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What Role Does Distributed Leadership Play in Implementing Professional Learning Communities?

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Abstract
This multiple case study examined three Midwestern elementary schools identified as having successfully implemented professional learning communities for many years. From the data, themes emerged indicating that there are key distributive components to successful leadership in implementation of the school improvement initiative. The findings in this study demonstrate that successful leaders create a collaborative culture, seek shared leadership and decision-making practices and have a narrow focus on student learning. Implications for principals and leadership preparatory programs are significant.

Keywords
distributed leadership, professional learning communities, principal, preparatory programs

1. Introduction
In the last decade, researchers have acknowledged the conceptualization of leadership on formal roles and titles (Scribner, Sawyer, Watson, & Myers, 2007) includes an entire organizational process that distributes organization structures and leadership over multiple roles and people to create solutions to school dilemmas (Leithwood & Mascal, 2008). Peters, Carr and Doldan (2018) noted, “The need for schools to meet academic performance requirements has further solidified the need for principals and supervisors to embrace collective efforts to meet such high demands” (p. 32). Furthermore, scholars have also acknowledged that principals play an important, supportive role in assisting and encouraging teacher leadership as a distributed process (Klar, Huggins, Hammonds, & Buskey, 2016; Wenner & Campbell, 2017). For the focus of this inquiry, Gardner (2013, p. 17) noted, “Leadership is the process of persuasion or example by which an individual (or leadership team) induces a group to pursue
objectives held by the leader or shared by the leader and his or her followers”. Thus as the model of school leadership has evolved, so has the improvement of schools (Dufour et al., 2010) as viewed through the lens of distributed leadership. Hallinger and Heck (2011) noted distributed school leadership among principals and teachers is an essential factor that contributes to school improvement and student achievement. Prior scholarship has called for further clarity and evidence of how distributed teacher leadership, “as a human capacity development strategy … Has promise as a link to school improvement” (Mayrowitz, 2008, p. 432). Furthermore, Tian, Risku and Collin (2016) postulated the majority of research examined distributed leadership as an organizational basis that can assist school improvement, and there is a need for teachers to be at the apex of that research. Wieczorek and Lear (2018) argued, “Together, principals and teacher leaders also aspire to enact organizational change through instructional growth, decision making collaboratively and stronger professional networks…” (p. 37). However, one such whole school focus on school improvement has been professional learning communities or PLC (DuFour & Fullan, 2013), which has allowed a more adaptive way of thinking about growth. Hipp and Huffman (2009) acknowledged the significance of supportive settings regarding relationships and structures in supporting PLC. While Vangrieken et al. (2015) postulated school principals are often responsible for connecting PLCs with actual developments in schools. While Townsend (2011) argued strengthened through distributed responsibility is leadership capacity. By examining how leaders successfully implement PLC through the lens of distributive leadership a deeper understanding of how to achieve school improvement should emerge. For this investigation, two research questions guided this study:

1. What elements of distributive leadership (interdependence, coordination, and collaboration) are present in schools that have implemented PLC?
2. How do the teachers perceive the distributive leadership style of their principal as providing opportunities for leadership roles within PLC?

1.1 Conceptual Framework

Distributed leadership theory highlights the activity and interaction among a group of people who have a role in leadership functions (Gronn, 2011; Leithwood & Maccall, 2008). Spillane, Halverson and Diamond (2004) labelled distributed leadership as a “perspective on the practice of school leadership that centers on the how and why [emphasis added] of leadership activity … beyond a consideration of the roles, strategies, and traits of the individuals” (p. 27). While Scribner et al. (2007) defined distributed leadership as “educational leadership that involves the practices of multiple individuals and occurs through the complex network of interactions among the entire staff of a school” (p. 68). Smylie et al. (2007) added that not only is the focus on multiple actors but also the focus could change depending on the role that a member has taken within the organization (p. 470). The social context in which the activity is taking place also becomes an integral part of the leadership process (Gronn, 2011; Spillane et al., 2004). This idea of focusing on who accomplished tasks within the context of the organization creates the difference for distributed leadership from other leadership styles (Gronn,
Gronn (2002, 2011) noted distributed leadership revolved around the processes of interdependence and coordination. Interdependence and coordination observed by “focusing on the tasks, actors, actions, and interactions” (Spillane et al., 2001, p. 23) that occur in leadership and teams. Interdependence shows how human activity in the interactive web of actors, artifacts, and situation (Spillane et al., p. 23) is distributed and defined as “reciprocal dependence between two more organization members” (Gronn, p. 432). Gronn (2002) defined coordination as “managing dependencies between activities” (p. 433). Because distributive leadership moves away from the study of the individual or task, the analysis of interdependence and coordination are by the cycles of completed tasks (Spillane et al., 2001, p. 23).

