. A main difference among the ILDs that may help explain why some ILDs bucked these institutional trends and engaged in their work as teaching was their conception of their roles and of themselves as professionals. Socio-cultural learning theory underscores the importance of both identity and role conception to how people participate in communities of practice (Collins et al., 2003; Wenger, 1998).

The ILDs we associated with positive and mixed results all identified themselves as teachers and framed their role as teaching. Their histories included work with other adults as learners; all described themselves as principals who focused on teacher learning and some as coaches for principals in other capacities. The two we consistently associated with positive results reported relatively long histories as educators with these orientations. Those who typically appeared in the inconsistent or negligible examples generally reported in interviews that they saw themselves as traditional area superintendents and that when they were hired they believed that the job of the ILD was consistent with that role. As one senior central office administrator described, the ILDs engaged in an activity that involved looking at their job descriptions and discussing what the description meant to them. The discussion surfaced that some of the ILDs wanted to be area superintendents. He or she reported, “And we said, ‘Well, that’s not the same [as being an ILD].’” Area superintendents tend to have many more schools and be into operations rather than instruction, and the job is otherwise

. . . just very different. Some [of the ILDs] are like, “We’re sort of like chiefs” [i.e., like the chief officers of the district who sit on the superintendent’s cabinet]. I’m, like, “Well, no. You have the most important role and that’s why we invested in you and that’s why you can’t worry about all this other stuff.” Like, some of them are so worried about a move inventory because we are going to have to move people around the district. Has nothing to do with them. . . . But they want to help decide, like, where’s

the Family Support Office going to go. They don't have to worry about that. Not their role. So we have to continually remind them, "You don't want to spend your time on that."

The absence of a common working conception of ILDs' roles in PPLCs, reflected above, and the lack of professional development interrupting the ILDs' prior conceptions likely amplified the extent to which ILDs relied on their own interpretations as guides for their practice (Barley, 1986).

SUMMARY AND IMPLICATIONS

Our study focused on revealing how central office administrators led in PPLCs and the extent to which their leadership created conditions at least theoretically conducive to principal learning. We reveal specific practices of central office administrators facilitating these meetings that we associated with triangulated reports of the differential value of the PPLC and our observations of principals; namely, engaging in progressively more challenging instructional leadership activities during PPLC meetings. We argue that when such facilitators support principal learning in PPLCs, they engage in practices consistent with those highlighted in socio-cultural learning theory as features of communities of practice. Those practices included: focusing on principals' instructional leadership as joint work, modeling, developing and using tools, creating opportunities for all principals to serve as PPLC learning resources, and brokering, including the active mediation of outside resources. We found that engaging principals in challenging conversations was fundamental to many of the other practices, especially the use of tools. We identify particular conditions that mediated ILDs' engagement in their PPLCs, including their executive-level positions, other central office staff and principals, the availability of professional development, and their own orientations to their work.

Our findings contribute to the growing subset of literature on professional learning communities in school systems in at least two ways. For one, we highlight dynamics in learning communities not for students or teachers but for school principals, a sorely neglected population in both the practice and research of professional learning. Additionally, we penetrate beneath the formal or surface structures of learning communities such as time and topics to uncover the teaching practices by community facilitators. We suggest that central office administrators are able to buck institutional trends and engage in such teaching practices provided they come to the work with a teaching orientation.

This analysis raises several questions that might productively ground future educational research, particularly that which aims to understand how to foster professional learning in communities. Among them, what more specifically are the teaching or assistance practices within communities that matter to learning? We demonstrated that socio-cultural learning theory helped distinguish the practices of ILDs that we associated with certain positive results. Are some of those practices more important than others? In our analysis, no one ILD engaged in all the featured practices consistently or at a high level of quality at all times. How consistently must they do so to have an impact on principals' instructional leadership practice?

We emphasized practices featured in socio-cultural learning theory, but in taking that focus we may have failed to detect other ILD practices not anticipated by our conceptual framework that may have mattered to the quality of the PPLCs as learning environments for principals. For instance, in other analyses we found that ILDs also *differentiated* their work with principals in one-on-one settings based on principals' demonstrated capacity for instructional leadership (Honig, 2012). Our interviews with principals picked up some reports that ILDs did not adequately differentiate their supports for principals in their PPLC meetings, but not enough evidence of this shortcoming to report here. Likewise, researchers who study teacher PLCs have begun to amplify the quality of talk in communities to shifts in professional practice (Horn & Little, 2010). To what extent do other teaching practices such as differentiation or moves to foster particular kinds of talk matter in PPLCs? By employing other theories of adult learning as conceptual frames, future research may help reinforce or extend our findings.

