The Influence of Teacher Leadership and Professional Learning on Teachers’ Knowledge and Change of Instructional Practices in Low Performing Schools

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THE INFLUENCE OF TEACHER LEADERSHIP AND PROFESSIONAL LEARNING
ON TEACHERS’ KNOWLEDGE AND CHANGE OF INSTRUCTIONAL
PRACTICES IN LOW PERFORMING SCHOOLS

by

Christen Conklin Topolinski

A dissertation submitted to the Graduate College
in partial fulfillment of the requirements
for the degree of Doctor of Philosophy
Educational Leadership, Research and Technology
Western Michigan University
April 2014

Doctoral Committee:

Sue Poppink, Ph.D., Chair
Louann Bierlein Palmer, Ed.D.
M. Scott Korpak, Ed.D.
A cross-sectional survey was utilized in this study to explore the perceptions of teacher in low performing schools. These perceptions concerned the influence of teacher leadership and professional learning on their changes in knowledge and instructional practices. Research advises that in order to help students grow, teachers must engage in professional learning activities which help them to develop and master new instructional strategies (Bredeson & Scribner, 2000; DuFour & Marzano, 2012; Harrison & Killion, 2007). Research also suggests that distributed leadership can have a positive influence on the professional culture in a building, creating a positive learning environment for both teachers and students (Donaldson, 2007; Harris & Spillane, 2008; Lattimer, 2007; Muijs & Harris, 2006; Timperley, 2005). As a key component of distributed leadership, teacher leadership helps to influence positive change within a school (Reeves, 2006, 2008; Kinney, 2008).

Within the research there is minimal information about informal teacher leadership and informal professional learning. This study was designed to begin to fill this gap by surveying teachers about their experiences connected to both formal and informal teacher leadership as well as formal and informal professional learning, and the relationship between the two.
The findings suggest that both formal and informal teacher leadership positively influence what teachers perceive as change in their instructional knowledge and practice. Formal leadership was slightly more influential. Further findings suggest that informal professional learning occurs more frequently than formal professional learning. Teachers’ perceptions of knowledge and change in instructional strategies vary by level: high school are different than both middle school and elementary school.

For the purpose of practice and organizational structure the more professional learning time that can be dedicated to working collaboratively and reflecting on instructional strategies the more teachers will know and feel confident in their instruction. Moreover, it is necessary to have leadership spread among both formal and informal teacher leaders to allow the knowledge and support to be infiltrated into the system of a school. Lastly, teachers appreciate being able to work closely with colleagues and feel supported which creates a healthy environment for professional learning to take place.
DEDICATION

To my children, Kevin and Danielle, who have sacrificed so much time over the past five years. Thank you for your patience and allowing me time to work. To my husband, Tim, who was always there to pick up the pieces at home when I was trying to balance family, work, and my education. To my parents, Terry and Kathy, who have always held high expectations and continued to push me to do my best. To my Mom, thank you for being my chief editor during this entire journey.
ACKNOWLEDGEMENTS

First of all, I would like to thank my dissertation chair and advisor, Dr. Sue Poppink, for being my “guide on the side.” She was continuously offering suggestions, asking probing questions, and sharing in the accomplishments. Sue’s timely responses, hard work, and encouragement have helped me to reach this goal.

I would like to thank Dr. Louann Bierlein Palmer for serving on my dissertation committee and playing the lead role in the creation of the survey. Without her background knowledge and expertise it would not have been a beneficial tool. I appreciate your encouragement and commitment, supporting me through this journey.

Sincere thanks to my mentor and a member of my dissertation committee, Dr. M. Scott Korpak. Thank you for recognizing my leadership at an early stage and encouraging me to take chances and continue my own professional growth. Scott’s support over the years has been a great asset.

I would like to acknowledge my friend and mentor, Nancy Lass, who pushed me to think differently about my classroom instruction through job-embedded professional learning and teacher leadership. Thank you for being one of my biggest cheerleaders and igniting my interest in the topics of professional learning and teacher leadership.

I would like to express my gratitude to all my friends and colleagues, who provided a good listening ear at a time when I needed it the most. Especially, all of my study groups during statistic courses, comprehensive exam preparations, and the
dissertation process. Alisha Davis, Marty Alexander, Sue Gutierrez, and Susan Mendoza your support is truly appreciated.

Last but not least, I would like to thank, Haolai (Lincoln) Jiang, for providing me statistical guidance, helping to clarify my thinking around the data. As well as all of the professional staff at Western Michigan University for pushing my thinking and guiding my learning experiences.

Christen Conklin Topolinski
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CHAPTER I

INTRODUCTION

Federal and state legislation, as well as the common core state standards adopted in Michigan, have intensified the pressure on teachers to demonstrate student growth. In order to show student growth, teachers must increase their knowledge of instructional strategies and implement the changes in their classrooms. The state of Michigan uses student achievement data to rank the schools on a top to bottom list. Schools that fall within the bottom five percent are then identified as “priority” schools. This means that they have the lowest achieving students and need to make great gains. One way to make progress toward this goal is by having teachers participate in formal and/or informal professional learning activities. This professional learning helps teachers to develop their own instructional strategies (Bredeson & Scribner, 2000; DuFour & Marzano, 2012; Harrison & Killion, 2007).

Teachers can benefit from the support of each other. This is especially important while working through all of the state and federal expectations placed upon them. One way to think about how they might accomplish this is to examine the role of teacher leadership in a distributed leadership perspective. “A distributed perspective on leadership acknowledges the work of all individuals who contribute to leadership practice, whether or not they are formally designated or defined as leaders” (Harris & Spillane, 2008, p. 31). In this study, distributed leadership encompasses both formal and informal teacher leadership which may play a key role in the success of teachers and ultimately students.
Background

In 2002, with the passing of the No Child Left Behind Act of 2001 (NCLB), the pressure for educators to continually improve their instructional practices intensified. This force was also placed upon states to do something further to insist on instructional changes and curricular development. In 2006, Michigan responded with the enactment of Michigan’s Public Act 123 and 124 of 2006, which emphasized four major components: (a) the importance of all students achieving individual academic potential, (b) students being college and career ready upon graduation, (c) teaching methods that incorporate research-based practices, and (d) giving parents educational choices.

Further in 2009, the United States legislature passed a law named the American Recovery and Reinvestment Act (AARA) of 2009, a piece which became known as Race to the Top (RTTT) schools. In response to the RTTT, Michigan enacted several pieces of the educational reform legislation. One such reform involved the identification of failing schools, priority schools, with such schools identified as being in the bottom 5% of all schools in the state. Once placed on the priority school list, each district has to choose one of four models to reform such schools, and each model requires a new leader to take over in the building. Selecting someone who has experience in distributed leadership could play a role in each of these models by empowering teachers to make changes necessary to improve the quality of education in the school.

Distributed Leadership Theory

Distributed leadership is an emerging theory that may offer solutions to the demanding leadership requirements on today’s schools. The literature indicates that distributed leadership within a school can enable changes in teachers’ knowledge base as well as teaching practices. This type of leadership can positively impact student
achievement (Donaldson, 2007; Harris & Spillane, 2008; Muijs & Harris, 2006; Timperley, 2005).

For the purpose of my study, distributed leadership is defined as sharing the power among the teachers and administrators to build a collaborative and collective capacity within the building. Distributed leadership creates a capacity for teacher leadership and professional learning, and helps teachers to grow and learn as individuals and leaders. “Teachers will live up to their potential as leaders only when the school environment supports their efforts” (Lattimer, 2007, p. 70).

**Teacher Leadership**

Formal teacher leadership involves those in a paid leadership position like a department or grade level chair, coach/consultant, or mentor. Informal teacher leadership involves those who voluntarily meet and help others. Teacher leadership can have a variety of definitions for each educator, depending on their position, building, or school district. Reeves’ (2009) definition of teacher leadership is used for the purpose of my study, and is a person who engages in, “the act of influencing the classroom practices of professional educators” (p. 85). When teachers step forward to help each other learn, leaders emerge from within the community. Regardless of the type of leadership or guidance, every effort must be directly applied to instruction and curriculum within the school. Teachers need to know best practices and encourage each other to implement these practices. Simultaneously, teacher leaders should strive to improve instruction in their building and across the district. “Teacher leadership is not an option; it is necessary” (Kinney, 2008, p. 20). Teacher leadership can support the professional learning of others and the progress of the school. Teacher leadership has been defined by many experts and can be either formal or informal.
**Formal teacher leadership.** Formal teacher leadership can be defined as department chairs or grade level representatives, coaches/consultants, reading/math specialist, and a mentor. This type of leadership may help teachers to grow and learn as individuals and leaders. A formal teacher leader can be someone who is asked to step up or initiates the leadership position on their own.

**Informal teacher leadership.** Informal teacher leadership is defined as any teacher voluntarily supporting or helping a colleague without having a formal position. The definition of teacher leadership Reeves (2008) shares is exactly the type of informal leadership that requires further research. This is not necessarily the person that signs up for every committee or takes formal leadership roles within the building. The person is hard-working, has a passion for teaching, and is willing to help others and share their expertise.

Moreover, Reeves (2006) explained the importance of teacher leadership that includes experts in content areas. The author encourages teachers to delve deeper and share with each other their expertise. Each organization should look within to find those that have the solutions or ideas for the problems needing to be solved. When a teacher uses their expertise to help others they are acting as a role model for colleagues. Teacher leadership can be an influential factor for the transformation of instructional practices.

**Professional Learning**

In my study professional learning and professional development are used interchangeably. Professional learning is a newer term to instill the idea that it is about teachers learning not about them being developed (Harrison & Killion, 2007).

Professional development activities are important for several reasons as Bredeson and Scribner (2000) have stated:
The professional development of teachers is offered as a primary educational reform strategy intended to help schools and teachers develop more rigorous curriculum standards, design meaningful educational assessments, facilitate organizational change, guide school improvement plans, and improve teachers’ knowledge and skills to enhance student learning outcomes. (p. 2)

The literature shows that professional learning is a crucial component in teachers building both knowledge and changing their instructional strategies (Bredeson & Scribner, 2000; DuFour & Marzano, 2012).

“Educators are drowning under the weight of initiative fatigue—attempting to use the same amount of time, money, and emotional energy to accomplish more and more objectives” (Reeves, 2006, p. 89). Teachers are trying to improve on many areas of instruction at once. In Michigan, the introduction of the Grade Level Content Expectations (GLCE) and High School Content Expectations (HSCE) in 2006 created an overloaded plate for most educators. These GLCEs were written to guide teachers in their instruction and to ensure that all students in the K-12 public education system would cover the same content in any school across the state. They raised the expectations for student achievement and required more rigorous outcomes than had been expected in previous years.

This momentum was continued with the introduction of the Common Core State Standards (CCSS), a nearly nationwide set of standards, in the fields of mathematics and English language arts. The goal is to ensure that within each state students are enabled to meet the same high level expectations. As teachers have to learn and adapt their teaching to teach with these CCSS the pressure to continues to mount. The need for
professional learning around the CCSS is essential hold students to high expectation levels.

**Formal professional learning.** “What’s needed is not a silver bullet or magic solution. Teachers need time to be able to talk with one another about the curriculum, instruction, and assessment” (Frey & Fisher, 2009, p. 279). One of the best ways to accomplish this is through formal professional development. One way this learning can be accomplished is in professional learning communities (PLC) (DuFour & Marzano, 2012; Grossman, Wineburg, & Woolworth, 2001; Knight, Wiseman, & Cooner, 2000; Langer, Colton, & Goff, 2003; Printy, 2007). Within these professional learning communities, teachers meet on a weekly, biweekly, or monthly basis to discuss student achievement, curriculum, and instructional methods. This model is usually created from the top-down with guidance charted by the leadership in the building.

Another method of formal learning can be through conferences, district professional development, or building professional development. Teachers are encouraged to learn teaching strategies to take back and use in their classroom. The research points out that this type of formal professional learning is not sustainable without further support after the day(s) (Bredeson & Scribner, 2000; Frey & Fisher, 2009).

**Informal professional learning.** Informal professional learning, involves any opportunities where teachers come together, voluntarily, to explore curriculum, data, instructional practices, assessments, or student’s work, or engage in other activities. Harris and Muijs (2003) explored how informal professional learning can influence teachers’ knowledge of and implementation of instructional practices by building trust and feeling supported instead of isolated. They also called for further study in both
teacher leadership and professional learning when they share that it might have a positive effect.

The emphasis on continuous learning and excellence in teaching can improve the quality of teachers, while the emphasis on spreading good practice to colleagues can lead to increasing the expertise of teachers throughout the school. The increased expertise and confidence of teachers, coupled with the greater responsibilities vested in them, will make teachers more willing to take risks and introduce innovative teaching methods, which should have a direct positive effect on teacher effectiveness. (p. 13)

Parsons (2011) found that “the best professional learning occurred when teachers coached teachers” (p. 11). Parsons defines informal professional learning as one-on-one interactions between teachers.

**Problem Statement**

Teachers have the most direct impact on student learning (Darling-Hammond, 1999; DuFour & Marzano, 2012; Harris & Muijs, 2003; Elmore, 2002). Given the many recent legislative changes, helping teachers understand research-based best practices is critical (DuFour & Marzano, 2012). The real issue is establishing effective ways to learn and implement these strategies with fidelity in the classroom. Previous research suggests that professional learning is the key.

Within Michigan’s priority schools the stakes are high for teachers to make great student achievement gains in a short period of time. Not accomplishing this goal will ultimately affect a teacher’s evaluation and job security, causing great stress for priority school teachers. These teachers are under pressure to improve student achievement.
Most of the students are failing to pass state standardized tests and have the biggest room for improvement which is why studying this group is critical.

Without further study of what makes teachers gain knowledge and improve their instructional practices, educators will not be able to create an optimal environment for teachers to learn. This is essential in order to meet the standards set forth by the government policies, especially in priority schools.

**Practical Problem Statement**

Teachers feel pressure to perform in their classrooms and are completely aware of all the external force from the district, state, and national level. They are aware that professional learning is required by the legislation in Public ACT 380 (2012). Planned professional learning is typically driven by the school, district or state.

“We can only confront the power of barriers to change when we recognize that, in fact, change is death. Change represents the death of past assumptions, practices and comfort zones” (Reeves, 2008, p. 57). The point that Reeves makes is that change is difficult; but without transforming, educators cannot meet the ever-evolving requirements for their teaching. Moreover, professional learning opportunities are best when they meet the needs of the individual teacher.

**Research Problem Statement**

The research by York-Barr and Duke (2004) has suggested that teacher leadership within a school may have a positive effect on student learning. They also suggested that formal teacher leadership is successful if the position has clear expectations and the administrator is supportive (p. 280). They also expressed there was little research to give evidence about the effects of teacher leaders within informal roles. Their conclusion shows a need for further research on this topic.
Further evidence is available suggesting that professional learning can positively affect instruction (Vaughn, Hughes, Schumm, & Klingner, 1998). Research advises that formal teacher leadership plays a role in teachers’ professional learning through coaching and mentorship (Scott, Cortina, & Carlisle, 2012). Gray’s (2012) study focusing on perceptions of teachers in high schools concerning professional learning and distributed leadership, recommends further research of teachers in high schools, middle schools and elementary schools. By expanding this research, he believes that educators could understand the similarities and differences in the perceptions of teachers around the topics of professional learning and distributed leadership.

Overall research on both the topic of informal professional learning and informal teacher leadership is limited. The research does not identify how teachers perceive teacher leadership and its effects on their own knowledge of instructional strategies and change in instructional practices. Understanding the relationship between teacher leaders and professional learning will help leaders in the future make changes in curriculum and instructional strategies through teachers’ learning.

**Purpose and Research Questions**

The purpose of my research was to examine the perceived changes in teachers’ knowledge and instructional practices due to formal and informal teacher leadership within both formal and informal professional development/learning activities. My study gathered data from teachers in Michigan’s priority schools, which are experiencing tremendous external pressure for improving student achievement.

For purposes of my study, teacher change is defined as perceived changes in knowledge and practice. By teacher’s knowledge, I mean understanding of an instructional strategy. Teacher’s instructional change, for the purpose of this study,
means the way in which they approach teaching strategies has changed. Formal teacher leadership is defined as those who hold a paid position to influence others, including those with titles such as chairperson, grade level representative, district committee member, a coach, specialists and others. Informal teacher leaders are defined as those who have an influence on other teachers voluntarily, but do not have a particular title concerning leadership. In addition, formal learning activities are defined as those that are planned for teachers like a district or building conference or workshop or a course through a college or university. Finally, for my study, informal learning opportunities will be defined as opportunities driven by teachers, spontaneously or because of planning, and are guided by teachers’ questions about instruction.

1. To what extent do teachers in Michigan’s priority schools believe that they are provided with (a) formal learning opportunities and (b) informal learning opportunities?

2. To what extent do teachers in Michigan’s priority school believe that the (a) formal learning opportunities and formal teacher leadership, (b) formal learning opportunities and informal teacher leadership, (c) informal learning opportunities and formal teacher leadership and (d) informal learning opportunities and informal teacher leadership are impacting their knowledge and change in practice?

