THE PRINCIPAL'S ROLE IN PLANNING ESSENTIAL SUPPORTS FOR SCHOOL-BASED PROFESSIONAL LEARNING COMMUNITIES

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ABSTRACT

The purpose of this study was to explore teachers' perceptions of the key supports principals provided that contributed to the development of high-functioning professional learning communities (PLCs). This study used a qualitative case study approach to learn from three schools in one mid-city district. Findings revealed three specific supports provided by school leaders: (1) the communication of clear expectations for PLC work; (2) the provision of school-based professional learning; and (3) a school culture focused on learning and collaboration. Implications for practice at the district and school level, for policy, and for further research are considered.

OVERVIEW

As reform efforts in education have sought to increase teacher collaboration, the term "professional learning community," or PLC, has been applied to a variety of types of collaborative gatherings among leaders, teachers, and school staff in schools and districts. In some settings, a committee seeking to reduce the number of tardy students to school might be designated as a PLC. In other schools, teachers meeting in PLCs may analyze state test data and set goals to raise student performance. Yet, discussion of the instructional changes needed to meet these goals may be absent from their conversations. Despite varied understandings of what a PLC is and does, current research identifies a PLC as a group of professionals in a learning organization continuously collaborating to learn and reflect on their practice, achieve school improvement by making changes that improve teaching and learning, and work toward shared and common goals through the collection and analysis of data (Hipp & Huffman, 2003; Hord, 1997; Hord & Sommers, 2008; Jones & Thessin, 2017; Louis & Marks, 1998; McLaughlin & Talbert, 2006).

In our current era in which the need for schools to improve is paramount, research demonstrates PLCs may be a key element in the process of facilitating instructional improvement and improving student achievement (Goddard et al., 2007; Roy & Hord, 2006; Stoll & Louis, 2007). Specifically, PLCs foster a learning organization and build professional capacity for improving student achievement (Langer, 2000; Louis & Marks, 1998). Consequently, many school principals have modified schools' schedules to provide time to meet in PLCs.

Yet teachers have traditionally learned, taught, and succeeded or failed independently from the teacher in the classroom next door (Elmore, 2004; Goddard et al., 2007; Schechter, 2010). To prepare teachers to engage collaboratively, a provision of time is not all that is necessary for teachers to collectively affect the instructional core (City et al., 2009; Elmore, 2004; Thessin & Starr, 2013). Teachers need to first learn how to work together to utilize assessment data and student work to identify students' learning needs and meet them in the classroom (Thessin & Starr, 2011). Moreover, the degree of collaboration among teachers that is necessary to engage in the difficult

work of improving teaching practice requires school leaders to be actively involved in planning for, supporting, and modeling PLC work (Hord & Sommers, 2008; Huggins et al., 2011; Jones & Thessin, 2017; McLaughlin & Talbert, 2006; Thessin, 2015).

In a prior study I conducted, I examined the impact of specific research-based districtwide supports on the growth of PLC teams in one mid-city district (Thessin, 2015). Teachers in high-functioning PLC teams confirmed that the district-initiated supports, including the provision of professional learning on PLCs and the direction of an improvement process to guide PLC work, contributed to their PLC teams' development. Despite the provision of the supports to all schools, large disparities in PLC growth resulted among district schools at the end of two years of PLC work. Upon further analysis of the data, it became apparent that variation in PLC development was due largely to actions specifically planned and taken by the school leader to support PLCs at individual schools.

While research from the past two decades highlights principals' influence on teaching and learning, the call for principals to shift from roles as strong school managers to roles as instructional leaders who foster effective PLCs is challenging for districts to support and achieve at scale (Honig & Rainey, 2020). Standard 7 of the Professional Standards for Educational Leaders (National Policy Board for Educational Administration, 2015) specifically emphasizes this need in describing the principal's role in fostering a professional community of teachers and staff by designing and implementing collaborative professional learning opportunities. Yet, for districts to support principals' growth in this critical role, it is first necessary to understand the specific actions that principals take that support the establishment of high-functioning PLCs that contribute to improved student achievement.

PURPOSE AND RESEARCH QUESTIONS

The following research questions guided the current study:

- (1) How do teachers describe the role of school-based leaders on their work in PLCs?
- (2) What school-based supports do teachers identify as contributing to the development of high-functioning PLC teams?

The data and findings of this study are particularly relevant today as we strive to focus our collaborative efforts to improve teaching and learning practices and facilitate student achievement in light of a lengthy period of school closures due to COVID-19.

