The Impact of a Professional Development Network on Leadership Development and School Improvement Goals

Barbara Stacy Rieckhoff, Ph.D Catherine Larsen, Ph.D DePaul University

ABSTRACT: Principals are expected to create a vision for their schools with clearly articulated goals for sustainable change. The 2008 Interstate School Leaders Licensure Consortium (ISLLC) Standards provide a strong framework for leadership knowledge, behavior and dispositions. ISLLC Standards 1 and 2 outline the school leader's responsibility in articulating the school vision and providing a successful instructional program. Professional Development Schools (PDSs) provide a model of school reform that enables school leaders to access multiple avenues of support in their efforts to develop implement this vision. This article considers the impact a professional development school partnership has on leadership development. The authors document the principals' perspective on the impact of the PDS partnership and how the partnership allows school leaders to focus on clear school improvement goals and targeted professional development as their leadership and school-wide sustainable changes develop over time.

School leaders are under increasing pressure to meet school improvement goals, provide each child with an instructional program for optimal learning to occur, and generate test results that provide documentation of these factors. Principals are expected to create a vision for their schools with clearly articulated goals for sustainable change. The 2008 Interstate School Leaders Licensure Consortium (ISLLC) Standards offer a strong framework for understanding aspects of leadership knowledge, behavior and dispositions. ISLLC Standards 1 and 2 outline the school leader's responsibility in articulating the school vision and providing a successful instructional program. Additionally, the Professional Development School (PDS) Nine Essentials (NAPDS, 2008) outline a model of reform that enables principals to access multiple avenues of support as they develop and implement this vision. In a PDS model, school leaders and university faculty are able to work collaboratively so that both university and school needs and goals are met. This article considers the impact a professional development school partnership can have on leadership development. The authors document the principals' perspective on the impact of a PDS partnership, and how the partnership allows them to focus on clear school improvement goals and targeted professional development as their leadership and school-wide sustainable changes develop over time.

This research is based on the work of the Urban Professional Development School Network (Urban PDS), a university-school partnership between a large urban private university and seven schools in the surrounding area. Three years of qualitative and quantitative data document the principals' perspective in four key areas: leadership development, school improvement goal attainment, professional development planning and focus, and school-wide changes over time. Aggregated data demonstrate network-wide changes and disaggregated data

suggest network strengths as well as areas for continued growth and development. Data analysis provides insight into the development of leadership at all levels and principals' perceptions about the partnership's impact on school change efforts as well as the development of their own leadership.

Perspective

The authors approached this work from the perspective of university-based faculty working within a network as PDS Director and PDS faculty liaison, with backgrounds and experience in school leadership and quantitative and qualitative research. We valued the unique identity and context of each school in the partnership. Looking at the PDS network through the lens of school leadership, we sought to better understand aspects of the partnership that honed principals' skills enabling them to focus on school improvement goals, improve the delivery of professional development programs, and institute school-wide changes over time. This research focuses on the critical role that leadership plays within a PDS network and how the network can facilitate the growth and development of the principal and school leaders at all levels over time, impacting critical aspects of school improvement and professional development.

Review of the Literature

School leaders are charged with the articulation of a clear vision for bringing about school change and providing students with an instructional program that promotes optimal learning (ISLLC, 2008). The principal is responsible for identifying goals to ensure that necessary improvements and changes are implemented. Following the identification of measurable goals for improvement, the principal must identify and facilitate meaningful professional development enabling teachers to implement sustainable changes for improving instruction. Principals are held accountable for all aspects of the school operation to include all of the

personnel and students, the educational program, and the work with those outside the school community (Green, 2009).

Prior to the last decade, the role of the principal was seen as a secondary factor in student achievement. Principals were responsible for the organization and management of the school environment, providing resources so teachers could have the best conditions for teaching. However, recently the principal has been more directly linked with student achievement. Leithwood, Anderson, and Wahlstrom (2004) found leadership and its impact second only to classroom instruction among all schoolrelated factors that contribute to what students learn at school. While evidence about leadership effects on student learning can be confusing to interpret, much of the existing research actually underestimates its effects. The total (direct and indirect) effects of leadership on student learning account for about a quarter of total school effects. This evidence supports the present widespread interest in improving leadership. Cotton (2003) outlined twenty-five responsibilities of school leaders and Marzano's (2005) meta-analysis of leadership studies identifies twenty-one responsibilities of a school principal and the correlation each has to student achievement. Wahlstrom and Louis' (2010) tenyear study of leadership presents a key finding that student achievement is higher in schools where principals share leadership with teachers and the community. These responsibilities as described in the cited research show a clear alignment with the documented roles and responsibilities of a PDS principal.

The Professional Development School (PDS) model is an important one in the work of school reform, providing a means for collaboration and the sharing of resources that allows partnerships to emerge and develop over time (Teitel, 2008). University faculty immerse themselves in the work in the school, while teachers and administrators take responsibility for training pre-service teachers. New roles emerge as the collaboration among the partners evolves over time. An important aspect of the PDS work is the development of teacher leaders and leadership at all levels.

