LEARNING FROM ONE URBAN SCHOOL DISTRICT:
PLANNING TO PROVIDE ESSENTIAL SUPPORTS FOR TEACHERS' WORK IN
PROFESSIONAL LEARNING COMMUNITIES

Rebecca A. Thessin
George Washington University

ABSTRACT

Numerous districts are implementing Professional Learning Communities (PLCs) as a part of reform efforts to improve student achievement to meet external accountability mandates. Few districts, however, have considered the essential supports and components that teachers working in PLCs require for these teams to result in instructional improvement. This study reports on the work of one mid-sized urban district that attempted to implement and support PLCs in developing essential PLC characteristics, implementing an improvement process, and establishing an instructional goal, research-based practices shown to facilitate improvement. This district also provided professional development to teachers and administrators in the implementation process.

Findings from this study affirm the research-based practices on which this district's implementation plan was based, while suggesting that additional school-based conditions also needed to be in place: (1) the provision of school-based professional development on PLCs; (2) a school culture focused on collaboration; and (3) a readiness by school leaders to engage in and communicate expectations for PLC work. The study concludes by recommending that districts consider providing differentiated supports and targeted professional development to schools during their first years of PLC work to ensure growth among all PLC teams

INTRODUCTION

The implementation of No Child Left Behind (NCLB) and the current accountability movement in education have resulted in frequent student testing and, subsequently, large amounts of available student assessment data. In this face of increased accountability, many schools and districts are implementing professional learning communities (PLCs) to support teachers in collaboratively analyzing assessment data and student work. PLCs provide the opportunity for teachers to work interdependently to identify students' learning needs, make progress to achieve collective goals and common understanding of practices, and improve instruction in the classroom (Annenberg Institute for School Reform, 2004; DuFour, 2004; DuFour, DuFour, & Eaker, 2008; Elmore & Consortium for Policy Research in Education, n.d.; Hord, 1997; O'Neil, 1995; Pappano, 2007; Schmoker, 2004; Stoll & Louis, 2007). However, in some cases, the term "professional learning community" has come to refer simply to time for teachers to meet in teams, the newest quick fix in education for lagging student achievement results.

Providing time for teachers to meet and work together certainly is new, considering the traditional, isolated, self-contained classroom model in which most school teachers have worked independently for the last century (Elmore, 2004; Tyack & Cuban, 1995). However, time is not all that is necessary for teachers in PLCs to truly affect the instructional core, the relationship between the student, the teacher, and content in the classroom (City, Elmore, Fiarman, & Teitel, 2009; Elmore, 2004). In particular, the essential supports that educational leaders must provide for PLC teams to effectively work to improve instruction are often overlooked in the process of reform.

In initiating this study on PLC work, I sought to discover the impact of the provision of specific research-based supports on teachers' collective work in PLCs. The key supports I identified in the research included: (1) the establishment of professional learning communities as defined by eight research-based characteristics (Annenberg Institute for School Reform, 2004; Curry & Killion, Winter 2009; DuFour et al., 2008; Hord, 1997; Kanold, 2006; Little & McLaughlin, 1993; O'Neil, 1995; Pappano, 2007; Schmoker, 2004; Stoll & Louis, 2007); (2) the use of an improvement process to guide teachers' work (Armstrong & Anthes, 2001; Boudett, City, & Murnane, 2005; Easton, 2004; Garvin, Edmondson, & Gino, March 2008; Holcomb, 2001; Love, Terc, & Regional Alliance for Mathematics and Science Education Reform, 2002; Pappano, 2007); and (3) the provision of professional development (Corcoran, 1995; Curry & Killion, Winter 2009; Hord, 2009). One mid-sized urban district in the process of initiating PLCs districtwide strove to provide the supports that I had identified as essential for effective PLC work.

Findings from this study revealed that despite the provision of consistent supports districtwide, PLC growth varied greatly across the district at the end of two years of work in PLCs. Data gathered from both high-functioning and struggling PLC teams made it clear that additional preconditions needed to be in place before the guidance of an improvement process and the provision of professional development would foster collective work to improve instruction. Therefore, in planning to implement PLCs districtwide, districts should first preassess schools' readiness to engage in PLC work and then provide supports to schools that are differentiated according to leaders' and teachers' PLC learning needs.

