HOW ARE SCHOOL CLIMATE, TEACHER COMMITMENT, AND INSTRUCTION VALUED THROUGH TEACHER-LED PROFESSIONAL DEVELOPMENT?

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Public schools, specifically teachers and administrators, have been under a high level of scrutiny and accountability. Administrators have been distributing more responsibility to teachers in an effort to build collaboration. One way to distribute leadership throughout a school is to ask teachers to develop and lead their own professional development activities. Traditionally, professional development activities are organized and led by school principals. However, recent research suggests that there is a direct relationship between teacher-led professional development and three important educational processes and outcomes: teacher commitment, school climate, and instruction (Hulpia, Devos, & Van Keer, 2010. The opportunity for teachers to play a role in determining and sharing instructional strategies to improve their school may be an especially significant foundation for educational improvement (Kilinc, 2014). This study of elementary school professional development and school improvement focused on answering the following questions: 1) Do teachers who participate actively in teacher-led professional development more positively evaluate school climate? 2) Do teachers who participate actively in teacher-led professional development report increased commitment? 3) Do teachers who participate in

teacher-led professional development engage more actively or extensively in instructional planning efforts?

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PREFACE

This dissertation was a study on the important role teachers have in providing professional development to peers. I have been fortunate to be surrounded by advisors, colleagues, friends and family throughout this process.

Dr. Sean Kelly, my dissertation advisor, held me to a high standard throughout the data collection and analysis of this study. He encouraged me to ask deeper questions that would possibly impact the practice of professional development in schools. Dr. Jennifer Russell was instrumental in assisting with focusing the research with a practitioner's perspective. Dr. Diane Kirk, my mentor, and Dr. Charlene Trovato, I am blessed to have your support throughout this educational journey.

This journey would not have been possible without my classmates. I would like to thank Dr. Sarah Shaw, Dr. Amanda Mathieson, Dr. Chris Shute, Dr. Anthony Mooney, Dr. Marc Thorton, Dr. Becky Stephan, and Dr. Ashley Nestor. It was an honor to share this experience with you. To my participants in this study, who shared their personal thoughts about teaching and learning, which required them to be reflective of their practice, your participation is appreciated, and your professionalism is highly respected.

Along the way, my family has provided me with motivation and inspiration. I wanted my son Jake to realize that education is not limited and that hard work is critical to success. He has been understanding, and I could not be more proud of him.

Finally, my husband Paul has been the most encouraging on this pathway to doctoral studies. He realized that I was going to achieve this milestone before I did, and he has always believed in me.

1.0   INTRODUCTION

Instructional leadership is now routinely distributed across formal leaders, such as principals, and informal leaders, such as teacher leaders, when a school asks teachers to play a more prominent role in the professional development of their peers. Kilinc (2014), citing Fullan (1994), remarked that "teacher leaders may play a significant role in building positive relationships among colleagues, facilitating professional learning for both themselves and others and leading change and improvement process in schools" (p. 1730). Such relationship building activities are likely to have a positive impact on teacher capacity and teacher commitment.

Vernon-Dotson and Floyd (2012) stated, "educators embrace professional development that is embedded in professional practices that are results-oriented and data driven" (p. 39). Accountability measures, such as the Pennsylvania Value-Added Assessment System (PVAAS), monitor and measure teacher instruction and student performance. PVAAS has been an additional tier to high-stakes assessments and has resulted in teachers spending an extraordinary amount of time searching for instructional resources and activities to improve instruction and student outcomes. The utilization of teacher-led professional development enables teachers to work collaboratively to support school climate, teacher commitment, and instruction.

The Wallace Foundation (2013) recently argued that, while the principal remains an important primary leadership role, leadership should also be distributed throughout the school faculty. The Wallace Foundation study acknowledged two findings. First, although a variety of

leadership patterns exist between many members of the organization, the principal remains central to leadership (p. 6). Second, great leaders cultivate leadership in others (p. 11). The Wallace Foundation and Kilinc both concurred that in the age of external accountability, the principal could not be the only school leader.

1.1   PURPOSE OF THE STUDY

The primary purpose of the study was to determine how teacher-led professional development influenced three variables: school climate, teacher commitment, and instruction. First, these relationships were analyzed among all participants. Next, the relationship between teacher-led professional development and the outcome variables were analyzed by professional development satisfaction and frequency of professional development facilitation. Early career and mid/late career teachers and educational attainment (BA vs. Masters degree) were utilized as ancillary data.

High-stakes assessments have increased teacher accountability. Teachers have either taken this opportunity to work with their colleagues in refining their teaching, or have remained in isolation, resistant to collaboration. This study focused on the attitudes and perspectives of elementary school teachers and the importance of collaboration through teacher-led professional development. While principal leadership plays an important role in creating opportunities for collaboration, this study focused on the potential benefits of teacher-led professional development itself, rather than principal leadership activities.

1.2   RESEARCH QUESTIONS

The following research questions guided this study:

1. Do teachers who participate actively in teacher-led professional development more positively evaluate school climate?

2. Do teachers who participate actively in teacher-led professional development report increased commitment?

3. Do teacher who participate in teacher-led professional development engage more actively or extensively in instructional planning efforts?

1.3   DEFINITIONS

The following terms were used in this study:

Distributed Leadership: A distributed leadership perspective recognizes multiple leaders and that leadership activities are widely shared within and between organizations

School Climate: An organizational phenomenon that reflects the school community's norms, goals, and values

Teacher Commitment: A teacher's positive emotional attachment to the school and emphasis on student learning

Instruction: Activities that impart knowledge or skill through planning that impact student learning and performance

Teacher-Led Professional Development: Teacher learning activities where teachers themselves determine areas of curricular and instructional need, and then create workshops or other activities that enhance professional autonomy and emphasize professional judgement

1.4   CONCEPTUAL FRAMEWORK

A conceptual framework has been defined as a visual or written product that informs the direction of a research project (Miles & Huberman, 1994). This study focused on three strands that supported this framework: teacher-led professional development, building teacher instructional capacity, and building awareness in schoolteachers. Figure 1 depicts the conceptual framework outline of this study. Building teacher capacity and awareness are required for meaningful and effective teacher-led professional development. Schools need to have the ability to look at the whole organization to determine if there is an instructional need. Once that need is identified, teachers need to be reflective to determine if they possess the skill set or expertise to address the need. Teachers then plan professional development for colleagues.
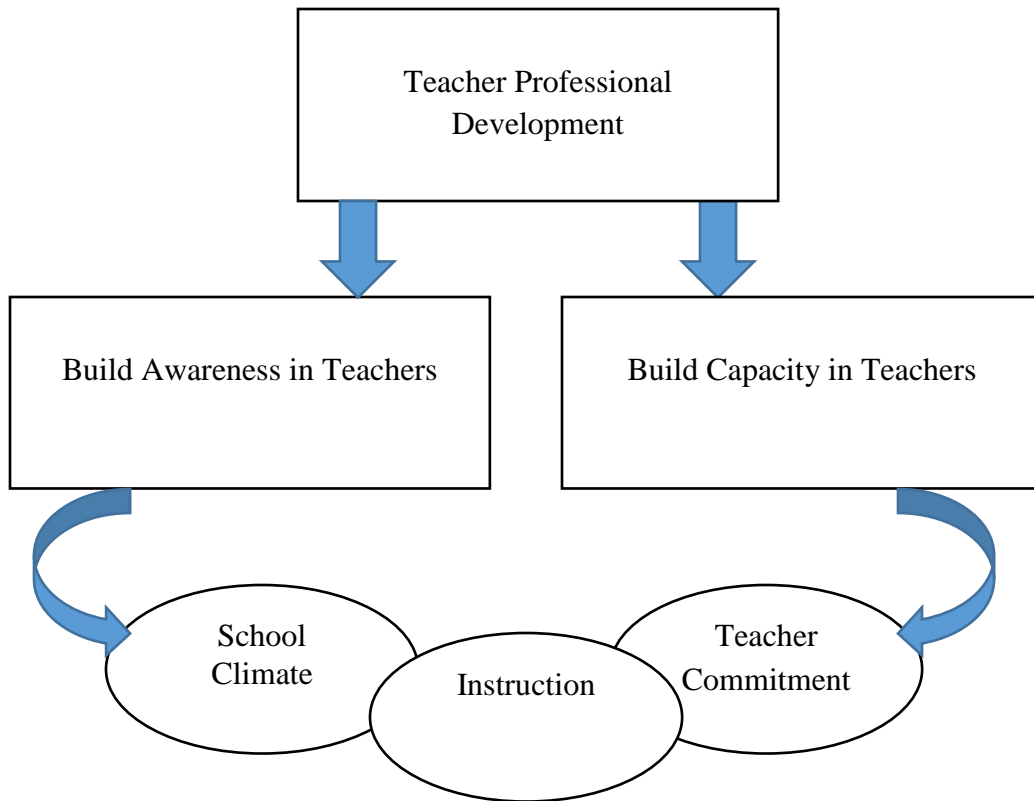
Figure 1. Conceptual Framework

1.4.1 Teacher-led professional development

Research on teacher-led professional development suggests it has been particularly effective when a school is able to identify its needs and have teachers play a more prominent role in the professional development of their peers. Vernon-Dotson and Floyd (2012) stated, "Educators embrace professional development that is embedded in professional practices that are results-oriented and data driven" (p. 39). In the past, professional development was provided by teacher-leaders or grade level/subject area leaders. Recent literature shows that informal teacher

leadership is increasing because it taps into the ability of all teachers (Taylor, Yates, Meyer, & Kinsella, 2011).