BACKGROUND LITERATURE

Research demonstrates that high-functioning professional learning communities contribute to improvements in classroom instruction (Goddard et al., 2007; McLaughlin, 1993; Roy & Hord, 2006; Stoll & Louis, 2007). McLaughlin (1993) identified strong professional communities as key to changing norms of practice, developing new practices, and altering one's own pedagogical conceptions—critical components of school improvement processes. Specifically, a professional community, also described as a community of practice, might consist of a cohesive group of teachers that engages in a process of working together to deepen teachers' expertise and to discuss common challenges, thereby exemplifying elements of the learning organization (Stoll & Louis, 2007;

Wenger et al., 2002). Stoll and Louis (2007), however, distinguished that professional learning communities have agreed-upon objectives of improvement and are formed specifically for the purpose of improving student learning (Roy & Hord, 2006).

A large body of literature now points to the principal's critical role in the process of improving student learning (Leithwood et al., 2004; Leithwood & Louis, 2011), with the school leader's role in the work of school-based professional learning communities being an important component of this role (National Policy Board for Educational Administration, 2015). These findings and current accountability policies have shifted the principal's role away from one of managerial and transactional responsibilities to one prioritizing the improvement of classroom teaching and learning (Grissom et al., 2013; Knapp et al., 2014) through a distributed and collaborative approach of leading school improvement (Hallinger & Heck, 2010; Harris, 2012; Spillane et al., 2001). While principal leadership practices largely contribute to improved student learning outcomes indirectly, leaders directly influence teachers' instructional practices and their fostering of collaboration and communication around instruction (Hallinger & Heck, 1998; Robinson et al., 2008; Supovitz et al., 2010; Waters et al., 2003), such as in PLC teams.

Existing research highlights the important role principals play in designing and leading professional learning for their staff and in fostering a collaborative and trusting learning environment (Hord & Sommers, 2008; Lin, 2012; Waldron, 2010). Lin (2012) found that one fourth of high school principals surveyed pointed to teacher professional learning as a key component of developing a healthy school environment. In her study of principals in Taiwan, principals enhanced teachers' professional learning by focusing teachers' learning on student learning while creating a respectful and caring learning environment (Lin, 2012). Research also suggests that principals have an important responsibility to establish relationships in schools that are built on collaboration, commitment, and trust, relationships that can then support individual change in classrooms (Cranston, 2011; Hallam & Mathews, 2008). Cranston (2011) found the principal has the responsibility of nurturing adult relationships that reinforce the practices required by professional learning communities. Hallam and Mathews' (2008) research showed a high-trust culture facilitated teachers' willingness to work together to improve the school.

Empirical research also confirms the importance of the school leader in establishing the conditions for PLC work (Harris & Jones, 2010; Huggins et al., 2011; Schechter, 2012; Schneider et al., 2012). Superintendents and teachers who participated in one study in Israel cited the principal's openness and willingness to engage others in the learning process and in decision-making as a key aspect of the creation of PLCs (Schechter, 2012). In the urban high school math PLC studied by Huggins, Scheurich, and Morgan (2011), the principal participated directly in the math professional learning community meetings to drive changes in teaching behaviors and thereby improve student learning. Additionally, Schneider, Huss-Lederman, and Sherlock (2012) highlighted the principal's role in identifying goals that are worth pursuing. Zepeda (2019) identified the need for a clear focus for improvement crafted from the needs of the organization and from individuals within the organization in order to sustain learning communities. Schechter (2012) pointed to the administrator's provision of time, space and resources. In another study of six French-language elementary schools, teachers similarly spoke about the importance of time, in addition to support, follow-up, and encouragement by the principal and the involvement of teachers in decision-making

(Leclerc et al., 2012). Yet, in these studies, specific actions taken by the principal, beyond broad identifications of time and structure, to provide support to facilitate growth in PLC teams across the school were lacking.

As the change agent in the school, the principal is responsible for designing professional learning to facilitate change and for providing support to those implementing the change (Hord & Sommers, 2008). Through the work of teacher teams in PLCs, principals can have exponentially greater influence on changing classroom instruction by supporting individual teachers through the provision of feedback, classroom-by-classroom. In this study, I examined sources of data to understand teachers' perspectives on how school leaders supported the development of high-functioning PLCS at three schools. The findings of the study will lay the groundwork for other principals planning to develop teacher PLCs.

CONCEPTUAL FRAMEWORK

Hall and Hord (2015) indicate that academically successful professional learning communities, described as high-functioning professional learning communities for the purpose of this study, are defined by six dimensions: shared values and vision, intentional collective learning and its application, supportive and shared leadership, supportive (structural) conditions, relational conditions, and shared practice. Two of these dimensions depend almost exclusively on school leadership for their establishment - supportive and shared leadership and supportive (structural) conditions – and therefore served as my conceptual framework for this study in examining the role of the school principal in developing high-functioning PLCs. Each dimension will be briefly discussed in the following paragraphs.