3. To what extent does participation within informal learning activities, that include formal and informal teacher leadership, change the perception of knowledge and change in such teachers?

4. How do teachers’ perceptions of teacher leadership and professional learning vary by the level at which they teach?
Methods Overview

As Creswell (2009) states, the methodology is the most concrete part of the research. The researcher must think about the problem from every angle in order to determine the best possible approach for the topic. That may be through a qualitative approach or a quantitative approach; the key to research is aligning the best design with the problem at the heart of the research. In my study a non-experimental quantitative research design was employed. Keppel and Wickens (2004) describe it as a “study in which the groups constitute natural populations” (p. 138). This research utilized a cross-sectional survey, which involved a one-time look at a population and Creswell (2008) says it is advantageous because it measures current attitudes.

The survey was sent electronically which Creswell (2008) suggests is the most efficient method to quickly receive information. All teachers that teach in core content areas (English language arts, mathematics, science, and social studies) in 35 out of Michigan’s 150, K-12, priority schools were surveyed. This number was narrowed because the collection of email addresses was obtained on-line through schools’ websites.

Conceptual Framework

The conceptual framework, shown in Figure 1, begins on the left hand side with both formal professional learning and informal professional learning. Teachers are required to complete many hours of professional learning and it can be documented in either of these forms. Sometimes these professional learning activities are led by either formal or informal teacher leaders. Further, teachers may also have the opportunity to work with a teacher leader after these professional learning activities to continue to fine tune the instructional strategy they have learned about and are trying to implement. On the far right hand side is the goal of this process to have teachers in priority school not
only gain knowledge through professional learning activities, but also to change their instructional practice because of the new knowledge.

For the purpose of this study, formal teacher leadership will include roles such as coaches/consultants, reading or math specialists, mentors, department or grade level chairs. Informal teacher leadership roles include peer-to-peer or content experts. Also for the purpose of this study formal professional learning will include district or building level activities, conferences, and workshops. Informal professional learning will be described as two or more peers that come together to look at student work samples, planning, or assessment. My study examined how teachers perceive gaining knowledge of instructional strategies and changing their instructional practices through formal and informal teacher leadership and professional learning opportunities.

*Figure 1.* Conceptual Framework Topolinski (2013) study.
Chapter I Summary

Researchers believe students are not learning at an optimal rate, and children are failing to reach their full potential (DuFour & Marzano, 2012). In order to improve students’ learning there has to be well-prepared teachers in the classrooms.

Research suggests that traditional methods of professional development do not have sustainability (Bredeson & Scribner, 2000). Understanding how professional learning and teacher leadership affects the individuals in the priority schools, that are facing real adversity or even the possibility of closure, guides educators further in the quest for knowledge. Not only does this research help educators have more information about what type of professional learning is perceived to be most optimal for teachers, but also what type of teacher leadership played a role in the learning of others.
CHAPTER II

LITERATURE REVIEW

Chapter II reviews the literature related to the distributed leadership theory, teacher leadership and professional learning. Distributed leadership is included because it is shown to support a teacher leadership model within a school. Each type of teacher leadership will be described including: grade level or department chair, coach, mentor, content expert, and peer. Each type of professional learning will also be explored including: Professional Learning Community (PLC), building or district, conference or workshop, and Community of Practice (COP).

Background

In 2002, with the passing of the No Child Left Behind Act of 2001 (NCLB), the pressure for educators to continually improve instructional practice intensified. This act forced states to do something further to insist on instructional changes and curricular development. In 2006, Michigan responded with the enactment of Michigan’s Public Act 123 and 124 of 2006 which emphasized the importance of all students achieving individual academic potential. With these high stakes came the pressure to show student achievement in the form of a state test and the focus began to shift to the data. “The feeling in school is that everything must be sacrificed upon the altar of the standardized test” (Barth, 2001, p. 445). Everyone has to conform to help students show achievement on the state test. Even some children’s books are written to focus on the topic of testing and how it makes students and teachers feel pressured to perform.

Further in 2009, the United States legislature passed a law named the American Recovery and Reinvestment Act of 2009, a piece which was known as Race to the Top
(RTTT) schools. In response to the RTTT, Michigan enacted several pieces of the legislation within the education field.

Within the state of Michigan, every school is ranked from the top school to the bottom school by a z-score, as well as several other criteria. “A z-score is a standardized measure that helps you compare individual student (or school) data to the state average data,” (“What is,” 2011, p. 1). The school z-score is found by taking the school value (the school’s average scale score), subtracting the statewide average of that value and then dividing by the deviation of that value. Schools having a positive z-score are above average, schools within the proximal zone of a zero z-score are average, and schools with a negative z-score are below the state average. Schools that fall in the negative range are known as priority schools.

Once a school is placed on the priority list, its district must choose one of four models of school reform to increase the state defined “value” of the school: (a) transformational model, (b) turnaround model, (c) restart model, or (d) school closure. Examining each of these models or choices, it is necessary to think about the importance of individuality in this process. Each model will fit each building in a different way, almost like an individualized educational plan that is used for students with special educational needs. Some of these plans will work, while others will not, and the key is finding just the right fit (“98 LAS,” 2011).

The transformational model asks districts to address four specific areas. First, the school has to improve the effectiveness of both the administrative team and the teaching staff: it is mandated that a new principal be hired during this processes. The person must be named and their qualifications described in the final plan. Second, the district has to ensure that all of the instructional strategies used in the classrooms are research-based.
Third, the district has to extend learning time for students as well as planning time for teachers while focusing on community-centered schools. Lastly, the school must create an environment that provides flexibility and continues support for staff and students (“98 LAS,” 2011).

The turnaround model is more aggressive; it begins by outlining that the principal must be replaced at the beginning of the process. Furthermore, half of the staff must be replaced with highly qualified teachers. Also, a new governance structure must be put in place for the future. All of the instructional programs must be overhauled and research-based (“98 LAS,” 2011).

The restart model requires that a school be closed and then reopened, with the same grade levels, under a new name and a charter management organization or educational management organization. This organization would be chosen after a meticulous process. Any student who previously attended the school would be able to enroll first (“98 LAS,” 2011).

If the school closure option is chosen, the district is responsible for placing the students from the closing school in other schools within the district that are higher achieving (“98 LAS,” 2011). This is not an option for those smaller, rural schools that operate in a large geographical area and only have one elementary, one middle, and one high school.

Evaluations have now been directly tied to student achievement leaving teachers feeling stressed and worried about their futures. What is needed in education is a growth mindset not only for our teachers, but our students. One way to approach this issue is through professional learning and distributed leadership. This form of leadership can help to embrace teacher leadership and may certainly play a role in the future of
education source. This chapter will examine the theory of distributed leadership, types of teacher leadership (both formal and informal), and types of professional learning (both formal and informal).

**Distributed Leadership Theory**

Leadership is all about power. Boleman and Deal (2008) share some insight of power in an organizational system like a school:

> In an overbounded system, power is highly concentrated and everything is tightly regulated. In an underbound system, power is diffused and the system is very loosely controlled. An overbound system regulates politics with a firm hand; an underbound system openly encourages conflict and power games. (p. 205)

There is a level of balance needed in any system. The power in a distributed or shared leadership model seems to fall somewhere in between an overbound and an underbound system.

As the title suggests, a distributed leadership model has the power spread or distributed among the people of the organization. The concept incorporates the ideas that, “Many voices must be heard . . . in the context of decision making. Teacher leadership and influence on school decision making could come from any individual or groups of staff members” (Anderson, 2008, p. 16). Harris and Muijs (2003) explore the idea of distributed leadership and suggest that:

> This model of leadership implies a redistribution of power and a re-alignment of authority within the organization. It means creating the conditions in which people work together and learn together, where they construct and refine meaning leading to a shared purpose or set of goals. (p. 3)
In the case of a school the power is shared with teachers. Harris (2003) suggested that distributed leadership is a form of learning together. Through this collaboration, everyone’s knowledge is utilized. Collaboratively they are making decisions and must bear the burden of school improvement.

When power is involved there is always a difference of opinion in the power holders. “Distributed leadership requires those in formal leadership positions to relinquish power to others. This challenges authority and ego, and potentially places the principal in a vulnerable position because of lack of direct control over certain activities” (Harris, 2003, p. 319). Principals in this model have to not only be confident in themselves, but also confident in the abilities of the people with whom they share the power. Marks and Printy (2003) found that the need for principals to be the change agent for reform in the school caused them to relinquish the role of instructional leadership. Therefore, the principals were not able to support the professional learning needs of their staff.

Due to all the changes in the educational system, the leadership cannot successfully rest on the shoulders of just one person, the principal. Especially, if educators want schools to not only be transformed, but also the students’ gains to be sustained (Timperley, 2005). “In the increasingly complex world of education the work of leadership will require diverse types of expertise and forms of leadership flexible enough to meet changing challenges and new demands” (Harris & Spillane, 2008, p. 31). Such authors called for new types of leadership practices that can be found within the young model of distributed leadership. Harris and Spillane (2008) go further to suggest that the research connects positive outcomes for the teacher and student learning.
The key to a successful distributed leadership model lies within the relationship and interactions of the people in both formal and informal leadership roles (Harris, 2003; Harris & Spillane, 2008). That is why it is has several similar aspects to the collegial model explored by Bush (2003). “Collegial models share many attributes with distributed leadership models and include all those theories which emphasize that power and decision making should be shared among some or all members of the organization” (Bush, 2003, p. 64). Multiple people within the school worked together to guide staff and made the instructional changes necessary to accomplish the goal of student growth (Harris & Muijs 2003, Harris & Spillane, 2008, Spillane, Halverson & Diamond, 2004). It is helpful to have everyone moving in the same direction.

Harris’ (2003) study of teacher leadership explained that distributed leadership is not just a delegation of the tasks that a principal must accomplish. Rather, it is working interdependently and collectively sharing the decision making in order to have the best possible outcome for students. The teachers benefit from this type of leadership. Teamwork aided their ability to make improvements to instructional practices and they no longer had the feeling of isolation.

What people find appealing is that “distributed leadership opens up the possibility to anyone in becoming a leader. Not everyone is a leader, or should be, but it opens up the possibilities for more democratic and collective forms of leadership” (Harris, 2003, p. 317). Within Harris’ study, teachers felt more empowered and had more buy-in when they are part of the decision making process. This type of leadership is “investing in the school as a learning community and offers the greatest opportunity to unlock leadership capabilities and capacities among teachers” (p. 321).

On paper, distributed leadership sounds wonderful and it can be when the proper
infrastructure is put in place (Harris, 2003). This type of leadership is built on collaboration and collegiality. Harris and Muijs (2003) suggest that:

The emphasis on continuous learning and excellence in teaching can improve the quality of teachers, while the emphasis on spreading good practice to colleagues can lead to increasing the expertise of teachers throughout the school. The increased expertise and confidence of teachers, coupled with the greater responsibilities vested in them, will make teachers more willing to take risks and introduce innovative teaching methods, which have a direct positive effect on teacher effectiveness. (p. 13)

Without this understanding and the approval of distributed leadership from the teachers, there could be further disengagement and isolation.

As with any leadership model, there are difficulties that can arise within the distributed model. It is time consuming, with many meetings, and the team is required to work collaboratively to make decisions. In some schools these problems have been solved with an extra stipend or release time for teachers that played a role on the leadership team. Further, there will be differences of opinions and times when consensus cannot be reached. The principal in this case may have to decide whether the group will go with a majority rules or step in and make the final decision. As changes are presented teachers may not always have time to reflect or research enough to make good decisions. With careful planning and delegation of team tasks this can be avoided as each person will have to contribute to the knowledge of the group.

Timperley (2005) explains the dangers involved:

Distributing leadership over more people is a risky business and may result in the greater distribution of incompetence. I suggest that increasing the distribution of
leadership is only desirable if the quality of the leadership activities contributes to assisting teachers to provide more effective instruction to their students, and it is on these qualities that we should focus. (p. 23)

This statement called for careful implementation as well as learning for those that will be sharing the role of leadership in the school.

Shifting the thinking to teacher leadership in the next section, this quote by Donaldson (2007) leaves a powerful impression:

Whether we call it distributed leadership, collaborative leadership, or shared leadership, the ideal arrangement encourages every adult in the school to be a leader. Administrators, formal leaders, and informal leaders all contribute to the leadership mix. They hold the power to improve student learning in the hands they extend to one another. (p. 29)

There is an immense amount of teacher leadership research especially when identifying formal leadership roles. In the next section, I provide a summation of the key components and definitions involved in teacher leadership.

**Teacher Leadership**

Teacher involvement in a leadership capacity can include, but is not limited to: a department chair or grade level representative, a content expert, a mentor, a coach, or a colleague. Teacher leadership will simply be defined in my study as teachers who are leaders and extend their influence beyond their individual classroom (Margolis, 2008; Phelps, 2008; Reeves, 2009). Muijs and Harris (2006) state that teacher leadership is an important piece of the school improvement process and what ultimately has influence on student achievement gains. Teacher leadership has many benefits as it “empowered teachers and was seen as a key motivating factor that ultimately improved their
performance” (p. 966). These authors go further to suggest that it promoted self-efficacy, a high degree of ownership, creativity, generation of initiatives, spreads good practices, and involvement in school activities.

Gigante and Firestone (2008) conducted research that included seven teacher leaders. This qualitative work utilized an interview approach in which the teacher leader, teachers that work with the teacher leaders, and their administrators were interviewed. These authors shared that teacher leaders played a role in the confidence and comfort levels of the other teachers. Enthusiasm became contagious as teacher leaders shared new materials. Expertise was transferred from the teacher leader to the teachers as they shared in the planning and teaching. Mullen and Jones (2008) explored how principals create and sustain a more democratically run school by empowering teachers with their own leadership roles. Within this case study three high performing elementary schools were examined. These authors suggest that teachers believed that having time not only to plan, but also to reflect with teacher leaders was beneficial. Knowing all of these benefits, Searby and Shaddix (2008) examined a teacher leadership program in a district. This program was created to help build and sustain leadership capacity in teachers not for them to become administrators themselves, but rather to continue to lead and support each other. Such authors tell us that “it is imperative that schools invest in the leadership capacity of the teaching staff” (p. 51).

Motivation to take on a leadership role can be influenced by several factors including monetary compensation, time compensation, material compensation, emotional support, professional learning opportunities, collegial support, and administrative support (Mangin, 2007). Mangin’s research encompasses five school districts. Four of them were had a high population of low socioeconomic status students. Interviews were
conducted with 21 principals and/or supervisors and 14 teachers. The author wanted to explore which people principals supported as instructional leaders in their elementary schools. The teacher leaders needed motivation, and they also needed tools to help others. One of the tools Danielson (2006) highlighted was, “using the mandate as an excuse to mobilize colleagues and pursue important work. In other situations, the initiative is one that simply arises from perceived need, without the push from external factors” (p. 24). The individual’s situation helped to determine the motivational factors.

Harris and Muijs (2003) analyzed several pieces of research on teacher leadership to share the findings which includes a list of teacher leadership roles: serving as a department chair, developing curriculum or materials, mentoring new teachers, coordinating professional development, facilitation of action research, managing the distribution of materials needed for teaching, and participating in decision-making. This list begins to draw a picture of some of the responsibilities those in a leadership role could encounter.

Research which included 24 restructured schools across the nation examined the potential of collaboration of teachers and principals around instruction, improving the quality of teaching, and student performance (Marks & Printy, 2003). Such authors suggested that teachers had both the desire and expertise to take on leadership roles. Research also suggested that teacher leadership models may be successful if there are some critical pieces put into place. Gigante and Firestone (2008) suggested that there are “four key components to teacher leadership: time, administrative support, relationships with teachers, coordination of and reinforcement of (job-embedded) professional development” (p. 323). Likewise, Muijs and Harris (2006) found that in successful models there are five dimensions of teacher leadership including: shared decision-
making, collaboration and collegiality, active participation, professional learning, and activism leadership. There were two commonalities between these two studies. The first is professional learning and the needs of teacher leaders to continue to improve their own practice and the second is the need for relationships and collaboration.

Teacher leaders needed professional learning specific to the craft of leading their own peers (Harrison & Killion, 2007; Margolis, 2008; Muijs & Harris, 2006; Searby & Shaddix, 2008) “Building the capacity for improvement also means extending the potential and capabilities of teachers to lead within the organization” (Muijs & Harris, 2006, pp. 961-962). For this to happen, educators have begun to think about school improvement in a whole new light. As Searby and Shaddix (2008) explain, “Such paradigm shifts associated with developing teachers as leaders may include moving from isolation to collaboration, from privatization of practice to open sharing of practice, and from independence to interdependence” (p. 55). Educators have to intentionally move from an isolated system to an interwoven one to have a successful model.