Because we focused on ILD participation, we did not deeply examine how other group dynamics might matter to principals' learning, but research on PPLCs moving forward might do well to attend to them. For example, to what extent do hierarchical power relationships come into play in PPLCs facilitated by central office staff, and what are the upsides and downsides of having central office staff in such positions? These questions seem increasingly salient with growing attention on principal evaluation and the possibility that those facilitating the PPLC meetings might also be the principals' evaluators. To what extent do dynamics among principals, such as their personal or professional relationships, matter to learning within the communities? Research on teacher professional communities suggests that trust and agreed-upon norms significantly mediate learning within communities; how and to what extent do those dynamics play out in PPLCs? Given how accountability pressures can curb learning in certain respects, to what extent did the mix

of principals from high- or low-achieving schools factor into the quality of the learning opportunities available to principals within their PPLCs? To what extent did principals' willingness and capacity to learn from each other mediate their participation and learning? While we did not observe any principal turnover, future research could probe the extent to which principal retention impacts how ILDs facilitate their PPLCs and associated results.

Future research on PPLCs and, arguably, other learning communities, might also employ better measures of professional learning when assessing their value. For example, studies of PPLCs might use authentic leadership assessments or extensive observations of principals' leadership in schools over time to understand principals' growth as instructional leaders and possible associations between their growth and their participation in PPLCs. Such analyses should take care to account for principals' different starting places when it comes to instructional leadership by incorporating growth measures rather than absolute performance measures.

Our analysis privileged PPLC meetings, but future research might also explore ILD practice and principal learning opportunities beyond formal meetings that are also a part of participating in a professional learning community. For instance, ILDs communicated extensively with their principals by e-mail and phone outside meetings. Some ILDs also brought their principals together in pairs and other small groups outside the formal full-group meetings. To what extent did such engagement matter to principal learning in the PPLCs?

ILDs also worked with their principals one-on-one in their school buildings, in some cases, in ways that fostered principal learning (Honig, 2012) and that may have related to principal learning in their PPLCs. Underscoring this point, an ILD quoted above reported that "the stuff" they did in their PPLCs supported their work with individual principals and vice versa. How, if at all, did the ILDs' one-on-one and PPLC-based work actually interact in ways that mattered to principal learning? Similarly, some of the principals in our study had access to other leadership coaches. How does the fuller ecology of supports for principal instructional leadership matter to their actual engagement in such leadership?

The ILDs in our study did not have formal professional development related to their facilitation of the PPLCs and were otherwise left to their own devices to develop a conception of how to participate. But what if ILDs moving forward had available to them at least this study's set of potentially high-leverage practices and professional development to support them in taking a more intentional teaching approach to their work?

Researchers might significantly advance knowledge by examining such cases, which would offer a particularly strategic opportunity for understanding what happens when ILDs aim to take a teaching stance in their PPLCs.

This study also raises important questions for district central office leaders, funders, and others to consider in their efforts to help principals engage in instructional leadership and to foster principal learning more generally. For example, how can we build PPLCs that realize such results? This study suggests the promise of delegating responsibility for leading PPLCs not to staff within a professional development unit but to executive-level central office staff. How can we build out such a team of staff in ways that help them devote the kind of time that productively leading PPLCs requires? Mid-sized to large districts should consider dedicating staff to such work, much like the district in our study. Our other research is confirming that when districts add support for principals' growth as instructional leaders onto positions with other responsibilities, such as instructional program management, staff struggle to dedicate the requisite time to principal development. That research also teaches that much smaller districts, such as those with 10 or fewer central office staff, can productively assign ILD responsibilities to others including superintendents.

District leaders who do create such positions or otherwise build out an ILD function should consider: How can we support staff in leading PPLCs in ways that will help them be successful? Our findings suggest that leaders should take care to hire into such roles people who take a teaching orientation to the work and to reinforce a common if evolving conception of ILDs' work with principals. We also found, albeit by omission, that professional development may provide important supports for growing and sustaining ILD practice.

Notes

1. The following sub-sections have been adapted from (Honig, 2008, 2012).
2. We discuss the ILDs' one-on-one work with principals across all our study sites in a separate article (Honig, 2012).

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APPENDIX A: SAMPLE ILD INTERVIEW PROTOCOL QUESTIONS

How ILDs understood their charge to convene PPLCs

- Why does [district name] have PPLCs? Main intended goals? Main intended activities? How do you know what the district intends with the PPLCs?
- What is supposed to be your role in relation to the PPLCs? What are one or two concrete examples of what we might observe you doing in your PPLC if you were participating in the ways you are supposed to?

How ILDs reported they actually worked in their PPLCs

- On [Date 1] and [Date 2] we observed your PPLC meetings. How typical would you say those meetings were of how you participate in the PPLC meetings? What is a concrete example from the meeting(s) you would say is typical of your participation? Atypical?
- Let's say you were at a conference with your counterparts from other districts who are just beginning the work of convening PPLCs. What would you tell them are two or three of the most important things you do as a convener of your PPLC? What is a concrete example of a time you did that that might illustrate for others what working in that way involves? Why would you highlight those things as most important?

Conditions the ILDs reported mediated their work in PPLCs

- Who, if anyone, would you say is supporting you in your efforts in your PPLCs? To what extent are these supports what you need? Why or why not? How typical or atypical is it that you have access to those supports?
- What are one or two of the main detractors, if any, from the work you are trying to do in your PPLC? What are one or two concrete examples of these detractors? How typical or atypical is it that that happens? Why specifically does that get in the way of your work?