The first dimension, shared values and vision, is demonstrated by a focus on a high level of student learning for all and on supporting every child to achieve it (Carroll, 2010; Kruse et al., 1994; Stoll & Louis, 2007). The second dimension, intentional collective learning, highlights how engaging in an inquiry-based approach to learning in an ongoing manner allows teachers to identify student successes and address areas where students have not performed well, leading to exploration of new practices (Hall & Hord, 2015). The fifth dimension points to the need for trust among individuals and openness to feedback for PLCs to operate (Hall & Hord, 2015). The sixth dimension of shared practice is exemplified by the opportunity for peers to help peers to become competent in their professional practice (Roy & Hord, 2006).

The dimensions of supportive and shared leadership and supportive conditions are essential to PLC development and rely on the leadership of the school principal. Hord (2004) identifies supportive and shared leadership as necessary to foster PLCs (Hall & Hord, 2015; Schneider, et al., 2012). Supportive principals share leadership, power, and authority with teacher leaders and staff in decision-making processes (Hord, 2004). The principal creates an environment in which staff can learn continuously and bring ideas in from outside the school in order to focus on improvement. By supporting a culture of school inquiry, the school leader facilitates openness and trust in the school and empowers teachers to make decisions to meet student learning needs, while also applying "appropriate pressure to perform" (Carroll, 2010, p. 10). The resulting climate partly results from principals' willingness to be learners with teachers as they work together toward improvement (Hall & Hord, 2015).

The school leader also plays an essential role in establishing supportive structural and cultural conditions for PLC work. This is the fourth element of Hall & Hord's (2015) framework. Hollingworth (2012) broadly identified the administrative supports of "time to meet, money to support new curriculum, and training" (p. 377) as essential for the existence of professional learning communities in a study of one Midwestern high school. Other researchers highlighted the administrator's provision of time, space and resources, in addition to the provision of support and follow-up by the principal and the involvement of teachers in decision-making as factors that influenced the functioning of a school as a PLC (Leclerc et al., 2012; Schecter, 2012).

Yet, in my prior work, I found that the provision of time to meet, a PLC structure put in place by the principal at the school level, and professional learning provided by the district office were insufficient to foster the establishment of high-functioning PLCs (Thessin, 2015). Teachers in high-functioning PLC teams indicated that school-based conditions and supports provided by the school leader were the primary facilitators of their teams' development. The current study sought to examine teachers' perceptions of the role of school-based leaders in their PLC work and of the supports that facilitated development of high-functioning PLC teams.

METHODOLOGY

Employing a primarily qualitative data-gathering approach allowed me to gain a full understanding of both the lived experiences of teachers in professional learning communities and of the contextual supports and leadership roles that affected PLC success (Maxwell, 2013). In this study, a multiple-case study approach was utilized to identify themes that emerged from interviews with members of high-functioning PLCs in one school district at three school sites (Baxter & Jack, 2008). High-functioning teacher PLCs served as the unit of analysis for this study and teacher interviews served as the primary source of data (Yin, 2013).

Context

In the mid-city district in which this study took place, PLCs were initiated as part of an overall system redesign. In the district's first year of PLC work, school leaders were provided with professional learning on PLCs. Principals also identified time for teachers to collaborate in PLCs on a weekly basis, but no specific guidelines were provided to schools regarding expectations for PLCs. In initiating the second year of PLC work, the district's PLC Steering Committee of principals, teachers, and central office stakeholders developed a districtwide PLC plan. The plan provided a district-designed improvement process to guide PLC collaboration and asked all PLC teams to establish an instructional goal. The district also provided voluntary professional learning opportunities for teachers to help teachers understand what a PLC is and does and to support teachers in the implementation of the district's improvement process.

Site and Participant Selection

Results from a districtwide survey administered by this district's central office and observations of PLC teams were used to identify schools with high-functioning PLCs and to subsequently invite teachers in these PLCs to participate in this study. Data from the survey provided a complete picture of the work and characteristics of PLCs and of school leaders' roles in supporting

PLC work across all schools in this district (Maxwell, 2013; Yin, 2013). In completing the survey, teachers were asked to answer questions about their PLC teams' characteristics, implementation of the district's improvement process and engagement in instructional goal setting (as described in the district's PLC plan), and their establishment of group norms and use of protocols. Approximately 67% of the district's teaching staff, or 939 teachers, responded to the districtwide survey. The three schools selected for inclusion in this case study consistently scored at or above the district mean in the survey results. They included one middle school and two elementary schools based on the survey results. Profiles of the selected schools with their pseudonyms are provided in Table 1. Subsequently, observational data were collected from PLCs at each of the three school sites using a protocol framed on the dimensions of effective professional learning communities (Hall & Hord, 2015; Hord, 2004) as previously described. PLC teams that were identified as high functioning for the purpose of this study displayed five of Hord's (2004) original characteristics of effective PLCs.