Furthermore, Gronn (2002) espoused two forms of distributed leadership: numerical action and concertive action (p. 425). In the context of distributed leadership, numerical action means, “the aggregate leadership of an organization is dispersed among some, many, or maybe all of the members” (Gronn, p. 429). Referred to as “cross-functional teams” (Gronn, p. 320) is concertive action. Spillane et al., (2001) posited “the collective properties of the group of leaders working together to enact a particular task lead to the evolution of a leadership practice that is potentially more than the sum of each practice” (p. 25). The concertive action focuses on the interplay of people working together to build the synergy by using the individual skill set in “conjoint agency” (Gronn, 2002, p. 431) with others to create a sum that is greater than the parts of the whole. The benefit to these types of teams would be the flexibility, and efficient use of organizational resources to adapt as situation and challenges occur (Yukl, 2006), as well as a creation of a learning environment (Gronn, 2011).

“Teacher teams are an example of distributed leadership in action” (Scribner et al., 2007, p. 8). Scribner et al. (2007) similarly demonstrated self-managed teams are effective at problem solving within complex situations and thus underscore the connection between teacher teams and distributed leadership. Moreover, Dufour et al. (2010) highlighted, “The school must ensure that each teacher has the benefit of a collaborative team to collaborate and learn from as teachers explore ways to improve learning for students” (p. 184). Riveros, Newton and Burgess (2012) similarly argued developing teacher leaders might be the way to increase the effectiveness of professional learning communities.

2. Method

As Creswell (2009) noted, “Qualitative researchers try to develop a complex picture of the problem or issue under study. This involves reporting multiple perspectives, identifying the many factors involved in the situation, and generally sketching the larger picture that emerges” (p. 39). Accordingly, used was a multiple case study approach to explore the impact of the leadership style of the principal in the implementation of a professional learning community in three K-6 elementary schools. Since this multiple case study focused on a problem of practice (Yin, 2003) relevant to schools across the nation, a case study will provide a holistic view through an observation of a bounded system over time (Creswell, 2009). As Creswell further espoused, qualitative researchers strive for understanding; each
of the participants included in the sample population will have spent extensive time within the studied context, which in this case are elementary schools that implemented PLC effectively.

2.1 Population

The selection of participants was a three-phased process. The first phase, which was purposeful, involved identifying elementary schools in this Midwest state where professional learning communities successfully were implemented over four years. According to Creswell (2003), “The idea behind qualitative research is to purposefully select participants that will best help the researcher understand the problem and the research question” (p. 185). Therefore, the researchers first contacted the Directors from the Regional Professional Development Centers (RPDC) from two Midwest public Universities and asked each of them to identify elementary schools where professional learning communities have been established and working effectively for over four years. Determined by evaluations of PLC facilitators from the state education department was the effectiveness of the PLC. This narrowed the list to ten schools, five from each regional professional development center (RPDC). Next, the examination of the list of schools determined which of the schools had had the same principal during the entire four years, narrowing the list to five. Finally, narrowing the list to three by using the criteria that the Missouri Department of Elementary and Secondary Education had also recognized the schools within the last two years as being exemplary schools. From this list, identified were three elementary schools, one each from a rural, suburban, and urban setting. From each environment, the principal recognized 5-7 members of the building PLC team for participation in the focus groups. Chosen were participants based on their involvement in the implementation of the professional learning community endeavor as well as the leadership roles each had played. Within elementary school, interviewed were the school administrator and members of the school leadership teams. This resulted in three principals interviewed and a focus group of teachers at each school for a total of 15 teachers.

As in any study involving human subjects, followed were ethical guidelines for the protection of those subjects engaged in the study. The addressed protections included protection of the participants from harm, assurance of the confidentiality and the security of the research data, and the avoidance of deceiving the subjects that are involved in the research (Creswell, 2009). Gathered was data from interviews, focus groups, and professional learning community documents. At each setting, interviewing occurred with the principal and teachers, and the researchers observed PLC activities at each of the respective schools over an extended period.

2.2 Instrumentation Protocol

The researchers interviewed face to face each of the three building principals twice and audio-recorded. After each interview, transcription occurred followed by member checking to verify the accuracy of the transcripts and confirm for each participant that their stories were portrayed as intended (Fraenkel & Wallen, 2003). Additionally, the researchers took field notes during the interview process to record information not reflected during the transcription. Triangulation of the data occurred using rich, thick
descriptions provided from the interviews, focus groups, field notes, document analysis, and observations (Creswell, 2009; Fraenkel & Wallen, 2003).