- Imagine that you are leaving this job at the end of the year and you plan to retire, so you aren't worried about things like your next job or burning bridges. You want to write an honest letter to district leadership explaining how to help your successor be successful with their PPLCs. What two or three issues would you raise in that letter? Why those? What are concrete examples of how those issues played out in your PPLC this year?

APPENDIX B: SAMPLE PRINCIPAL INTERVIEW PROTOCOL QUESTIONS

ILD participation in PPLC meetings

- What would you say is the main role of ILDs when it comes to PPLCs? To what extent do they actually play that role? What are one or two concrete examples of your ILD playing that role? How typical or atypical is it that your ILD would do that? If I surveyed all the principals in your PLC, to what extent are they likely to agree or disagree with you? Why or why not?
- Before there were ILDs, who if anyone was doing the work you just described your ILD doing? How would you compare what those other people used to do with how your ILD works in your PPLC? Main similarities? Differences? Concrete examples of each?
- You have seen us observing your PPLC meetings. Imagine you sat beside us at those meetings to help ensure we were paying attention to particular aspects of the meeting that you think are especially important for us to notice. What would you call our attention to? How about regarding the ILD's role? Why those things?

The principal's own participation in the meetings

- Why have PPLCs? To what extent does participating in the PPLC make any difference to you in terms of your work? What is a concrete example of what you describe?
- Who decides what happens in your PPLC meetings? How close is that to what you think it should be?
- What two or three improvements, if any, would you like to see in your PPLC for next year? Why those?

APPENDIX C: DATA AND CODING

In the following table we show how we coded specific text units in progressive rounds of coding, moving from lower to higher inference codes.

<i>Excerpt from a segment involving a district literacy coach</i>	
... [Following a brief break the ILD calls the group together and introduces a central office literacy coach ...] LITERACY COACH: Each roster has a list of kids going into [different levels of remedial] reading classes. Take a minute to look at these rosters to see if there are any kids who are on there who shouldn't be and any who aren't on there but should be. ... These rosters aren't foolproof. ... We don't want anyone to be in an intensive course that shouldn't be there, so please look these data and think about where kids can and should go. [Explains how principals can access the reports.] The trend we are seeing is that kids are coming out of elementary school being able to read, but since they are all using [name of reading curriculum], their level of understanding can still be quite low. ILD: [To the principals] Have you seen this trend—that kids are able to read better coming out of middle school? [A couple of principals nod in agreement.] LITERACY COACH: So that shifts our focus. We have less need for phonics, but we have more kids that need to learn to think deeply, and to struggle with texts. ... Another thing that is not happening, kids are not reading in school—and not reading at home. ... Kids that are reading low, they need explicit instruction in expository/text book reading; this task is just different. [Literacy coach continues discussing with the ILD and principals different strategies for improving the different levels of remedial reading programs.]	<u>Round 1</u> ILD participation in PPLC <u>Round 2</u> Brokering <u>Round 3</u> Bridging to instructional resources
<i>Example of principal sharing information about new requirements regarding the master schedule</i>	
PRINCIPAL COMMENT: I was talking about the master schedule, that together with doing small work, there's a lot of work that needs to be done. I don't know what the due date is [for the master schedule to be in to the district office]. ILD: She [the principal that just spoke] was sitting with me at the board meeting last night, and I got an e-mail saying that the master schedule was due next week. I wasn't even going to tell you guys about that. Sorry to our guests [other central office staff], but sometimes you have to be rebellious. We aren't doing it. Sorry. If [the principal that just spoke] hadn't been there, you wouldn't have known [that the district office wanted you to hand the master schedule in next week at all].	<u>Round 1</u> ILD participation in PPLC <u>Round 2</u> Brokering, Modeling <u>Round 3</u> Buffering: Positive Example

<i>Example of central office staff administrator taking PPLC meeting time to explain to principals how to administer a required district survey</i>	
SURVEY ADMINISTRATOR: I'm handing out a draft coordination plan, but you'll see the final version a few days before the survey goes out. You'll see some of the key dates at the bottom of the sheet. In a few days, the online version will be live, and then on May 19th or 20th, hard copies will be delivered to your school. . . . At some of your sites, you might see a street team that will be there to recruit parents to participate. That is the one key stakeholder group that we want to increase participation rates of. We've got a post in the newspapers, and the Mayor's Office will hopefully push this. Please get your parents to participate if you can. Through all of these things, we hope to see the number of parents increase. And we are trying to increase parents' participation by 11 percentage points. . . . ILD: Two principals that I see in here weren't in the district last year and haven't been through all of this. So a lot of this information is new to them. What do they need to know? SURVEY ADMINISTRATOR: The first handout is really the Survey 101. For anything at all call me directly; my number is on here. I'm the main contact person since some of the questions can be complex. On the next page, you will see the procedures for administration. These are very flexible. These are just suggestions to how you can best administer this at your site. Let me know if you have any questions. . . .	<u>Round 1</u> ILD participation in PPLC <u>Round 2</u> Brokering <u>Round 3</u> Buffering: Negative Example

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