Data Sources and Analysis

Purposeful sampling was utilized to choose nine teachers of differing grade levels and subject areas for interviews at the three identified school sites (Maxwell, 2013). Interview questions are focused on the content and characteristics of the teacher's PLC team work and on the ways in which the teacher learned how to engage in and lead a PLC team (see Appendix A for the protocol). These teachers were all members of high-functioning PLC teams. After each interview, I recorded observations and reflections and explored initial findings and potential themes in response to the research questions posed in analytic memos (Saldana, 2013). Interview responses were coded using Atlas.ti software, paying particular attention to themes that emerged and to instances in which codes overlapped. While I focused my analysis on Hall and Hord's (2015) PLC characteristics of supportive and shared leadership and supportive conditions, within these specific areas, I used pattern coding to identify emerging themes both within and across school contexts through inductive analysis. Additionally, I shared findings and interpretations of the data with colleagues in a research study group on a regular basis.

FINDINGS

In interviews, teachers repeatedly emphasized the influence that school leaders had on their work in PLCs, raising two of the five dimensions identified by Hord (2004) - supportive and shared leadership and supportive conditions -to levels of importance above others. Specifically, teachers in high-functioning PLCs described how their school leaders influenced their PLC work through: (1) their communication of clear expectations for PLC work; (2) the provision of school-based professional learning on PLCs; and (3) establishment of a school culture focused on learning and collaboration. In the following section, I respond to the two research questions that guided this study collectively, as each of these findings offer insight on the role of the school leader and teachers' identification of supports provided by school leaders:

- How do teachers describe the role of school-based leaders on their work in PLCs?
- What school-based supports do teachers identify as contributing to the development of high-functioning PLC teams?

The characteristics of schools in this study are included in Table 1 below:

Table 1. Characteristics of Schools

	Hillside Elementary School	Garden Elementary School	Fielding Middle School
Grade Levels	K-5	K-5	6-8
Student Enrollment	697	637	617
Characteristics of Student Body			
*White	42%	49%	41%
*Hispanic	28%	25%	30%
*African America	23%	16%	18%
*Asian	8%	10%	11%
*Qualifies for Free and Reduced Price Lunch	36%	32%	43%
*Not Fluent in English	18%	15%	8%
*With Disabilities	8%	7%	6%

School Profiles

Hillside Elementary School

Hillside Elementary School enrolled a diverse K-5 population of approximately 660 students. A new principal, who had previously been an assistant principal in this same district, assumed leadership of Hillside Elementary.

Garden Elementary School

Garden Elementary, also a K-5 school, enrolled approximately 630 students. The principal at this school was well-established and respected for her leadership, particularly in the area of professional learning.

Fielding Middle School

Fielding Middle School served grades 6-8 with an instructional focus on math, science and technology. While the principal at this site was new, she was an experienced district administrator. She was asked to mentor two new assistant principals at Fielding during the year of the study.

Communication of Clear Expectations

At these three schools, school administrators communicated specific expectations for teachers' work in PLCs at staff meetings, in professional learning sessions, and in teachers' PLC meetings. At Hillside Elementary School, teachers identified the principal's role in communicating concrete improvement processes for learning and in developing a culture focused on instruction as contributing to PLC growth. Following guidelines from central office, Hillside's principal communicated her expectation for each grade level PLC to establish an instructional goal influenced by the school context.

Following the principal's direction, Mary, a teacher leader, described how her PLC established an instructional goal of improving student writing in Reading Response journals. This goal aligned with the school's overall focus on improving literacy through an examination of Guided Reading instruction and use of Reading Response journals. Subsequently, two members of Mary's grade level PLC piloted the practice of using Reading Response journals and shared their learning with their colleagues. Mary explained that the objective of her team's work together was clear: "PLCs, for us, are a more structured way to look at student learning, or a way for us to improve our instruction to gain more success for the student."

Another teacher leader at Hillside, Michelle, explained that the focus on instructional improvement communicated by her principal gave new meaning to teachers' time in PLCs. Michelle indicated that the principal started to bring teachers' attention to the different styles and methods with which they taught. Describing Hillside's new school leader, she articulated, "Some of her background knowledge has changed our instructional practices just with her being in our building for a year."

At Garden Elementary School, teachers in PLCs also cited their use of a districtwide improvement process and the practice of setting goals to guide PLC teams as influential on their work. In similarity to Hillside, Garden teachers explained that they learned about PLC guidelines and expectations through communication from their school administrators. One lower-grade teacher, Jill, said her team followed an inquiry-based improvement process that she described as a "a circle of steps for PLCs." This process was also displayed in the teachers' workroom on a large poster hanging prominently on the wall. Additionally, Jill indicated that her team's engagement in goal setting contributed to improved productivity in their second year of PLC work:

The first year was really just meeting and talking; it wasn't very formal at all, but we did have goals, somewhat. Nothing formal. . . And then last year, I think we did it more formally. We were told to set goals, and we followed the format that we were given to set goals and used data to come up with our goals.