Designed as a semi-structured format with eleven questions was the interview protocol. The goal of the interview questions was to extrapolate themes of professional learning community implementation as well as the role of multiple leadership opportunities stretched over the actors (Gronn, 2002) within each school. However, the researchers were careful not to structure the interview process to prevent respondents from reacting to what they thought the researcher already believed. In addition, respondents may talk more freely when interview questions are more open ended and non-specific (Creswell, 2009).

The principal provided the names of all members of the leadership team and other members of PLC teams. From this list, randomly selected were seven teachers. The researchers facilitated one focus group at each study site (n=21). Conducted were structured focus groups with researchers members using a ten-question protocol. Distributed leadership theory and the leadership structures within a professional learning community guided question design (Dufour, Dufour, Eaker, & Many, 2010; Gronn, 2002). Furthermore, the designed questions help to determine the opportunities for and involvement in leadership roles within the organization for teachers. The focus groups occurred at the perspective schools and lasted approximately one hour. The focus groups’ conversations were audio recorded and transcribed by the researchers later. The researchers allowed participants to review their transcripts of the focus groups to assure the researcher had accurately captured their words and what they intended to convey.

As an additional source of evidence, collected were documents to triangulate the information. The documents consisted of PLC agendas, meeting notes, handbooks, and other documents used to facilitate staff learning. These documents corroborated the information gathered from other sources. Used to add to the thick, rich description of the leadership activities of the PLC were observations at each school site. Observations are an essential part of data collection in qualitative research (Creswell, 2009), and are firsthand accounts of what is happening. Unlike interviews, observations provide opportunities for analysis of the actual activities studied. One of the challenges to observations is that a researcher does not have the same understanding of context and the possibly interprets the activities differently than the participants of the observation (Creswell, 2009). Another challenge is the ability of the researcher to overcome the level of trust that other members have with each other as the result of the work that they have done together. This could limit the researcher’s ability to observe authentic interactions of the group. However, by meeting the participants in a non-threatening environment and letting them know the purpose of the observations minimized these challenges.

2.3 Data Analysis

In this qualitative multiple case study, the analysis involved several procedures used by the researchers to examine the collected data. “A qualitative, inductive, multi-case study seeks to build abstractions across cases” (Creswell, 2009, p. 195), resulting in each data set being coded individually for emerging themes.
and then triangulated with other artifacts to see if the themes carry over multiple sites. To support this search for common emergent themes, the data were consistent with thick, rich description (Creswell, 2009). Because this is a case study, there was a detailed description of the setting and individuals by the emerging themes (Creswell, 2009). Using semi-structured interviews allowed the researchers to enhance transferability across the three different sites.

An analysis of the information was continuous throughout the study, with an on-going comparative investigation of the data and patterns in the data were recognized. After the dictation of all interviews and focus groups, read were the transcripts in entirety to acquire a holistic view of the participants’ perception and coded for emerging themes. Equally significant were the member checks by the subjects of the study to confirm the accuracy of themes and descriptions (Creswell, 2009). Properties and characteristics of each category emerged as the researcher became increasingly knowledgeable of the data. Axil coding of the data analysis of documents also occurred, for as the researcher coded, notes of any additional topics that stood out but did not fit into the categories, were noted for further exploration.

3. Settings

3.1 Site 1: Happleton Elementary (Suburban)

Happleton Elementary has 406 students, grades K-5, which is a small decline in student population over the last four years. The ethnicity of the student populations is 67.2% African American, 28.3% White, 0.0% Indian, and the Hispanic and Asian communities were too small of a sample size to report. The free and reduced lunch in 2014 was 55.3% with 226 students qualifying for assistance. Seventy one percent of the 24 teaching staff has a Master’s Degree or above with an average of 14.9 years of teaching. The average teacher salary is $60,780 and the average administrator salary is $96,206. The suburban district had a population of 25,703 in the 2010 census. The average family income was $52,656 and the average home is $115,796.

Test scores at Happleton had been on an upward trend over the past three years. On the Missouri Assessment Program (MAP) test for communication arts, student scores in 2013 were forty six percent of students who scored proficient and advanced. These same levels dipped to thirty five percent in 2014 but rose to fifty seven percent in 2016. This upward trend was even more prevalent on the MAP test in the area of mathematics when scores in 2013 started at fifty three percent of a student being in the categories of proficient or advanced. These scores moved to fifty four percent in 2012 and then to seventy nine percent in 2016.