Providing the opportunity for all teachers to deliver professional development would address the variety and diversity of teacher needs. Taylor et al. (2011) stated, "Nor has professional development (PD) for teachers necessarily acknowledged that teachers are not a homogeneous population but represent diverse perspectives, experience expertise, receptiveness to new ideas, and potential for leadership roles" (p. 86).

1.4.2   Building awareness

Teacherledprofessionallearning.org defined "building awareness" as identifying an area of knowledge within someone. Determining how to change, creating a plan, and managing plans support the process of building awareness in a school based upon teacher instruction and student needs (Daggett & McNulty, 2005). Building awareness has typically been triggered by an analysis of behavioral or academic data, which impact school climate.

For example, through the benchmarking and common assessments of all students, results were researched by an individual teacher or a grade level team and instructional resources or strategies were identified. Teachers were then able to create a plan and presentation that met building and student needs. These plans focused on the strengths of the teachers and provided applicable tools to utilize in the classroom. As the data and student needs change, teachers must be willing to change instruction as needed. Teacher-led professional development would support changes necessary to promote student achievement while simultaneously, supporting teacher instruction.

1.4.3 Build capacity

Research on teacher-led professional development suggests it is effective at building teachers instructional capacity. The teachers involved in this study took advantage of all opportunities provided to them to discuss student artifacts and common assessments. The teachers were also able to identify their individual strengths and talents of their colleagues, recognized how they could positively impact their professional growth, and in many cases solidified their commitment to the school. They worked to develop or collect content to achieve teacher-led professional learning, pulling together the work of others and adding their own work and advice about how to achieve greater implementation of teacher-led professional development.

A study by Bennett, Ylimaki, Dugan, and Brunderman (2014) demonstrated the importance of capacity building by stating, "Knowledge is built through authentic and teacher-led professional development activities that 'link professional knowledge with professional practice' with contextual relevance" (Mitchell & Sackney, 2000, p. 117). This study also acknowledged the focus on accountability through standardized assessments and data. It emphasized the importance of teacher discussion, determining the definition of success and instructional leadership importance in building capacity and collaborative teams (p. 396).

1.4.4 School climate, teacher commitment, and instruction

Kilinc (2014) cited Fullan (1994), "Teacher leaders may play a significant role in building positive relationships among colleagues, facilitating professional learning for both themselves and others and leading change and improvement processes in schools" (p. 1730). Teacher-led

professional development is effective in building teacher instructional capacity and awareness, which positively impacts school climate, teacher commitment, and instruction.

2.0   LITERATURE REVIEW

2.1   DISTRIBUTED LEADERSHIP

The literature on distributed leadership has often focused on the balance of leadership activities carried out by principals as opposed to teachers and other actors in the school. This study focused on the changes that occur in teachers' perspectives and practices when they participate in teacher-led professional development rather than the balance of leadership. Nevertheless, this study was informed by the basic literature on distributed leadership. Proponents of distributed leadership, including Peter Gronn (Mayrowetz, 2008) and James Spillane (2008), argue that generating and utilizing leadership capacity throughout the school dramatically enhances school improvement efforts. Spillane (2008) acknowledged that distributed leadership is difficult to define and that multiple perspectives exist, but stated, "Rather than viewing leadership practice as a product of a leader's knowledge or skill, the distributed perspective defines it as the interactions between people and their situation" (p. 144). Figure 2 represents an academic model of distributed leadership. It demonstrates a reiterative relationship between those who are providing learning opportunities (leaders) and those who are receiving the information (followers). The learning is dependent on need and resources available.
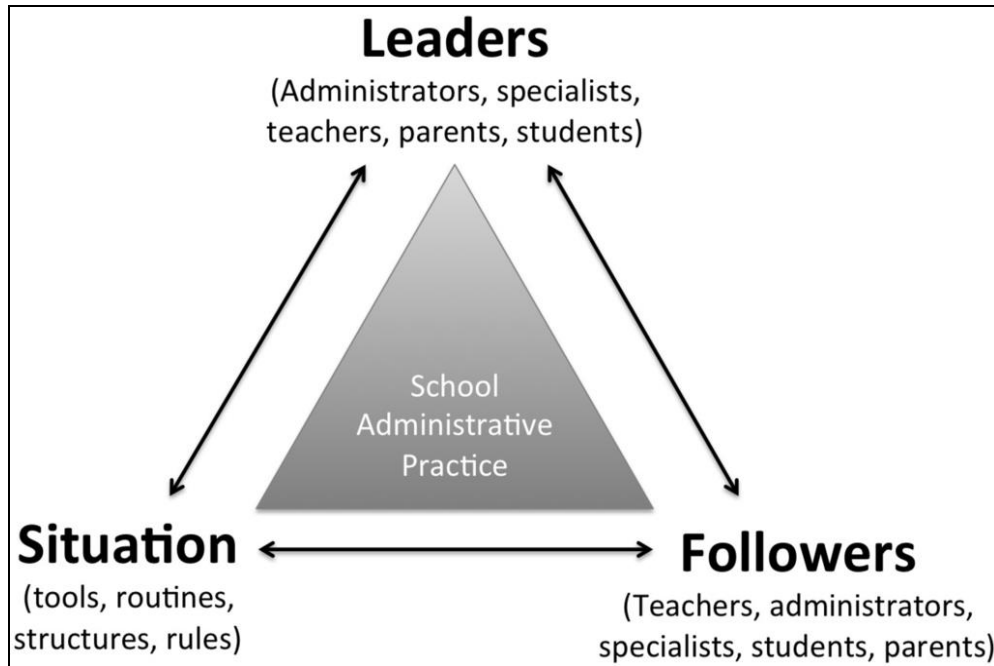
Figure 2. Spillane's Distributed Leadership Model

In contrast to distributed leadership, the leader-centered model, or traditional leadership, identifies a formal leader, with that leader as the center of all decision-making. This study focused on distributing ownership to teachers to identify necessary curricular and instructional needs. Traditionally in education, the principal has been the sole decision maker. Instruction, behavioral issues, and professional development have been the responsibility of the principal, and teaching staff were expected to follow the directions of the principal. The Wallace Foundation (2013) recently argued that, while the principal remains an important primary leadership role, leadership should also be distributed throughout the school faculty. The study acknowledged two findings. First, although a variety of leadership patterns have existed between many members of the organization, the principal remains central to leadership (p. 6). Second, great leaders cultivate leadership in others (p. 11). The Wallace Foundation and Kilinc both concurred that in the age of external accountability, the principal could not be the only

school leader. Historically, the building principal was believed to have all of the knowledge and would direct the mission and focus of the school. Today it is impossible for building principals to complete clerical tasks, be instructional leaders, and fulfill professional duties effectively. Figure 3 offers a comparison between roles of traditional and shared leadership (a concept similar to distributed leadership).
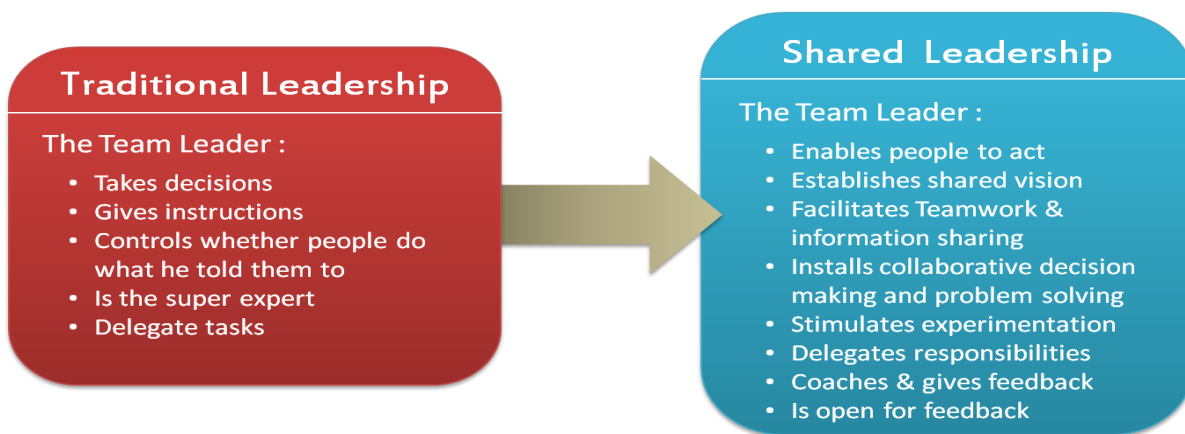
Figure 3. Traditional and Shared Leadership Roles