Jill also reported that her PLC team saw improvements in students' understanding of the state learning strand designated as Making Connections in their second year of PLC work, following her team's focus on this goal. Further, at Garden, teachers explained how school administrators continued to communicate their expectations of PLCs throughout the school year during their attendance at individual teacher PLC meetings.

At Fielding Middle School, a school with a strong existing culture of collaborative work and teacher leadership, teacher interviews revealed that the principal provided few expectations and directions for teachers' work in PLCs. However, a focus on instructional improvement was evident. As one example, science and math teachers organized time to work together across PLCs, initiating this collaboration to collectively determine how best to meet their goals. Kristin, the PLC facilitator, articulated how the meeting was initiated:

The two eighth grade math teachers and the math coach, we asked if we could sit down and try to figure out what skills the students needed when they left sixth grade in measurement, [and when they] left seventh grade and left eighth grade. So we are making sure that we hit

all the skills, but we wanted to do it through math to make sure that it was being supported by the curriculum.

At Fielding, the principal included teachers from each subject area as members on the school's improvement planning (SIP) team. Through their active participation, teachers on the team saw the link between the school's improvement plan and the work they were being asked to do to meet their school improvement goals in PLCs over the course of the year. As a result, goals, learning, and progress discussed at the school's SIP meeting could be easily shared with PLC teams, distributing a focus on instructional improvement across the school. Eddy, a new teacher at Fielding, quickly understood and recognized this focus on instruction. He articulated, "Here PLCs don't always follow the official district format, but whatever it is we're doing, it's always geared around how do we teach better, how do we help our students more?"

As reported by teachers, the principal and assistant principals at this school also demonstrated their support and expectations for teachers' work in teams by frequently participating in PLC meetings, as teachers had reported at Garden Elementary as well. The principal's affirmation of the work of PLCs was recognized by other administrators and by teachers at the school, contributing to teachers' own dedication to the PLC process.

School-Based Professional Learning on PLC Work

In addition to the PLC training sessions that were offered by this district's central office, school leaders at Hillside, Garden and Fielding provided teachers at their school sites with continuing school-based opportunities for professional learning on PLC work that supported their teams' successes. Michelle, a PLC teacher leader at Hillside, confirmed the important role that Hillside's new principal played in preparing teachers for PLC work. While she indicated that staff members received only "vague outlines" from school leaders of what teachers should do in PLCs in their first year of implementation, at the beginning of the second year of PLC work, Michelle said the new principal dedicated a full day to preparing teachers for PLCs and then continued this work during staff development sessions throughout the year. Michelle explained:

She gave us some strategies that we can use in our PLCs . . . We practiced the world café protocol at our staff meeting. We practiced a couple of different components of it. It wasn't every meeting, but it was definitely some of our staff meetings and/or half-day or full-day staff development.

Hillside's principal not only communicated expectations for PLC work to her staff, but also modeled protocols which teachers could use in their PLCs.

Furthermore, at Hillside, to supplement the districtwide PLC training in which 26% of this school's teachers had participated, the principal provided numerous teachers at her school with the opportunity to attend a training on Data Teams offered by the state. Even though this school was not eligible to enroll teachers directly in the training under state guidelines (since the school was not a recipient of Title I funds), the principal specifically arranged for teachers to participate in the training at another school site so that they might learn new data analysis tools to use in PLC work.

At Garden Elementary, the school administrators shared their learning from the district's administrative professional learning sessions by organizing and facilitating school-based learning

sessions on PLCs. Teachers Jill and James credited school leaders as the primary source of their knowledge of PLCs. They explained that their administrators were the reason why PLCs "work" at the school. James recalled participating in an astounding eight to ten school-based learning sessions on PLC work during the school year. When asked how she learned about PLCs, Jill responded, "Really through our administration. I think they went to workshops, and they came back and told us about them." Jill also credited the structure of PLC work communicated to teachers by administrators as an important factor in her team's ability to engage productively in PLC practices. Further, through their regular attendance at teachers' PLC meetings, Garden's administrators modified future professional learning sessions to meet teachers' needs for improving PLC work. Both the number and depth of professional learning sessions at Garden demonstrated the capacity of this school's administrative team to lead the development of PLCs.

At Fielding Middle School, the amount of time dedicated to collaborative work demonstrated the emphasis that school leaders placed on PLC work. Fielding fostered continued professional learning on PLCs by scheduling teachers to work with more than one PLC team. While central office required that every teacher in the district has the opportunity to participate in a PLC weekly, at Fielding Middle School, school administrators established a schedule that would allow teachers to meet with teachers in their discipline *and* with teachers on grade level teams. Following the old adage "practice makes perfect," teachers at this school had the opportunity to engage in and learn PLC practices with multiple groups of teachers on a weekly, if not daily, basis, fostering an opportunity for continued PLC learning.