3.2 Site 2: Dual Elementary (Urban)

Dual Elementary has 409 students, grades K-5, which is a decline over the last four years. The ethnicity of the student populations is 73.8% white, 9.0% African American, 5.9% Asian, and the Hispanic and Indian populations were too small of a sample size to report. The free and reduced lunch in 2014 was 6.6% with 26 students qualifying for assistance. Sixty nine percent of the 29 teaching staff has a Master’s Degree or above with an average of 8.8 years of teaching. The average teacher salary is $53,943, and the
average administrator salary is $114,000. The urban district had a population of 8,542 in the 2010 census. The average family income was $154,307, and the average home price is $699,110.

Test scores at Duel Elementary had been up and down over the past three years. On the Missouri Assessment Program (MAP) test for communication arts, student scores in 2013 were sixty nine percent of students scored proficient and advanced. These same levels rose to seventy three percent in 2014 and continued to rise to seventy five percent in 2016. This upward trend was not as consistent on MAP testing in the area of mathematics when scores started at seventy six percent of a student being in the categories of proficient or advanced in 2013. These scores progressed to seventy two percent in 2014 and then to sixty five percent in 2016.

3.3 Site 3: Cancan Elementary (Rural)

Cancan Elementary has 220 students, grades PK-6, which is a small decline over the last four years. The ethnicity of the student populations is 94.5% White, and the African American, Asian, Hispanic and Indian populations were too small of a sample size to report. The free and reduced lunch in 2014 was 52.9% with 118 students qualifying for assistance out of the total district student population of 2,417. Forty percent of the 18 teaching staff has a Master’s Degree or above with 13.5 average years of teaching. The average teacher salary is $34,328 and the average administrator salary is $59,758. The rural district had a population of 2,417 in the 2010 census. The average family income was $48,624, and the average home value is $100,860.

Test scores at Cancan Elementary had been on an upward trend over the past three years. On the Missouri Assessment Program (MAP) test for communication arts, student scores in 2013 were forty five percent of students who scored proficient and advanced. These same levels rose to fifty three percent in 2014 and continued to rise to sixty four percent in 2016. This upward trend was also taking place on MAP testing in the area of mathematics when scores started at forty-five percent of a student being in the categories of proficient or advanced in 2013. These scores moved to sixty eight percent in 2014 and then to seventy nine percent in 2016.

3.4 Participants

To explore the perceptions and beliefs associated with the research focus, three programs with fifteen participants (N=18) were included in the study. The school principals from each of the three sites participated. Each had been in their school for a minimum of 3 years. The participants of the focus groups represented each schools leadership team. They had a variety of experiences and perspectives, providing a myriad of viewpoints.

3.5 School Principals

The first participant, Claire Webster, (pseudonym), a female had been the principal of Happleton Elementary. This is Claire’s 5th year in the building as the school principal. Before joining the staff at Happleton Elementary, she served as the principal at another elementary in a nearby school district. The staff at Happleton Elementary had been starting to implement professional learning communities before Ms. Webster’s arrival. Taking the PLC to the next level, Ms. Webster had made the focus on student
learning to the data team process. She had participated in a three-year training process with the regional professional development center before her tenure at Happleton. The second principal, Curt Swisher, (pseudonym), a male had been the principal of Duel Elementary for the past seven years. The school had started to implement the professional learning community ideas two years before his stint as principal. Before his arrival, he trained in professional learning communities. Upon Curt’s arrival at Duel Elementary, several teacher leaders along with Curt attended a three-year seminar on implementing professional learning communities in their school.

The third principal, Jim Bidder, (pseudonym), a male was the principal of Cancan Elementary. He has been with the same school district for 26 years and the elementary principal for the last 10. Before his tenure as the elementary school principal, he served the district as a band instructor. In 2008, Mr. Bidder introduced the idea of professional learning communities at Cancan Elementary. Cancan has also implemented Data Teams, and School-wide Positive Supports programs. This was the result of a vision to create a school culture more effective and efficient at meeting student needs. He has a master’s degree in elementary administration.

3.6 Leadership Teams

The range of participants from teacher leadership teams varied at each elementary school. At Happleton, a group of five staff members participated (N=5) in the focus group, all female. These teachers had been involved in the leadership team for multiple years. One member was a counselor who had been with the school for sixteen years. She had taught for four years and had been the school counselor for the past twelve years. She had been part of the initial professional learning community-training group. Another member of the focus group was the school instructional coach. She had been at Happleton Elementary for five years, before that she had been a teacher in another location for 17 years. The last two members of the focus group were classroom teachers, both of whom have been at Happleton for five years. Each member had served on the leadership team for multiple years.