BACKGROUND AND METHODOLOGY

A significant body of research exists on professional learning communities and on teachers' work within these communities. A professional community, otherwise defined 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 on a particular topic and to discuss common challenges, thereby exemplifying elements of the learning organization (Stoll & Louis, 2007; Wenger, McDermott, & Snyder, 2002). Stoll and Louis (2007), however, distinguish that professional *learning* communities have an agreed-upon objective of improvement. Yet, in order to achieve improvement goals, PLCs need specific supports to be in place.

In its second year of PLC work ("Year II"), one mid-sized urban district identified as "in need of improvement"[1] under NCLB aimed to provide the essential supports for PLC work that I had identified in the literature. During this district's first year of implementation, Year I, administrators across the district gained some knowledge of PLC

---

1   Schools are identified as "in need of improvement" when they have not made the annual gains in student achievement required under NCLB for two years in a row.

work in professional development sessions focused on this topic. At the same time, many teachers throughout the district sat together in PLC teams with little knowledge of what they should be doing and no clear goals for their work.

In response to this confusion and frustration among teachers, the district's PLC Steering Committee drafted a Year II PLC Plan that included two specific elements to provide guidance in the implementation of effective PLCs: use of an improvement process to facilitate teachers' work in teams and the identification of an instructional goal to guide the teams' work. The improvement process included the elements of Inquiry, Analyze Data, Look at Student Work, Examine Instruction, Assess Student Progress, and Reflect, with the guidance that PLCs should engage in all six elements of the process but that there was not one specific starting point at which to begin. Instructional goals were established by grade level teams at the elementary level and by content area teams and department teams at the middle and high school levels respectively. These goals were identified to align to schools' overall goals for improving instruction in a particular area. Additionally, teachers and leaders were supported in implementing these elements of the Year II plan with focused professional development in PLC Facilitators' Trainings.

At the end of Year II of PLC work, I interviewed twenty-eight teachers at six schools and observed thirteen PLC teams in action. Since the premise of this study was based on some initial evidence that both the provision of professional development and use of an improvement process are necessary in order for teachers to be able to improve instruction, schools at which the greatest number of teachers had attended the PLC Facilitators' Trainings were the most likely places to test this proposition. I divided the district's schools into high-, mid- and low-participation groups based on the number of teachers at each school site who had elected to participate in these professional development sessions. Participation ranged from 2 - 36% of faculty attending across the district's schools. Among the district's elementary schools, I chose two schools with a reasonably high level of participation (Middlefield and Hillside[2]), one mid-level participation school (Countryside), and one low-level participation school (Hall) for inclusion in the study. At the middle school level, I conducted interviews and observations at one high-participation school (Fielding) and one mid-level participation school (Ridgeway). I then employed purposeful sampling to select teachers from within the six school sites to participate in interviews and PLC observations, contacting two teachers who had participated in the PLC Facilitators' Training and two teachers who had not participated at each school.

In preparation for my observation of PLC teams in action, and so that I might be able to identify PLCs that would be likely to yield instructional improvements, I isolated the eight PLC characteristics most frequently cited in the literature as essential for the success of professional learning communities. I determined that high-functioning PLCs should demonstrate: an ongoing nature; an emphasis on context; alignment with current reform initiatives; collaborative work; shared vision and purpose to improve student learning; evidence of student learning; supportive and shared leadership; and the presence of certain structural and cultural conditions (Annenberg Institute for School Reform, 2004; Curry & Killion, Winter 2009; DuFour et al., 2008; Hord, 1997; Kanold, 2006; Little & McLaughlin, 1993; O'Neil, 1995; Pappano, 2007; Schmoker, 2004; Stoll & Louis, 2007). In most cases, I was able to obtain minutes and other documents from a few months of a team's PLC meetings to further corroborate my observations.