At all three school sites, administrators followed the recommendations of Hord (2004) by engaging teachers in learning how to learn together in an ongoing, continuous manner. By engaging teachers in site-based professional learning on PLC work and subsequently participating in and observing PLC meetings themselves, administrators provided needed support and follow-up to teachers. At Hillside and Garden, the administrators took an active role in teaching teachers the elements of PLC work; in contrast, at Fielding, administrators provided the opportunity for teacher leaders who were already members of multiple PLCs to share their learning and expertise schoolwide.

School Culture Focused on Collaboration

At these three school sites, the school principals also established an environment of collaboration and trust. At Hillside, a school in which a practice of collaboration among teachers and administrators was not already established, the new principal worked to shift the culture. One teacher articulated how an important balance between providing direction, without dictating the work, was established:

School administrators had explained to us that in the PLCs, for our grade level, here's what I would like you to focus on. It's all going to be you guys deciding on the goals and how to attain these, but we needed to focus on these directions, directions without top down. It's [based on] what you need. It was guidance, direction or guidance that we didn't get [the year prior].

One PLC team at Hillside dedicated specific time to the ongoing learning of its own members. The teachers committed to read an article about a practice they were studying prior to

each PLC meeting, and then all team members participated in the discussion. By engaging in the practice of inquiry together, team members acquired new knowledge as a collective whole and to contribute to one another's ongoing learning. This practice signaled this PLC was beginning to make the transition from individual learning to team learning, thereby building organizational capacity (Gherardi, 2006).

In contrast, at Garden, teachers were accustomed to working together to achieve common goals using protocols and practices they had learned through the school's use of the Responsive Classroom model. James indicated there was a certain culture at the school that allowed PLC work to happen. James described this interest in sharing instructional practice as a good "esprit de corps" that was directly enhanced by work in PLCs. He also suggested that this culture contributed to the lack of turnover among teachers at Garden Elementary, saying, "There's a reason why nobody wants to leave this building, unless they retire."

Furthermore, in describing the role of the school leader on PLC work, teachers at Garden Elementary were the first to describe the importance of trust. James indicated that this trust in PLC work was initially conveyed by administrators during school-based learning sessions:

It's very collaborative in the way the training happens. The principal sets the agenda, and then, "Here's what we're going to do. Here's what we need to do." And then we coalesce into the teams that we work in, ordinarily, and you, as a group, find your way to get there...I think that trust thing is a big part of this. I think I would say it is initiated by the principal, but the goal is achieved cooperatively.

James further articulated that school administrators not only gave teams this freedom in collaboratively planning professional learning at the school, but also in planning the agendas for their weekly PLCs. Jill agreed that the trust that administrators placed in teachers at Garden Elementary influenced their work, explaining:

Administrators influence us with letting us know that the expectation is that you have a literacy goal, you have a math goal, that type of thing, and enforcing that. . . But I know that I do my best, and that the principal knows that I do my best, and there's a give and take."

The administrative attitude perceived by teachers at Garden Elementary influenced the administrator-teacher relationship. In this case, administrators at Garden Elementary established a balance between trusting the work of teachers in PLCs and providing structure for these learning teams. Kruse et al. (1994) state, "human resources – such as openness to improvement, trust and respect, teachers having knowledge and skills, supportive leadership and socialization – are more critical to the development of professional community than structural conditions" (p. 4). It is possible that Garden was able to progress more quickly in its second year of PLC work than other school sites because of the existing trusting and collaborative culture.

The established practice of talking about instruction at Garden was also present at Fielding. Teachers at Fielding referred to the existing schoolwide practice of leaving classroom doors open as evidence of teachers' willingness to share materials and instructional ideas. Kristin acknowledged that engaging in PLC work was part of the school's culture, as further displayed by the amount of PLC collaboration in which teachers engaged on a regular basis by meeting in two types of PLCs

each week. Kristin and Eddy classified both their grade level team meetings and their discipline-based team meetings as PLCs.

Eddy added that the PLC teams of which he was a member actually met more often than required by the district: "Most of the year we did both [meetings], but the school didn't tell us to do it, which I guess they can't, but we did it on our own. . . That was better use of my time than sitting on my own lesson planning, was to be touching base and sharing stuff, so no complaints about doing that." The schoolwide culture of working together to improve practice across all three school sites contributed to teams' abilities to work effectively as PLCs.

DISCUSSION

Evidence from three school sites gathered in this mid-city district at the end of its second year of PLC development demonstrates that school leaders have a critical impact on teachers' work in PLCs teams. Teachers in effective PLCs pointed to their principals' supportive and shared leadership practices and their establishment of supportive structural and cultural conditions (Hall & Hord, 2015). While findings from this study confirmed the importance of these two dimensions of the framework, they also highlight specific administrative actions that facilitate the development and implementation of high-functioning PLCs: (1) communicating expectations for PLC work; (2) providing school-based professional learning; and (3) establishing a school culture focused on learning and collaboration.