Great models of teacher leadership have evidence of a collaborative team effort (Akert & Martin, 2012; Mangin, 2007; Printy, 2008). As Akert and Martin (2012) study focused on 15 principals and 96 teachers regarding the role of teacher leadership and school improvement. Such authors suggest everyone approached this concept in a different way, “The differences in the perceptions between the principals and the teachers indicated a necessity for both positions to have opportunities to collaborate and design ways they could move toward a common goal (p. 296). These authors suggested that principals and teacher leaders needed to have professional learning around cultivating collaborative culture and strengthening their leadership skills. What these authors expound on is that professional learning was needed by the principals to fully understand
the concepts and the teacher leaders themselves in order to develop their own leadership skills. Harris (2003) also called for continual professional learning to develop the leadership skills as well as teaching skills and best practices.

In models without support from both administration and the majority of the teaching staff, teacher leadership flopped. Margolis (2008) research explored 40 teacher leaders that were leading staff development to bring literacy practices into the classrooms. This author explained there is a “phenomenon of teacher leadership, while having broad implications for each educational change, appears to be primarily a locally embodied experience” (p. 305). Understanding this phenomenon is critical to building the right foundation for teacher leadership to flourish. As the individuals in this study built their own capacity they became much more confident and had a larger capacity to support others. Unfortunately, within the school, social aspects impeded the aspirations of teacher leaders in some cases. “Where colleagues and administrators are encouraging, teacher leadership seems to flourish; at the same time, collective teacher resistance may be more powerful than any one teacher’s excitement and energy for a new idea” (p. 305).

Harris and Muijs (2003) further this discussion and gave a poignant explanation of teacher leadership and tapped into the relational component:

Collaboration is at the heart of teacher leadership, as it is premised upon change that is enacted collectively. Teacher leadership is premised upon a power re-distribution within the school, moving from hierarchical control to peer control. In this leadership model the power base is diffused and the authority dispersed within the teaching community. (p. 8)

Teacher leadership could also be seen as a more democratic way to approach leadership in a school. With students’ learning being found at the center of our educational focus, it
only makes sense to have teachers with the most direct contact with the students hold some of the power. In order to understand this power, the concept of teacher leadership must be explored further in my study through both formal and informal leadership roles.

**Formal Teacher Leadership**

Harrison and Killion (2007) shared a great definition of formal teacher leadership which is used in my study:

Being a school leader means serving on a committee, such as a school improvement team; acting as a grade level or department chair; supporting school initiatives; or representing the school on community or district task forces or committees. A school leader shares the vision of the school, aligns his or her professional goals with those of the school and district, and shares responsibility for the success of the school as a whole. (p. 76)

These are all formal teacher leadership opportunities offered by either the leadership of the school or district.

**Department or grade level chairs.** Some teachers have seen formal teacher leadership roles as “simply a way to seduce teachers to take on additional tasks and responsibilities without the commensurate increase in their salary or time allowance” (Fitzgerald & Gunter, 2008, p. 334). In the case of formal grade level representatives or department chairs there is typically a stipend that is attached to the responsibility. As Printy (2008) told us the key to taking on this type of leadership role is all in one’s ability to have an open mind set “department chairs, who likely have deeply embedded understandings of disciplinary knowledge, might have an easier time of this or a harder time, depending on their own beliefs and openness to change” (pp. 217-218). What
mattered was not the amount of content knowledge teachers had, but rather if they were open to new learning and new ideas.

Danielson’s (2006) teacher leadership book shared that no matter what type of leadership role that was studied it is important to have trusting collaborative relationships with colleagues. Likewise, “they (teacher leaders) inspire others to join them on a journey without a specific destination” (p. 13) and the most important piece was motivating or attracting others to a particular idea. Such author further suggested that, “teachers in a formal role are more likely to be trusted by other teachers if they are elected as a leader or if the role rotates each year” (p. 19). This speaks to the need for shared leadership; the model needs to be set up so that everyone has the opportunity to lead and only then will the school have a strong foundation.

Starting a new initiative or making a change in a school, the principal often looks to the formal leaders in department or grade levels for help. Printy (2008) used the National Educational Longitudinal Study of 1988 data set to examine how high school principals and department chairs influenced the mathematics and science departments’ community of practice. Such author found that chairs are situated to help lead change if they are granted real authority and are not overwhelmed with attending to small administrative issues” (p. 197). In order for them to be successful, they need support and extra time to help build capacity and guide their team.

Often the formal teacher leader is overwhelmed with responsibilities that are too big for one person to undertake.Muijs and Harris (2006) explored teacher leadership and how it contributed to the school’s improvement. This study consisted of 10 schools of which five were secondary and five where primary. Such authors explained that in this role it is common for teacher leaders to have management, pedagogical responsibilities as
well as coordinating a subject, coaching, leading a team and in some cases setting up action research. Even though they feel overwhelmed, Printy (2008) found that they are “the most influential factor in determining the quality of teachers’ participation in professional learning communities” (p. 214). Printy also found that if the department leader had clearly communicated expectations, goals, resources, plans, and encouraged innovation that teachers were more likely to work collaboratively as a group. The more leadership opportunities people have, the less teacher leaders will feel the pressure because there will be many voices shared.

**Coach.** A coaching model can take on many different forms or areas of expertise. For example there may be a data coach, literacy coach, instructional coach, or a content coach. This section will explore coaching as a whole and what type of effects coaching can have on professional learning for teachers. Scott, Cortina, and Carlisle (2012) study focused on the implementation of reading strategies with the support of literacy coaches. There were 105 coaches included in this study. Such authors suggest that “it is not who the coaches are, but what they do, that contributes to the teachers satisfaction” (p. 82) with their professional learning interactions with teachers.

Coaches can employ different strategies for helping teachers. Whether that be helping colleagues to: implement effective teaching strategies, differentiate instruction, plan lessons, implement new programs, examine data, model, co-teach, or even research best practices. Brown et al. (2007) found that it was critical when initiating a coaching model to “Make certain that there is a clear, shared understanding about the roles and responsibilities” (p. 44). Everyone needed to understand what the coaches’ role entails and ways in which they guide professional learning.
Scott, Cortina, and Carlise (2012) looked specifically at a coaching model in Michigan elementary schools. This model was used to help implement a literacy program. Coaches spent the majority of their time modeling and co-teaching to help teachers focus on the core instructional practices. The results showed that teachers did have significant professional growth as a result of the coaching model. The results went further to suggest that, “Coaches who scheduled level meetings on a regular basis had teachers who were more satisfied than coaches who schedule grade level meetings more sporadically” (p. 82). Meaning that the more regular contact that the coach and teacher had, the more the teacher felt they were learning and improving their practice.

Brown et al. (2007) followed the Pennsylvania High School Coaching Initiative. This mixed-methods study was initiated to help teachers implement new teaching strategies. During the study, teachers were given embedded professional learning through the application of both modeling and co-teaching. More than one coach was assigned to a high school to “intentionally build a coaching team that works with other school leaders to establish instructional priorities and strategies for meeting those priorities” (p. 44). Through qualitative data from 52 classrooms that were observed over the course of the program; survey data from coaches, teachers, and administrators; and questionnaire data from coaches, mentors, and administrators; this model was found to be beneficial for the teachers and for the coaches as well.

Successful models of professional learning communities were created with the support of teachers, coaches, and administrators. What the researchers found was that the development of the professional learning communities “Influenced how teachers learn together, created new school-based leaders, and broadened networks of support and learning within the school” (Brown et al., 2007, p. 42). Furthermore, the results
concluded that coaches played an important role when it comes to teachers implementing new instructional strategies.

**Mentor.** The Michigan legislature passed PA 335 in 1993, and in Section 1526 of that law there is a mandate that new teachers go through an induction process and be assigned at least one master teacher for a mentoring program. Such mentors are assigned to new teachers and take on a formal role to help the new teacher adjust to their new environment. Mentors are given continuing educational credit to support the renewal of their own teaching certificate. It is possible that the two teachers will make a connection and the relationship will help guide the new teacher in their professional learning. On the other hand, if that connection never happens or the mentor does not have the skills necessary it can be a bad situation as the new teacher may feel even more isolated.

Ryan and Hornbeck (2004) utilized a case study of one mentor teacher in a preschool setting to understand how she helped new teachers implement the high expectations of the curriculum. Such authors explained that being a successful mentor is not only about the content experience, but also about having the skills necessary for mentoring. They further suggested that even if a highly qualified person is chosen to be a mentor they may need more professional learning about current practices as well as adult learning pedagogy in order to be a successful mentor for a novice teachers. Such authors called for professional learning to be tailored to meet the needs of each mentor teacher. Harrison and Killion (2007) share research of the National Staff Development Council about being a mentor teacher:

Serving as a mentor for novice teachers is a common role for teacher leaders.

Mentors serve as role models, acclimate new teachers to a new school; and advise new teachers about instruction, curriculum, procedure, practices, and
politics. Being a mentor takes a great deal of time and expertise and makes a significant contribution to the development of new professionals. (pp. 75-76)

One of the most important pieces in this quote that the mentor must be aware of the significant amount of time needed to truly guide a new teacher. The mentor teacher leader must be willing and able to support this person with the time necessary to guide the learning.

Robinson and Melnychuk (2012) research focused on mentoring teachers through an action-based approach in which both the mentor and the mentee attended professional learning activities together to build a collaborative relationship instead of a top-down model. These authors suggested that the goal of any mentor should be to have a respectful relationship built on constructing meaning for each other. Whether that is building culture, handling daily tasks, lesson planning, understanding pedagogy, creating, analyzing assessments, etc. They found that it is important for the experienced teacher to be open to ideas from the new teacher as well. Another key finding in their study was that giving the two teachers additional time to either attend a professional learning activity together or even just spend part of the day working side-by-side was beneficial.

**Informal Teacher Leadership**

Many teachers are involved in leadership activities even though they do not identify themselves as leaders. Within these teachers’ actions is the place where informal teacher leadership lies. Informal teacher leadership is defined as any act of a teacher voluntarily influencing others to make positive changes in the school community. “There exists an interesting dichotomy between the activities that teachers engage in and those that they perceive as constituting leadership” (Hanuscín, Rello, & Sinha, 2012, p. 17). These authors go on to talk about all the informal ways that teachers positively influence
each other. “There are many informal ways in which teachers exert influence and make a positive difference in their schools” (p. 17).

When an informal teacher leader is recognized they are often seen as those that continue to be learners throughout their careers. This person will model “continual improvement, demonstrate lifelong learning, and use what they learn to help all students achieve” (Harrison & Killion, 2007, p. 76). These teacher leaders are often the catalysts for change as they have a continued commitment to the improvement of their own work and the work of the entire staff. Donaldson (2007) begins to give a closer look:

They are motivated by a desire to help students and support their fellow teachers not to enforce a new policy or to evaluation others’ competencies. Other teachers can go to teacher leaders without fear of judgment or dismissal. Their conversations can be frank, authentic, and caring. (p. 28)

Barth (2001) shares his years of research about teacher leadership, which was conducted through the Harvard Graduate School of Education, through many books and articles. He explains that it is the incremental successes that will continue to inspire these teachers to lead as the final goal may take years to reach. Informal teacher leaders thrive on the notion that they can support efforts of fellow teachers. Even thinking that “one teacher can help others move mountains--and occasionally even more massive geological formations, such as schools” (Barth, 2001, p. 446). These informal leaders have a positive perspective on life and are especially focused on the outcomes of a school.

One of the main barriers to this type of leadership is time. “Time in school is in finite supply and in infinite demand” (Barth, 2001, p. 445). If teachers are in their classrooms working with their students how are they supposed to have time to support other teachers. This is a sacrifice an informal teacher leader must make. This sacrifice
may happen during the time normally devoted for their own classroom planning, before or after school, on the weekends or even during summer or other vacations. With new initiatives being added on and nothing going away, the need for more time has continued to mount.

Informal teacher leaders push thinking by asking poignant questions about student learning. Research suggests that “only when teachers learn will their students learn” (Barth, 2001, p. 445). If this student-centered focus helps to shift some of the focus away from the teacher and onto the students there will be momentum in the changes. Timperley (2005) study focused on four years of research and involved observations, interviews and analysis of student achievement data. Within the seven schools at the center of the research each principal, literacy coach, and three teachers were included. This author told us that, “By externalizing the reference point for the meetings from teachers’ beliefs and preferences about a generalized problem of under-achievement to concerns about the achievement of individual students in their classes, solutions to the problems became manageable” (p. 23). Teachers might learn from these types of interactions with each other when they are focusing on the students.

Danielson (2006) explained that, “informal teacher leadership by contrast, is spontaneously exercised by teachers in response to a need or an opportunity through work with colleagues. It emerges organically; no one appoints teacher leaders to their roles” (p. 19). Harrison and Killion (2007) described this concept further by saying “the ways teachers can lead are as varied as teachers themselves” (p. 75). Barth (2001) attests to the fact that as teachers take on leadership roles they are invested in their school and not just residents, and their professionalism shines. These informal teacher leadership
roles can take on many forms. My study explores the two most common roles of content experts and peers.

**Content expert.** Teachers who are content or subject experts are often people who are willing to share with anyone. They are the “go to” person in the building and sometimes even in the district. Reeves (2008) who has studied teacher leadership for decades highlighted this type of leadership in his book:

Gregg, a remarkable fourth grade teacher, was the writing maven for the entire district. High school and middle school teachers routinely asked Gregg for advice on writing prompts and rubrics because Gregg was well known among his colleagues as the person who knew how to make writing achievement happen with students. It was hardly an accident that 100 percent of Gregg’s students, including his second-language students, pass the state writing assessment. (p. 21)

Not only do teacher leaders understand the content, but also the pedagogy involved in teaching students. This type of leadership is a true asset to any school or district.

Research studies involving this type of informal teacher leadership have already been approached both qualitatively as well as quantitatively across all three levels of the K-12 system (Angelle & DeHart, 2011; Ghamrawi, 2010). Angelle and DeHart (2011) collected quantitative survey data from 752 teachers in 43 schools in grade K-12 across the U. S. Ghamrawi (2010) conducted a two year study of 51 interviews with principals, subject leaders, and classroom teachers in three private K-12 schools. These authors found that these informal leaders shared their expertise through collaboration and the cultivation of leadership skills. They also found that what may have started out as an informal role, in some cases, grew into a more powerful role, whether it took on a formal role later or not. With this power the teacher leaders were able to strategically craft
improvements in the building they taught and even throughout their district. The informal leaders did see the power of being a content expert.

On the other hand, research conducted in a high school setting by Hanuscin, Rello, and Sinha (2012), which focused on 30 teachers that completed a teacher leadership inventory with both quantitative and qualitative questions, suggested that teachers did not even perceive themselves as leaders if they played an informal role. Further, the participants in the study only felt teachers were showing leadership if the role was formal like a coach or head of a department. Many of these teachers shared that they had previous leadership experience but never mentioned any informal activities.

Similarly, Angelle and DeHart (2011) found that participants’ definition of teacher leadership depended on the roles and responsibilities of individuals. They also found that “the idea of a teacher leader is perceived differently by teachers according to their experience, their degree (which in my study was an indication of experience), and whether the teacher holds a leadership position at the school” (p. 155). Also in the study by Ghamrawi (2010) was the finding:

Suggests that subject leaders succeed in doing so by focusing on crafting cultures within their departments which builds a sense of common purpose, generates energy, and in which relationships are respectful and trusting. Through these relationships, subject leaders can foster teamwork, create community and develop a collective responsibility for the learning of all students. This culture is a premise for teacher leadership establishment. (p. 318)

Being a content expert is not the only key to a beneficial informal teacher leadership model; teacher leaders must also have skills necessary to build relationships and a sense of community as these characteristics play a role in the level of achievement. Not
everyone is willing to take on a leadership role as they do not want the spotlight upon them.

**Peer.** Informal peer leaders are motivated to help others; they often have a sense of resiliency and enjoy the challenge (Phelps, 2008). “Teachers who become leaders experience personal and professional satisfaction, a reduction in isolation, a sense of instrumentality, and new learnings—all of which spill over into their teaching” (Barth, 2001, p. 443). Timperley (2005) takes this a step further and talked about how informal teacher leaders are resilient and just keep trying because they are fixated on a goal and want to reach that level of success:

The ‘heroic’ leaders were the literacy leaders who engaged in leadership activities that assisted the teachers to question and change their literacy instruction for those students who were not succeeding. They were not the principals. They were the same leaders who the year before had failed to accomplish this task, despite their best efforts. (p. 22)

Within these peer interactions “teacher leaders also have the benefit of working with others in small, intimate, adaptable groups or in one-on-one relationships” (Donaldson, 2007, p. 28). This individualized communication is helpful to deprivatize teaching as they share and discuss practice or even for demonstration purposes. The teachers no longer need to rely on the principal to be the educational leaders when teachers have each other (Wahlstrom & Louis, 2008). Those informal leaders must try to navigate how to lead the other teachers in a productive way (Nelson, Deuel, Slavit, & Kennedy, 2010).

Barth (2001) explains that it is important for teachers to model for their students and modeling their own learning can be one of the most powerful tools. Barth also
suggests that this helps to create a community of learners and that there is a deep connection between being a learner and a leader. “All teachers have the potential to be a teacher leader; by the virtue of their own efforts to bring about change in their own classrooms, teachers lead by example” (Hanuscin, Rello, & Sinha 2012, p. 17).