Role of the Principal

Research on the role of the principal in professional development schools is still in the early stages. Rice's (2002) meta-ethnography of twenty case studies involving PDSs identified the importance of the principal as one of the emergent themes found in the literature. The role of the PDS principal was described as a critical component, as their support of teacher involvement and collaboration allowed leadership to be shared. Bowen, Adkison, and Dunlap (1996) examined the role of principals in seven elementary PDSs, suggesting that the role of the PDS principal falls on a continuum evolving over time, with early stages focused on management and organizational issues, and later stages focused on school-wide changes and new approaches to leadership. Trachtman and Levine (1997) described the various forms that leadership can take in a PDS, using metaphors of parent and cheerleader to portray the role. Foster, Loving, and Shumate (2000) identified core characteristics of effective PDS principals, indicating that a philosophy and belief system supportive of collaboration and teacher advocacy are critical factors. Bier, Foster, Bellamy, and Clark (2008) discussed the reframed role of the principal, identifying four functions that expand the principal's role: the partnership, preparing great new teachers, supporting inquiry to improve practice, and keeping a complex partnership focused on student learning. Stroble and Luka's work (1999) explored the redefined leadership that occurs within a PDS and described how transformational leaders teach others to make decisions. Gutierrez, Field, Basile, and Simmons (2007) examined the complexities of the principal's role in PDS schools in terms of organizing resources from the partnership. Clearly, the principal's role is central to and becomes a critical factor in the work of a successful PDS.

Principal as Change Agent

Bullough, Kauchak, Crow, Hobbs, and Stokes (1997) discussed the many variables involved in impacting school change within a PDS partner-

ship, identifying principals as catalysts for change to occur. Stroble and Luka's (1999) work underscores how transformational leaders teach others to make decisions. Transformational leadership theory (Burns, 1978) implies a process that changes and transforms people. Bass (1985) described four factors that describe in detail the behaviors of transformational leaders. Idealized influence describes the leader who acts as a strong role model, providing followers with a vision and sense of mission. Inspirational motivation describes a leader with high expectations of followers, who inspires through motivation and sharing the vision. Intellectual stimulation describes leadership that inspires followers to be creative and try innovative approaches to solving problems. Individualized consideration represents a leader who provides a supportive climate and listens carefully to the needs of the followers. Heck and Hallinger (1991) identified transformational leadership and instructional leadership as the two models utilized by educational leaders to bring about improved educational outcomes. Hallinger's (2003) further investigation of these two leadership models concludes that their effectiveness is linked to factors in the external environment and the local context of a school. Fullan (2002) described the change leader as one who possesses five essential characteristics which include moral purpose, an understanding of the change process, the ability to improve relationships, knowledge creation and sharing, and coherence making. His description of the "cultural change principal" is one who transforms the organization through people and teams (Fullan, 2001).

Principal Leadership Development

Green's (2010) model provides a valuable lens through which to view leadership development; four dimensions describe the work of the principal: understanding oneself and others, understanding the complexity of organizational life, understanding relationships and their importance, and engaging in best practices. This model aligns well with the ISLLC standards; however the true essence of leader-

ship effectiveness emerges when all four dimensions are working simultaneously. If any one of the four is missing, leadership is seriously challenged. Dimension One emphasizes the leader's understanding of her own beliefs and values as well as the beliefs and values of others, enabling the emergence of a shared vision and goals. Dimension Two emphasizes a principal's role in understanding the complexity of organizational life. In order to transform the vision of a school into reality, the leader must understand the complex and multifaceted nature of schools, including the culture, climate and interactions that exist. Awareness of the social interactions of others allows the leader to assess conditions and develop plans for goal attainment. Establishing and retaining a quality teaching faculty are included within this dimension as the leader assesses needs in teaching capacity. Dimension Three focuses on a leader's understanding of developing and maintaining relationships that exist within and across all stakeholders in the school community. Such knowledge assists the leader in better understanding how to build capacity and develop a professional learning community, while acknowledging the importance of a school's internal and external partners. Dimension Four emphasizes the principal's role in identifying and using best practice to improve and transform the school. The leader's understanding of communication, decision-making and change encompass this dimension and lead to a model of school improvement for all students.

Barnes' (2010) study of principal professional development suggests that the development of effective principals is evidenced as a refinement in practice through sustained, incremental innovation, based on understanding why and how to change. Donaldson (2008) presents a model for leadership development based on three areas of core knowledge in leadership performance, which include cognitive, interpersonal and intrapersonal dimensions. In this model, a leader's developmental needs derive from specific areas aligned with each leadership dimension, and the leader's learning goals can be diagnosed by assessing the knowledge across these dimensions.