Within these findings, some differences in the administrators' actions at the elementary and middle school levels are also apparent. Across all three school sites, clear evidence was found for an established culture focused on learning and collaboration, which facilitated trust between administrators and teachers. However, at the elementary level, school leaders at Hillside and Garden assumed responsibility for communicating clear expectations for PLC work and for organizing PLC professional learning sessions in which all staff participated. At Fielding Middle School, in contrast, the principal relied on a model of shared leadership with the school's improvement team to communicate expectations for PLC work. School leaders at Fielding provided consistent support through their attendance at PLCs, and structured time to engage in PLCs, but the support provided by the school principal was not directive, as at the elementary level. Recent research by Leithwood, Harris and Hopkins (2020) reaffirm the importance of distributed leadership in stating, "School leaders have an especially positive influence on school and student outcomes when it is distributed" (p. 13).

It is also possible that the principals' backgrounds and experiences could have influenced the supports they provided for teachers' work in PLCs. The level of schooling may have influenced the findings across these three school sites as well (elementary vs. middle school). Based on this variation in findings, it seems that multiple models of supportive and shared leadership have the potential to facilitate the development and implementation of high-functioning PLCs.

IMPLICATIONS

Implications for Practice

At the three school sites in this study, school leaders demonstrated engagement in supportive and shared leadership practices (Hall & Hord, 2015) to facilitate high-functioning PLCs. School leaders at Hillside and Garden both communicated clear expectations for goal setting and for teachers' use of the districtwide improvement process to guide PLCs. Then they supported teachers in meeting these expectations by organizing and facilitating many professional learning sessions on PLCs, in addition to providing ongoing learning and support opportunities through their own attendance at PLC meetings. While the school leader at Fielding was less specific in her expectations, this principal played a key role in creating and sustaining a school community in which teachers were valued and given the opportunity to learn over time, confirming similar findings by Wynn et al. (2007) in their study of beginning teachers' experiences in learning communities. At this school site, the principal's provision of time for teacher engagement in multiple PLCs, her demonstrated support of and attendance at PLCs, and the deliberate connections between teachers' work in PLCs and the school's goals for improvement provided sufficient direction to teachers to lead PLC work.

Moreover, at all three of these school sites, the school leader specifically connected the school's improvement plan "up" to the district goals and "down" to teachers' goals in PLCs, with a clear expectation that goals for improvement focus on instruction. Leithwood et al. (2004) describe the importance of agreement between district and school leaders on a reform's purposes and the needed supports for the reform to impact practice, and thus, student learning. In order for principals to make these connections for teachers, though, Wynn et al. (2007) state, "School districts may need to focus first on gaining information related to principals' abilities to support teachers and then explore ways to assist principals as they work to support teachers" (p. 224). In the current study, district central office provided support to school-level leadership so that leaders could, in turn, support and provide direction for teachers' work. Districts need to consider how best to prepare, support and communicate expectations to principals in advance of expecting them to develop effective learning communities at their own schools.

Implications for Policy

Across the nation in 2020, K-12 schools moved to a fully virtual or hybrid model of instruction. In many instances, teachers' work in PLCs has been pushed aside in the virtual environment. In other schools and districts, leaders have prioritized teachers' time in PLCs, dedicating full or half days weekly for teachers' engagement in collaborative work; these schools have accurately recognized that teacher teams have greater capabilities to design virtual instruction to meet individual students' learning needs than individual teachers might do on their own. At a time of such significant change in K-12 schooling, it is of utmost importance that districts not just allocate the time for PLCs, but that they also prepare school leaders to communicate expectations for PLCs, facilitate professional learning on PLC work, and establish a virtual collaborative culture. By establishing and aligning federal, state and local policies that award districts for effectively growing the capacity of school leaders and teachers to lead ongoing improvement efforts and for assessing these learning strategies with evidence, districts and schools will be more likely to take the time needed to implement educational reforms that will contribute to long-term improvement.

Implications for Future Research

While school context emphasized how the principals in this study approached the process of PLC implementation, administrators at all three school sites prioritized their roles as instructional leaders. In recent years, our understanding of the role of the principal as an instructional leader has shifted (Thessin & Louis, 2019). As instructional leaders, principals serve as coaches and modelers, as individuals who stimulate innovative teaching behaviors, and as supporters and facilitators of teachers' professional learning (Grissom et al., 2013; Leithwood & Louis, 2011).