Principals and teachers need to allow opportunities for interested teachers to step into the role. This helps us to think about redistributing the leadership which “requires a careful redistribution of resources within the school without which teacher leadership will remain an ad hoc activity. Teacher leadership contributes directly to the establishment of professional learning within and between schools” (Harris, 2003, p. 320).

**Professional Learning**

For the purpose of my study professional learning, also known as professional development, will be defined as Feiman-Nemser (2001) suggests it is:

The actual learning opportunities which teachers engage in their time and place, content and pedagogy, sponsorship and purpose. Professional development also refers to the learning that may occur when teachers participate in those activities. From this perspective professional development means transformation of teachers’ knowledge, understanding, skills, and commitments in what they know and what they are able to do in their individual practice as well as their shared responsibilities. (p. 1038)

This definition encompasses both the formal and informal types of professional learning and puts the teacher’s learning at the center of focus. In the literature, professional learning is a term that is most often coined with informal types of learning for teachers while professional development seems to be considered a formal type of professional learning. During my study it was pertinent to explore both formal and informal
professional learning. Bredeson and Scribner (2000) suggest that, “teachers-as-learners are critical to pedagogical, social, political, and economic goals here in the US and other countries” (p. 2). Throughout the policies in the nation and the state of Michigan, professional learning is commonly used as a way to improve our schools. Bredeson and Scribner (2000) note that professional learning can focus on: curriculum development, assessment creation, creating organizational change, writing school improvement plans, and acquiring new knowledge and skills to help students learn.

The ten components of high-quality professional learning that Lubel (2005) suggested were important for me to focus on as the survey questions were built:

1. Focuses on teachers as central to student learning, yet includes all other members of the school community;
2. Focuses on individual, collegial, and organizational improvement;
3. Respects and nurtures the intellectual and leadership capacity of teachers, principals, and others in the school community;
4. Reflects best available research and practice in teaching, learning, and leadership;
5. Enables teachers to develop further experience in subject content, teaching strategies, uses of technologies, and other essential elements in teaching to high standards;
6. Promotes continuous inquiry and improvement embedded in the daily life of schools;
7. Is planned collaboratively by those who will participate in and facilitate that development;
8. Requires substantial time and other resources;
9. Is driven by a coherent long-term plan; and
10. Is evaluated ultimately on the basis of its impact on teacher effectiveness and student learning; and this assessment guides subsequent professional development efforts. (p. 15)

Having these ten components in mind helps to further the discussion about professional learning and what the best approach will be whether formally or informally. “Greatness requires persistence, fierce resolve, and consistent, coherent efforts over the long haul. There are no shortcuts” (DuFour, 2007, p. 7). There is no quick fix to problems that are seen in schools only when educators embrace this can learning continue and move the field of education forward.

Similarly, Frey and Fisher (2009) focused their research on teachers that attended a staff development session on common assessments. The teachers had to work together to create common formative assessment, then utilize the data to alter their instruction and then measure its effectiveness based on student achievement results. Such authors suggest that, “what’s needed is not a silver bullet or magic solution” when it comes to professional learning (p. 679). These authors continue by suggesting that teachers must work hard and be dedicated to their own learning and the learning of their students as well. Without a supportive system, Frey and Fisher (2009) tell us that professional learning will not have a positive role in the improvement of schools. Battely and Franke’s (2008) research was a case study of one underperforming school. Qualitative data was collected from professional development sessions, classroom observations, and interviews. Such authors found that when a school is trying to transform their instructional practices it is critical to prepare the environment to ensure the change will be successful. These authors say that the learning must be deep not shallow. In order for this to happen these authors suggest, “Teachers to have a different relationship to practice
and content or new identities” (p. 146). They have to embrace the change with a willingness to learn and ultimately change their practice. Unfortunately, Grossman, Wineburg, and Woolworth (2001), whose research focused on 22 English, social studies, special education and English as a second language teachers from an urban high school over the course of 2 and a half years, found that “in many cases, the teachers most in need of such an intellectual broadening are the least likely” to participate (p. 11).

When exploring professional learning one, “should carefully account for teachers’ prior knowledge and practices as well as the context in which teachers are teaching, including the demands of state assessments and other accountability measures over which teachers have limited control” (Scott & Sutton, 2009, p. 166). All of these lenses will offer insight into the world from a teacher’s perspectives and help leaders promote positive professional learning experiences within their schools.

Harris and Muijs (2003) note that an, “emphasis on continuous learning and excellence in teaching can improve the quality of teachers, while the emphasis on spreading good practice to colleagues can lead to increasing the expertise of teachers throughout the school” (p. 13). Bredeson and Scribner (2000) research focused on K-12 professional development training with a pre and post survey for teachers in a statewide training, they agreed that educators need to be continuously learning. These authors suggested that teachers do not learn from regular routines, instead that teachers learn the most when conditions change or unique situations occur.

DuFour (2007) suggests that there is a predictable pattern of school reform in the United States. At the beginning of the reform everyone is excited and the momentum is really propelling the change only to be slowed or even halted as “confusion, criticism, and complaints” set in (p. 7). At this point the initiative is chalked up to be yet another
great fad that has arrived and left in a short period of time. DuFour (2007) argued that without deep cultural changes professional learning around instructional strategies will never be sustained.

**Collaborative Culture**

We know that schools with successful professional learning communities have a professional culture (Brown et al., 2007). We also learned from Muijs and Harris (2006) that “the cultural and structural conditions need to be optimum for teacher leadership to flourish, but that giving teachers some leadership responsibility is one way of helping to generate the internal conditions for change” (p. 968). Muijs and Harris also found that the retention of teachers is much more likely when the school is built with a collaborative culture and leadership model. These ideas flow directly into the concepts from Fullan (2001) that solutions must be made by the people closest to the problem in order to create cohesiveness within the school. This coherence is in the minds and the hearts of the people. The leader in the building must set the tone and work to create the optimal environment for the school.

“As a leader treat others fairly or you will be a leader without any followers” (Fullan, 2001, p. 13). Principals, just like any person, will have some relationships with teachers that are stronger than others. Printy (2008) explained when a relationship is particularly strong, that teacher or groups of teachers are usually the first to accept the initiative. Further, this helped with the growth and development of their colleagues. One of the pieces that can be difficult in building culture is:

The extent to which leaders can reach shared understandings with teachers seems to be the critical piece, but it appears that this state of mutuality around instruction is extremely difficult to achieve because it requires that leaders understand subject
matter, how to teach subject matter, and how students and adults learn subject matter. This is no small task in any school, but might be particularly challenging for leaders in high schools. (Printy, 2008, p. 199)

This would be more relevant in a middle school, high school, or in specials classes in an elementary building in which case the principal would not be an expert in all content areas. In order to have teachers move beyond this concern the principal must focus on building relationships and trust.

Creating the relationship where socializing includes unleashing the knowledge can have positive effects, as Fullan (2001) shared:

> Knowledge becomes important when it has a social life. Sharing personal knowledge builds a personal connection which builds a trusting and caring environment. In order for this to flourish there has to be a non-competitive, collaborative culture. A good starting place is to share then, hopefully, collaboration will follow. (pp. 78-79)

Muijs and Harris (2006) further this discussion by explaining that through this process of relationship building trust can be fostered as collaborative work is done to improve the school and with team building activities.

Fullan (2001) pointed out that not everyone has the same moral compass; therefore, you will have to do more as a leader than just give the moral purpose. Not everyone will do good things. If change in culture is sought, there are times that the leaders may need to invoke discomfort and disturbances which becomes the essence of the force. An effective leader is one who embraces this conflict and lets it bubble to the surface while guiding the staff. This leader knows that it is in these tense moments where pressure is being applied that real problems are being solved and change will occur.
“When we disrupt the status quo creative ideas and novel solutions are found” (p. 107). This person knows that “change cannot be managed. It can be understood, perhaps lead but cannot be controlled” (p. 33). In other words you can plan for a change, but will never be able to predict the path it will take.

“Change is a leader’s friend, but it has a split personality: its non-linear messiness gets us into trouble” (Fullan, 2001, p. 107). The leader must know where the edge of chaos lies. Additionally, the leader has to understand that they may have to let go and reign in all at the same time to help guide a successful model of change. Depending on one’s own leadership style the principal will have to determine where to let go and where to reign in and will feel some parts of the change are uncomfortable.

Mujis and Harris (2006) tell us that:

Successful school improvement is dependent upon the ability of individual schools to manage change and development. This necessitates building the ‘capacity’ for change and development within the school as an organization.

Building the capacity for school improvement requires paying careful attention to how collaborative processes in schools are fostered and developed. (p. 961)

As successful school improvement is sought by each student, teacher, and principal this must become the ultimate goal. Mujis and Harris (2006) shared that increasing each teachers’ capacity through a professional culture where they are learning and working closely with one another is valuable. One of the essential components for school improvement to be successful is professional learning opportunities whether they are formal or informal.
Formal Professional Learning

For the purpose of my study formal professional learning is defined as Mizell (2010) suggests, “When people use the term professional development, they usually mean a formal process such as a conference, seminar, or workshop; collaborative learning among members of a work team; or a course at a college or university” (p. 8). My study also sheds light on Eraut’s (2000) definition which explains that it is “a prescribed learning framework, an organized learning event, the presence of designated teacher or trainer, the award of a qualification, and the external specifications of outcomes” (p. 114). I explored both professional learning communities (PLCs) and formal professional learning through district, schools, or conferences.

Professional learning communities. Rasberry and Mahajan (2008) focus their action-research in nine school districts in the U. S. and Canada to understand more about collaborative learning communities through on-line resources. Such authors gave a definition of a PLC which will be utilized in my study:

Professional learning communities in the educational setting can be defined as groups of individuals committed to continuous improvement through shared values and reflection. In PLCs, teams are open to critical thinking, reflective dialogue, self-examination, and resolving issues that impede student success. Each member must be committed to the time, energy, and collaboration required to bring about lasting change in their classrooms and school. (p. 2)

The authors delved further and explained that within these communities teachers are often looking at classroom data, sharing best practices, and making instructional decisions together. The PLC is professional learning done within the context of a support group in order to meet the needs of every child.
Critical to this work in a PLC model is the need for teacher buy-in and in order to do this they must have some control over their topics of discussion. Lubel (2005) focused her research on collaborative study group. In one school 19 teachers were involved and both quantitative and qualitative data was collected through surveys, discussion notes, and study focus groups. This author suggests that teachers can choose to spend some of that time in other classrooms, gathering data, collaborating, or even conducting research. These PLCs must also have a sense of collaborative inquire in order to face the demands of both external and internal pressures. Moreover, McNaughton and Lai (2009) describe that the PLC has teachers reflect critically on their own practice and help others do the same type of work. Likewise Tillema and van der Westhuizen (2006) suggest that this process must continue and be cyclical for continuous improvement to occur.

Schools and districts that have successful PLC models have a common focus around the ten questions DuFour (2007) suggested:

1. Are we clear on the knowledge, skills, and dispositions each student is to acquire as a result of this course, grade level, and unit we are about to teach?
2. Have we agreed on the criteria we will use in assessing the quality of student work, and can we apply the criteria consistently?
3. Have we developed common formative assessments to monitor each student's learning on a timely basis?
4. Do we use the formative assessments to identify students who are having difficulty in their learning so that we can provide those students with timely, systematic interventions that guarantee them additional time and support for learning until they have become proficient?
5. Do we use data to assess our individual and collective effectiveness? Do assessment results help us learn from one another in ways that positively affect our classroom practice?

6. Does our team work interdependently to achieve SMART goals that are Strategic (linked to school goals), Measurable, Attainable, Results-oriented (focused on evidence of student learning rather than teacher strategies), and Time-bound?

7. Are continuous improvement processes built into our routine work practice?

8. Do we make decisions by building shared knowledge regarding best practices rather than simply pooling opinions?

9. Do we demonstrate, through our collective efforts, our determination to help all students learn at high levels?

10. Do we use our collaborative team time to focus on these critical issues? (p. 5)

The student has to be at the heart of every interaction in an effective PLC model. (Grossman, Wineburg, & Woolworth, 2001; Lubel, 2005; McNaughton, & Lai, 2009; Rasberry & Mahajan, 2008)

In order for teachers to focus on students they first must become learners themselves. Grossman, Wineburg, and Woolworth (2001) suggested that through learning communities; teachers put themselves into the students’ shoes as they are vulnerable and learn new things. This helps teachers develop empathy of how students feel as a learner. These authors explained that teachers must share their expertise in order to learn from one another, noting that the knowledge of the entire groups is greater than that of any individual teacher. Every person in the community has something to offer.
Within this enormous body of literature about PLCs there are some key findings. Wahlstrom and Louis (2008) surveyed over 4,000 teachers in the K-12 field about their experience within a PLC. What they found was that it was vital to build trust among the teachers as well as the leaders in their organization. Additionally, they found that through a PLC model, the teaching practice was deprivatized and teachers worked as a group to problem solve and share expertise, that teachers developed shared norms around instructional practices and assessments, and that reflective dialogue lead to better practices within the classroom.

Lubel (2005) interviewed and surveyed 19 teachers in grades first through fifth in an affluent suburban school. These results are not transferable to other schools, but never the less, have promising results. Within this school these teachers worked in a PLC model to improve writing instruction and the components of writing workshop. “This study underscored the importance of professional development involving teachers in reflective, collaborative, dialogue and inquiry. Teachers must be allotted time in their professional day for this to occur” (p. ii). If groups did not stay focused on these practices they did not have the same outcomes as the other groups. Had every group implemented the model with fidelity, Lubel speculated that the results would have been that even more teachers would have been able to incorporate writing workshop in their classroom practice. The success of the process was that it built a more collaborative community and the teacher’s level of confidence rose around their own skills and the implementation of writing instruction.

Grossman, Wineburg, and Woolworth (2001) completed a study group of 22 English language arts and social studies teachers in a two and a half year period of time. Teachers worked in PLCs to read materials in their field and create curriculum. The
researchers purposefully chose to tackle the least collegial departments at first. They found that, “In a professional community; however, teachers come to recognize the interrelationship of teacher and student learning and are able to use their own learning as a resource to delve more deeply into issues of student learning, curriculum, and teaching” (p. 65). At first these groups saw their learning as individualized, but as time passed they came to see that they were responsible for everyone’s learning and their conversations began to shift. They found that adults can preach to the students, that it is important to have good social interactions with each other; however, modeling this at the adult level is much more powerful for the students.

Vaughn, Hughes, Schumm, and Klingner (1998) found through their study of seven teachers in a PLC that all, but two in the first year were implementing instructional strategies that the group had focused; however, in the second year only four of them continued to utilize these strategies. This is in part due to the fact that an outside facilitator was within the group the first year offering guidance and support while the second year teachers were on their own to meet and guide their learning as a group. The classrooms that did make changes showed student gains in the area of writing.

The study of two inner city high schools that implemented a PLC model in their mathematics departments by Kanold, Toncheff, and Douglas (2008), showed noteworthy student improvement at both Granite Hills High School as well as Monte Vista High School:

After five years of no change or increased rates in the number of students receiving D’s or F’s, the rate since 2003 has declined in 36 out of 40 subjects and for every population, subgroup, including special education and ELL students.
The rate of students receiving D’s or F’s in Algebra I dropped from 50% to 26% in two years. (p. 26)

After teachers in the math departments were showing these great improvements in student growth other teachers realized the benefits. The other departments in the high schools began their own PLCs and also were able to help their students show growth over time.

Through this review of the literature many successful elements were revealed. One of the elements was that professional learning can be successful in a collaborative model. Individual teachers have to take ownership of not only their own learning, but that of the entire community. Similarly, some strategies and practices are easier to implement; while others may take more thought, preparation, and planning in order to be used successfully. Vaughn, Hughes, Schumm, and Klingner (1998) explored that once teachers had applied new instructional practices in their classroom they were happy to share with colleagues. These teachers even tried to convince others to use them with their students as well. Teachers feel the freedom to try new strategies keeping the ones that were helpful while discarding the ones that did not work with their students. The fear of failure is let go and the adoption of the experimental attitude is embraced. Wahlstrom and Louis (2008) take this idea a step further and suggested that not only do teachers have this attitude, but so do the students. As the teacher helped to facilitate change in the classroom through real world examples and the teachers modeling their own struggles in learning new concepts with the students.

The accomplishment of a successful PLC model can help to grow a sense of collective efficacy and a collaborative community where everything is student-centered and learning is for everyone (McNaughton & Lei, 2009; Wahlstrom & Louis, 2008). In
the study conducted by McNaughton and Lei (2009) which lasted for three years and consisted of 70 teachers and approximately 1500 students. These authors examined the relationship between a program being implemented and the student achievement. These authors were able to predict student achievement for the end of the year on the high levels of collective efficacy, among staff members, at the beginning of the school year. This idea of working together is extended as Grossman, Wineburg, and Woolworth (2001) argued that it creates possibilities for individual transformation as well as transformation of the social setting. Vaughn, Hughes, Schumm, and Klinger (1998) continued this thought by expressing teachers appreciated the community’s support, especially, when dealing with the needs of students with learning disabilities. This gives them an opportunity to rethink their own practice as well as problems they face on a daily basis.