The role of the principal has been analyzed and discussed in terms of how it relates to the goals of a professional development school and its major stakeholders. However, there has yet to be a focus on the actual development of leadership and how the PDS principals themselves develop their roles. The authors of this study have attempted to use the lens of leadership development theory to view the principal's individual development, leadership in general, and how the PDS network can influence that growth and development. Green's four dimensions of leadership will be used to analyze the principal perceptions and provide evidence of each of these dimensions within their roles as PDS school leaders.

Research Questions

The study was designed to address four broad questions:

- 1. How does participation in the PDS network influence leading at P-12 schools?
- 2. How does a PDS partnership influence a K-12 principal in meeting school improvement goals and providing focused professional development?
- 3. How does the PDS partnership support principal growth and development over time?
- 4. How does the PDS partnership impact school-wide sustainable changes over time?

Method

This study uses a mixed-method multi-source approach for collection and analysis of data. In order to address these questions, the researchers utilized a survey comprised of quantitative (Likert scale) and qualitative (narrative response) questions and participant interviews. The Likert scale provides for respondents to indicate varying degrees of intensity on a scale (Issac & Michael, 1995), while the narrative responses allow for more in-depth perspective and greater understanding practitioners may have to share (Glesne & Peshkin, 1992). Annual external evaluator reports and annual school action plans

developed by each school site were also examined. The recursive nature of qualitative research methodology resulted in iterative identification of emergent themes, which encouraged the researchers to engage school leaders in additional interviews.

Participants

The participants in this study were teachers and administrators in a partnership between a large, private, urban university and seven public and private schools located within a seven-mile radius of the university. The schools represented were three public elementary schools, two private elementary schools, one public high school and one private high school. The network consisted of approximately 3,500 P-12 students. The initial conceptualization for the PDS network occurred in 2003, its inauguration took place in June 2005. Figure 1 shows the breakdown of participants for this study with 52 participants in 2006, 45 in 2007 and 170 in 2008.

The number of participants varied considerably from year to year in the study, as a result of several conditions. The establishment of a network of this size and scope evolves over time, and while aspects of this necessary development can be anticipated to some degree, the network takes on a life of its own. The initial year of Urban PDS implementation focused on the development of structures and systems, and several schools began the work with Core Teams of interested teachers, rather than the full school staff. The numbers of pre-service participants and university personnel were also smaller, as collaborative inquiry processes were explored and modeled. In Year 2, greater numbers of participants were engaged at all levels, with school sites participating in multi-layered network activity, serving as mentors, team leaders, planning groups, or taking classes at the university.

The dramatic increase in survey responses in Year 3 reflects two significant changes in the network. The addition of a large urban high school brought many new teachers who had not participated in prior years of intensive profes-

sional development within the schools. As a result, their perceptions of the network and its impact on leading were based on the one year of involvement. The number of pre-service candidates involved in the PDS grew considerably during the third year, while at the same time action plans became more complex and grew to involve whole school staffs. Many school personnel were new to PDS interactions, with differing perspectives about the roles that had been developing over time. As a result, responses to the survey questions regarding "leading" came from many new perspectives.

Data Collection

During the three-year period of the urban PDS under study, activities and experiences were recorded and documented through field notes, meeting notes, interviews and the administration of an annual survey. This annual survey, the Critical Changes Survey, focused on three research questions: 1) How does participation in the PDS network influence teaching, learning and leading at P- 12 schools? 2) How does participation in the PDS network influence preparation of pre-service candidates? 3) How do PDS partner institutions collaborate to support the work of the professional development school partnership?

The survey focused on participant perceptions and reflected the original goals of the Urban PDS Network and the NCATE standards for professional development schools. It was the initial data source for this study. Comprised of a combination of Likert-type scale and openended questions, the survey was divided into three sections, with the first portion asking participants to respond to questions regarding demographic data, years of teaching experience, and subjects taught, while the second portion included questions regarding teaching, leading and learning. This study focuses specifically on the questions that are linked to "leading," which included eight Likert-scale questions shown in Figure 2. Respondents were asked to mark one of the following: strongly agree, agree, disagree or strongly disagree.

Respondent Category	Year 1: # of	Year 2: # of	Year 3: # of
	Respondents	Respondents	Respondents
Graduate assistant	1	1	0
University faculty	14	9	5
P-8 Public School #1	4	4	29
P-8 Public School #2	5	5	19
P-8 Public School #3	6	6	23
P-8 Private School #1	6	13	20
P-8 Private School #2	11	5	30
9-12 Private School #1	5	2	18
9-12 Public School #1	N/A	N/A	26
Total	52	45	170

- All participating educators invited to complete on-line survey
- ☐ Classroom teachers, administrators, and university faculty
- ☐ All grade levels and content areas represented

In Year 3, for the first time, all educators at network schools were encouraged to respond, not only "participants."

Figure 1. Participants in Critical Changes Survey

Data Sources

The data sources for this research include an end-of-year survey completed by in-service participants in the Urban PDS (university faculty, P-12 teachers, and administrators.) This survey was designed to identify PDS perceptions in four key areas: P-12 educator capabilities, P-12 student achievement, pre-service candidates and preparation, and university-school collaboration.