At Duel Elementary, five female teachers participated (N=5) in the focus group. Two teachers had taught for sixteen years. They served in multiple leadership capacities in several committees at Duel. The other participants of the focus group had taught for fifteen years, ten years, and five years respectively. At Cancan Elementary, five female individuals participated (N=5) in the focus group. The first person has served from the beginning of the implementation of the professional learning community at Cancan Elementary. She is a Title I reading teacher who has served on the leadership team each year. She has a master’s degree. The next individual is a fourth grade teacher who is in her first year at Cancan and on the leadership team. She has been a teacher for two total years. The final three participants had taught collectively for over 30 years and have served on the leadership team for approximately eight years.
4. Results

4.1 What Elements of Distributive Leadership (Interdependence, Coordination, and Collaboration) are Present in Schools That Have Implemented PLC?

At each school, there were striking aspects of distributive leadership. Each site had created interdependence amongst staff with a common goal, coordinated the activities to work towards a common goal as well as demonstrated a common focus on student achievement. Throughout the data analysis, both leadership team members and school administrators pointed to the importance of collaboration being a critical part of the decision making process. One leadership team member described it, “I think when we adopted the professional learning community values; we collaborate more than other schools”. Another noted, “We collaborate around curriculum topics such as reading, writing, and math. I noticed that shift since we have become a PLC”. At another location it was stated by a teacher leader, “You grow when you’re talking and sharing ideas from other people”. This became clear as team members continued to share stories of changes since the implementation of professional learning communities. Another leadership team member stated the importance of collaboration and the impact on knowing that teachers were doing the right things. “When you’re here it is a community and it is a team atmosphere. You’re making a difference and you’re doing the things that are supposed to be done as far as student achievement”. As noted teachers spoke to the importance of collaboration in that, it provided a multitude of opportunities for a role in the decision-making and leadership. The school principals emphasized the need for trust when they discussed collaboration. One principal stated the change from the beginning of the implementation of PLC,

“At first, teachers wanted to keep ideas to themselves. Teachers asked when he would attend meetings if he would come to every meeting. The staff member felt it would prohibit other staff from sharing student information and would make that staff member look bad. Now, staff wasn’t scared to share what exactly was going on and what some possible strategies could be used to help students”. In observations of the daily meetings that involved all school staff, the free flowing of discussion continued to be a statement to the trust level that a collaborative culture created at each school. Staff in one leadership meeting was discussing how to present school success at a conference. The ideas varied from each member and each member shared their thoughts. Some members thoughts on what and if they should present significantly varied. Without trust, this discussion and a decision to perform at the conference would not have been possible.

It is important to note, that while collaboration was essential, the structure for collaboration looked different at each site as to whether grade level teachers collaborated or vertical team members collaborated. Each school had opportunities for both, but the number of opportunities varied. One school focused on providing collaboration time for teachers with a group of students, which demonstrated interdependence with team member playing a role in helping all students of each grade level grow and improve on their academic skills. The teachers were involved in the teaching of the core curriculum while special education teachers, literacy coaches, and grade level teachers all provided a
myriad of interventions to the students of the grade level. At another school, both principal and teachers mentioned a professional building development (PD) team as well as a professional learning community (PLC) team that of staff representatives from each grade level. Often these teams shared in the direction of different leadership activities or program implementation activities of the building. The building principal spoke at length about taking members of the PLC team to train and having them determine how to use the information. The interdependence of these team members was less specific about student and more about the topics that affected the entire building. At the third site, the focus of coordination was on how to provide time for staff with different grades of students to meet. This school built collaboration into the school schedule. The staff demonstrated their coordination as data teams met weekly at common times, requiring a large amount of coordination to get all staff involved with the same students to be able to meet on a planned time. Thus, the elements of interdependence, coordination, and collaboration, while implemented differently at each site, were present.

4.2 How do the Teachers Perceive the Distributive Leadership Style of Their Principal as Providing Opportunities for Leadership Roles within PLC?

Teachers in all three schools mentioned the opportunity for more shared leadership opportunities progressed with the implementation of PLC. Initially, this distributive leadership emerged from the leadership team at each school. As one teacher noted, “Since we have a leadership committee, I think decisions stemmed mainly from there”. Another teacher highlighted, “Each grade level has a representative so I think this is critical to helping them go out into the building and make informed decisions with all perspectives considered. I think decisions made with this input have helped us make professional learning communities happen”. Gronn (2002) shared how this benefits the distributive leadership of a school two-fold. First, decisions made among staff with common tasks or goals allow the organization to benefit from the larger reservoir of talents from the group than a single individual does. Second, all share in the successes and unsuccessful efforts. This helps cement the trust as discussed earlier.

Additionally, each of the principals valued the input and shared ownership of the staff. One principal went so far as to share, “I have turned over all of my committees to staff leadership. Once they understand the purpose behind professional learning communities, the staff understands the importance of why they need to be leaders”. Each site placed importance on having staff leaders sharing professional development information. As another principal noted, “I felt it was more powerful being brought back and shared by staff to staff”. This evolved with each school as the principal and staff moved further into their tenure together.