Rasberry and Mahajan (2008) suggested that “changing a school culture to support teacher leadership through PLCs is a complex endeavor requiring strong commitments, new skills and understandings, changing practices and structures, and a willingness to take risks with openness and respect among colleagues” (p. 16). Part of that struggle lies as Grossman, Wineburg, and Woolworth (2001) suggested in the idea that middle class, white people understand cultural notions that people need to behave and agree on everything. When this happens a pseudo-community evolves and teachers are not doing the real work. They are just pretending to work together. Conflict is a healthy part of a PLC. What is most important is how the conflict is resolved. When conflict arises it is essential that teachers have trust built-in with one another and need to be open and honest. This is where a true community will function successfully. Even though building a collaborative culture is a difficult task to accomplish the dividends are well worth the effort.
Within this type of model teachers are empowered and validated as professionals as they switch from a model of being told what works in the classroom to knowing what works in their own classroom (Rasberry & Mahajan, 2008). Teachers use the empowerment to identify their own gaps in the learning as they reflect on where they are currently. Also, where they would like to be on their own professional growth continuum (Lubel, 2005). It is in these quiet moments that schools become exciting places for adults as well as their students (Grossman, Wineburg, & Woolworth, 2001).

Empowerment can stem from the model of leadership in the building. Rasberry and Mahajan (2008) explain this feature,

Professional learning communities have made our school more democratic, returning the power to the teachers. Teachers no longer look for their principal to make and hand down decisions, but rather convene in circles of influence and tap the expertise within the group to make the difference they wish to see in the classrooms, school, and community. (p. 8)

This was seen to have positive impact on instruction as Wahlstrom and Louis (2008) found it to be especially true when leaders trusted the judgments of teachers and shared the responsibilities for school improvement. Everyone needs to be responsible for their own interactions, from the principal, to the teachers in order to create a culture of rich dialogue. Within their study they focused on the principal-teacher interactions and teacher-teacher relationships through a quantitative teacher survey of 4,165 teachers.

“Strong school performance depends on shared leadership mobilizing the collective action of individuals to produce high-quality teaching and learning” (Rasberry, & Mahajan, 2008, p. 4). These authors also explained that it is necessary to have shared decision-making in order to build collaboration between principals and teachers in a
school. “If we are serious about building professional learning communities within and between schools then we need forms of leadership that support and nourish meaningful collaboration among teachers” (Harris, 2003, p. 322).

Many districts or schools try to engage in a PLC model and fail. That is due in part to many barriers that can stop the process in its tracks. For example Grossman, Wineburg, and Woolworth (2001) consider the idea that everyone comes to the table with baggage and personal presuppositions whether they be positive or negative. These authors even suggest that it would be easier to put this type of model in place with complete strangers. Further, they examine how change is difficult and this type of new interaction will bring about change. When there is a change in roles in the group, individuals are encouraged to see things in a different perspective and may shift their thinking. Lack of time is yet another barrier that continues to surface in the research (DuFour, 2007; Fullan, 2006; Harris, 2003; Grossman, Wineburg, & Woolworth, 2001; Lubel, 2005).

Common mistakes that people make when trying to implement a PLC model as Fullan (2006) explains is that:

People make the mistake of treating professional learning communities as the latest innovation. Of course in a technical sense it is an innovation to the people first using it, but the moment you treat it as a program innovation, you run two risks. One is that people will see it as one innovation among many - perhaps the flavor of the year, which means it can be easily discarded once the going gets rough and as other innovations come along the following year. (p. 10)

This is not an initiative that is meant to be one of many, but rather a framework for teachers to collaboratively work within. If the model follows the guidelines of the
researched components of successful PLCs then the teacher will see the benefit. If teachers see it as a fad and the going gets tough, they will just walk away and go back into their classrooms. Fullan is expressing the need for common definition and understanding of a PLC model. Without this foundational piece in place it will not be successful.

Learning in this collaborative way can be a barrier as teachers have different beliefs, commitment levels, acceptance of change levels, and time to dedicate (Tilema & van der Westhuizen, 2006). Another barrier that is seen in the confines of a PLC is the ability to truly listen to other adults, while setting aside any of your own personal thoughts, slowing down to be consciously present in that moment and shifting your perspective to understand the other teachers’ perspective (Grossman, Wineburg, & Woolworth, 2001).

DuFour (2007) summarizes what educators really need to focus on in order to have a successful PLC model:

The PLC concept does not offer a short cut to school improvement. It presents neither a program nor a recipe. It does provide a powerful, proven conceptual framework for transforming schools at all levels, but alas, even the grandest design eventually degenerates into hard work. A school’s staff must focus on learning rather than teaching, work collaboratively on matters related to learning, and hold itself accountable for the kind of results that fuel continual improvement. When educators do the hard work necessary to implement these principles, their collective ability to help all students learn inevitably will rise. If they fail to demonstrate the discipline to initiate and sustain this work, their school is unlikely to become more effective, even if those within the school claim to be a
professional learning community. The rise or fall of the professional learning community concept in any school will depend not on the merits of the concept itself, but on the most important element in the improvement of any school—the collective capacity, commitment, and persistence of the educators within it. (p. 7)

Changes make people apprehensive; however positive outcomes can propel change. This can be a slow process because it requires not only learning, but also unlearning (Lubel, 2005; Vaughn, Hughes, Schumm, & Klingner, 1998).

Resistance can come in several forms whether the teacher makes an excuse or reason why they will be unable to adopt new changes (Vaughn, Hughes, Schumm, & Klinger, 1998). They may even feel they do not have enough support. Wahlstrom and Louis (2008) say that it is the level of efficacy within the teachers that will ultimately shape the learning community. Only when teachers are willing to work together and step forward within the group to take on additional roles, will the community prosper. This type of learning is considered to be formal as it is usually structure from the top down and teachers are required to attend weekly, bi-weekly, or monthly meeting.

**District, school, or outside professional development.** Most of the research on formal professional development in the form of a conference or at a district/school level has a negative undertone. Bredeson and Scribner (2000) are no exception as they describe traditional professional development in their study. Within their study, each teacher attended a three-day statewide conference on student performance assessment. They expressed that only a handful of teachers were able to take what they had learned and actually use this knowledge in their buildings.

Bredeson and Scribner (2000) continued their discussion, telling us they found, “Alarmingly few participants were confident that they could disseminate their newly
acquired knowledge to colleagues in their schools” (p. 11). Within this large scale study they looked at traditional forms of professional learning through a conference. Even though teachers had gained knowledge that day, they had not gained the confidence, experience or expertise to use and share the knowledge.

Likewise, Grossman, Wineburg, and Woolworth (2001) talk about formal professional learning as often being “episodic and piecemeal in nature” (p. 10). They discuss the negative nature of district professional learning because it is a day or two here and there. Furthering that negative argument, that professional development has no real follow up and often it is planned without even paying attention to what teachers need. With all of these considerations they find it to be ineffective. The authors suggested that there are two ways to approach professional learning, “Two aspects of teacher development--one that focuses teachers’ attention on the improvement of student learning, the other focused on the teacher as a student of subject matter--do not always mix harmoniously. Often they do not mix at all” (p. 15). This is especially the case in a formal professional learning model.

The study from Kragler, Martin, and Koeger (2008) included 30 kindergarten through third grade teachers and over 700 students in two inner-city schools as they navigated through new mandates around literacy and the professional learning needed to meet the mandates. The authors call for professional learning leaders to consider the following, “The teachers' viewpoints, their concerns, and their sense of collective efficacy” (p. 547). As the teachers were not involved in any decision-making for the entire process on implementing mandates they felt disconnected from the learning and did not make the changes necessary to sustain a growth model. Teachers in this study were even seen as hostile when they had to attend more professional learning activities.
What the study did find was that there is a “need for true teacher voice in all professional development endeavors. Teacher change is a complex process that takes time during the learning process” (Kragler, Martin, & Koeger, 2008, p. 547).

During some of these formal professional learning activities teachers are asked to give up time on the weekends and during the summer. Grossman, Wineburg, and Woolworth (2001) suggested that it can be difficult, “to take individuals out of their workplaces, transform them in other settings, and then return them to an unchanged workplace to battle the status quo” (p.11). This is a tall order for even the most gifted teachers to learn somewhere else and then take it back to apply in a different setting.

Scott and Sutton’s (2009) research included 50 elementary teachers who participated in professional learning for eight weeks around the topic of the writing process. Their study used a questionnaire with a scale and open ended questions; it was a repeated measure design, before, during, and even four months after the initial experience. The researchers wanted to know how teachers felt emotionally during this time of change. “Teachers often made both strongly negative and strongly positive statements when reflecting on professional development or on their teaching” (p. 166). Change is a difficult process and the teachers felt like they were riding a roller coaster with many ups and downs. Overall, there were few if any formal professional learning experiences in the framework of district, school, and outside sources that were perceived as positive experiences.

**Informal Professional Learning**

Due to the fact that literature base in the field of informal professional learning is limited, other than communities of practice (COPs), I will only explore this form. For the purpose of my study I will define informal professional learning as Eraut (2000) does,
“Informal learning is often treated as a residual category to describe any kind of learning which does not take place within, or follow from, a formally organized learning program or event” (p. 114). This is a form of learning completely fueled by the teachers’ needs and desires to learn more about their own practice and how to reach students.

Within the research I found it is a promising topic as “There is reason to suspect that such (informal learning) experiences do, indeed, confer relevant knowledge and skills” (Shapiro, 2003, p. 3). This author’s research focused on 20 teachers that were interviewed, followed by 39 teachers that were surveyed within K-12 urban schools, and this author found “that adults’ informal learning might be highly relevant to the learner’s profession” (p. 3). Further his research explored, “As data suggests, some teachers believe their informal learning experiences can cause them to develop an increased knowledge of and interest in subject matter, acquire certain pedagogical skills, and understand how to best engage in personal relationships with students” (p. 104). If informal professional learning can tap into the need of students and teachers than it certainly needs to be explored more in the world of research. The most important finding in Shapiro’s (2003) research was that:

It appears that some teachers rely on their informal learning experiences to guide their classroom practices. These experiences can influence how teachers structure and present lessons, communicate ideas, manage their classrooms, and more. Informal learning can also influence teachers' attitudes and beliefs and their choices regarding what materials or curricula to present to their class, if they have control over this. (p. 105)
Exploring COPs will only give us further information about informal professional learning opportunities. Specifically, what influences a COP might have on instructional practices that teachers use in their classrooms.

Specifically, the COP model is used to describe an informal community that resides in schools (Butler, Lauscher, Jarvis-Selinger, & Beckinham, 2004). Within this model there has been some “understanding about teacher learning; however, applying the framework to the professional development of practicing teachers presents particular challenges” (p. 438). There is not any formal record keeping or mandated times for teachers to meet. It can be any size from two or more. It is entirely up to the teacher whether or not they would like to be involved in such a community.

Community at the root is relating to one another on a personal and professional level. Within a community setting, teachers cultivate stronger bonds of connectedness; pushing people to think beyond or outside themselves is the essential component of a community (Grossman, Wineburg, & Woolworth, 2001). These authors push the thinking of community further by sharing:

Of all the habits of mind modeled in schools, the habit of working to understand others, of striving to make sense of differences, of extending to others the assumption of good faith, of working towards the enlarged understanding of the group--in short, the pursuit of community--may be the most important. In an era of narrow academic standards and accountability, it is all too easy to forget that the ultimate accountability of schools is to the sustenance of a thoughtful, engaged, and vigorous democratic society. (p. 81)

By building and utilizing a community within a school the sight of a democratic society will never be lost.
COPs can be truly beneficial if they incorporate the right components. Three of those components Butler et al. (2004) and Stanley (2011) suggested including; modeling, practice, and guidance were those must have pieces in a COP. “Nonetheless, it appears that the professional development model used in our project promoted ‘deep rooted’ changes in teaching” (Butler et al., 2004, p. 453). In other words if the COP is done with fidelity and has everything in place, teachers can truly make changes in their instructional practices in the classroom. Similarly, Flint, Zisook, and Fisher’s (2011) research followed two teachers on their journey to transform their instruction of writing though a writer’s workshop model with multi-lingual third grade students. This study followed the work of their COP and suggested there are four factors that determine if a COP is successful; it must (a) take into consideration where a teacher learns and teaches, (b) be focused on the teachers enquiries in their own practice, (c) continue to help teachers develop relationships, and (d) have levels of support within the model. Both of these groups of authors say relationships and support are important.

Some communities narrow in on student samples within their own classroom while other groups focus on data sets of the whole group. Having students at the center of focus is critical for the success of a COP (Butler et al., 2004; Flint, Zisook, & Fisher, 2011). This type of collaborative inquiry invites teachers to enter into reflection they may not otherwise set time aside to do.

Other communities may focus on a specific initiative, instructional strategy or even a content area. As Butler et al. (2004) explains, “Working with others has the potential to sustain momentum through inevitable challenges. Rather than abandoning a new initiative, collaborative communities may generate energy and enthusiasm that fuels persistence with innovations” (p. 438). With enough structure and the right pieces in
place new initiatives can be successful as was the case with teachers trying to implement new writing strategies in the study by Flint, Zisook, and Fisher (2011). This was also true in the Butler et al (2004) study of ten teachers that were part of a COP as they learned about strategic content learning approaches; over the course of a two year period the group made significant improvements in their own practice and the student showed gains as well.

In a COP teachers are responsible for their own learning, reconstructing authentic activities, and reflecting on their actions (Butler et al, 2004). When a collaborative community of teachers rewrote their own rubric they found that their knowledge of what to teach became deeper and students scored much higher on the writing assessment (Knight, Wiseman, & Cooner, 2000). “When these teachers engaged in conversations that recognized their intentions and pushed them toward new perspectives, they, in turn offered such opportunities to their students (Flint, Zisook, & Fisher, 2011, p. 1167). Such authors found that intentional dialogue and conversations are critical for the success of a COP.

The main difference between a COP and a formal type of professional development is described by Flint, Zisook, and Fisher (2011) here, “A passive approach (professional development), is transmission focused, while an active approach (COP) is demonstrated in inquiry, mutuality, and in creating opportunities for renewal” (p. 1168). This further reveals that formal professional learning, what has been coined as “sit and get,” is passive and will not ensure the changes necessary to help student learn.

Chapter II Summary

Overall, the literature review revealed that formal teacher leadership might be beneficial to students’ learning if the position has clear expectations and the administrator
is supportive (York-Barr & Duke, 2004). Teacher leaders, “individually or collectively, influence their colleagues, principals, and other members of the school communities to improve teaching and learning practices with the aim of increasing student learning” (p. 288). In their mega-analysis of research on the topic of teacher leadership, York-Barr and Duke indicate there is little evidence about teacher leaders in an informal role. Likewise, Scribner and Bradley-Levine (2010) suggested that, “Understanding the brand of teacher leadership that is valued by teachers in a particular context may provide opportunities to transgress traditional barriers that limit the spread of more just relationships” (pp. 516-517). Looking more closely at teachers’ view on formal and informal teacher leadership will help to identify what works best in priority schools. This conclusion clearly shows a need for further research on this topic.

Further, there is also evidence that professional learning can positively affect instruction (Vaughn, Hughes, Schumm, & Klingner, 1998). The research suggests that formal teacher leadership plays a role in teachers’ professional learning through coaching and mentorship (Scott, Cortina, & Carlisle, 2012). Gray (2012) researched professional learning communities and distributed leadership in high schools, focusing on perceptions of teachers, and suggested that further research be conducted in more high schools, middle schools, and elementary schools. By adding more research on these topics he believes that educators could further understand the similarities and differences in the perceptions of teachers across the K-12 environment.

Research on both the topic of informal professional learning and informal teacher leadership and whether they are related is not out there yet. The research has not uncovered how teachers perceive teacher leadership and its effects on their own knowledge of instructional strategies and change in instructional practices. Muijs and
Harris (2006) suggest that understanding the relationship between teacher leaders and professional learning will help leaders in the future as they make changes in curriculum and instructional strategies through teachers’ learning.

Both distributed leadership and teacher leadership have been examined in several empirical studies and theoretical articles. Spillane, Halverson, and Diamond (2004) suggested that the relationship between teacher leadership and distributed leadership theory has not been explored in depth. However, research suggested that there is a strong resonance between the empirical research in the teacher leadership literature and the theoretical perspectives provided by those who have written about distributed leadership (Donaldson, 2007; Harris, 2004; Muijs & Harris, 2006; Timperley, 2005).