Additional data sources include reports of interviews conducted by external reviewers with twelve PDS principals and assistant principals at the end of each of the three years of the partnership. These interviews were semi-struc-

tured, balancing a core set of questions developed in response to site-specific issues with more open-ended dialogue. School action plans, developed annually and aligned with school improvement planning goals, were examined.

In-depth interviews were conducted with four of the PDS principals who led schools that had been part of the partnership since its inception and had not undergone changes in leadership. These interviews were tape-recorded and transcribed. Initial triangulation of emergent themes was accomplished through comparison of external reviewer reports with each school's action plan, aligning goals for school improvement with survey results.

Critical Changes Survey-Questions on Leading

- The PDS network has helped my primary site articulate a clear vision for school improvement.
- Participation in the PDS network has helped schools develop the internal structures necessary to improve teaching, leading and learning.
- As a result of participation in the PDS network, teachers have been given increased opportunities for leadership.
- 4. The PDS Network has led to positive changes in administrator capabilities.
- Involvement with the PDS network has helped to support work toward achieving school improvement goals.
- Involvement in the PDS network has led to sustainable changes that would continue to exist without the network support.
- Participation in the PDS network has led to increased communication between teachers and administrators.
- Involvement in the PDS network has provided the time necessary for teachers and administrators to collaborate as they work toward common goals.

Figure 2. Critical Changes Survey-Questions on Leading

Results

Results of the data are reported beginning with the survey; perceptions of all participants are followed by subgroups of teacher participants and administrator participants. Survey results led to further investigation, prompting researchers to consult external reviewer reports and examine the school action plans. Analysis of indepth interviews with select principals is the final data source to be reported.

Critical Change Survey

The authors analyzed the results of the eight survey questions that focused on leading, from the perspective of teachers leading and leading done by administrators. These survey questions focused on the following areas which relate to effective leadership: clear vision, internal structures, increased opportunities for leadership, changes in leadership capabilities, support toward reaching school improvement goals, sustainable changes over time and increased communication and time for collaboration.

Over the three years of survey data collection, many positive effects on leadership were documented. Respondents indicated that participation in the PDS network led to increased opportunities for teacher leadership and provided support for attaining school improvement goals. Participants were less willing to agree to statements about the network helping them articulate a clear vision for school improvement and the ability of the network to develop internal structures to improve their teaching and leading.

Data from Year 1 and 2 of the partnership provided agreement that positive changes in administrator capabilities were indicated, however, this area had less agreement in Year 3. A closer look at the data suggests this may be due

in part to leadership changes and turnover that occurred at individual school sites.

All Participants' Perceptions

Table 1 presents the survey results of all participants over the three-year period.

Four areas indicated an increase in the number of participants who agreed or strongly agreed over the period studied. The four areas were positive changes in leadership capabilities, PDS led to sustainable changes, PDS led to increased communication and PDS provided time for collaboration. The areas which did not show increases included the following categories: articulating a clear vision, developing internal structures, increased opportunities for leadership and achieving school improvement goals. Results from Year 2 of the survey indicated increased numbers who agreed or strongly agreed in the following areas: vision for school improvement, PDS helping to develop internal structures, positive changes in administrator capabilities and PDS leading to sustainable changes. Fewer participants agreed or strongly agreed in the following areas: teachers being given increased opportunities for leading, the impact of PDS work on helping to meet school improvement goals, and increased communication between teachers and administrators.

Year 3 responses were collected from a larger group of participants than in the previous two years. This was due to the fact that the survey was administered to all participants in each of the PDS network schools, including student teachers and pre-service candidates who were completing field hours within these schools. Responses from Year 3 administration of the survey indicated a fewer number of participants who agreed or strongly agreed with regard to items of vision for school improvement, internal structures, and increased opportunities for leading. Results indicated an increase in the number who agreed or strongly agreed with positive changes in administrator capabilities, involvement in PDS supporting school improvement goals, PDS supporting sustainable changes, increased communication between teachers and administrators and time necessary for teachers and administrators to collaborate. Results of three years of participant perceptions of leading are shown in Figure 3.

Teacher Perceptions

The results from the Year 1 survey for the teacher participants indicated 67% who agreed

Table 1. Three Year Results-Critical Changes Survey: Questions on Leading Percentage of All Participants Who Agree or Disagree With Statements