As a proponent of distributed leadership, Kilinc (2014) recognized this change in traditional leadership by acknowledging that school administrators found it increasingly difficult to function "both as decision-makers and holders of power" (p. 1729). Through the literature review on distributed leadership, three levers of reform were frequently discussed: school climate, teacher commitment, and instruction through professional development. Research showed a direct relationship between teacher-led professional development, teacher commitment, and school climate (Hulpia et al., 2010; Devos, Tuytens, & Hulpia, 2014). Thus, this problem of practice focused on answering the following questions: 1) Do teachers who

participate actively in teacher-led professional development more positively evaluate school climate? 2) Do teachers who participate actively in teacher-led professional development report increased commitment? 3) Do teachers who participate in teacher-led professional development engage more actively or extensively in instructional planning efforts? These questions led to a study of teacher-led professional development at an elementary school in Pennsylvania. The principal and teachers were active participants in the study of teacher-led professional development. Participants provided feedback through a survey and semi-structured interviews.

2.2   TEACHER-LED PROFESSIONAL DEVELOPMENT

Over time, teacher leadership has been represented in different configurations. Margolis and Huggin (2012) stated, "In the post-No Child Left Behind era, school systems have more aggressively sought ways to connect teacher leadership to student achievement" (p. 954). The authors referred to Gordon's (2004) model of instructional leadership that promotes professional development. Gordon identified three types of instructional leadership: 1) the teacher lesser model, 2) the multiple leadership role models, and 3) the every teacher is a leader model (p. 959). The present study was consistent with the every teacher is a leader model, as it facilitates leadership inclusion rather than exclusion through "internal and unstructured" teacher leadership (Gordon, 2004, p. 97). The every teacher is a leader model promotes community and collaboration in approaching instructional improvement.

Professional development must meet the needs of the school. It must be instructionally based and engaging to participants. Vernon-Dotson and Floyd (2012) stated, "Educators embrace professional development that is embedded in professional practices that are result-

oriented and data driven" (p. 39). Kilinc (2014), citing Fullan (1994), said that "teacher leaders may play a significant role in building positive relationships among colleagues, facilitating professional learning for both themselves and others and leading change and improvement processes in schools" (p. 1730). Professional development activities have the potential to serve as relationship building activities that could have a positive impact on teacher capacity and teacher commitment. A study by Bennett et al. (2014) demonstrated the importance of capacity building by stating, "Knowledge is built though authentic and teacher-led professional development activities that 'link professional knowledge with professional practice' with contextual relevance" (Mitchell & Sackney, 2000, p. 117).

Barth (2001) shared a more direct statement: "Rather than remain passive recipients— even victims—of what their institutions deal to them, teachers who lead help to shape their own schools and, thereby their own destinies as educators" (Vernon-Dotson & Floyd, 2012, p. 45). Standardized testing has produced significant anxiety, and therefore, teachers have needed to take ownership of their instruction. Katzenmeyer and Moller (2009) further asserted that teachers' perceptions of themselves as leaders inspire them to discover their own potential to influence student learning. They put less blame on students or external factors for failures, become less resistant to school wide change, make better use of opportunities to expand their influence, improve their own teaching and practices in their classrooms, and influence others to improve their teaching (p. 1730). Teacher-led professional development has directed the attention away from external factors and re-directed them to factors within a teacher's control. Margolis and Huggins (2012) supported this: "In essence, as part of their job, they use their knowledge of teaching and relationships with teachers to make big ideas manifest in classrooms" (p. 955).

2.3   TEACHER COMMITMENT

Mowday, Steers, and Porter (1979) defined organizational commitment as "the relative strength of an individual's identification with and involvement in a particular organization" (Hulpia et al., 2010).   Mowday, Porter, and Steers (1982) also identified characterized commitment as consisting of three components: belief in and acceptance of organizational goals and values (identification), a willingness to exert effort on behalf of the organization (involvement), and a strong desire to maintain membership in the organization (loyalty)" (Hulpia et al., 2010).   The components of identification, involvement, and loyalty have been critical to the success of teacher commitment.   Without a shared expectation and vision, schoolteachers have worked in isolation.   The elementary school in this study has undergone a significant change in student population.   Competent and experienced teachers became defensive about school performance and began to participate in what Slavit, Nelson, and Deuel termed "war stories" (2013).   The "war stories" placed blame on external factors out of their control.   McKenzie and Locke (2014) shared a scenario that replicated the issue at this elementary school:

> For example, if good teachers have been at a school for several years and if the school has recently undergone significant demographic changes, these teachers may not be experiencing the level of student success that they had in the past.   However, since these teachers were successful in the past, they may believe that their teaching strategies are effective and thus attribute the lack of student success to what they perceive as the students' deficits.   For such teachers to be successful with all their students may require them to examine and change their attitudes toward their students, their equity consciousness, or their instructional strategies such that they are responsive to the needs and cultures of current students, employing, for example culturally responsive pedagogy.

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(p. 165)

In order for teachers to adapt to these changes, it is important for them to feel vested in the school and students. Devos et al. (2014) stated, "several studies indicated that teachers' commitment to the school can be an important predictor of teachers' job satisfaction and the dedication to attain organizational goals" (p. 207). This study collected data from 1,495 teachers in 46 secondary schools and found that the building principal had set the leadership standard. As a result, "principals should stimulate assistant principals and teacher leaders to take part in leading the school, lead the school in a collegial way with other members of the leadership team, and empower teachers to participate in school decision making" (p. 205). The results of this study were met with argument. Silins, Mulford, and Zarins (2002) contended, "The influence of distributed leadership did not extend to student engagement or to student participation." However, evidence supports that teacher satisfaction has an impact on teacher instruction and student achievement.

Hulpia et al. (2010) shared that "much of the research on organizational commitment has indicated that demographical characteristics of individual teachers, such as gender and job experience, are related to their commitment to the school." In this respect, research by Reyes (1992) and Singh and Billingsley (1998) revealed that female teachers have been more committed to the school in comparison with their male colleagues, and that more experienced teachers feel less committed to the school than do less experienced teachers" (p. 42).

2.4   SCHOOL CLIMATE

Moolenaar, Sleegers, and Daly (2011) included collective efficacy as a contributing cause to positive school climate. The authors hypothesized that teachers' social networking would potentially improve instruction, but that it also built confidence, self-efficacy, and a relationship, or collective efficacy, between those participating. Self-efficacy is defined as one's belief that one can execute needed steps to achieve a goal (Bandura, 1977). A longitudinal study conducted by Caprara, Barbaranelli, Stecca, and Malone (2006) focused on how transformational leadership, task interdependence, and self-efficacy shaped teacher learning. The study took place in 75 Italian junior high schools with over 2,000 teacher participants. Capara et al. (2006) confirmed that self-efficacy plays a role in teacher performance and job satisfaction. Although this study measured self-efficacy in relation to teacher job satisfaction and student achievement and not school climate, the findings showed that teachers with high self-efficacy are more thorough in their planning and instruction. Effective teacher-led professional development has been a critical component in supporting teachers.

School climate and self-efficacy have been defined in a variety of ways, but are considered interdependent. A school climate is dependent on the attitude of the personnel and vice versa. Distributed leadership promotes shared decision making which results in what Calik and Kurt (2010) described as "organizational practices that have an impact on the attitudes and behaviors with all school community members" (Kilinc, 2014). Vernon-Dotson and Floyd's (2012) findings of a school-university partnership revealed, "Participating teams appreciated the collective efficacy and believed that building instructional goals were achievable" (p. 45).