---

2   Pseudonyms have been used for all school and teacher names.

As a final source of information on the effect of the district's provision of supports as described in its Year II PLC Plan, I triangulated my findings at the six schools at which I had conducted interviews and observations by utilizing and analyzing data from a survey that was authored by the district and administered in the Spring of 2009. The data from the survey also assisted in providing me with a complete picture of the work and characteristics of PLCs across all twenty schools in the district and an understanding of the district's impact on PLCs across all schools. Overall, 939 teachers, or approximately 67% of the district's teaching staff, responded to the district-wide survey.

FINDINGS

As demonstrated by disaggregated results of the district-wide teacher survey, my observations of PLCs across the district, and teachers' own accounts of PLC work that were gathered for this study, the practices engaged in by teachers working in PLCs varied considerably in this mid-sized urban district at the end of Year II of PLC implementation. Teachers in high-functioning PLC teams confirmed that PLCs benefited from the supports provided by the district, including professional development on PLCs and the use of an improvement process, both components of the district's Year II PLC plan. While some professional learning communities progressed, however, others struggled to engage in work that would lead to improved classroom instruction at the end of two years of PLC work.

Data gathered from both high-functioning and struggling PLC teams made it clear that additional preconditions needed to be in place before the guidance of an improvement process and the provision of professional development would foster collective work to improve instruction. Specifically, teachers in high-functioning PLCs and in struggling PLCs identified the presence or absence of certain conditions as influential on their work: (1) the provision of school-based professional development on PLCs; (2) existing school practices and a school culture focused on collaboration; and (3) the readiness of school leaders and the communication of expectations by school leaders for PLC work. These findings, and the variation in PLC growth observed in this mid-sized urban district, suggest that the district's PLC implementation plan might have been more effective had it provided differentiated supports to account for schools' readiness to engage in PLC work in Year I.

Learning from High-Functioning Teams

This mid-sized urban district's Year II PLC Plan positively contributed to teachers' collective work to improve instruction in a number of PLCs across the district. Summary results of the district-wide teacher survey indicated that PLCs were providing teachers with time to determine how best to meet all students' needs. As shown in the survey results provided in Table 1, 78% of elementary teachers and 67% of middle and high school teachers who responded to the survey stated that their PLC focused on supporting every student to a high level of achievement (Office of Performance Management and Accountability, 2009). And, after my interviews were completed, teachers expressed to the superintendent and to other Central Office administrators that they believed PLC work contributed to improvements in student achievement observed on the 2009 state test results.

<u>Table 1</u>

Q18D. My PLC focuses on supporting every student to reach a high level of achievement.

School Level	Percent of Teachers who Responded "Often" or "Almost Always"
Elementary Schools	78%
Middle and High Schools	67%

Moreover, during interviews and PLC observations, teachers in high-functioning PLCs confirmed the necessity of the research-based supports I had identified: (1) the establishment of professional learning communities as defined by eight research-based characteristics, (2) the use of an improvement process to guide teachers' work, and (3) the provision of professional development. Additionally, teachers in high-functioning PLCs pointed to their use of an instructional goal as a component of the improvement process, as defined by the district's Year II PLC plan, as another important influence on their collective work to improve instruction.

First, high-functioning PLCs that I observed demonstrated many of the eight PLC characteristics that I had identified in the literature: (1) an ongoing nature; (2) emphasis on context; (3) alignment with current reform initiatives; (4) collaborative work; (5) shared vision and purpose to improve student learning; (6) evidence of student learning; (7) supportive and shared leadership; and (8) the presence of certain structural and cultural conditions (Annenberg Institute for School Reform, 2004; Curry & Killion, Winter 2009; DuFour et al., 2008; Hord, 1997; Kanold, 2006; Little & McLaughlin, 1993; O'Neil, 1995; Pappano, 2007; Schmoker, 2004; Stoll & Louis, 2007). While I had identified leadership as one of the eight essential characteristics of PLC work, in interviews, teachers repeatedly emphasized the powerful impact that school administrators had on their work in PLCs, raising this characteristic to a level of importance above the others. Beyond providing time and space for teachers to meet in teams, supportive school leaders offered continued onsite professional development in PLC work and established accountability for teams' work, such as by supporting and expecting the establishment of an instructional goal by each PLC team.