Questions on Leading	Year 1	Year 2	Year 3	
1. Articulate clear vision for school improvement	A/SA=75	A/SA=86.7	A/SA=74.8	
·	D/SD=25	D/SD=13.3	D/SD=25.2	
2. Develop internal structures	A/SA=78.8	A/SA=83.4	A/SA=70.5	
	D/SD=22	D/SD=16.6	D/SD=29.5	
3. Increased opportunities for leadership	A/SA=88.5	A/SA=84.4	A/SA=78.2	
	D/SD=11.5	D/SD=15.6	D/SD=21.8	
4. Positive changes in leadership capabilities	A/SA=51.9	A/SA=66.7	A/SA=67.6	
	D/SD=48.1	D/SD=33.3	D/SD=32.4	
5. Achieve school improvement goals	A/SA=92.3	A/SA=72.7	A/SA=78.2	
	D/SD=7.7	D/SD=27.3	D/SD=21.8	
6. Led to sustainable changes	A/SA=57.7	A/SA=68.9	A/SA=72.9	
	D/SD=42.3	D/SD=31.1	D/SD=27.1	
7. Increased communication	A/SA=44.2	A/SA=33.3	A/SA=86.4	
	D/SD=55.8	D/SD=66.7	D/SD=13.6	
8. Provided time for collaboration	A/SA=55.8	A/SA=57.7	A/SA=70.5	
	D/SD=44.2	D/SD=42.3	D/SD=29.5	

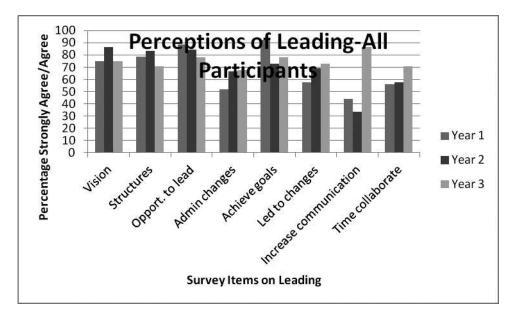


Figure 3. All PDS Participant Perceptions 2006–2008

or strongly agreed regarding school vision, and 71% agreement regarding the internal structures that PDS supports. Other areas with strong agreement were items regarding increased opportunities for teacher leadership, with 84% agreement, and PDS supporting the accomplishment of school goals, also with 84% agreement. Teachers were less likely to agree in the first year survey regarding the increase in administrator capability, with 42% agreement and the impact PDS had on increased communication with administrators, with 38% agreement. 51% agreed or strongly agreed that PDS could lead to sustainable changes and provide time for collaboration with administrators. Year 2 results showed increases in agreement with vision, internal structures, administrator capabilities and the support of sustainable changes. There was less agreement regarding teacher opportunities and the support of school improvement goals, communication, and time to collaborate. Year 3 results were consistent with the previous year's data provided by the teacher group. Less agreement was indicated regarding the impact of PDS on school vision, internal structures and teacher opportunities to lead. All other areas indicated a higher number of teachers who agreed or strongly agreed regarding increases in administrator capabilities, school improvement goals, sustainable changes, increased communi-

cation and time for collaboration. The results of the teacher perceptions over three years are shown in Figure 4.

Administrator Perceptions

Disaggregating the data provided the following results when reviewing survey responses from the administrator group. Figure 5 provides the data which indicates the percentage of administrators who agree or strongly agree to the eight statements that relate to leading. Responses from Year 1 indicate 50% who agreed or strongly agreed on all of the statements indentified as leading, except with regard to providing teachers for opportunities to lead and time for collaboration. Responses from Year 2 indicated less agreement on the vision for learning, PDS providing for internal structures, positive administrative changes and school improvement goals being met, while an increased number agreed or strongly agreed on teacher opportunity, sustainable changes, increased communication and time for collaboration. Responses from Year 3 provided dramatically different results from the administrators who responded. An increased number of administrators agreed or strongly agreed with the statements in all eight survey questions.

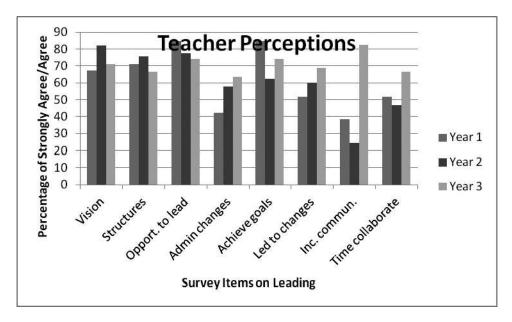


Figure 4. Teacher Perceptions

External Reviewer Reports

External reviewers interviewed principals throughout the years of PDS implementation to ascertain the principals' role in local implementation and their assessment of the initiative's impact on staff and school practices. In Year 1, principals noted that schools had received valuable professional development and support via the PDS network, including mate-

rials and equipment, training for teachers, and stipends for teachers to attend meetings and participate in content work sessions. Principals preferred their role in the first year to be facilitative, allowing teachers to try new roles as decision-makers within their schools. They indicated that PDS work had provided new opportunities for teachers within schools "to open their doors" and share their work in a

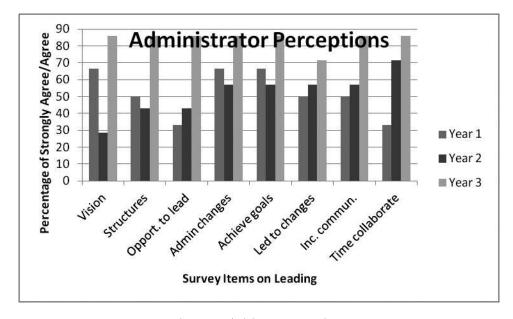


Figure 5. Administrator Perceptions

climate that supported collegiality and collaboration.