There are a number of studies that focus on distributed leadership from the perspective of the principal, but few that look at this concept from the teachers’ point of view (Muijs & Harris, 2006). There is a cry for empirical research around the topics of informal teacher leadership, professional learning, and distributed leadership, and how they are related if at all (Mujis & Harris, 2006; Timperley, 2005; York-Barr & Duke, 2004). My study aligns with what these researchers are asking for because the study took place within priority schools in Michigan, where there is an enormous amount of external pressure. Muijs and Harris (2006) suggest that, “External accountability mechanisms, especially in low performing schools, put a strong burden on teachers and on senior management that makes the distribution of leadership more difficult and more risky (p. 970). Therefore, it is even more critical to look closely at these schools as it is known that distributive leadership, teacher leadership, and professional learning can have such positive effects.
CHAPTER III

METHODOLOGY

This chapter explains the methodology employed to collect empirical data within this quantitative study. Utilizing a survey design provided a numeric description of attitudes, opinions, professional learning opportunities, and teacher leadership opportunities of teachers in a sample of Michigan’s K-12 priority schools (Creswell, 2009). The specific sections included in this chapter provide an overview of the purpose and methods; context, subjects, recruitment, and consent; data collection; data analysis; and limitations.

Overview of Purpose and Methods

The key to research is aligning the best design with the problem at the heart of the research. In this case, it was critical to uncover the perceptions of Michigan’s K-12 priority school teachers around the topics of teacher leadership, and professional learning. During the course of the study, I employed a non-experimental quantitative research design. Keppel and Wickens (2004) describe non-experimental as a “study in which the groups constitute natural populations” (p. 138). In order to gather perception data from this large, natural population, a quantitative survey method was employed.

Purpose Statement and Research Questions

The overall purpose of my research was to examine the perceived changes in teachers’ knowledge and instructional practices due to formal and informal teacher leadership within both formal and informal professional development/learning activities. My study took place in Michigan’s priority schools, which are experiencing tremendous pressure to improve student achievement.
Study Context, Sample, and Recruitment

The context of my study was the teachers within Kindergarten through 12th grade priority schools in Michigan. I was looking at elementary, middle, and high schools throughout my study, allowing me to compare data between and among school levels.

During the course of this study the email addresses of many core content teachers in K-12 within each priority school were easily identified via their schools’ website. Through a search of websites, 740 teachers in 35 schools were identified from the priority schools list of the 2011-2012 school year.

In order to gain access to the priority school teachers in Michigan, I utilized public information from each school’s website. Electronic mail addresses were collected from these sites to compile the list and the survey link was sent directly to the teachers. When teachers entered the link to the electronic survey they first had to read the consent form and clicked “yes” to consent; if the individual clicked “no” they were automatically exited from the survey. Once they consented to complete the survey they became study subjects. After the completion of the survey a $100 dollar gift card to Amazon was given to one respondent anonymously selected via survey monkey’s sweepstakes department.

Data Collection

My study employed a survey specified as an electronic or web questionnaire. Creswell (2008) defines an electronic or web questionnaire as an instrument that is available through internet access on a computer. With a responded group of 89 teachers, it made data collection, storage and analysis easier. Marshall and Rossman (2011) explain that computers also allow those who might not normally respond to feel free, comfortable, and able to respond because the anonymity of taking an on-line survey.
Survey design aligns perfectly with the description of attitudes and opinions of groups of people (Creswell, 2009). My survey was created around the purpose and the questions of my study. As Christian, Dillman, and Smyth (2006) suggest, it was critical to apply “visual design techniques to web surveys that can help instruct respondents to report their answers in the desired format before error messages occur” (p. 115). This helps users before they could possibly get an error message, yet another way the computer can be helpful. What this means is that any participant may skip a question or stop taking the survey at any point. Designing the survey with visual techniques in mind will hopefully increase response efficiency and decrease respondent frustration levels. I was aware of the fact that Creswell (2009) suggested it is necessary to establish validity and reliability if a new tool is utilized, and I pilot tested my survey with a small group of seven teachers. The pilot allowed me to gain insight on specific wording of questions, as well as the ease of the on-line survey tool. This was a vital component in the process of creating the best survey for the information I wished to acquire (Creswell, 2008).

**Data Types and Sources**

My survey was in the form of a six point Likert (1932) scale, including a self-administered list of questions that the participants answered (Creswell, 2008). The questions were created to reflect Creswell’s advice on this topic, that questions must have clear language without overlapping or asking the same thing in a different way.

Using a Likert (1932) scale on the survey, teachers answered questions pertaining to their perceptions of teacher leadership and professional learning. For each question, the teachers answered either on a continuum from strongly agree to strongly disagree, or a frequency continuum from annually to daily. The questions were written in a way that everyone could clearly understand, they did not discriminate, and focused on data for the
four research questions. Smyth, Dillman, Christian, and Stern (2006) explained that, “the questionnaire can be viewed as a sequence of information that is divided into interconnected groupings and sub-groupings of question content” (p. 6). It was important to focus on this idea with each question throughout the survey. These authors continued by explaining that it is just as essential to look at the non-verbal cues when designing a survey like, bold, italics, font, size, etc. If the survey is not designed and easy to read teachers will be less likely to participate. Therefore, these were all taken into consideration during the design process.

**Data Collection Procedures**

My survey was designed electronically to efficiently collect data. Further, the electronic nature also made the transition to data analysis smooth as most software or web based programs for electronic surveys provide the option of transferring the data directly into the Statistical Package for the Social Sciences (SPSS) software. This is the software that was used in the data analysis phase.

This survey was used as a cross-sectional survey, which is a one-time look at a population, which Creswell (2008) says is advantageous because it measures current attitudes. This was also helpful because it could be used to compare two or more groups, in the case of my study it was three groups (elementary, middle and high). The survey collected responses from the population of teachers in core content areas within priority schools.

As Boleman and Deal (2008) suggested, this survey feedback helps to inform the literature on teacher leadership and professional learning. Therefore, it was critical to get as many responses as possible. In order to do this everyone had six weeks to respond and two email reminders were sent to each teacher reminding them of the survey every ten to
twenty days. The initial emails as well as the two following emails were sent on different days of the week to try and collect as many survey responses as possible.

Data Analysis

Once the data was collected through the online survey tool, the basic assumptions were reviewed and proper steps taken using SPSS software to analyze the data. Frequency tables were created to explore data for demographics. Further, frequency and mean tables were created to reveal information about formal and informal professional learning, and formal and informal teacher leadership.

My survey was written to utilize what Creswell (2008) suggests, a six point Likert (1932) scale, using terms like “strongly agree” to “strongly disagree,” as well as frequency terms from “annually” to “daily” which can be considered interval. Further, to fully answer the questions posed in the research model, the data had to be analyzed using a multiple regression, which compared the perceptions of the three independent groups for research question number three. In this study, elementary, middle, and high school teachers were compared using a one-way analysis of variance (ANOVA).

Specifically, my research explored the number of respondent teachers for each teaching level, years of service categories, core-content subject area, level of education, gender, and whether or not they identify themselves as a teacher leader. For each of those categories the mean was also found. The reason this information was important was to determine if the sample’s data falls in a normal distribution range and helped to further determine if subgroups were also within a realistic range within the sample. In other words, where do the trends in the data lie and are there teachers that are outliers giving different opinions than the rest of the population. A level of significance was set
at 0.05. In the following section each of the four research question’s data analysis is explained.

**Research Question 1**

The first research question asked to what extent do teachers in Michigan’s priority schools believe that they are provided with (a) formal learning opportunities and (b) informal learning opportunities. The data collected from this research question is represented in several tables that include both the frequency and mean for both parts.

For part (a) of the question, participants were asked questions regarding formal learning opportunities. Questions which related to frequency of these opportunities were based on an interval scale with six degrees of measurement that included: 1=annually, 2=quarterly, 3=monthly, 4=weekly and 5= daily. Questions on the survey that related to different types of formal professional learning were based on an interval scale with six degrees of measurement that included: 1=strongly disagree, 2=moderately disagree, 3=somewhat disagree, 4=somewhat agree, 5=moderately agree, and 6= strongly agree.

For part (b) of the question, participants were asked questions regarding informal learning opportunities. Questions which related to frequency of these opportunities were based on an interval scale with six degrees of measurement that included: 1=annually, 2=quarterly, 3=monthly, 4=weekly and 5= daily. Questions on the survey that related to different types of informal professional learning were based on an interval scale with six degrees of measurement that included: 1=strongly disagree, 2=moderately disagree, 3=somewhat disagree, 4=somewhat agree, 5=moderately agree, and 6= strongly agree.

**Research Question 2**

The second research question asked to what extent do teachers in Michigan’s priority school believe that the (a) formal learning opportunities and formal teacher
leadership, (b) formal learning opportunities and informal teacher leadership (c) informal learning opportunities and formal teacher leadership and (d) informal learning opportunities and informal teacher leadership are impacting their knowledge and change in practice. The data collected from this research question is represented in several tables that include both the frequency and mean for both parts.

For part (a) of the question, participants were asked questions regarding formal learning activities and the impact on their teaching practice, using an interval scale with six degrees of measurement that included: 1=strongly disagree, 2=moderately disagree, 3=somewhat disagree, 4=somewhat agree, 5=moderately agree, and 6= strongly agree.

For part (b) of the question, participants were asked questions regarding informal learning activities and the impact on their teaching practice were based on an interval scale with six degrees of measurement that included: 1=strongly disagree, 2=moderately disagree, 3=somewhat disagree, 4=somewhat agree, 5=moderately agree, and 6= strongly agree.

For part (c), questions on the survey that related to the role of formal teacher leaders play, were based on an interval scale with six degrees of measurement that included: 1=strongly disagree, 2=moderately disagree, 3=somewhat disagree, 4=somewhat agree, 5=moderately agree, and 6= strongly agree.

For part (d) questions on the survey that related to the role of informal teacher leaders play were based on an interval scale with six degrees of measurement that included: 1=strongly disagree, 2=moderately disagree, 3=somewhat disagree, 4=somewhat agree, 5=moderately agree, and 6= strongly agree.
**Research Question 3**

The third research question asked to what extent participation within informal learning activities that include formal and informal teacher leadership change the perception of knowledge and change in such teachers. For each part of the question, participants were asked questions regarding informal learning activities and the impact on their teaching practice, using an interval scale with six degrees of measurement that included: 1=strongly disagree, 2=moderately disagree, 3=somewhat disagree, 4=somewhat agree, 5=moderately agree, and 6= strongly agree. This question was analyzed using a multiple regression which allowed me to maximize the predictability of change in knowledge and instructional practice of teachers in priority schools. Prior to the analysis survey questions was collapsed, renamed, and Cronbach’s alphas used to ensure consistency. The groups include formal teacher leadership, informal teacher leadership, and informal professional learning.

**Research Question 4**

The fourth research question asked how teachers’ perceptions of teacher leadership and professional learning vary by the level at which they teach. This question required an Analysis of Variance (ANOVA) to be conducted in order to compare the levels of teaching (elementary, middle, and high). Prior to the analysis survey questions were collapsed, renamed, and Cronbach’s alphas calculated to ensure consistency. For questions on the survey that related to the role of formal teacher leaders play to change practice, an interval scale with six degrees of measurement was used that included: 1=strongly disagree, 2=moderately disagree, 3=somewhat disagree, 4=somewhat agree, 5=moderately agree, and 6= strongly agree.
Summary of Data Analysis

Within Table 1 is a cross-walk table that aligns the research questions, survey questions, and the statistical analysis performed. All four of the research questions inquired about teacher’s relationships with formal or informal professional learning or formal or informal teacher leadership.
### Table 1

**Cross Walk of Data Analysis**

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Survey Questions</th>
<th>Statistical Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) To what extent do teachers in Michigan’s priority schools believe that they are provided with (a) formal learning opportunities and (b) informal learning opportunities?</td>
<td>(a) Questions 2, 3, 6, 7, 10, 11, 14, 15, 18, 19, 22, 23 (b) Questions 26, 27, 30, 31</td>
<td>Frequency Mean</td>
</tr>
<tr>
<td>2) To what extent do teachers in Michigan’s priority school believe that the (a) formal learning opportunities and formal teacher leadership, (b) formal learning opportunities and informal teacher leadership (c) informal learning opportunities and formal teacher leadership and (d) informal learning opportunities and informal teacher leadership are impacting their knowledge and change in practice?</td>
<td>(a) Questions 4 E, 8 E, 12 E, 16 E, 20 E (b) Questions 4 E, 5 C/D, 8 E, 9 C/D, 12 E, 13 C/D, 16 E, 17 C/D 20 E, 21 C/D (c) Questions 24, 25 (d) Questions 28, 29, 32, 33</td>
<td>Frequency Mean</td>
</tr>
<tr>
<td>3) To what extent does participation within informal learning activities that include formal and informal teacher leadership alter the perception of knowledge and change of instructional practices in such teachers?</td>
<td>Questions <strong>IPL/FTL</strong> (24 D, 25 C/D) <strong>IPL/ITL</strong> (20 D, 28 D, 29 C/D, 32 D, 33 C/D) Change <strong>K/P</strong> (4 A-C, 5 A/B, 8 A-C, 9 A/B, 12 A-C, 13 A/B, 16 A-C, 17 A/B, 20 A-C, 21 A/B, 24 A-C, 25 A/B, 28 A-C, 29 A/B, 32 A-C, 33 A/B)</td>
<td>Cronbach’s alpha Multiple Regression with the independent variables (Informal/Formal Teacher Leadership, Informal/Formal Professional Learning) and change of knowledge and instructional strategies as the dependent variable Frequency Mean Cronbach’s alpha ANOVA with independent variables being level (Elementary, Middle, or High) and dependent variable being teacher perceptions of teacher leadership and professional learning</td>
</tr>
<tr>
<td>4) How do teachers’ perceptions of (a) teacher leadership and (b) professional learning vary by the level at which they teach?</td>
<td>(a) Questions 24, 25, 28, 29 (b) Questions 4, 5, 8, 9, 12, 13, 16, 17, 20, 21, 24, 25, 28, 29, 32, 33</td>
<td></td>
</tr>
</tbody>
</table>

**Limitations**

Creswell (2008) speaks about limitations as being problems or weaknesses that could occur during the course of the study and should be identified ahead of time by the
researcher. It is the researcher’s charge to look at these limitations and compensate or adapt the research to decrease the effect of the limitations on the study. Further, the researcher is able to give recommendations for future studies based on these limitations. The limitations in this survey included: response bias, lack of time to complete the survey, not being able to give predictability to the entire group based on the low response rate, and no correlation of data to other studies.

Response bias can be a real problem in this type of research as Thompson and Pancak (2007) suggest the target for response rate is 85%; if the last 15% did respond differently it would not significantly alter the results. On the other hand, Creswell (2008) expresses that a response rate of 50% is considered adequate for most surveys. When the rate of response is low it is difficult to say whether or not the results would apply to the entire sample of people. This is the reason that reminders were sent that encouraged teachers to complete the survey, as well as offering a chance to win a $100 gift card.

Chapter III Summary

Within the methods chapter, specific details were shared to help outline the purpose and methods; context, subjects, recruitment, and consent; data collection; data analysis; and delimitations and limitations. These details explain how the research was conducted, as well as what was necessary after the survey data was complied. In chapter IV the results of the survey are analyzed.
CHAPTER IV

RESULTS

The purpose of chapter IV is to explore the statistical analysis of the survey tool utilized in this study. The survey tool was created to allow teachers in Michigan’s priority schools to share their perceptions of knowledge and change in instructional practice, and how different types of professional learning and/or different types of teacher leadership may play a role in that perception.

Overview of Purpose and Questions

My study was designed to uncover the perceptions of teachers in Michigan’s priority schools on the subjects of teacher leadership and professional learning. Through this study of teachers in grade Kindergarten through twelfth, perceptions based on teaching level (elementary, middle, and high) were explored. The research questions posed in the study included the following:

1. To what extent do teachers in Michigan’s priority schools believe that they are provided with (a) formal learning opportunities (b) informal learning opportunities?

2. To what extent do teachers in Michigan’s priority school believe that the (a) formal learning opportunities and formal teacher leadership, (b) formal learning opportunities and informal teacher leadership (c) informal learning opportunities and formal teacher leadership, and (d) informal learning opportunities and informal teacher leadership are impacting their knowledge and change in practice?
3. To what extent does participation within informal learning activities, that include formal and informal teacher leadership, change the perception of knowledge and change in such teachers?

4. How do teachers’ perceptions of teacher leadership and professional learning vary by the level at which they teach?

To address the posed research questions, 740 of Michigan’s K-12 priority school teachers were invited to participate in an online survey during a six-week time period in the fall semester of 2013. Of the 740 in the target population, 176 of the emails were no longer working. Therefore, 564 teachers actually received the survey. Ninety-eight individuals began the survey, but 96 actually completed the survey, which results in a 17% response rate. Because each respondent did not complete each survey question the analysis of this study is based on a varying sample size.

**Description of Data**

During the survey all participants had the ability to skip or leave any question unanswered, which causes the response rate to vary slightly for each question. As Christian, Dillman, and Smyth (2007) share, it is important to decrease the non-response rate of participants by sending follow-up reminders. For my study two follow-up emails to remind invitees of the survey were sent on different days of the week. This helped to accommodate the busy schedule of a teacher, especially during the first few months of the school year. Further, an incentive was used to capture additional teacher responses to the survey.