Second, members of high-functioning teams engaged in aspects of this district's PLC improvement process and cited the process as supporting their work, confirming research that the use of a process facilitates instructional improvement (Armstrong & Anthes, 2001; Boudett et al., 2005; Easton, 2004; Garvin et al., March 2008; Holcomb, 2001; Love et al., 2002; Pappano, 2007). PLC teams were observed looking at student work, inquiring into research, analyzing data, and debriefing classroom observations, as a few examples. Results of the district-wide survey also confirmed that PLCs across the district engaged in particular components of the district's PLC process. However, I observed only one team engage in an ongoing process of improvement. This team of teachers engaged in an iterative process of analyzing data, planning next steps for instruction, and assessing student results. This finding suggests that teams must first engage in and learn to implement specific PLC process steps as a precursor to engaging in a continual, ongoing process of

improvement, a goal that may require more than two years of PLC work.

Third, in interviews, teachers in high-functioning teams indicated that participation in the district's PLC Facilitators' Training sessions and in other professional development sessions on PLCs had a significant impact on their work. As Corcoran (1995) states, "The implementation of systemic reform requires . . . a system of professional development that helps teachers learn, develop, use, and maintain the knowledge and skills required to meet this goal" (p. 2). Like many other teachers, Mike, a teacher at one of the elementary schools selected for this study, attributed the tremendous difference he saw between PLC work in Year I and Year II to the professional development that teachers received in the PLC Facilitators' Training sessions:

> Honestly speaking, I don't think anyone really knew what to do last year. Didn't know if it was just another kind of common planning time or exactly what was supposed to be done . . . This year, I think all the teachers in the PLCs have more of a focus and a better understanding of what it should look like, and what it does and does not look like. I think the framework of looking at data within our PLCs is much stronger, which then helps the PLC become more focused on the work that needs to be done.

Other districts considering implementing professional learning communities as a key component of school improvement efforts should establish clear plans as to how teachers will learn to engage in this process, a realization that this district strove to address by providing professional development directly to teachers in Year II.

Finally, as described in the district's Year II PLC Plan and as also supported by research, high-functioning teams utilized an instructional goal to guide their work to improve instruction and student achievement (DuFour, DuFour, Eaker, & Karhanek, 2004; Stoll & Louis, 2007). The majority of the district's survey respondents, 66% of elementary teachers and 54% of middle and high school teachers, indicated that their instructional goals guided their work in PLC teams (please refer to Table 2). However, as reported in interviews at one elementary school, in some cases, goals were established but not utilized to guide teams' work. Therefore, while the guidance of an instructional goal should certainly be considered an important component of PLC work, the establishment of a goal was not sufficient to propel a struggling PLC to become high-functioning if other essential PLC characteristics were not in place.

Table 2

Q17A. My PLC's instructional goal guides our work as a team.

School Level	Percent of Teachers who Responded "Often" or "Almost Always"
Elementary Schools	66%
Middle and High Schools	54%

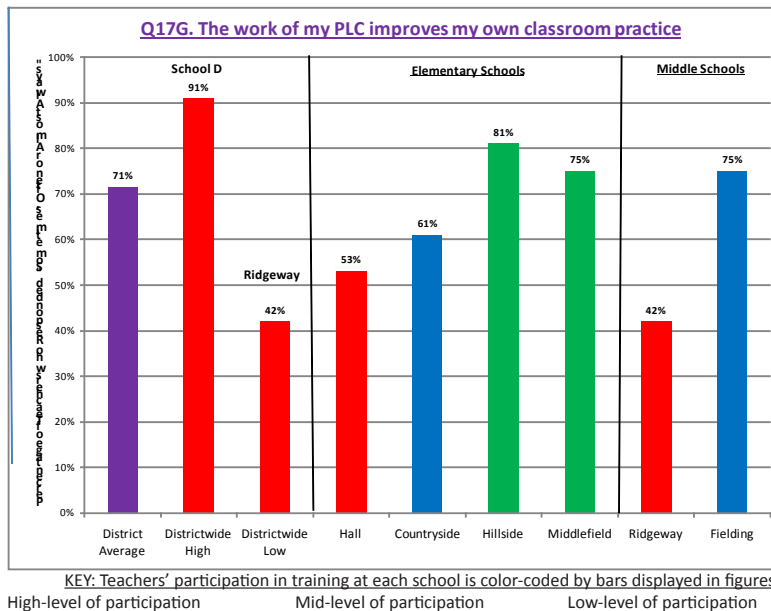*Learning from Struggling Teams*

Teachers in many professional learning communities across the district were still struggling to engage in collective work that would lead to improved instruction at the end of