Reviewer interviews conducted at the end of Year 2 indicated that principals wanted help with meeting school improvement goals through their PDS work, and invited university faculty to become more involved in the school improvement process. Principals who were new to their positions in Year 2 described the same concerns and questions that had been initiated in Year 1 of the partnership. Those principals who were continuing in their roles in Year 2 were better able to articulate the needs of their schools and identify the resources of the university that aligned with what their schools needed to meet goals.

Interviews conducted by external reviewers in Year 3 indicated principals noted a paradigm or culture shift within the schools. They reported that ideas for professional development were coming directly from the teachers, based on their needs and interests. There was evidence of a noticeable change in "teacher talk" around their schools, with teachers engaged in a new type of conversation centered on their teaching practice and ways to improve it. Teachers were reportedly excited with their new roles and responsibilities as coaches, mentors and guides. In particular, principals reported that work with the PDS partnership made their school cultures more collaborative as well as provided a means for teachers to team up with colleagues from other schools. Personally, they placed a high value on the opportunity to network with other principals.

School Action Plans

School action plans evolved over the course of the partnership. The appendix to this article provides a sample of the template used by school teams to develop the action plan to identify goals, resources and benchmarks for evaluation. Year 1 action plans were not school-specific, but rather shared network goals which focused on systems for establishing the network, implementation of the critical inquiry model, and identifying pathways for improvement. Year 2 and Year 3 goals were school-specific, reflecting

actual alignment with school improvement goals. An analysis of the school action plan goals or school improvement goals yielded the following information. Goals typically ranged from three to five in number, with little change from Year 2 to Year 3, as the focus was on continuation of meeting the goals. What did change was the amount of specificity and alignment with actual school improvement goals over the three- year period. These goals can be categorized in the following way according to their focus: curricular, instructional, assessment, culture, and PDS.

Year 2 goals for schools yielded the following results when examining action plans. School A had two instructional and two PDS goals. School B identified four curricular goals for their action plan and met all goals. These goals included curricular alignment in math and language arts, integrating writing across the curriculum and alignment of curriculum with high school expectations. School C had two curricular goals and one assessment goal, and School D's action plan reflected three curricular goals and one school culture goal; this particular school had challenges with student behavior, poor classroom management, and inconsistent discipline so the goal focused on improving the school culture and climate through various steps.

Year 3 goals focused on continuation of identified areas developed in Year 2 with the addition of a PDS mentoring goal for each of the schools. The PDS mentoring goal developed in the partnership when teachers understood the role they played in training and developing pre-service teachers, along with mentoring and coaching new teachers in their schools.

In-Depth Interviews

In-depth interviews with four PDS principals provided a wealth of information regarding the impact of PDS on their leadership, school change efforts and the vision each held for their schools. These interviews were tape-recorded and transcribed. The transcripts were then coded with an open-coding methodology using NVivo software, which resulted in the

following broad themes emerging: culture and leading change, principal perceptions of growth and development, teacher leadership and shared decision-making, and implementation of best practice.

Culture and leading change. Principals reported a shift and change in how their schools operated, most noticeably demonstrated in the development of a school-wide leadership team or in getting all teachers involved in the work of the PDS. There was a definite culture shift that was described as "changing how we do business," as the characteristics of a professional learning community began to emerge. One of the principals discussed first and second-order change, indicating PDS involvement had brought about second-order change in her school, while all principals indicated successful change efforts were due to the support and work of the PDS network and would not have occurred without this support. New initiatives, changing school culture to mirror a learning community, and altering decision-making processes would not have happened without their school's participation in the PDS work. In addition, principals cited uniqueness in working on multiple goals at the same time, and then in reality meeting those goals successfully. The partnership allowed time and resources for professional development, along with the support to initiate ideas for change. Teachers became accustomed to and accepting of their schools becoming growing, changing, learning communities.

Principal perceptions of growth and development. Principals indicated their participation in the PDS made them more confident in their leadership abilities, as they had a range of resources within the network and other schools from which to draw. They were able to meet with veteran or new principals and learn from each other across public and private school systems, a practice not commonly done or encouraged by their central offices. They noted comfort in realizing that regardless of the nature and context of their schools, they were dealing with the same types of issues as other school leaders in the PDS network, and could learn from each other. The PDS was noted as a key

factor in helping principals avoid getting set in their ways as administrators, with a range of principal experience that spanned one to fifteen years.

Teacher leaders/shared decision-making. Principals cited the many ways the PDS network helped to bring about teacher leadership and shared decision-making within their schools. The network allowed, supported, and facilitated involvement of veteran and knowledgeable teachers in decision-making. The previous practice of teachers being told what to do by the principal was replaced with teachers sharing in the role as decision-makers in their own schools. Teachers visited classrooms in schools across the network, learning how other schools functioned, made decisions, and handled curriculum selection, development, implementation, and assessment. These opportunities supported adult learning, and enhanced interest in a shared decision-making process. Schools expanded previous structures of small leadership teams involving all teachers in work of the PDS. This whole faculty involvement was reported to have a positive impact on teachers and enhanced their feelings of empowerment. Other schools reported having a first ever leadership team, comprised of teachers willing and eager to participate in the decision-making process at their schools.