Within the survey there were 35 close-ended questions and one open-ended question which asked teacher to share their perspective on teacher leadership and professional learning; further, four closed-ended questions and one open-ended question
was asked to elicit demographic data including: gender, years of service, whether or not they see themselves as a teacher leader, and what subject(s) they teach.

Of the possible 740 participants, 176 emails were invalid, 96 (17%) completed the online survey, and varying responses were utilized during the analysis. By grade level the response rate of those that were solicited was 21 (22%) for elementary school teachers, 22 (23%) of middle school teachers, 46 (48%) of high school teachers, 7 (7%) teachers did not answer this question. Table 2 shows all of the demographic information collected during this study. Please notice that the numbers do not reflect the total number of respondents in all cases as these were optional questions.

Table 2

**Respondent Demographic Information (n=96)**

<table>
<thead>
<tr>
<th>Descriptors</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching assignment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary</td>
<td>21</td>
<td>23.9</td>
</tr>
<tr>
<td>Middle</td>
<td>22</td>
<td>25.0</td>
</tr>
<tr>
<td>High</td>
<td>46</td>
<td>52.3</td>
</tr>
<tr>
<td>Leadership experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formal teacher leader</td>
<td>30</td>
<td>34.1</td>
</tr>
<tr>
<td>Informal teacher leader</td>
<td>42</td>
<td>47.7</td>
</tr>
<tr>
<td>No teacher leadership</td>
<td>16</td>
<td>18.2</td>
</tr>
<tr>
<td>Years of service</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-5</td>
<td>15</td>
<td>17.0</td>
</tr>
<tr>
<td>6-15</td>
<td>32</td>
<td>36.0</td>
</tr>
<tr>
<td>16-24</td>
<td>33</td>
<td>37.0</td>
</tr>
<tr>
<td>25 or more</td>
<td>7</td>
<td>8.0</td>
</tr>
<tr>
<td>Subjects taught</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English/English Language Art</td>
<td>50</td>
<td>60.2</td>
</tr>
<tr>
<td>Math</td>
<td>29</td>
<td>34.9</td>
</tr>
<tr>
<td>Science</td>
<td>24</td>
<td>28.9</td>
</tr>
<tr>
<td>Social Studies</td>
<td>29</td>
<td>34.9</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>20</td>
<td>22.7</td>
</tr>
<tr>
<td>Female</td>
<td>68</td>
<td>77.3</td>
</tr>
</tbody>
</table>

Note: Not all respondents responded to all items.
Research Question 1

Research Question 1 sought to gather information about the extent that teachers in Michigan’s priority schools believe that they were provided with the (a) formal learning opportunities (b) informal learning opportunities.

Table 3 addresses part (a) of the question and shows whether or not teachers have had formal learning opportunities over the past three years. The findings show that 98.9% of teachers had attended building-based professional learning which is the highest ranked formal learning opportunity, followed closely by district-wide professional development at 97.8% and then by 92.7% have attended a conference or workshop. The less frequently utilized opportunity for teachers in priority schools is to work with a coach or consultant at 41.6%. The other formal learning opportunities fall somewhere in between.

Table 3

Formal Learning Opportunities

<table>
<thead>
<tr>
<th>Questions about:</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have attended at least one building-based professional development activities during the last three years?</td>
<td>86 (98.9)</td>
<td>1 (1.1)</td>
</tr>
<tr>
<td>I have attended at least one district-wide professional development training in the last three years?</td>
<td>90 (97.8)</td>
<td>2 (2.2)</td>
</tr>
<tr>
<td>I have attended at least one (workshop, conferences, and other groups) in the last three years?</td>
<td>89 (92.7)</td>
<td>7 (7.3)</td>
</tr>
<tr>
<td>I have attended at least one grade level or department meeting that includes professional development activities during the past three years?</td>
<td>76 (84.4)</td>
<td>14 (15.6)</td>
</tr>
<tr>
<td>I have participated in at least one collaborative teacher community that provides professional development activities during the past three years?</td>
<td>45 (50.6)</td>
<td>44 (49.4)</td>
</tr>
<tr>
<td>I have used a coach or consultant who provides me with professional learning opportunities during the past three years?</td>
<td>37 (41.6)</td>
<td>52 (58.4)</td>
</tr>
</tbody>
</table>

Note: Not all respondents responded to all items.
Table 4 shows information for the frequency of teachers attending formal professional learning opportunities. The questions were based on an interval scale with six degrees of measurement that included: 1=annually, 2=quarterly, 3=monthly, 4=weekly and 5= daily. Department or grade level meetings with a mean of 2.73 occur close to a monthly basis, likewise building-based professional learning has a mean of 2.70, and meeting with a coach or consultant with a mean of 2.66 both of these also occur close to a monthly basis. Further, collaborative communities with a mean of 2.17 as well as district professional learning is offered close to quarterly with a mean of 2.01. The mean for the outside professional learning is 1.61, which suggests that teachers attending conferences or workshops attend somewhere between an annual and quarterly basis.

Table 4

*Frequency of Formal Learning Opportunities*

<table>
<thead>
<tr>
<th>Questions about:</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>How often does your grade level or department hold such meetings?</td>
<td>9</td>
<td>13</td>
<td>31</td>
<td>13</td>
<td>0</td>
<td>2.73</td>
</tr>
<tr>
<td>How often do you attend such building-based professional development activities?</td>
<td>7</td>
<td>21</td>
<td>36</td>
<td>12</td>
<td>0</td>
<td>2.70</td>
</tr>
<tr>
<td>How often do you work with a coach or consultant?</td>
<td>8</td>
<td>7</td>
<td>11</td>
<td>7</td>
<td>2</td>
<td>2.66</td>
</tr>
<tr>
<td>How often do you attend such a collaborative teacher community focused on professional development?</td>
<td>15</td>
<td>10</td>
<td>10</td>
<td>6</td>
<td>0</td>
<td>2.17</td>
</tr>
<tr>
<td>How often have you attended such district-wide professional development activities within your district during the past three years?</td>
<td>27</td>
<td>29</td>
<td>20</td>
<td>4</td>
<td>0</td>
<td>2.01</td>
</tr>
<tr>
<td>How often have you attended such professional development activities outside your district during the past three years?</td>
<td>42</td>
<td>27</td>
<td>11</td>
<td>0</td>
<td>0</td>
<td>1.61</td>
</tr>
</tbody>
</table>

Note: Not all respondents responded to all items. Likert scale: Annually=1, Quarterly=2, Monthly=3, Weekly=4, Daily=5

The data in Table 5 addresses part (b) of the question and shows that 94.4% of the respondents have had conversations with colleagues that they consider to be informal
learning, and 72.1% have planned meetings with colleagues that they would consider an informal learning opportunity.

Table 5

**Informal Learning Opportunities**

<table>
<thead>
<tr>
<th>Questions about:</th>
<th>Yes (n)</th>
<th>No (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have at least one impromptu conversation with colleagues concerning changing or refining your instructional practices during the past three years?</td>
<td>84 (94.4)</td>
<td>5 (5.6)</td>
</tr>
<tr>
<td>I have had at least one planned meeting with colleagues concerning changing or refining your instructional practices (joint planning period, before or after school and the like) during the past three years?</td>
<td>62 (72.1)</td>
<td>24 (27.9)</td>
</tr>
</tbody>
</table>

Note: Not all respondents responded to all items.

Within Table 6 part (b) is addressed further with information around the frequency of informal professional learning. The questions were based on an interval scale with six degrees of measurement that included: 1=annually, 2=quarterly, 3=monthly, 4=weekly and 5= daily. With a mean of 3.78, impromptu conversations with colleagues happen close to a weekly basis. On the other hand, planning meetings with colleagues happen less frequently with a mean of 3.39, and more likely are held on a monthly basis.

Table 6

**Frequency of Informal Learning Opportunities**

<table>
<thead>
<tr>
<th>Questions about:</th>
<th>1 (%)</th>
<th>2 (%)</th>
<th>3 (%)</th>
<th>4 (%)</th>
<th>5 (%)</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>How often do you have such impromptu conversations?</td>
<td>4 (5.4)</td>
<td>10 (13.5)</td>
<td>7 (9.5)</td>
<td>30 (40.5)</td>
<td>23 (31.1)</td>
<td>3.78</td>
</tr>
<tr>
<td>How often do you have such planned meetings?</td>
<td>4 (7.4)</td>
<td>5 (9.3)</td>
<td>13 (24.1)</td>
<td>30 (55.6)</td>
<td>2 (3.7)</td>
<td>3.39</td>
</tr>
</tbody>
</table>

Note: Not all respondents responded to all items. Likert scale: Annually=1, Quarterly=2, Monthly=3, Weekly=4, Daily=5
**Research Question 2**

The second research question asked to what extent do teachers in Michigan’s priority school believe that (a) formal learning opportunities and formal teacher leadership, (b) formal learning opportunities and informal teacher leadership, (c) informal learning opportunities and formal teacher leadership and (d) informal learning opportunities and informal teacher leadership are impacting their knowledge and change in practice. The data collected from this research question is represented in several tables that include both the frequency and mean for both parts.

Represented in Table 7, part (a) is addressed by looking at different types of formal professional learning. The questions were based on an interval scale with six degrees of measurement that included: 1=strongly disagree, 2=moderately disagree, 3=somewhat disagree, 4=somewhat agree, 5=moderately agree, and 6= strongly agree. Collaborative teacher groups and department meetings/grade level are run somewhat frequently by informal leaders, with a mean of 4.77 and 4.73 indicating moderate agreement. Building-based means are slightly lower at 4.30, but also sometimes run by informal leaders. The means of outside and district-wide activities are both 4.00, suggesting they are sometimes run by informal leaders.
Table 7

**Formal Learning Opportunities and Formal Teacher Leadership**

<table>
<thead>
<tr>
<th>Questions about:</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal learning opportunities and formal teacher leaders</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td></td>
</tr>
<tr>
<td><strong>During my collaborative teacher community meeting, I always:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.77</td>
</tr>
<tr>
<td>Find the session is run by informal teacher leaders.</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>12</td>
<td>16</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0)</td>
<td>(2.3)</td>
<td>(7.0)</td>
<td>(27.9)</td>
<td>(37.2)</td>
<td>(25.6)</td>
<td></td>
</tr>
<tr>
<td><strong>During grade level or department meetings, I always:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.73</td>
</tr>
<tr>
<td>Find the session is run by informal teacher leaders.</td>
<td>1</td>
<td>2</td>
<td>8</td>
<td>18</td>
<td>22</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1.3)</td>
<td>(2.7)</td>
<td>(10.7)</td>
<td>(24.0)</td>
<td>(29.3)</td>
<td>(32.0)</td>
<td></td>
</tr>
<tr>
<td><strong>During building-based professional development activities, I always:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.30</td>
</tr>
<tr>
<td>Find the session is run by informal teacher leaders.</td>
<td>5</td>
<td>5</td>
<td>8</td>
<td>27</td>
<td>27</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(5.7)</td>
<td>(5.7)</td>
<td>(9.1)</td>
<td>(30.7)</td>
<td>(30.7)</td>
<td>(18.2)</td>
<td></td>
</tr>
<tr>
<td><strong>During such district-wide professional development activities, I always:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.00</td>
</tr>
<tr>
<td>Find the session is run by informal teacher leaders.</td>
<td>6</td>
<td>7</td>
<td>9</td>
<td>36</td>
<td>17</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(6.9)</td>
<td>(8.0)</td>
<td>(10.3)</td>
<td>(41.4)</td>
<td>(19.5)</td>
<td>(13.8)</td>
<td></td>
</tr>
<tr>
<td><strong>During such professional development activities outside my district I always:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.00</td>
</tr>
<tr>
<td>Find the session is run by informal teacher leaders.</td>
<td>6</td>
<td>6</td>
<td>14</td>
<td>25</td>
<td>24</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(7.1)</td>
<td>(7.1)</td>
<td>(16.5)</td>
<td>(29.4)</td>
<td>(28.2)</td>
<td>(11.8)</td>
<td></td>
</tr>
</tbody>
</table>

Note: Not all respondents responded to all items. Likert Scale: Strongly disagree=1, Moderately disagree=2, Somewhat disagree=3, Somewhat agree=4, Moderately agree=5, Strongly agree=6

Part (b) of the question is addressed in Table 8 and the survey questions were based on an interval scale with six degrees of measurement that included: 1=strongly disagree, 2=moderately disagree, 3=somewhat disagree, 4=somewhat agree, 5=moderately agree, and 6= strongly agree. As all of the means for collaboration after a professional learning experience range from a mean 4.66 (after a collaborative session I collaborate to implement change in my classroom) to a mean of 3.88 (after district-wide, I help others) this suggests that teachers somewhat to moderately agree that collaboration either giving help or receiving help is something they do after a professional learning session.
Table 8

Formal Learning Opportunities and Informal Teacher Leadership

<table>
<thead>
<tr>
<th>Questions about:</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal learning opportunities and informal teacher leadership</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>Mean</td>
</tr>
<tr>
<td>After I attend a professional development activity outside my district, I always:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collaborate with colleague(s) to implement new instructional practices in my classroom.</td>
<td>2</td>
<td>3</td>
<td>7</td>
<td>22</td>
<td>33</td>
<td>18</td>
<td>4.59</td>
</tr>
<tr>
<td>Collaborate with colleague(s) to help them implement new instructional practices in their classroom.</td>
<td>4</td>
<td>8</td>
<td>7</td>
<td>25</td>
<td>28</td>
<td>13</td>
<td>4.22</td>
</tr>
<tr>
<td>After I attend a district-wide professional development activity, I always:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collaborate with colleague(s) to implement new instructional practices in my classroom.</td>
<td>5</td>
<td>10</td>
<td>13</td>
<td>23</td>
<td>24</td>
<td>12</td>
<td>4.00</td>
</tr>
<tr>
<td>Collaborate with colleague(s) to help them implement new instructional practices in their classroom.</td>
<td>7</td>
<td>12</td>
<td>13</td>
<td>22</td>
<td>21</td>
<td>13</td>
<td>3.88</td>
</tr>
<tr>
<td>After I attend a building-based professional development activity, I always:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collaborate with colleague(s) to implement new instructional practices in my classroom.</td>
<td>4</td>
<td>5</td>
<td>15</td>
<td>25</td>
<td>27</td>
<td>13</td>
<td>4.18</td>
</tr>
<tr>
<td>Collaborate with colleague(s) to help them implement new instructional practices in their classroom.</td>
<td>6</td>
<td>8</td>
<td>13</td>
<td>28</td>
<td>21</td>
<td>13</td>
<td>4.00</td>
</tr>
<tr>
<td>After I attend a grade level or department meeting, I always:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collaborate with colleague(s) to implement new instructional practices in my classroom.</td>
<td>4</td>
<td>0</td>
<td>9</td>
<td>20</td>
<td>26</td>
<td>17</td>
<td>4.51</td>
</tr>
<tr>
<td>Collaborate with colleague(s) to help them implement new instructional practices in their classroom.</td>
<td>5</td>
<td>1</td>
<td>6</td>
<td>24</td>
<td>25</td>
<td>16</td>
<td>4.49</td>
</tr>
<tr>
<td>After I attend my collaborative teacher community meeting, I always:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collaborate with colleague(s) to implement new instructional practices in my classroom.</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>17</td>
<td>12</td>
<td>11</td>
<td>4.66</td>
</tr>
<tr>
<td>Collaborate with colleague(s) to help them implement new instructional practices in their classroom.</td>
<td>0</td>
<td>1</td>
<td>6</td>
<td>15</td>
<td>12</td>
<td>10</td>
<td>4.55</td>
</tr>
</tbody>
</table>

Note: Not all respondents responded to all items. Likert Scale: Strongly disagree=1, Moderately disagree=2, Somewhat disagree=3, Somewhat agree=4, Moderately agree=5, Strongly agree=6

Table 9 expresses the data collected for part (c) of the question. The survey questions used to address this question were based on an interval scale with six degrees of measurement that included: 1=strongly disagree, 2=moderately disagree, 3= somewhat disagree, 4=somewhat agree, 5=moderately agree, and 6= strongly agree. The mean for
each of these informal learning opportunities with formal teacher leaders vary slightly from a mean of 5.32 to 4.77, suggesting that teachers moderately agree that working with a coach or consultant is beneficial to their practice as a teacher.