“Staff had begun to seek out leadership opportunities in the building and the larger district”, shared one principal. This went further into the principal’s leadership style because the same principal went on to state, “it is essential to develop leaders because you (principals) can’t be everywhere. I can’t be at every grade level meeting and planning meeting. It is essential you develop other leaders”. It became apparent the longer the staff worked together with the administrators the more the valued shared
leadership roles were available. Furthermore, a common thread was the decision making model that was valued the most was a shared model. One principal reflected, he asked the question “who needs to make the decisions about things?” The data suggested that input from everybody involved was valued in each school. A statement that encapsulated the shift in leadership philosophy in the principal was noted by one principal, “In the past, it was what decision will I make and how will it affect my school. Now my focus is what I need to do to prepare my teachers to make the decision. This has made me focus on these topics a little further in advance”. This importance of shared leadership was also common with the teacher leadership teams who shared in the focus groups. Teachers in focus groups similarly continued to revisit shared decision making constructs as the conversations evolved. Ownership over the decision was a motivator for staff buy-in. “It brings a lot of teacher ownership when you’re involved in a PLC. The teachers have increased voice, and they have more buy in because they’re the ones making the decisions. You’re kind of just part of the team and the team decision making”. A focus on the interdependence of multiple people who are involved in educating the same students was prevalent at each location. Leithwood and Mascal (2008) found higher achieving schools influenced more organizational members in making leadership decisions. The grouping structures were both within the same grade level and vertically throughout the age levels of the students at schools. The leadership opportunities at one site focused on the meeting routines and expectations. The instructional staff ran meetings, created the agendas, and came up with student interventions as well as take ownership of collecting student data. Since the implementation of professional learning communities, teachers at this site had seen a significant growth in the number of staff involved in district-level initiatives. As noted by one participant, “A lot of our teachers are willing to pilot new programs. We also have a lot of staff that writes district level curriculum and grants outside of the school to gain funding”.

At the other two sites, staff spent more time discussing the building leadership team as their opportunity for leadership immersion in the direction of the school. Teachers spoke about the PLC leadership committee, and it influenced the course of the school. “Ultimately, I think the decisions made in our PLC committee are what makes changes happen”, stated a focus group member. Another noted, “We feel like we’ve got a shared part of the community as a whole. We have had a big contribution to what we think our new direction should be going and how we can improve our school. I think we have ownership because we have a part of the decisions”, stated a teacher leader.

5. Conclusions

Drawn conclusions included creating a collaborative culture for staff, fostering a model of shared leadership, as well as providing a common focus on student learning. Data revealed both teacher leaders and principals felt these three things were critical components of what made the schools where they worked for a successful professional learning community.
5.1 Collaborative Culture
When implementing a professional learning community, it was important that the principal was willing to coordinate a common time for staff. Breaking down barriers to collaboration was essential. Scheduling time for staff to collaborate during the day was an integral component of what principals did in the three successful schools in this study. In addition, the development of an ethos of trust among staff was critical to the effort to create a collaborative culture.

Lujan and Day (2010) stated it is essential to keep PLC collaborative time sacred. A great example of this was an observation of a PLC leadership team at Duel Elementary. They were scheduling their meetings as a leadership team. They made sure they provided enough time and frequency to have quality conversations to meet building goals. When a member had a different time, they found a different date or time. Leadership teams and principals all protected from interruptions or changes the common collaborative time.

5.2 Creating a Model to Share Leadership in Decisions
Because of the principal’s demonstrated leadership style, while implementing professional learning communities (PLC), shared leadership in decision-making became a focal point of staff and principal in each site. The PLC leadership team members expressed strong ownership over the decisions, successes, and failures of the building. The collaboration time and training that staffs received helped empower organizational members and motivated them to work to see personal as well as building success. Principals and staff at each location mention the importance ownership meant in the success of the school and students. Each of the principals did this a little differently, from training staff to gather an understanding or providing the information for teachers to use to make the decisions all the way to placing staff in the leadership roles of the building committees. Each principal shared in the leadership and decision-making process with their teachers.

In each instance, ownership over the school and student success motivated teachers. Schools had teachers searching for new instructional strategies, bring in different methods of recognizing student growth and even one example of teachers who created a time after school to visit homes and work on student academic achievement. This intrinsic motivation was a result of their shared ownership over decisions and ultimately over the success of the grade level and school.

5.3 Creating the Common Focus on Student Learning
Each building created a common focus on student success. The staff that collaborated all had a level of interdependence on each other to be successful as a whole grade level or building. The buildings set goals and expectations using building or grade level data. Using common student outcomes helped staff to be able to collaborate because each person knew the outcomes and was involved in making decisions on how to improve the results using leadership teams and data teams.