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2.5   RESEARCH METHODS IN DISTRIBUTED LEADERSHIP

Spillane acknowledged the lack of empirical evidence on distributed leadership and its effect on teachers and learners (2008). Kilinc (2014) conducted a correlational research model with 259 participants focusing on organizational climate in a primary setting. A descriptive questionnaire (OCDQ) was utilized to investigate teacher and principal behaviors. Although the study had limitations, it confirmed that school climate is a strong predictor of teacher leadership. The majority of distributed leadership research is descriptive and qualitative in nature. Vernon-Dotson and Floyd (2012) completed a qualitative study based upon Creswell's (2003) study of utilizing teacher leadership teams. Six leadership teams were identified and professional development needs were established. Three findings were discovered: 1) transformation of teacher roles, 2) increased collective efficacy, and 3) improved meaningful professional development. Professional development was a significant finding in this study because Vernon-Dotson and Floyd determined that distributed leadership promoted teachers by empowering them through participation and collaboration (p. 48).

Devos et al. (2014) conducted a descriptive study similar to their colleagues, and their findings were very similar. Using a self-reported questionnaire titled "The Distributed Leadership Inventory," they found that cooperation within a leadership team is "directly" related to a teacher's commitment to the school" (p. 221). However, they agreed with Spillane that the concept of distributed leadership is difficult to measure (p. 211). The last research article examined for this study was by Jones (2014). In this critical analysis, Jones found that even though distributed leadership did permit more people to provide input and share their expertise, the principal was at the center of motivating them (p. 138).

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While this literature review is concentrated on distributed leadership in academic environments, it is important to understand that the idea originated in the business model. Mehra, Smith, Dixon and Roberston (2006) utilized a social network analysis on 28 sales teams within one business organization (p. 236). Mehra et al. theorized that, "Leadership is not just a top-down process between the formal leader and team members; and there can be multiple leaders within a group" (p. 233). Their theory led them to two hypotheses about distributed leadership and sales success: 1) teams with "distributed leadership" structures will tend to outperform teams with traditional leader-centered structures, and 2) teams with distributed-coordinated leadership structures will tend to outperform both teams with traditional leader-centered leadership structures and teams with distributed-fragmented leadership structures (p. 236). In the second hypothesis, distributed leadership was divided into two types: fragmented and coordinated. Distributed-coordinated is defined as having a formal team leader, an emergent leader, and members of the team. In contrast, distributed-fragmented refers to leadership distributed over multiple teams. In hypothesis one, where all forms of distributed leadership were considered together, distributed leadership did not have a significant improvement on sales or team satisfaction relative to traditional leader-centered structures (p. 239). In hypothesis two, teams participating in the distributed-coordinated leadership model experienced more success.

The absence of empirical data on distributed leadership has left questions about the impact it has on an organization and student achievement. The findings do show the positive effects distributed leadership has had on teacher morale, collaboration, and more importantly, professional development determined by teacher need. While distributed leadership and related approaches to generating leadership capacity in teachers and other school staff are now widespread in the field of educational administration, skepticism remains about the benefits of

distributed leadership (Devos et al., 2014). Harris (2004) used the terms "blank spots" to describe shortcomings in the research and "blind spots" to describe areas that have been overlooked due to theoretical and epistemological bias (Hallinger & Heck, 1996). Harris highlighted three reasons that may have inhibited effective distributed leadership (p. 20). First, distributed leadership necessitated the formal leader relinquishing the power to control situations. This may have been intimidating to formal leadership because control was released to others in the organization. State mandates, district policy, and school accountability make it uncomfortable for a formal leader to relinquish leadership. Second, the traditional infrastructure of power may not make distributed leadership possible. The hierarchy of the school system identified the formal leaders, those with "power" as distributing information to members of the school organization without considering the individual needs of each school in the district (e.g., the selection of programmatic interventions). In many cases, those the furthest removed from instruction have determined the intervention programs that all schools within the district use to provide remediation. Yet, classroom teachers insisted that the "one size" fits all intervention was not effective, and that a variety of choices were necessary to meet the varying needs of students. Lastly, Harris conceded that a "top down" approach to distributed leadership was possible (p. 20), but it was important that the distribution was thoughtful and meaningful. Leadership activities should be stretched over a number of individuals and multiple leaders in an organization. Multiple committees could operate within a school with a common goal, and therefore, function interdependently rather than working in isolation. Daggett and McNulty (2005) identified determining how to change, creating a plan, and managing plans as steps that supported the process of building awareness in a school based upon teacher instruction and student needs.

At this time, the research and literature in support of distributed leadership is not fully convincing. In particular, in most cases, it seemed unlikely that a shift to distributed leadership would result in an immediate increase in student achievement. Margolis and Huggins (2012), citing Heck and Hallinger's (2009) study, argued, "shared leadership and school's academic capacity are mutually reinforcing and indirectly increase student learning growth rates" (p. 954). The articles in this literature review have shown a connection between distributed leadership, specifically defined as teacher input into professional development, and teacher satisfaction. There is an increase in satisfaction and self-efficacy when a teacher is given the opportunity to determine the needs of the school and demonstrate his or her knowledge. Thus, while theories of distributed leadership may need further support, the research explored in the review does suggest that teacher-led professional development may impact school climate, teacher commitment, and instruction.

2.5.1 Research questions in the literature

Do teachers who participate actively in teacher-led professional development more positively evaluate school climate?

Watt, Huerta and Mills (2010) defined climate as, "how everyone in the building perceives the health of the organization" (p. 173). Watt, Huerta and Mills researched the impact of teacher-led professional development on school climate and culture. Professional development focused on the training of teachers and other school professionals in the use of instructional strategies. The researchers surveyed 2,231 middle school and high school teachers. School climate was measured with three subtests from the Organizational Climate Index (Hoy, Smith & Sweetland, 2002). Results showed that strong implementation of professional

development resulted in higher perception of school climate. One surveyed item found that the professional development "provides a venue for sharing ideas, values, and beliefs among stake holders" (p. 181).

Do teachers who participate actively in teacher-led professional development report increased commitment?

Barth (2001) stated, "Rather than remain passive recipients-even victims- of what their institutions deal to them, teachers who lead help to shape their own schools and, thereby their own destinies as educators." Teachers were interviewed to make a determination of their feelings about their commitment to the school. Sun (2015) used meta-analytic and narrative reviews on content analysis of previous studies to research teacher commitment. Sun found that teacher commitment is significantly tied to student learning, that school leadership influences teacher commitment, and teacher leadership impacts students learning on three levels: personal level (relationship with self), dyad level (relationship with principal and students), and collective level (relationship with learning community). Sun proposed, "Teacher's commitment bridges school leadership and student outcomes, forming a critical path along which school leadership influence travels towards students" (p. 616).

Do teachers who participate in teacher-led professional development engage more actively/extensively in instructional planning efforts?

Rosenholtz (1989) stated, "Learning may be the direct outcome of collaboration, as teachers request from, and offer colleagues, new ideas, strategies, and techniques" (p. 79). Desimone, Porter, Garet, Yoon, and Birman (2002) conducted a three-year longitudinal study on professional development and teacher instruction. Two hundred and seven teachers participated in surveys focused on three strands: teacher in practice, professional development experience,

and teaching practices. Findings showed that professional development focused on specific instructional practices increased teachers' use of those practices in the classroom. Also, active learning opportunities, provided by professional development, increased development of teachers' instruction.

3.0   METHODOLOGY

This is a mixed methods study, with data on teachers' participation in professional development and outcomes collected from a survey and semi-structured interviews. In educational research efforts, Cooley (2013) argued that qualitative research provides a richness of detail that has given insight to the complicated nature of teaching and learning. Pathak, Jena, and Kalra (2013) noted that qualitative research has been used to understand people's beliefs, experiences, attitudes, behavior, and interaction. In the present study, participants were able to provide initial insight about the potential effects of teacher-led professional development through a survey, and were given another opportunity to expand on their perspective through the interview. Hatch (2002) described the qualitative interview as "creating a special kind of speech event during which open-ended questions encourage informants to explain their unique perspectives on the issue at hand, and listen intently for special language and other clues" (p. 23).

This qualitative and quantitative study took place at an elementary school in central Pennsylvania. Thirty-two teachers took a survey and volunteered to be interviewed following the survey. The survey was based upon questions administered by Northwestern University and prepared by the Distributed Leadership Study for NebraskaMath under principal investigator James P. Spillane, Ph.D. Qualtrics, an online survey software program, was used to formulate and distribute the survey by email. Participants received an introductory letter that shared the purpose of the study and its confidential nature. The survey data provided information about

how school climate, teacher commitment, and instruction is valued through teacher-led professional development. Interview questions were then constructed based upon survey results. The interview was used to gather in-depth insight into survey responses and to determine the extent to which teachers valued the themes described in the literature. Specific themes related to school climate, teacher commitment, and instruction were identified in the literature and are represented in Table 1.