Best practice. Principals reported learning best practices that helped with the current teachers' development as well as planning for future professional learning and areas of expertise for future hiring. Professional development needs were identified for each school via action plans, which aligned with school improvement plans. Needs were identified and professional learning developed to meet those needs. The areas of this professional learning provided principals with better knowledge and understanding of best practice across content areas and social-emotional learning. Best practices that were explored and used for professional learning topics included the following activities: grouping practices of students, components of a balanced literacy program, developing a range of assessment tools to support data-driven instruction, science inquiry and lesson study for re-crafting math lessons. PDS-sponsored training included the following activities: curriculum mapping to support identification of essential learning goals, using guided reading to differentiate reading levels and instruction, and the use of portfolios as assessment tools. All were cited by principals as areas that enabled teachers to grow and develop their knowledge and build capacity for improving instruction.

Discussion

This study used the lens of leadership development theory to view the principal's own development in determining how a PDS network can influence growth and development. using four research questions: a) How does participation in the PDS network influence leading at P-12 schools? b) How does a PDS partnership influence a K-12 principal in meeting school improvement goals and providing focused professional development? c) How does the PDS partnership support principal growth and development over time? d) How does the PDS partnership impact on schoolwide sustainable changes over time? The result of the first research question is found in a review of the survey data. Clearly, the partnership allowed leadership to emerge on many levels and provided new roles for teachers to share in the decision-making processes at the schools. Participants indicated positive changes in leadership abilities, sustainable changes, increased communication, and time for collaboration. It is evident the participants felt the PDS partnership supported the time and resources in order to make changes within their schools. In response to the second research question, all participants did not see as clear a path regarding their school improvement goals; this may be due in part to their varied exposure to the goals throughout the length of the project. Teachers may or may not have connected the school action plans to their school improvement plans, although in most cases these were identical. The school action plans and accompanying results provided

evidence of the partnership's role in attaining these goals.

Principals clearly articulated how the partnership helped them refine and revise goals, work along with others in discussing the goals, and obtaining support and resources for meeting these goals. Principals also shared how the partnership supported the creation of professional development plans from general to more specific, and in alignment with their school improvement plans. In response to the third research question, the partnership was instrumental in providing principals with a forum for their own development. Green's (2010) model of leadership dimensions suggests the principal must have a clear understanding of his or her own beliefs as a means to understand stakeholders in the school community. Principals in this study articulated and shared their emerging understanding of their beliefs and philosophy about children, teaching and best practice. This enabled the dimension of Understanding Self and Others (Green, 2010) to come alive as they identified teachers ready for leadership and those new or beginning to understand what was needed for change.

Within the structure of the network, principals were able to tap into veteran and new teachers, dialoging with and sharing in a non-evaluative supportive environment. The PDS work facilitated the principal's growth in better Understanding the Organization (Green, 2010). This evidence of Dimension Two was demonstrated in the principals' keen awareness of their school cultures; how they had shifted and changed, or what was still needed for them to change. Principals identified first and secondorder changes in their schools. The PDS work advanced principal growth and development in Building Relationships (Green, 2010). Evidence of Green's Dimension Three was illustrated in the principals' knowledge about relationships with internal and external partners, as well as the value, time and effort they put into these relationships. The unique feature of the network across public and faith-based school settings allowed some special relationships to emerge and, in turn, to impact the teachers' drive toward best practice and continued professional learning.

Principals advanced in their Understanding of Best Practice (Green, 2010), as Dimension Four was clearly delineated in the urgency principals demonstrated to increase teacher knowledge, to enable teachers to implement up-to-date teaching practices, and to engage in professional dialogue to improve student learning outcomes. In response to the fourth research question, the partnership was credited in all data sources as having made some systemic school-wide changes over the course of the three years. The partnership was responsible for changing the culture and impacted how schools do business with regard to shared decisionmaking. Teachers were engaging in meaningful professional dialogue and sharing in new roles in the school. Principals were able to activate all four dimensions of leadership, (Green, 2010), evidence of the essence of leadership effectiveness, with all dimensions functioning simultaneously.

The data analysis reported here suggests that participation in a professional development network can have a positive impact on many aspects of leading and leadership development over a three-year period. Participants indicated their agreement with key areas associated with leading based on their work in PDS. The number of participants who agreed or strongly agreed increased over time and participants indicated the PDS network helped schools articulate a clear vision for school improvement and develop internal structures for improving their teaching and learning. They reported increased opportunities for leading and indicated a slight increase in agreement regarding administrator capabilities. Participants were less likely to agree regarding the PDS connection to attaining school improvement goals, but did agree that the impact would be on sustainable changes over time. There was a dramatic shift in the level of agreement about the increased communication and the additional time to work with administrators.