Year II. Struggling PLCs lacked most of the eight PLC characteristics that I had identified in the literature; failed to engage in aspects of the district's improvement process; generally had few, if any, team members participate in the PLC Facilitators' Trainings; and in some cases, had not established an instructional goal. These PLC teams lacked the necessary preconditions identified in data gathered by this study as essential to effective PLC work: (1) the provision of school-based professional development on PLCs; (2) existing school practices and a school culture focused on collaboration; and (3) the readiness of school leaders and the communication of expectations by school leaders for PLC work.

(1) School-Based Professional Development on PLCs

Teachers in high-functioning PLCs were both encouraged to attend the optional district-wide PLC Facilitators' Trainings by their school administrators and provided with additional training in PLC work at their school sites. At Middlefield Elementary School, where 36% of the faculty (the highest proportion district-wide) elected to participate in the district-initiated PLC professional development sessions, teachers also participated in Data Team trainings offered by the state that were scheduled by the principal. Furthermore, school leaders assigned a teacher specialist who had attended both the district and state trainings to attend all of the school's PLC sessions, thereby providing continued professional development to team members. At School D, where 91% of survey respondents indicated that PLC work improved their classroom practice on the survey (see Figure 1), teachers remembered participating in an astounding eight to ten school-based training sessions on PLC work. Finally, at both Fielding Middle School and at School D, administrators regularly observed or participated in PLC meetings, providing, as Jill at School D described, the right amount of support to teachers in PLCs.

Figure 1

Q17G. The work of my PLC improves my own classroom practice

KEY: Teachers' participation in training at each school is color-coded by bars displayed in figures:
High-level of participation   Mid-level of participation   Low-level of participation

[3]School D was not originally selected as a study site. The high teacher survey resoponses led me to conduct interviews here in the Fall of 2009 to explain this discrepant data.

In contrast, teachers in struggling PLCs pointed to a lack of training as a primary reason for their teams' lack of effectiveness and their own confusion with how to utilize PLC time. Dana, a teacher at Hall Elementary School, indicated that even though PLCs were formally initiated in the Fall Semester of 2008, little information was shared with teachers on PLC work until June of 2009. Similarly, at Ridgeway, teachers stated that onsite professional development consisted of administrators placing articles in teachers' mailboxes, a practice that offered no concrete PLC training to teachers.

(2) Existing School Practices and School Culture Focused on Collaborative Work

The extent to which school leaders had already established a school culture focused on learning and collaboration seemed to correlate with the likelihood that a PLC became high-functional by the end of two years of PLC work. At some school sites, teachers openly inquired about how other teachers taught certain concepts or utilized specific instructional strategies in their classrooms. This type of inquiry into one another's practice was observed in high-functioning PLCs at Middlefield and Hillside Elementary Schools and at Fielding Middle School. At Fielding, one teacher, Kristin, suggested that the existing culture of working collaboratively in grade level teams led teachers to be willing to contribute to PLC work. Additionally, as scheduled by administrators, teachers at this school met in two PLCs weekly, one with grade level members and one with subject department members, demonstrating the school's commitment to collaboration. Teachers at School D suggested that their existing familiarity with teamwork, specifically by meeting in adult communities through the Responsive Classroom model, led them to be ready for PLC work. They added that an established trust between school administrators and staff contributed to this school's high results on the district-wide survey.

At both Hall and Ridgeway, while teachers were provided with time to meet, administrators did not put any additional structures in place to facilitate teachers' learning in teams. Without the knowledge of how to engage in PLC work or the understanding of how their work could lead to improved student achievement, many teachers at Hall and Ridgeway focused their PLC discussions on student behavior issues and on problems with school and district administrators. At Countryside Elementary School, I observed teachers share student work samples, but multiple teachers commented that certain students were not capable of high level work, acknowledging, "Well, since you have the low class. . .". Even though this PLC was engaging in an element of the district's improvement process, teachers blamed the kids or the external assessment for students' poor performance instead of examining their own instruction.