Table 1. *Codes Identified Through Literature*

School Climate	Teacher Commitment	Instruction
Contribution to professional development	Acceptance of goals and values	Planning of lessons
Attitude toward collaboration	Involvement with professional development	Facilitation of professional development
Collaboration between teachers	Loyalty to the school community	Accountability for use of strategies learned during professional development

3.1   SETTINGS AND PARTICIPANTS

Thirty-two of the thirty-five teachers invited to participate in the survey subsequently completed the survey, resulting in a 91% response rate. Participants included 17 classroom teachers, 4 learning support teachers, 8 special area teachers, 2 enrichment/resource teachers, and one speech and language teacher. Out of the 32 teachers, 9 had a Bachelor Degree, and 22 had a Master's Degree, while 13 participants had 1-15 years of service, and 19 had 16-30 years of

service. Table 2 summarizes the participants' teaching assignments, years of service, and degree attainment.

Table 2. *Study Participants: Teaching Assignment, Degree Attainment, and Years of Service*

Teacher Assignment	Number of Teachers	Percentage
Kindergarten – Grade 5	17	53%
Learning Support	4	13%
Special Area	8	25%
Enrichment/Resource	2	.06%
Speech and Language	1	.03%
Degree Attainment	Number of Teachers	Percentage
Bachelor Degree	9	28%
Masters' Degree	23	72%
Years of Service	Number of Teachers	Percentage
1-15	13	41%
16-30	19	59%

The elementary school was one of four district schools located in Central Pennsylvania. The rapidly growing township had approximately 7,000 residents. The elementary school enrolled 350 students in grades K-5 (all enrollment numbers rounded for confidentiality). The student population consisted of 84% Caucasian, 11% Asian, 3% African American, and 2% Hispanic. At the time of this study, the student population was 10% economically disadvantaged, 13% special education and, 1% English Language Learner. Historically, the elementary school has been an average to high performing school as revealed by standardized

assessments, but more recently the decline of parental support, teacher attrition, and weak curricular materials caused concern among district educators. The Pennsylvania Value-Added Assessment System (PVAAS) is a system that estimates the effect of a teacher's performance on the academic growth of a group of students. The three year rolling average on the PVAAS began in 2013 and serves as 15% of a teacher's total annual evaluation score. Spurred in part by evidence of underachievement on the PVAAS, the building team decided it was critical to identify external and internal factors that had negative and positive impacts on instruction and student learning. An analysis of enrollment trends revealed an increase in the transient and low socio-economic (i.e., free or reduced lunch) student population. Another factor contributing to the recent decline in test scores may have been the implementation of a new reading program and a limited number of Tier 2 interventions for reading and none for mathematics. In addition, some teacher reported that a lack of professional development focused on instructional activities and strategies left them unprepared to deal with changes in the curriculum and student body composition.

When the implementation of the Pennsylvania Common Core for reading and math became a reality, teacher anxiety increased. Rather than focusing on factors out of their control, the principal and teachers redirected their focus to classroom instruction. Through collaboration, the building principal and teachers determined professional development topics aligned to instruction that met the varying needs of the student population. This approach aligned with Wolcott's (1980) conclusion that "the administration's decision concerning active involvement in the professional development process as a peer rather than an authority figure can have a positive influence on innovative initiatives" (p. 77). The goal of the teacher-leadership approach

was to promote effective bi-weekly team meetings and rich conversations about student work that would result in topics for professional development.

3.2   DATA ANALYSIS

The first part of the data analysis consisted of finding the overall mean for the dependent variables: school climate, teacher commitment, and emphasis on instructional improvement. Each variable was measured using a set of six questions with a Likert Scale range of 1 (Strongly Agree), 2 (Agree), 3 (Neither Agree or Disagree), 4 (Disagree), 5 (Strongly Disagree). The quantitative software program STATA was used to calculate the mean of each variable as a measure of central tendency and variability using the standard deviation. Once teacher reports of school climate, teacher commitment, and instructional improvement were assessed, teacher attitudes and perspectives on teacher-led professional development were analyzed. All teachers participated in professional development sessions. Thus, I analyzed the frequency of which teachers facilitated (i.e., led) a professional development session, the content/focus of the sessions teachers participated in, and variability in how much teachers reported valuing teacher-led professional development. Finally, I analyzed the relationship between valuing of teacher-led PD and the dependent variables. Did teachers who reported more extensive, high-quality participation in and appreciation for teacher-led PD report an improved perception of school climate, teacher commitment, and instructional improvement efforts?

4.0   FINDINGS

The survey consisted of 28 questions, 18 of which focused on the dependent variables: school climate (Q10, Q37, Q11, Q12, Q13, Q14), teacher commitment (Q15, Q16, Q17, Q18, Q19, Q20), and instruction (Q21, Q22, Q23, Q24, Q25, Q26). Table 3 provides a summary of the dependent variables. Questions were constructed to specifically gain an understanding of how teachers felt about each dependent variable. School climate items were constructed to gain an understanding of how teachers felt about collaboration and comfort of sharing personal thoughts and feelings with colleagues about the school. Items related to teacher commitment were created to determine how much teachers valued teacher leaders and adult learning communities. Teacher perception about instruction items focused on how teacher-led professional development has impacted instructional practices and how instructional needs are identified in the school.

Table 3. *Summary of Dependent Variables*

Variable	Survey Items	Example Items
School Climate	Q10, Q11, Q12, Q13, Q14, Q37	It's okay in this school to discuss feelings and frustrations.
		Teachers in this school are able to get through tough times.
Teacher Commitment	Q15, Q16, Q17, Q18 Q19, Q20	I share a commitment to working together.
		I support the development of adult learning communities.
Instruction	Q21, Q22, Q23, Q24, Q25, Q26	As a building, we can identify areas for improving our instruction.
		My reflection on teaching practices have increased.

Table 4 reports the means and standard deviations for each individual item, as well as a 5-point Likert Scale for each dependent variable 1 (Strongly Agree), 2 (Agree), 3 (Neither agree nor disagree), 4 (Disagree), 5 (Strongly Disagree). The 5-point Likert Scale is an ordered scale from which participants chose an option that aligns with their views. In addition, the percentage of respondents strongly agreeing or agreeing with each item was reported.   Overall, the respondents reported a very favorable impression of the school climate, their own level of commitment as well as that of their colleagues, and the focus on instructional improvement at

their school. The mean responses for the school climate variables ranged from a low of 1.47 for Q13 pertaining to motivating students (about half way between agree and strongly agree), to a high of 1.25 for Q14 pertaining to overcoming tough times in the school. For each of the school climate items, the vast majority of teachers agreed or strongly agreed that their school had a positive climate (94% or more of teachers). Indeed, although there was some variability in responses (SD ranged from .76 to .84), the variability primarily constituted whether a teacher agreed versus strongly agreed with a response. Given the overall positive stance of teachers, subsequent analyses focused on differentiating between teachers who strongly agreed and all other responses.

Teacher commitment items were also similar to school climate. The mean responses for teacher commitment variables ranged from a low of 1.78 for Q20 pertaining to commitment to the school (77% neither agreed nor disagreed) to a high of 1.13 for Q15 pertaining to sharing a commitment to working together. Except for Q20, most teachers agreed or strongly agreed on the teacher commitment items. There was significant variability with item Q20 at .97 (SD ranged from .71 to .97). Item Q20 specifically asked if teacher commitment had increased in recent years. Nineteen percent of teachers responded neither agree nor disagree. This may be directly related to a high level of teacher participation in professional development.

The mean responses for the instruction variables ranged from a low of 1.75 for Q23 pertaining to researching effective teaching methods and 1.34 for Q22 pertaining to improving instruction (more teachers always or mostly agree to Q22). For each of the instruction items, the majority of teachers always or mostly agreed that they engaged more actively and extensively in instructional planning efforts (87% or more teachers). Although there was some variability in responses (SD ranged from .55 to .88), the variability primarily constituted how a teacher viewed

their participation in instructional practices as always or never. Important to note is the SD of Q21 at .88, relating to increased self-reflection on instruction (more than half agreed or strongly agreed).