Furthermore, emphasizing a common focus provided a need for the interdependence of staff that all work with the same students. For some staff, that was a common building initiative, such as a similar classroom management program or a common English language arts curriculum. Staff at other location
found it through student test data. School leaders created the need for interdependence through emphasizing the commonalities of the tasks of teachers.

This common focus also provided the ability for staff to have more in-depth discussions around school improvement. Principals worked very hard to eliminate distractions so that the meeting times were focused only on the essential tasks. Lujan and Day (2010) commented on effective professional learning communities emphasizing in-depth discussion. Providing a common focus and eliminating items that can take the focus away from the goal of student achievement offers the platform for more in-depth discussion on how to achieve building or grade level goals. Schools in this study took it one-step further when grade level goals work in coordination with other grades to meet building goals.

6. Implications

The establishment of professional learning communities is a process or paradigm shift rather than a program. If successfully implemented, the professional learning community process is a way to create a culture of collaboration around student learning and achievement. Distributive leadership theory is a lens that focuses on the interdependence of staff, coordination of activities and concertive action towards a common goal (Gronn, 2002). The implications of this inquiry for application in elementary education directly influence school leaders trying to create meaningful school improvement when adopting professional learning communities. The study findings indicate there are particular leadership activities that a school leader can provide that will increase the success of the implementation of professional learning communities.

Schools and school districts are trying to find ways to improve school achievement. Much of the research has been on specific leadership traits or actions. This study began to look at how principals facilitated activities among school staff given a familiar social context. The study found that it was critical to create a collaborative culture for teachers to have conversations regarding common themes. When schools create time for collaboration, it creates a great discussion and staff begin to realize and value the interdependence amongst staff with common goals (i.e., to help all fourth graders learn). In addition, removing barriers of time, a shortage of common dialogue and mistrust (Darling-Hammond & Richardson, 2009) it allows for a collaborative culture.

In addition to the importance of collaboration, creating a shared leadership amongst principal and leadership teams is another vital leadership task that enhanced the success for implementation of professional learning communities. The study findings suggested the importance of involving teacher leaders or a leadership team in the decision-making process of the school and its direction. Principals increased the intrinsic motivation and dedication to student achievement when providing teachers a forum to voice ideas and make decisions that benefit the school. Including staff in training on the professional learning community process, providing opportunities for leadership of committees, and providing opportunities to seek personal growth.

One final aspect that became known during this study was the importance of creating a narrow focus on
student achievement. This continued to foster the interdependence that staff members felt with each other when trying to help student reaching their learning goals. Teachers were placed into teams that had common goals. These were by the building and by working with common students (i.e., anybody who worked with 3rd grade students). This allowed teacher from different departments, grade level focus on a common goal, and realize how important each person was to the success of the students and schools. In this study, staffs used common learning outcomes, assessment data and building goals as focal points to facilitate the collaboration amongst staff members and principals to work to the success of each of the three sites.

Preparation programs must work with aspiring school leaders to develop, what Spillane and Camburn (2006) referred to as, a distributed mindset, supporting leaders to reflect on leadership behaviors from a distributed perspective. There is also a need to familiarize beginning teachers with distributed leadership skills. If teachers are encouraged to view themselves as leaders, reducing the gap between the teacher and the school leader transpires, thus supporting teachers to take a more significant role in leadership.

References

Bausmith, J. M., & Barry, C. (2011). Revisiting professional learning communities to increase college readiness: The importance of pedagogical content knowledge. *Educational Researcher, 40*(4), 175-178. https://doi.org/10.3102/0013189X11409927

Camburn, E., Rowan, B., & Taylor, J. E. (2003). Distributed leadership in schools: The case of elementary schools adopting comprehensive school reform models. *Educational Evaluation and Policy Analysis, 25*(4), 347-373. https://doi.org/10.3102/01623737025004347

Creswell, J. W. (2009). *Research design* (3rd ed.). Thousand Oaks, CA: Sage Publications.

DiPaola, M., & Tschannen-Moran, M. (2003). The principalship at a crossroads: A study of conditions and concerns of principals. *NAASP Bulletin, 87*(634), 43-65. https://doi.org/10.1177/019263650308763404

Dufour, R., & Eaker, R. (1998). *Professional learning communities at work: Best practices for enhancing student achievement*. National Education Service. Bloomington, IN.

DuFour, R., & Fullan, M. (2013). *Cultures built to last: Making PLCs systemic*. Bloomington, IN: Solution Tree.

Dufour, R., Dufour, R., Eaker, R., & Many, T. (2010) *Learning by doing*. Bloomington, IN Solution Tree.