(3) Readiness of School Leaders and Communication of Clear Expectations by School Leaders

School leaders had a much greater impact on teachers' work in PLCs in this district during the 2007-2009 school years than one seven-hour PLC Facilitators' Training session could. Teachers in high-functioning PLCs specifically identified the support of school leaders and the provision of direction and clear expectations by school leaders as a key factor in their work. At many school sites, school leaders reinforced the PLC process designed by the district's PLC Steering Committee and assisted teachers in establishing norms, using protocols, and working toward achievement of an established instructional

goal. Mary, a teacher at Hillside Elementary, gave the credit for her school's PLC work to her new principal, stating, "They are effective PLCs now because of our new leadership." Mary and other teachers at Hillside indicated that their principal's expectation that they follow the district's PLC process to establish an instructional goal, as well as draft an action plan to guide them in reaching that goal, focused their work.

In contrast, at other schools, leaders provided little structure or guidance for PLCs, and some directed teachers to engage in activities that actually took their time away from instructionally-focused PLC work. At Hall Elementary, teachers indicated that administrators assisted them in writing an instructional goal, but then teachers weren't provided with time to work to achieve them. At this school, administrators actually set the agendas for PLC work each week. One teacher at Hall stated that teachers' lack of ability to influence their PLC agendas resulted in teachers not being able to discuss classroom challenges that were of importance to them. As described by teachers in struggling PLCs, this absence of clear understanding of PLC work and of communication on the purpose and expectations for PLC work by school leaders contributed to PLCs' lack of progress at some school sites.

IMPLICATIONS FOR EDUCATIONAL PLANNING
IN THE IMPLEMENTATION OF PLCS

The variation in the growth of professional learning communities that was observed in this district after two years of PLC work suggests that districts planning to initiate PLCs should design a differentiated implementation plan that correlates with schools' and school leaders' readiness to engage in this work. Prior to sharing PLC practices with schools, a district should determine schools' readiness to engage in the four essential elements of a PLC implementation plan, including: (1) the establishment of the eight essential characteristics of PLCs; (2) the use of an instructional goal to guide teams' work; (3) the design and implementation of a PLC improvement process; and (4) the provision of professional development. Next, districts should support school teams in establishing and utilizing the elements of PLCs that are found in high-functioning teams through the provision of targeted professional development.

In order to determine each school's readiness for PLC work, a district might follow the guidance of this mid-sized urban district's PLC improvement process (please see Figure 2). While the process was developed to assist teachers in understanding challenges of student learning for the purpose of adjusting and improving instruction, the six steps of the PLC process could also be used to guide a district in designing a differentiated implementation plan for PLCs: (1) Inquiry; (2) Analyze Data; (3) Look at Student Work; (4) Examine Instruction; (5) Assess Student Progress; (6) Reflect.
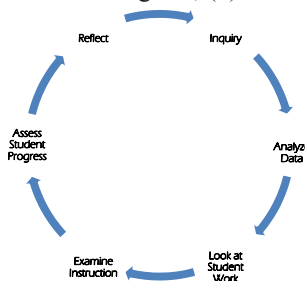

Figure 2

1) Inquire:

School and district leaders, both administrators and teachers, should be involved in the PLC development and implementation process. It is important to begin this collective learning about what a PLC *is* and *does* prior to the first year in which teachers begin meeting in PLCs. In the district studied, the PLC Steering Committee designed the district's improvement process and served as a valuable source of knowledge for school representatives who served on the committee and for Central Office representatives who were supporting schools in the implementation process. These representatives determined the district's next steps and brainstormed solutions to everyday challenges with PLC work. Additionally, Committee members assisted in gaining teacher support for PLC work at their own school sites.