Table 4. *Descriptive Statistics of Dependent Variables and Individual Survey Items*

Dependent Variables	Topic	Mean	SD	N	Strongly Agree/Agree
School Climate		1.39		32	
Q10	Respects teacher leaders	1.44	.84	32	94%
Q11	Respects experts	1.34	.79	32	97%
Q12	We learn from one another	1.31	.78	32	97%
Q13	Student motivation	1.47	.80	32	96%
Q14	Tough times	1.25	.76	32	97%
Q37	Feelings	1.53	.80	32	97%
Teacher Commitment		1.34		32	
Q15	Commitment	1.13	.71	32	97%
Q16	Effective routines	1.44	.80	32	97%
Q17	Working at this school	1.28	.77	32	97%
Q18	Adult learning	1.25	.76	32	97%
Q19	Supports teachers	1.19	.74	32	97%
Q20	Increased commitment	1.78	.97	32	77%**
Instruction		1.47		32	
Q21	Reflects on teaching	1.47	.88	32	90%
Q22	Improving instruction	1.34	.55	32	97%
Q23	Research	1.75	.80	32	87%
Q24	Student work	1.50	.84	32	100%
Q25	Seeking advice	1.38	.61	32	94%
Q26	Assessment driving instruction	1.40	.71	32	100%

Next, I analyzed variability in participation in and appreciation for teacher-led PD. There were varied types of professional development offered during this study. Each professional development session was determined and facilitated by one or more teachers. Topics were connected to Pennsylvania Core Standards and provided strategies or resources that could be implemented immediately. Table 5 provides a descriptive analysis of the six professional development sessions offered and teacher satisfaction with each session.

Table 5. *Teacher Satisfaction with Professional Development Sessions*

Content of Professional Development Session	Item No.	Mean	SD	N	Percentage Strongly Satisfied/Satisfied
Newsela	Q29	1.91	.96	32	72%
Standards Aligned System (SAS)	Q30	1.81	.78	32	83%
Accelerated Reading (AR)	Q31	1.88	.87	32	86%
Back-Mapping	Q32	1.91	.89	32	75%
Reading Interventions	Q33	1.91	.93	32	70%
Text Dependent Analysis	Q34	1.88	.79	32	86%

Overall, results indicated that teachers were most satisfied with professional development topics Accelerated Reading and Text Dependent Analysis by 86%. Standards Aligned Systems was highly valued at 83%. Accelerated Reading and Standards Aligned System are both resources aligned to PA Core Standards, and Text Dependent Analysis was a new standard implemented in grades 4 and 5. All three of the sessions provided on-line resources to support instruction in the classroom. Newsela, an online reading resource, Back-Mapping of the

curriculum, and Reading Interventions were not resources that had an immediate impact on instruction. Therefore, I hypothesize that the resources were not as highly valued.

Placing teachers into two groups, based upon the number of professional development sessions valued, provided a deeper analysis into how school climate, teacher commitment, and instruction were perceived. Group 1 represented teachers that were extremely satisfied or somewhat satisfied with four or more professional development sessions, and Group 2 represented teachers that were neither satisfied nor dissatisfied, somewhat dissatisfied, or extremely dissatisfied with three or more professional development sessions.

Overall, 72% of the teachers in Group 1 were satisfied with four or more professional development sessions, compared to only 28% in Group 2. Table 6 provides data demonstrating how teachers in Group 1 and Group 2 perceived the dependent variables of this study.

Table 6. *Teacher Perception of School Climate, Teacher Commitment, and Instruction Based upon Satisfaction of Professional Development Sessions*

		School Climate	Teacher Commitment	Instruction
Group 1				
(extremely satisfied/satisfied)	Mean	1.28	1.23	1.33
4 or more professional development sessions	SD	.46	.52	.33
(n = 23)				
Group 2				
(neither satisfied or dissatisfied, somewhat dissatisfied/dissatisfied)	Mean	1.69	1.70	1.83
3 or more professional development sessions	SD	1.26	1.30	.99
(n= 9)				

Note. n = number of teachers

Overall, teachers in group 1, who stated that they were either extremely satisfied or satisfied with four or more professional development sessions, perceived school climate, teacher commitment, and instruction more favorably than teachers in group 2. Teacher commitment was valued most by group 1, while group 2 valued school climate most. The data of both groups demonstrated that school climate and teacher commitment were more highly valued than instruction. The sample size was too small to determine statistical significance, although it seems fairly clear that Group 1 teachers evaluated school functioning more positively than Group 2 teachers.

Survey results showed that all teachers have facilitated at least one professional development session during their career. Table 7 displays responses to Q4, which pertained to the frequency of which teachers facilitated professional development during their career.

Table 7. *Frequency of Professional Development Facilitation*

Frequency of Professional Development Facilitation	Number of Participants (n)	Teacher Response (%)	Mean	SD
Once	5	16%		
Twice	8	25%		
Total	13	41%	1.57	.51
Three	4	12%		
More than three	15	47%		
Total	19	59%	3.78	.43

Note. n = number of teachers

The Likert Scale for Q4 differed from the other survey questions with the selection of 1 having a lower value than 4 (1=once, 2=twice, 3=three, 4=More than three). Overwhelmingly, teachers facilitated three or more professional development activities during their career. Over the course of this study, nine teachers facilitated professional development sessions based upon their area of interest directly connected to improving teacher instruction. Data analysis of the frequency of which teacher facilitated professional development and how they valued school climate, teacher commitment, and instruction is displayed in Table 8.

Table 8. *Frequency of Professional Development Facilitation and value of School Climate, Teacher Commitment, and Instruction*

Frequency of Professional Development Facilitation	Number of Participants		School Climate	Teacher Commitment	Instruction
Once or Twice	13	Mean	1.24	1.26	1.37
		SD	.43	.57	.51
Three or More	19	Mean	1.49	1.44	1.54
		SD	.95	.98	.86

To reiterate an important basic finding, all thirty-two participants, regardless of frequency of professional development facilitation, valued school climate, teacher commitment, and instruction, agreeing or strongly agreeing to most questions. Moreover, a larger number of teachers had facilitated professional development sessions three times or more, than only once or twice. Yet, consistent with my hypothesis, those teachers who facilitated the most, were also the

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most positive about school functioning (and the gap was largest for school climate, mean of 1.24 v. 1.49).

4.1   INTERVIEWS

Table 9 reflects the terms identified through the literature review, related to school climate, teacher commitment, and instruction. Seven of the 32 study participants volunteered to be interviewed for this study. The teachers represented various grade levels and special education. The interview was semi-structured and responses were coded and analyzed through Dedoose Software. School climate, teacher commitment, and instruction were entered as "parent" codes and attributes were identified as "child" codes. The researcher categorized words and phrases. The total column in Table 9 reflects the number of times participants used the term.

Table 9. *Themes Represented Through Interviews*

School Climate	Total
Contribution	0
Attitude	15
Collaboration	8
Teacher Commitment	Total
Acceptance of goals/values	3
Involvement	2
Loyalty	2
Instruction	Total
Planning	11
Conducted Professional Development	1
Accountability	3

Note. Total = number of coded responses for all interviews

The semi-structured interviews were focused on feelings about teacher-led professional development, the topics teachers found most valuable, and impact on their instruction. All interview participants made positive statements about teacher-led professional development. One teacher stated, "I think teacher-led professional development is highly useful; as peers you are able to share information."

The analysis revealed that teachers referenced school climate and instruction more often than teacher commitment. Q20 in Table 4, (teacher commitment) reflects the finding that teachers do not feel that their commitment to the school has changed. Attitude and planning were the most frequently used words or phrases by the participants. The terms *enjoy, respectful,*

beneficial engagement, and motivational were used to describe school climate. One teacher stated, "You felt like there was a comfort level by getting information by somebody who is actually using it with kids that I am already working with. So, there is a comfort level, Oh, I am going to take a risk and try that. Q10 (school climate) asked teachers how strongly they respect colleagues that lead school improvement efforts. More than half agreed or strongly agreed that they respect colleagues that lead (SD .84). The sharing of educational material, specifically online tools, and "strategies that we can walk away and do in our classrooms" was a high interest for teachers related to instruction. Statements that supported planning were, "The common threads that we have in our teaching" and "As strategies are presented, I try them out in my classroom. I try and use what works best based on student response." The high value of planning correlates with Q21 (instruction) in Table 4. Teachers were asked if their reflection on teaching practices have increased. More than half agreed or strongly agreed that they reflect more often (SD .88). Teachers also mentioned that, while they valued administration-led professional development, receiving professional development from their colleagues was more authentic because the teacher presenting typically had a deep knowledge of their topic.

In contrast to data found in Table 5, six of the interview participants stated that Newsela, not Accelerated Reading and Text Dependent Analysis, was the professional development session that they enjoyed the most. It is important to note that the six teachers taught English Language Arts in some capacity.

4.2   ANCILLARY RESULTS

A secondary set of data was collected to take a different analysis of teacher-led professional development. Two additional sets of criteria were considered for this study. The first set of criteria was years of service. Teachers were grouped as serving 1-15 years or 16-30 years in the profession at the school being studied. The second set of criteria was their level of degree, Bachelor or Master's Degree.

4.2.1   Years of service

Table 10 describes teacher responses based upon their years of service. Teachers were divided into two groups based upon their years of service, 1-15 years and 16-30 years. Table 10 reports the research questions, variables, survey question numbers, and a 5-point frequency rating with 1 representing strongly agree and 5 representing strongly disagree.