As teachers need time to learn to collaborate for the purpose of improving instruction, principals also must be taught the skills needed to establish supportive and shared leadership and structural and cultural conditions for PLC work (Hall & Hord, 2015). Principals, like the teachers they supervise, benefit from ongoing, intensive, school-based, professional learning to improve their own leadership practices (DiPaola & Hoy, 2013; Zepeda, 2019). This preparation must begin in programs focused on developing and certifying school leaders. In order for universities and independent leadership preparation programs to adequately prepare aspiring leaders with the skills they need, additional research is needed to both define the aspects of instructional leadership that are most critical to include in aspiring leadership programs and to prepare aspiring principals to build effective teacher teams.

CONCLUSION

Although supportive and shared leadership and supportive conditions have been clearly identified as essential characteristics for successful PLC work, results from this study suggest that these conditions must be planned for and established by educational leaders before PLC work can develop at all. Teachers in high-functioning PLCs at three school sites indicated that their school leaders established an essential balance between trust and support and direction and accountability. In light of research indicating that teachers' collaborative work in PLCs facilitates improved instruction and student achievement, and particularly as we strive to recover from the significant achievement gaps that will result from extended COVID-19 school closures, the need for district and school leaders to work together to plan to provide supports and direction to teachers in PLCs cannot be overlooked. In a learning environment that is no longer contained by the school building walls, clear direction and support from administrators for teachers may be even more important than previously. Research gathered over time continues to point to the critical role of the principal on teachers' work in teams. Findings from this study further this literature by identifying the specific actions that three school leaders took to develop and implement high-functioning PLC teams in their schools.

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APPENDIX A

INTERVIEW PROTOCOL

Background Questions

- 1. Please tell me about your background.
 - What subjects and grade levels do you teach?
 - How long have you been at your current school?
 - What positions did you have before moving into your current role?
- 2. Describe the composition of your PLC.
 - How were the members of your PLC selected?
 - What do the members of your PLC have in common?
- 3. How often, and when, does your PLC meet?
- 4. How long have you been a member of this particular PLC?
 - Has the composition of the PLC changed over the last one-two years?

PLC Characteristics

- 5. How would you describe the characteristics of your PLC?
- 6. Do members of your PLC share roles and responsibilities for your work? If so, please provide some examples.
- 7. Do you believe that , and if so, how?
 - the work of your PLC is ongoing, focusing on continual improvement and growth
 - the work of your PLC is connected to your own instruction and school context
 - the goals of your PLC are closely aligned to the goals of your school and of the district members of your PLC work collaboratively to analyze and improve classroom practice
 - your PLC focuses on the achievement of a high level of learning for all students
 - your PLC studies evidence of student learning and progress throughout the year
 - your work in PLCs is encouraged and supported by school leadership structures exist in your school to promote a collaborative culture
 - you are encouraged to be creative and innovative in your PLC

Engagement in the District PLC Cycle

- 8. How familiar are you with the district's PLC Plan?
- 9. Do you think that this plan, which was developed by the PLC Steering Committee, has influenced the work of your PLC this year?
- 10. Did your PLC set an instructional goal to guide your work?
 - What is your PLC's instructional goal?
 - How did your PLC select an instructional goal?
 - To what extent has the establishment of an instructional goal guided the work of your PLC this year?
 - How has your PLC instructional goal affected your own instruction in the classroom?
- 11. Did your PLC establish an action plan to facilitate the achievement of your goal this year?
 - If so, to what extent has this action plan guided the work of your PLC this year?

- 12. How often has your PLC engaged in each step of the PLC Cycle this year? For each step of the cycle in which you have engaged, please provide an example of your work.
 - Inquiry
 - Analyze Data
 - Look at Student Work
 - Examine Instruction
 - Assess Student Progress
 - Reflect

Use of Data

- 13. Can you elaborate a bit more on what types of data, which might include standardized test data or student work, your PLC has examined this year?
 - How has this data been used by your PLC?
 - How often has your PLC examined or referred to student data in your PLC meetings?
- 14. How might your PLC use data more effectively?
- 15. Does your PLC's examination of student data affect your own instruction in the classroom?
 - If so, how?
 - What barriers do you face in using data to improve classroom instruction?

Impact of PLC Work on Classroom Instruction

- 16. To what degree has the work of your PLC affected your instruction in the classroom? Please provide some examples.
- 17. Do you think that the work of your PLC has affected the practice of all teachers in your PLC similarly?
- 18. What constraints would you identify as preventing PLC work from impacting classroom instruction in your school?
 - How might the work of PLCs have a larger and more direct impact on improved classroom instruction?

Reflection

- 19. Has the work in which your PLC has engaged been very different in the 2008-2009 school year than it was in the 2007-2008 school year?
 - If so, how?
 - To what would you attribute this change?
- 20. Do you think that your PLC has been successful this year?
 - If so, how has it been successful?
 - If not, why hasn't it been successful?
- 21. What do you think you have learned this year about PLCs?
- 22. Is there anything you would like to add about which I have not directly asked?