2) Analyze Data:

The district should survey teachers and administrators to determine schools' readiness to engage in PLC work. By designing and administering a short survey to pre-assess schools' readiness to engage in this learning, a district planning to implement PLCs can gather information on the extent to which the eight essential characteristics of PLC work already exist in each school. The survey should include questions about existing practices and professional development opportunities, school culture, and the readiness of school leaders and staff to engage in PLC practices. Asking teachers questions such as, "How frequently do you work in teams?" and "What other professional development sessions may have prepared you to collaborate with other teachers?" will assist a district planning for implementation to determine which schools are ready to begin this work. A district may consider piloting PLC work at certain ready-to-go school sites, while other school leaders are supported in preparing their faculties with skills to engage in PLCs in subsequent school years.

3) Look at Teachers' Collective Work:

If responses from the survey indicate that schools already have many of the eight characteristics of PLC work in place, and may even have engaged in aspects of an improvement process prior to the initiation of PLCs, the next step is to triangulate the data by following up with a visit to the school. As found at one of this district's schools, teachers may believe that they have been doing PLC work for years, while not realizing what a PLC actually *is*. By observing a few examples of teachers working together, such as during existing time for professional development, district leaders can assess teachers' familiarity with collaborative work. If no opportunities to observe teachers engaging in collective work are available, teachers and school leaders at this site may first need support in establishing structures for teamwork prior to establishing the eight PLC characteristics as a component of team functions.

4) Examine the Culture of Instruction:

Prior to implementing PLCs, consider a school's culture by looking for initial indicators of a learning organization – Are classroom doors left open during instruction? Is student work displayed in the hallways? Do teachers have time dedicated to meet and plan for instruction? Are conversations in the teachers' room focused on sharing instructional strategies? Reflecting on a school faculty's readiness to begin to learn together prior

to instituting PLCs may help district leaders better prepare a school to engage in this challenging work.

Teachers who have never before shared the instructional work that takes place inside their classrooms with one another should first learn how to organize for collaborative work by receiving support in establishing norms, utilizing protocols, setting goals, and writing agendas to guide their collaborative work. Then, as PLCs are formed at a school site, teachers working in PLCs should receive feedback on their work as it aligns to the eight essential characteristics of PLCs and to the district's improvement process through regular observations. Observations of PLC teams in action should be part of the larger district-initiated data-gathering process that is necessary to assess and support continued growth in PLC teams.

5) Assess School Progress and 6) Reflect:

As the PLC implementation process gets underway, districts should continue to gather data, make adjustments, and differentiate support to PLC teams. An effective classroom teacher is constantly collaborating with colleagues to analyze student work and assessment data to determine which students need additional support and which students are ready to move on. In the process of implementing a new initiative, a district should also revisit school and individual team needs and subsequently provide differentiated support to assist PLC growth at each school site. Through the administration of annual surveys and the analysis of those results, observations of PLCs across the district, and the feedback provided by a representative committee, a district can make adjustments to its own PLC model to continue to improve its effectiveness. This work is best done collaboratively, in conjunction with teachers and administrators who are engaging in PLC work across the district.

CONCLUSION

In considering cost-efficient ways of providing differentiated professional development, districts might consider grouping schools together into Stage 1, Stage 2, and Stage 3 schools based on the results of data gathered and triangulated prior to implementation. Teachers at Stage 1 schools might participate in professional development focused on establishing basic components of collaborative work, such as creating norms, using protocols, and working toward a simple goal, while teachers at a later stage of growth might be supported in initiating the practice of peer observation. As school-based professional development would be most applicable to school teams' work, district administrators might also collaborate with school leaders in designing professional development sessions on PLCs to be led and held at individual school sites. Through gathering data and visiting a school to observe teachers' collaborative work prior to planning professional development, this training could be developed with a particular school's needs for PLC growth in mind.

In preparation for Year III of PLC work, this mid-size urban district also began to offer differentiated supports to schools to further PLC work as a result of an analysis of survey data, school visits, feedback from the PLC Steering Committee, and other data gathered in Years I and II. By gathering data on school readiness for PLC implementation across school sites prior to Year I of PLC work, however, districts in the process of initiating PLCs can design a differentiated plan to provide professional development and support to schools engaging in various stages of learning in professional learning communities.

While the results of this study suggest that specific supports are essential to the growth and development of PLC teams, findings also indicate that not all schools may benefit equally from such supports without the presence of certain preconditions. Through careful observations and analysis of survey data, district administrators can plan to provide supports to establish the conditions needed to further PLC development at all school sites, regardless of school starting points.