Table 10. *Descriptive Statistics Teachers Years of Service*

Variable	Topic	1-15 Yrs. (n=13)		16-30 Yrs. (n=19)		Difference
		Mean	SD	Mean	SD	
School Climate						
Q10	Respects teacher-leader	1.46	.66	1.39	.98	.073
Q37	Feelings	1.46	.52	1.61	.98	-.150
Q11	Respects experts	1.39	.51	1.33	.97	.051
Q12	We learn from one another	1.31	.48	1.39	.98	-.081
Q13	Student motivation	1.62	.51	1.44	.98	.171
Q14	Tough times	1.23	.44	1.33	.97	-103
Teacher Commitment						
Q15	Commitment	1.00	0	1.22	0	-.222
Q16	Effective routines	1.38	.51	1.50	.99	-.115
Q17	Working at this school	1.23	.44	1.39	.98	-.158
Q18	Adult learning	1.15	.38	1.44	.98	-.291
Q19	Supports teachers	1.15	.38	1.33	.97	-.180
Q20	Increased commitment	1.69	.75	1.78	1.11	-.085
Instruction						
Q21	Reflects on teaching	1.40	.65	1.44	.98	-.060
Q22	Improving instruction	1.54	.66	1.22	.43	.316
Q23	Research	1.92	.76	1.50	.62	.423**
Q24	Student work	1.46	.52	1.44	1.04	.017
Q25	Seeking advice	1.46	.77	1.33	.49	.128
Q26	Assessment driving instruction	1.38	.51	1.40	.78	-.004

Overall, school climate, teacher commitment, and instruction were found to be highly valued with instruction being valued less. One question resulted in a significant difference. The results indicated that teachers with 1-15 years of experience tended to have a lesser value of Q23 (1.92) compared to their colleagues. Question 23, a question related to the value of instruction, asked specifically if, as a building, sharing and discussing research on effective teaching methods occurs.

4.2.2   Degree

Table 11 describes teacher responses based upon their level of degree obtained. Teachers were divided into two groups based upon their level of degree, Bachelor Degree and Master's Degree. Table 11 reports the research questions, variables, survey question numbers, and a 5-point frequency rating with 1 representing strongly agree and 5 representing strongly disagree.

Table 11. *Descriptive Statistics Teachers Level of Degree*

Variable	Topic	Bachelor (n=9)		Masters (n=23)		Difference
		Mean	SD	Mean	SD	
School Climate						
Q10	Respects teacher leaders	1.78	1.30	1.28	.550	.505
Q37	Feelings	2.00	1.22	1.36	.492	.636**
Q11	Respects experts	1.67	1.32	1.23	.430	.439
Q12	We learn from one another	1.78	1.30	1.18	.395	.596**
Q13	Student motivation	1.67	1.32	1.50	.510	.212
Q14	Tough times	1.44	1.33	1.23	.430	.217
Teacher Commitment						
Q15	Commitment	1.44	1.33	1.00	0	.444
Q16	Effective routines	1.67	1.32	1.40	.492	.303
Q17	Working at this school	1.56	1.33	1.23	.430	.328
Q18	Adult learning	1.67	1.32	1.18	.395	.485
Q19	Supports teachers	1.67	1.32	1.10	.294	.576**
Q20	Increased commitment	1.67	1.41	1.80	.752	-.106
Instruction						
Q21	Reflects on teaching	1.67	1.32	1.32	.570	.348
Q22	Improving instruction	1.22	.44	1.41	.590	-.187
Q23	Research	1.56	.73	1.73	.702	-.172
Q24	Student work	1.44	1.42	1.45	.510	-.010
Q25	Seeking advice	1.33	.50	1.41	.670	-.076
Q26	Assessment driving instruction	1.44	1.01	1.40	.492	.081

The data demonstrated that there was not a significant difference in how teachers value school climate, teacher commitment, and instruction. However, there was a significant difference in response by degree for questions 37, 12, and 19. Questions 37 and 12 related to school climate. The data indicated that teachers with a Bachelor Degree felt more strongly that "it is ok to discuss feelings and frustrations at school" and that "they have learned effective teaching strategies from a colleague." In particular, question 37 posed the question, "*Is it ok in this school to discuss feelings or frustrations?*" Teachers with a Bachelor Degree tended to have higher values (2.00) compared to their colleagues with a Master's Degree (1.36).

Question 12 stated, "*We have learned from one another about effective teaching strategies.*" Again, Q12 revealed that teachers with a Bachelor Degree had a higher value (1.78) compared to their colleagues (1.18).

Question 19 related to teacher commitment and examined the value of teacher leaders. Again, teachers with a Bachelor Degree (1.67) demonstrated a higher value than their colleagues with a Master's Degree (1.10).

5.0 CONCLUSIONS AND RECOMMENDATIONS

The purpose of this study was to investigate how teachers valued school climate, teacher commitment, and instruction through teacher-led professional development. The foundation of the research questions was rooted in the conceptual framework that provided the underpinning for teacher-led professional development and its value. The conceptual framework described the following: with the release of administrative control, teachers were empowered to take on leadership roles. Once capacity was established, teachers became aware of identifying building needs and developed professional development that resulted in a positive school climate, an increase in teacher commitment, and extensive planning. Survey and interview results demonstrated that teacher-led professional development is meaningful and valued by teachers. While teachers appreciated the role of the school administrator, they were more engaged when a colleague shared their knowledge of instructional strategies and educational resources.

Out of eighteen survey questions related to school climate, teacher commitment, and instruction, 16 questions met with a 93% or higher positive response. Teacher interviews supported survey data with a high rate of positive responses. Survey and interview data confirmed that teachers viewed the climate as healthy (Watt, Huerta, & Mills, 2010) and enjoyed working in the organization. Results revealed that teachers who participated actively in teacher-led professional development reported increased commitment. Devos et al. (2014) reported that teacher commitment is a predictor of dedication. One interview participant stated that "Teacher

–Led Professional Development leads to buy-in from staff," and "I think because of the idea of 'we are all in this together' has been developed from the top down, we are better as a staff." Lastly, there has been no direct evidence to indicate that teachers who participate in teacher-led professional development engaged more actively or extensively in instructional planning efforts. Interestingly, in most of the analysis, instruction was valued less. However, through the interview process, it was evident that planning was highly valued and supported Rosenholtz's (1989) findings that teachers enjoyed the offering of new ideas and strategies. In addition, the survey participants all stated that they had facilitated professional development once or more times in their career. It would be reasonable to assume that they have engaged more actively and extensively in planning.

While there were significant differences in some questions in the data between years of service and level of degree, the overall data of the 32 survey participants showed no significant difference. The results revealed that all three variables were valued through teacher-led professional development and even dependent upon one another. One could argue that teacher commitment would not be possible without a healthy school climate, and both of these variables influence instruction.

The results of this study support the practice of teacher-led professional development. Study results mirror the findings of Floyd (2012), Creswell (2003), and Devos et al. (2014). Empowering teachers through leadership, in this case teacher-led professional development, created a positive school climate, increased teacher commitment, and influenced effective instruction. Participants in this study experienced teacher-led professional development once a month, in place of staff meetings, for 40 minutes over a seven-month period. If needed, colleagues met over their planning time to discuss topics further. Teacher-led professional

development replaced staff meetings to eliminate additional meetings. This practice is recommended because, in most cases, staff meeting agendas are normally clerical and can be communicated by email. Teacher-led professional development is also recommended for building collaboration and creating teacher leaders.

A recurring theme in the literature was the lack of evidence to support how teacher-led professional development impacts student achievement. Harris (2004) termed this concern "blind spots." This study cannot make a direct or indirect correlation between teacher-led professional development and student achievement. A next step could be to determine if student perception of teacher attitude and instruction mirror teacher survey results.

5.1   LIMITATIONS

The findings represented a small sample of 32 survey participants and 7 interview participants. Although the survey was emailed to 35 teachers, three did not participate. Since the survey was confidential, I can only theorize that the limited time frame and other professional duties kept them from participating. The research was also limited to an even smaller number of teachers that held a Bachelor Degree (n = 9) compared to teachers that held a Master's Degree (n = 22).

A limited timeframe was also a factor that affected this research study. Interviews were scheduled during the district benchmarking window, and teachers were in the process of analyzing student data in preparation for instructional planning. The elementary school was located in a district that possessed a large number of educational resources, and building administrators were supported by district office personnel. Fifty-eight percent of survey

participants had been teaching at the elementary school for over 16 years. All of the participants volunteered their time, but the principal as researcher may have impacted their response.