Fraenkel, J., & Wallen, N. (2003). *How to design and evaluate research in education* (7th ed.). Boston: McGraw Hill.

Gardner, J. W. (2013). The nature of leadership. In M. Grogan (Ed.), *The Jossey-Bass reader on educational leadership* San Francisco, CA: Jossey-Bass (pp. 17-27).
Gronn, P. (2011). Hybrid configurations of leadership. In A. Bryman, D. Collinson, & K. Grint (Eds.), *The SAGE Handbook of Leadership* (pp. 437-454). London: SAGE Publications.

Gronn, P. (2002). Distributed leadership as a unit of analysis. *The Leadership Quarterly, 13*, 423-451. https://doi.org/10.1016/S1048-9843(02)00120-0

Hallinger, P., & Heck, R. H. (2011). Conceptual and methodological issues in studying school leadership effects as a reciprocal process. *School Effectiveness and School Improvement, 22*(2), 149-173. https://doi.org/10.1080/09243453.2011.565777

Hipp, K. K., & Huffman, J. B. (2009). *Professional learning communities: Purposeful actions, positive results*. Lanham, MD: Rowman and Littlefield.

Klar, H. W., Huggins, K. S., Hammonds, H. L., & Buskey, F. C. (2016). Fostering the capacity for distributed leadership: A post-heroic approach to leading school improvement. *International Journal of Leadership in Education, 19*(2), 111-137. https://doi.org/10.1080/13603124.2015.1005028

Leithwood, K., & Mascall, B. (2008). Collective leadership effects on student achievement. *Educational Administration Quarterly, 44*(4), 529-561. https://doi.org/10.1177/0013161X08321221

Mayrowetz, D. (2008). Making sense of distributed leadership: Exploring the multiple usages of the concept in the field. *Educational Administration Quarterly, 44*(3), 424-435. https://doi.org/10.1177/0013161X07309480

Peters, T. J., Carr, R., & Doldan, J. (2018). Strength found through distributed leadership. *Educational Viewpoints, 32*-36.

Riveros, A., Newton, P., & Burgess, D. (2012). A situated account of teacher agency and learning: Critical reflections on professional learning communities. *Canadian Journal of Education, 35*(1), 202-216.

Scribner, J. P., Sawyer, R. K., Watson, S. T., & Myers, V. L. (2007). Teacher teams and distributed leadership: A study of group discourse and collaboration. *Educational Administration Quarterly, 43*(1), 67-100. https://doi.org/10.1177/0013161X06293631

Smylie, M. A., Mayrowetz, D., Murphy, J., & Louis, K. S. (2007). Trust and the development of distributed leadership. *Journal of School Leadership, 17*(4), 469-503. https://doi.org/10.1177/105268460701700405

Spillane, J. P., & Camburn E. (2006). *The Practice of Leading and Managing: The Distribution of Responsibility for Leadership and Management in the Schoolhouse*. Paper presented at AERA San Francisco, CA.

Spillane, J. P., Halverson, R., & Diamond, J. B. (2001). Investigating school leadership practice: A distributed perspective. *Educational Researcher, 30*(3), 23-28. https://doi.org/10.3102/0013189X030003023
Spillane, J. P., Halverson, R., & Diamond, J. B. (2004). Towards a theory of leadership practice: A distributed perspective. *Journal of Curriculum Studies, 36*(1), 3-34. https://doi.org/10.1080/0022027032000106726

Tian, M., Risku, M., & Collin, C. (2016). A meta-analysis of distributed leadership from 2002 to 2013: Theory development. *Educational Management Administration and Leadership, 44*(1), 146-164. https://doi.org/10.1177/1741143214558576

Townsend, T. (2011). School leadership in the twenty-first century: Different approaches to common problems? *School Leadership & Management, 31*(2), 93-103. https://doi.org/10.1080/13632434.2011.572419

Vangrieken, K., Dochy, F., Raes, E., & Kyndt, E. (2015). Teacher collaboration: A systematic review. *Educational Research Review, 15*, 17-40. https://doi.org/10.1016/j.edurev.2015.04.002

Wenner, J. A., & Campbell, T. (2017). The theoretical and empirical basis of teacher leadership: A review of the literature. *Review of Educational Research, 87*(1), 134-171. https://doi.org/10.3102/0034654316653478

Wieczorek, D., & Lear, J. (2018) Building the “Bridge”: Teacher leadership for learning and distributed organizational capacity for instructional improvement. *International Journal of Teacher Leadership, 9*(2), 22-47.

Yin, R. K. (2003). *Case study research: Design and methods* (3rd ed.). Thousand Oaks, CA: Sage Publications, Inc.