Administrators and teachers reported different levels of agreement based on their roles and perceptions in the process. Clearly, administrators' level of agreement or strong agreement rose in all areas of the survey over the three-year period. Interviews conducted with individual principals further emphasized the vital role the PDS partnership played in their attainment of school improvement goals, as well as being a highly effective way to provide focused professional development for their schools. The PDS partnership clearly impacted their individual growth and development, whether they were beginning their career as principals or were fifteen-year veterans.

The PDS model provides the benefits of partnership, resources, and ongoing collaborative dialogue that have potential to help leaders develop. This study demonstrates the importance of capturing this data and making connections to research about partnerships. Principals report how their leadership grows over time with the elements of an ongoing partnership in existence. Involvement in a PDS can provide principals with critical support for leadership development. PDS partnerships can be valuable in supporting leadership growth, sustainable professional development, attainment of school improvement goals, and school-wide change. The PDS also provides opportunity to consult with former and current administrators, enabling a community of administrators who can learn about successful initiatives from each other.

Several limitations of this data must be considered. The variance in the number of participants from Year 1 to Year 3 in the data collection does not provide a complete picture. Related to this, there was no identified process for schools to join the network once the initial implementation had occurred. As a result, schools joining later did not receive the same level of training and foundational knowledge about PDS work and its importance, thereby impacting their perceptions and ability to embed PDS knowledge within their existing work. They did not have the benefit of the amount of time to develop as a learning community. In-depth interviews were conducted with only four of the seven PDS principals, thereby obtaining an incomplete picture of the perceptions from school leaders in the project.

Alignment and correlation with the external reviewers' interviews was not possible without this complete data set for consideration.

Conclusion

PDS literature documenting impact on principal's leadership is at the beginning stages. At this critical time in school accountability and school reform efforts, systems for developing and sustaining the principal should be a focus for future study and analysis. This study represents an important component of this body of research.

The work of a PDS has an impact on the development of school leadership and can provide an opportunity for principals to reflect upon their own growth and development as leaders and embark on new ways to develop school culture and bring about sustainable change within their schools. This study provided insights into how the PDS fostered growth in certain dimensions of leadership using Green's four quadrant model. Principals perceived their growth and development occurring in the first dimension, Understanding Self and Others (Green, 2010), and gained insight into their understanding of themselves as leaders and others within the schools. PDS involvement provided growth in the second dimension-that is, within principals' Understanding of the Complexities of the School Organization (Green, 2010), and their understanding of culture within their schools. Principals clearly understood who and how to change and identified readiness to do so in their schools. The importance of Building Relationships (Green, 2010), the third dimension of leadership, was apparent as principals used the PDS work to cultivate new networks of relationships and built upon existing relationships with internal and external stakeholders. Finally, principals perceived the PDS to impact in Green's fourth dimension, thereby engaging in leadership Best Practice (Green, 2010), to foster shared decision-making and change within their schools. The PDS model has the potential for important work in the area of school reform as it relates to the development of school leadership. As indicated by the Urban PDS, the growth and development of such a partnership.

Additionally, the work toward accomplishing school improvement goals takes time. The evolution of the PDS network over three years demonstrated the evolving nature of collaborative partnerships. Over time, the school action plans became more specific and more closely aligned with school improvement goals. Resources that come with the PDS are critical to the support of both principal leadership development and of school improvement goal development and implementation. External resources, and how they are used, play a key role as indicators of success. As teacher leaders developed, the ability of all to engage as a professional community increased. The paradigm shifted from top down to both up and down the chain of command. New roles emerged for teachers and principals alike, with learning and building upon this new learning a factor in the outcome. Regardless of the individual level of experience, working in a multi-layered community like the urban PDS enables individual and shared growth and development. SUP

Appendix

Action Planning Template-School Improvement Goals

School:

Focusing Inquiry:

Question #1:

Explanation of Column Headings

Why: Knowledge Base, Beliefs, & Assumptions about the importance of the inquiry question

What: Activities planned

Who: Participants involved (Teachers, faculty, principals, pre-service teachers, and so on).

Please be specific.

Resources: Examples include books, technology, collaborative inquiry expertise, arts

integration, plays, concerts, museums, time.

Budget: How much will it cost? Stipends, Core teams, Study teams, materials **Data, Assessment**: Test and Assessment results, Portfolios, other assessment tools

Evaluation: How do we know we answered the question?

Timeline: Benchmarks, milestones.

Why?					
What?	Who?	Resources?	Budget?	Data, Assessment, Evaluation?	Timeline?

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Barbara Stacy Rieckhoff, Assistant Professor in Educational Leadership at DePaul University, served as a school administrator for 15 years and as a Faculty Liaison within the university's PDS network.

Catherine Larsen, Assistant Professor in Arts and Learning at DePaul University, served as an arts educator and administrator for 30 years, and as Director of the university's PDS Network.