5.2   IMPLICATIONS

When I was hired as building principal of this elementary school, a priority was to promote a familial environment that supported collaboration, accountability, and trust. My leadership style has been to accept my strengths and acknowledge my weaknesses. The concept of micromanagement has never appealed to me, and I knew that for me to be an effective principal, I needed to release responsibility to others.

Before this study, most of the professional development was delivered by the elementary curriculum director, the building principal, or an outside agency. Teachers participated in committees, such as Learning Committees, and those members were able to identify areas of academic and behavioral concerns specific to the building. When I began my tenure at the elementary school, teachers cautiously approached me about their concerns regarding the curriculum or interventions. After a few conversations, I realized that each of them had a skill set or a deep understanding of a content area that I lacked.

I requested teachers share ideas about the type of building professional development needed, and I began informal teacher observations. Through these observations, I was able identify teachers that had a strength in the professional development topics recommended. The timing coincided with the implementation of Pennsylvania Core Standards, which was an anxious period of transition for administrators and teachers. Eventually, teachers across grade levels began to provide building professional development about instructional strategies, online

resources, backmapping of the curriculum, and academic resources that they discovered. Out of this collaboration of teacher-led professional development came a sense of family. The release of responsibility to the teachers allowed me to spend more time in classrooms and focus on how best to move our school forward.

The findings of this study demonstrated the importance of teacher-led professional development. Overwhelmingly, participant survey results validated previous research on the value of school climate, teacher commitment, and instruction, and how teacher-led professional development cultivates a collaborative environment.

A SURVEY: HOW ARE SCHOOL CLIMATE, TEACHER COMMITMENT, AND INSTRUCTION VALUED THROUGH TEACHER-LED PROFESSIONAL DEVELOPMENT?

Thank you for participating in this research on the value of Teacher-Led Professional Development. This research is being conducted as a part of a doctoral study at the University of Pittsburgh. The survey will provide important information about how teachers value teacher-led professional development and their perspective on school climate, commitment and instruction. Your participation is voluntary and your answers will be kept confidential. You will not be identified by survey results. There are no anticipated risks associated with this survey, nor are there direct benefits to you. The survey questions are reflective of the Northwestern University School of Education and Social Policy NebraskaMATH Survey. This study is being conducted by Rachel Fischbaugh, Doctoral Student at the University of Pittsburgh. I can be reached at 412-965-7251, if you have any questions.

If you would like to participate in an interview, based upon survey results, at the end of the survey a request for permission to contact you will be available.

Thank you for your time and consideration.

Rachel Fischbaugh

412-965-7251

rkf14@pitt.edu

Please select all that apply.

Section One: Teacher Background

1. How many years have you taught at this elementary school?

   ☐ 1-5

   ☐ 6-10

   ☐ 11-15

   ☐ 16-20

   ☐ 21-25

   ☐ 26-30

2. What grade(s) do you currently teach this school year? (Select all that apply.)

   ☐ Kindergarten

   ☐ Grade 1

   ☐ Grade 2

   ☐ Grade 3

   ☐ Grade 4

   ☐ Grade 5

3. What subjects do you teach? (Select all that apply)

- ☐ Reading/Writing

- ☐ Math

- ☐ Science

- ☐ Social Studies

- ☐ Math Support

- ☐ Reading Support

- ☐ Speech and Language

- ☐ Learning Support

- ☐ Special Area

4. How often have you led professional development sessions in your career?

- ☐ once

- ☐ More than once

- ☐ More than twice

- ☐ More than three

First, I have some questions about the teachers you work with at this school.

Please indicate the extent to which you agree or disagree with the following statements.

The number 1 represents strongly disagree and the number 5 represents strongly agree.

	1	2	3	4	5
It's okay in this school to discuss feelings and frustration.	○	○	○	○	○

Teachers respect other teachers who take the lead in school improvement efforts.

○ ○ ○ ○ ○

Teachers at this school respect those colleagues who are experts at their craft.

○ ○ ○ ○ ○

We have learned from one another about effective teaching strategies.

○ ○ ○ ○ ○

Teachers in this school are confident they will be able to motivate their students.

○ ○ ○ ○ ○

Teachers in this school are able to get through tough times.

○ ○ ○ ○ ○

Next, I have some questions about *your own* work at this school.

Please indicate the extent to which you agree or disagree with the following statements.

The number 1 represents strongly disagree and the number 5 represents strongly agree.

	1	2	3	4	5
I share a commitment to working together.	○	○	○	○	○
I have developed effective routines for working together.	○	○	○	○	○
I usually look forward to each working day at this school.	○	○	○	○	○

I support the development of adult learning communities.

◯ ◯ ◯ ◯ ◯

I support teacher leaders.

◯ ◯ ◯ ◯ ◯

Your commitment to this school has increased in recent years.

◯ ◯ ◯ ◯ ◯

My reflection on teaching practices have increased.

◯ ◯ ◯ ◯ ◯

Finally, I have some questions about instruction in and outside of the classroom
THE DIRECTIONS FOR THIS SECTION HAVE CHANGED

Please indicate how often the situations below take place.

The number 1 = never; 2 = rarely; 3 = sometimes; 4 = often; 5 = Always

	1	2	3	4	5
As a building, we have identified areas for improving our instruction.	◯	◯	◯	◯	◯
As a building, we share and discuss research on effective teaching methods.	◯	◯	◯	◯	◯
As a grade level, we analyze samples of work done by our students (TDA's, Cold Writes, Math).	◯	◯	◯	◯	◯

As a building, we seek each other's advice about instructional issues and problems.

○ ○ ○ ○ ○

As a grade level, we discuss student assessment data to make decisions about instruction.

○ ○ ○ ○ ○

Next, I have some questions about teacher-led professional development.

THE DIRECTIONS FOR THIS SECTION HAVE CHANGED

Please indicate how you valued each professional development session.

The number 1 = no value; 2 = somewhat valued; 3 = highly valued

	1	2	3
Newsela	○	○	○
SAS Assessment Builder	○	○	○
Accelerated Reading (AR Books)	○	○	○
Common Core Math Back-Mapping	○	○	○
Reading Intervention Presentation	○	○	○
Text Dependent Analysis Grade Level Presentation (Learning Team)	○	○	○

Permission

You have my permission, _____, to contact me following this survey
                                    (Name)
for an interview.

_____   _____

(Signature)   (Date)

APPENDIX B

IRB APPROVAL

University of Pittsburgh
Institutional Review Board

Memorandum

To:	Rachel Fischbaugh, MEd
From:	IRB Office
Date:	10/18/2016
IRB#:	PRO16070182
Subject:	How Does Teacher-Led Professional Development Impact School Climate, Teacher Commitment and Instruction?

The above-referenced project has been reviewed by the Institutional Review Board. Based on the information provided, this project meets all the necessary criteria for an exemption, and is hereby designated as "exempt" under section

45 CFR 46.101(b)(2)

Please note the following information:

- Investigators should consult with the IRB whenever questions arise about whether planned changes to an exempt study might alter the exempt status. Use the **"Send Comments to IRB Staff"** link displayed on study workspace to request a review to ensure it continues to meet the exempt category.
- It is important to close your study when finished by using the **"Study Completed"** link displayed on the study workspace.
- Exempt studies will be archived after 3 years unless you choose to extend the study. If your study is archived, you can continue conducting research activities as the IRB has made the determination that your project met one of the required exempt categories. The only caveat is that no changes can be made to the application. If a change is needed, you will need to submit a NEW Exempt application.

Please be advised that your research study may be audited periodically by the University of Pittsburgh Research Conduct and Compliance Office.

INTERVIEW: HOW ARE SCHOOL CLIMATE, TEACHER COMMITMENT, AND INSTRUCTION VALUED THROUGH TEACHER-LED PROFESSIONAL DEVELOPMENT

Thank you for participating in this research on the value of Teacher-Led Professional Development. This research is being conducted as a part of a doctoral study at the University of Pittsburgh. The interview will provide important information about how teachers value teacher-led professional development and their perspective on school climate, commitment and their instruction. The questions are based upon data collected from the survey results. Your participation is voluntary and your answers will be kept confidential. You will not be identified by interview responses. There are no anticipated risks associated with this interview, nor are there direct benefits to you. This study is being conducted by Rachel Fischbaugh, Doctoral Student at the University of Pittsburgh. I can be reached at 412-965-7251, if you have any questions.

Thank you for your time and consideration.

Rachel Fischbaugh

412-965-7251

rkf14@pitt.edu

Interview Questions

1. How do you feel about Teacher-led professional development?

2. What word would you use to describe teacher-led PD?

3. How have you implemented strategies or activities in your classroom?

4. Has your instruction been affected by the professional development?

5. Impact of PD on HW?

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