REFERENCES

Annenberg Institute for School Reform. (2004). *Professional learning communities*. Providence, RI: Annenberg Institute for School Reform.

Armstrong, J., & Anthes, K. (2001). How data can help. *American School Board Journal, 188*(11), 38-41.

Boudett, K. P., City, E. A., & Murnane, R. J. (Eds.). (2005). Data wise: *A step-by-step guide to using assessment results to improve teaching and learning*. Cambridge, MA: Harvard Education Press.

City, E. A., Elmore, R. F., Fiarman, S., & Teitel, L. (2009). *Instructional rounds in education: A network approach to improving teaching and learning*. Cambridge, Mass.: Harvard Education Press.

Corcoran, T. C. (1995). *Transforming professional development for teachers: A guide for state policymakers*. Washington, DC.: National Governors' Association, Center for Policy Research.

Curry, M., & Killion, J. P. (Winter 2009). Slicing the layers of learning. *Journal of Staff Development, 30*(1), 56.

DuFour, R. (2004). What is a professional learning community? *Educational Leadership, 61*(8), 6-11.

DuFour, R., DuFour, R., & Eaker, R. E. (2008). *Revisiting professional learning communities at work: New insights for improving schools*. Bloomington, IN: Solution Tree.

DuFour, R., DuFour, R., Eaker, R. E., & Karhanek, G. (2004). *Whatever it takes: How professional learning communities respond when kids don't learn*. Bloomington, Indiana: Solution Tree.

Easton, L. B. (2004). *Powerful designs for professional learning*. Oxford, OH: National Staff Development Council.

Elmore, R. F. (2004). *School reform from the inside out: Policy, practice, and performance*. Cambridge, MA: Harvard Education Press.

Elmore, R. F., & Consortium for Policy Research in Education. (n.d.). *Knowing the right thing to do: School improvement and performance-based accountability*. Washington, D.C.: NGA Center for Best Practices.

Garvin, D. A., Edmondson, A. C., & Gino, F. (March 2008). Is yours a learning organization? *Harvard Business Review*, 109.

Holcomb, E. L. (2001). *Asking the right questions : Techniques for collaboration and school change* (2nd ed.). Thousand Oaks, Calif.: Corwin Press.

Hord, S. M. (1997). Professional learning communities: What are they and why are they important? *Issues about Change, 6*(1), November 25, 2008.

Hord, S. M. (2009). Professional learning communities. *Journal of Staff Development, 30*(1), 40-43.

Kanold, T. D. (2006). The flywheel effect: Educators gain momentum from a model for continuous improvement. *Journal of Staff Development, 27*(2), 16-21.

Little, J. W., & McLaughlin, M. W. (1993). *Teachers' work: Individuals, colleagues, and contexts*. New York: Teachers College Press.

Love, N., Terc, B., & Regional Alliance for Mathematics and Science Education Reform. (2002). *Using data, getting results: A practical guide for school improvement in mathematics and science*. Norwood, Mass.: Christopher-Gordon Publishers, Inc.

Office of Performance Management and Accountability. (2009). *The voices of our community: Findings from the spring 2009 surveys*. [Location omitted to protect the confidentiality of study participants.]

O'Neil, J. (1995). On schools as learning organizations: A conversation with Peter Senge. *Educational Leadership, 52*(7), 20.

Pappano, L. (2007). More than "making nice". *Harvard Education Letter, 23*(2), 1-3.

Schmoker, M. (2004). Learning communities at the crossroads: Toward the best schools we've ever had. *Phi Delta Kappan, 86*(1), 84-88.

Stoll, L., & Louis, K. S. (2007). *Professional learning communities: Divergence, depth and dilemmas*. Maidenhead: McGraw-Hill/Open University Press.

Tyack, D. B., & Cuban, L. (1995). *Tinkering toward utopia: A century of public school reform*. Cambridge, Mass.: Harvard University Press.

Wenger, E., McDermott, R. A., & Snyder, W. (2002). *Cultivating communities of practice: A guide to managing knowledge*. Boston: Harvard Business School Press.