Table 9

Informal Learning Opportunities and Formal Teacher Leadership

<table>
<thead>
<tr>
<th>Questions about:</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Informal learning opportunities and formal teacher leadership</td>
<td>(%)</td>
<td>(%)</td>
<td>(%)</td>
<td>(%)</td>
<td>(%)</td>
<td>(%)</td>
<td></td>
</tr>
<tr>
<td><strong>During my work with a coach or consultant, I always:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus on how to improve student learning outcomes.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>11</td>
<td>8</td>
<td>18</td>
<td>5.19</td>
</tr>
<tr>
<td>Learn about new instructional strategies.</td>
<td>(0.0)</td>
<td>(0.0)</td>
<td>(0.0)</td>
<td>(29.7)</td>
<td>(21.6)</td>
<td>(48.6)</td>
<td>4.89</td>
</tr>
<tr>
<td>Find the session meets my individual needs to improve my teaching practices.</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>7</td>
<td>10</td>
<td>14</td>
<td>4.83</td>
</tr>
<tr>
<td>Have opportunities to engage in reflection on new instructional practices.</td>
<td>(2.8)</td>
<td>(2.8)</td>
<td>(8.3)</td>
<td>(19.4)</td>
<td>(27.8)</td>
<td>(38.9)</td>
<td>4.77</td>
</tr>
<tr>
<td><strong>After I work with a coach or consultant, I always:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reflect on how the information might be applied in my classroom.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>13</td>
<td>18</td>
<td>5.32</td>
</tr>
<tr>
<td>Collaborate with colleague(s) to implement new instructional practices in my classroom.</td>
<td>(0.0)</td>
<td>(0.0)</td>
<td>(0.0)</td>
<td>(16.2)</td>
<td>(21.1)</td>
<td>(48.6)</td>
<td>4.86</td>
</tr>
<tr>
<td>Change my instructional practice(s) based on what I have learned</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>4</td>
<td>15</td>
<td>11</td>
<td>4.81</td>
</tr>
<tr>
<td>Collaborate with colleague(s) to help them implement new instructional practices in their classroom.</td>
<td>(2.7)</td>
<td>(0.0)</td>
<td>(10.8)</td>
<td>(24.3)</td>
<td>(37.8)</td>
<td>(24.3)</td>
<td>4.68</td>
</tr>
</tbody>
</table>

Note: Not all respondents responded to all items. Likert Scale: Strongly disagree=1, Moderately disagree=2, Somewhat disagree=3, Somewhat agree=4, Moderately agree=5, Strongly agree=6

Within Table 10 part (d) of the question is addressed. The survey items used to address this question were based on an interval scale with six degrees of measurement that included: 1=strongly disagree, 2=moderately disagree, 3=somewhat disagree, 4=somewhat agree, 5=moderately agree, and 6= strongly agree. The informal learning opportunities with informal teacher leaders means ranged from 5.06 to 4.50 which inform us that teachers moderately agree these opportunities are beneficial to their instructional practices. There was one exception with a mean of 4.44 which would suggest that
teachers somewhat agree that when they have a planned meeting with a colleague that they learn something to improve their instruction.

Table 10

Informal Learning Opportunities and Informal Teacher Leadership

<table>
<thead>
<tr>
<th>Questions about:</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Informal learning opportunities and formal teacher leadership</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>Mean</td>
</tr>
<tr>
<td><strong>During such impromptu conversations with a colleague, I always:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus on how to improve student learning outcomes.</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>26</td>
<td>29</td>
<td>25</td>
<td>4.88</td>
</tr>
<tr>
<td>Find the session meets my individual needs to improve my teaching practices.</td>
<td>0</td>
<td>1</td>
<td>8</td>
<td>30</td>
<td>25</td>
<td>19</td>
<td>4.64</td>
</tr>
<tr>
<td>Learn about new instructional strategies.</td>
<td>0</td>
<td>2</td>
<td>10</td>
<td>29</td>
<td>29</td>
<td>14</td>
<td>4.51</td>
</tr>
<tr>
<td>Have opportunities to engage in reflection on new instructional practices.</td>
<td>1</td>
<td>2</td>
<td>8</td>
<td>31</td>
<td>27</td>
<td>15</td>
<td>4.50</td>
</tr>
<tr>
<td><strong>After I have an impromptu conversation with a colleague, I always:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reflect on how the information might be applied in my classroom.</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>30</td>
<td>27</td>
<td>25</td>
<td>4.88</td>
</tr>
<tr>
<td>Collaborate with colleague(s) to implement new instructional practices in my classroom.</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>29</td>
<td>26</td>
<td>20</td>
<td>4.61</td>
</tr>
<tr>
<td>Change my instructional practice(s) based on what I have learned</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>35</td>
<td>27</td>
<td>15</td>
<td>4.56</td>
</tr>
<tr>
<td>Collaborate with colleague(s) to help them implement new instructional practices in their classroom.</td>
<td>1</td>
<td>3</td>
<td>10</td>
<td>23</td>
<td>28</td>
<td>19</td>
<td>4.56</td>
</tr>
<tr>
<td><strong>During such work with a colleague in planned meetings, I always:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus on how to improve student learning outcomes.</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>14</td>
<td>17</td>
<td>29</td>
<td>5.06</td>
</tr>
<tr>
<td>Find the session meets my individual needs to improve my teaching practices.</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>18</td>
<td>22</td>
<td>16</td>
<td>4.66</td>
</tr>
<tr>
<td>Have opportunities to engage in reflection on new instructional practices.</td>
<td>2</td>
<td>3</td>
<td>7</td>
<td>13</td>
<td>20</td>
<td>19</td>
<td>4.61</td>
</tr>
<tr>
<td>Learn about new instructional strategies.</td>
<td>2</td>
<td>3</td>
<td>6</td>
<td>22</td>
<td>16</td>
<td>15</td>
<td>4.44</td>
</tr>
<tr>
<td><strong>After I work with a colleague in a planning meeting, I always:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reflect on how the information might be applied in my classroom.</td>
<td>1</td>
<td>0</td>
<td>5</td>
<td>11</td>
<td>22</td>
<td>25</td>
<td>5.00</td>
</tr>
<tr>
<td>Collaborate with colleague(s) to implement new instructional practices in my classroom.</td>
<td>2</td>
<td>0</td>
<td>7</td>
<td>15</td>
<td>20</td>
<td>20</td>
<td>4.73</td>
</tr>
<tr>
<td>Change my instructional practice(s) based on what I have learned</td>
<td>2</td>
<td>0</td>
<td>6</td>
<td>16</td>
<td>23</td>
<td>17</td>
<td>4.70</td>
</tr>
<tr>
<td>Collaborate with colleague(s) to help them implement new instructional practices in their classroom.</td>
<td>2</td>
<td>1</td>
<td>8</td>
<td>13</td>
<td>21</td>
<td>19</td>
<td>4.61</td>
</tr>
</tbody>
</table>

Note: Not all respondents responded to all items. Likert Scale: Strongly disagree=1, Moderately disagree=2, Somewhat disagree=3, Somewhat agree=4, Moderately agree=5, Strongly agree=6
Research Question 3

The third research question asks to what extent does participation within informal learning activities that include formal and informal teacher leadership change the perception of knowledge and change in such teacher. The data collected for this question is represented in Tables 11 and 12, and was analyzed using both a Cronbach’s alpha and a multiple regression.

Before performing the multiple regression represented in Table 12, a Cronbach’s alpha was calculated which collapsed three items into the informal professional learning and formal teacher leadership category, seven items into informal professional learning and informal teacher leadership, and 40 items to create the perception of change in knowledge and practice of instructional strategies. Tvakol and Dennick (2011) share that the Cronbach’s alpha analysis is expressed in a number between 0 and 1, and acceptable values are typically above 0.700. My results revealed: that informal professional learning and formal teacher leadership (.647), informal professional learning and informal teacher leadership (.887), and perception of knowledge and change of instructional practice (.947). With informal professional learning and formal teacher leadership being below the recommended threshold, researchers Tvakol and Dennick share that with the number of question items being low, three in this case, it is still safe to proceed with a level slightly below the 0.700 range. Please see Table 11 for the Cronbach’s alpha analysis.
Table 11

*Cronbach’s Alpha: Types of Professional Learning and Teacher Leadership*

<table>
<thead>
<tr>
<th>New variable used in further analyses</th>
<th>Collapsed items in question</th>
<th>Valid N (%)</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Informal Professional Learning and Formal Teacher Leadership</td>
<td>3</td>
<td>36 (36.7)</td>
<td>.647</td>
</tr>
<tr>
<td>Informal Professional Learning and Informal Teacher Leadership</td>
<td>7</td>
<td>33 (33.7)</td>
<td>.887</td>
</tr>
<tr>
<td>Perception of knowledge and change of instructional practices</td>
<td>40</td>
<td>16 (16.3)</td>
<td>.947</td>
</tr>
</tbody>
</table>

Note: Not all respondents responded are included in the Cronbach’s alpha if they did not respond to an item.

In order to determine if informal activities with either formal or informal teacher leadership influence change in knowledge and practice, a multiple regression analysis was completed. The independent variables include informal professional learning, formal teacher leadership, and informal teacher leadership. The dependent variable is perception of change in knowledge and instructional practices.

The assumptions of independence, normality, homoscedasticity, and linearity were met. This was done by checking the scatterplots as Shavelson (1996) suggests, as well as the fact that data was collected individually and anonymously from each participant. Table 12 displays unstandardized coefficients for *perceptions of change in knowledge and instructional practice* and the coefficient of determination ($R^2$). The multiple regression analysis suggests that 72% of the variability in the *perceived change in knowledge and instructional practice*, can be explained by the two factors of informal professional learning with informal teacher leadership and formal teacher leadership.
Table 12

Regression Analysis: Perceptions of Change in Knowledge and Instructional Practice

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>47.495</td>
<td>16.348</td>
</tr>
<tr>
<td>Informal Professional Learning and Informal Teacher Leadership</td>
<td>2.788</td>
<td>0.366</td>
</tr>
<tr>
<td>Informal Professional Learning and Formal Teacher Leadership</td>
<td>3.345</td>
<td>1.104</td>
</tr>
<tr>
<td>R-Squared</td>
<td>0.720</td>
<td></td>
</tr>
</tbody>
</table>

Within the analysis the coefficients are both positive, suggesting that they add value to the change in knowledge and instructional practice. Holding other variables constant a one unit increase in informal professional learning with informal teacher leadership will increase the perceived change of knowledge and instructional practice by 2.788 units. Likewise, holding other variables constant, a one unit increase in informal professional learning with formal teacher leadership will increase the perceived change of knowledge and instructional practice by 3.345 units. The findings in Table 12 suggest that formal teacher leadership plays a more significant role than informal teacher leadership, although both have an impact.

Research Question 4

The fourth research question asked how do teachers’ perceptions of teacher leadership and professional learning vary by the level at which they teach. This question required an Analysis of Variance (ANOVA) to be conducted in order to compare the levels of teaching (elementary, middle, and high). This is the best approach as we have three independent variables within the levels of teaching and two dependent variables as the perception of teacher leadership and professional learning. Two separate analyses were run with the independent variable and each dependent variable. This type of analysis requires a deeper look at variation within the groups and variation between the
groups, and for this Shavelson (1996) suggests that a one-way ANOVA is the best analysis to utilize.

Prior to the analysis survey questions were collapsed, renamed, and Cronbach’s alphas was calculated to ensure consistency for both teacher leadership and professional learning, collapsing 16 question items into the teacher leadership category and 69 question items to create professional learning. With both teacher leadership (.880) and professional learning (.966) being within the acceptable range above 0.700, it is safe to move on to the ANOVA analysis. Please see Table 13 for the Cronbach’s alpha analysis results.

Table 13

*Cronbach’s Alpha: Professional Learning and Teacher Leadership*

<table>
<thead>
<tr>
<th>New variable used in further analyses</th>
<th>Collapsed items in question</th>
<th>Valid N (%)</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher Leadership</td>
<td>16</td>
<td>33 (33.7)</td>
<td>.880</td>
</tr>
<tr>
<td>Professional Learning</td>
<td>69</td>
<td>15 (15.3)</td>
<td>.966</td>
</tr>
</tbody>
</table>

Note: Not all respondents responded are included in the Cronbach’s alpha if they did not respond to an item.

Within Table 14 the ANOVA analysis unveiled a statistically significant difference among levels (elementary, middle, and high) for teacher leadership groups, with a p-value of .003 and the significance level being set at 0.05. Further analysis was employed through a Bonferroni post hoc comparison to determine where the differences lie; these results can be seen in Table 15.

Table 14

*ANOVA Results for Teacher Leadership*

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSa(between)</td>
<td>6060.715</td>
<td>2</td>
<td>3030.357</td>
<td>6.368</td>
<td>.003</td>
</tr>
<tr>
<td>SSa(within)</td>
<td>38544.428</td>
<td>81</td>
<td>475.857</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Computed using alpha =.05
Table 15 illustrates that holding the high school variable constant, there was no significant difference between elementary and middle levels for teacher leadership with a p-value of 1.000 and an alpha set at .05. However, there is a significant difference while holding the middle level variable constant, between elementary and high level with a p-value of .047. Elementary level teachers reported a higher average mean, for the questions related to teacher leadership, of 4.87 as opposed to high level teachers with a mean of 4.83. Likewise, there is a statistically significant difference while holding the elementary level constant between middle and high levels with a p-value of .005. High level teachers reported a greater average mean, for the questions related to teacher leadership, of 4.83 as opposed to middle level teachers with a mean of 4.75.

Table 15

*Computed using alpha =.05

Table 16 shows the average mean for the four questions with 16 items that were collapse to create the teacher leadership category. These were questions number 24, 25, 28, and 29 on the survey.
Using an alpha of .05, Table 17 shows that a statistically significant difference among groups for professional learning resulted after the analysis of variance was conducted, with a p-value of .006. Further analysis was required through a Bonferroni post hoc comparison to determine where the differences are within the data.

Table 17  
**ANOVA Results for Professional Learning**

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS(between)</td>
<td>51167.246</td>
<td>2</td>
<td>25583.623</td>
<td>5.470</td>
<td>.006</td>
</tr>
<tr>
<td>SS(within)</td>
<td>397517.651</td>
<td>85</td>
<td>4676.678</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Computed using alpha =.05

Displayed in Table 18 are the findings that holding the high level constant that there was no significant difference between elementary and middle levels for professional learning with a p-value of 1.000 and an alpha set at .05. Conversely, there is a significant difference while holding the middle level constant between elementary and high levels, with a p-value of .045. Elementary level teachers reported a higher average mean, for the questions related to professional learning, of 4.85 as opposed to high level teachers with a mean of 4.43. Similarly there is a statistically significant difference while holding the elementary level constant between middle and high levels with a p-value of .016.
Middle level teachers reported a greater average mean, for the questions related to professional learning, of 4.62 as opposed to high level teachers with a mean of 4.43.

Table 18

*Bonferroni for Professional Learning by Level*

<table>
<thead>
<tr>
<th>Level</th>
<th>Level</th>
<th>Mean Difference</th>
<th>Standard Error</th>
<th>P</th>
<th>Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Upper</td>
</tr>
<tr>
<td>Elementary</td>
<td>Middle</td>
<td>-6.16450</td>
<td>20.86325</td>
<td>1.00</td>
<td>-57.1184</td>
</tr>
<tr>
<td>Elementary</td>
<td>High</td>
<td>44.89206</td>
<td>18.07277</td>
<td>.045</td>
<td>.7533</td>
</tr>
<tr>
<td>Middle</td>
<td>High</td>
<td>51.05657</td>
<td>179052</td>
<td>.016</td>
<td>7.6071</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>94.5060</td>
</tr>
</tbody>
</table>

*Computed using alpha = .05

The results shown in Table 19 report what differences were found between the various levels of teaching elementary, middle and high. Sixteen questions were collapsed to create the professional learning category. The questions analyzed from the survey include numbers four, five, eight, nine, 12, 13, 16, 17, 20, 21, 24, 25, 28, 29, 32, and 33.
Table 19

_Professional Learning Differences by Level_

<table>
<thead>
<tr>
<th>Questions about: Teacher Leadership</th>
<th>Elementary Level Average mean</th>
<th>Middle Level Average mean</th>
<th>High Level Average mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>During professional development activities outside my district, I always:</td>
<td>4.87</td>
<td>4.69</td>
<td>4.50</td>
</tr>
<tr>
<td>After I attend a professional development activity outside my district, I always:</td>
<td>5.16</td>
<td>4.70</td>
<td>4.59</td>
</tr>
<tr>
<td>During district-wide professional development activities, I always:</td>
<td>4.54</td>
<td>4.18</td>
<td>3.77</td>
</tr>
<tr>
<td>After I attend a district-wide professional development activity, I always:</td>
<td>4.95</td>
<td>4.19</td>
<td>3.83</td>
</tr>
<tr>
<td>During building-based professional development activities, I always:</td>
<td>4.64</td>
<td>4.32</td>
<td>4.01</td>
</tr>
<tr>
<td>After I attend a building-based professional development activity, I always:</td>
<td>4.87</td>
<td>4.39</td>
<td>3.96</td>
</tr>
<tr>
<td>During grade level or department meetings, I always:</td>
<td>4.62</td>
<td>4.44</td>
<td>4.38</td>
</tr>
<tr>
<td>After I attend a grade level or department meeting, I always:</td>
<td>4.86</td>
<td>4.62</td>
<td>4.35</td>
</tr>
<tr>
<td>During my collaborative teacher community meeting, I always:</td>
<td>5.05</td>
<td>4.84</td>
<td>4.70</td>
</tr>
<tr>
<td>After I attend my collaborative teacher community meeting, I always:</td>
<td>5.05</td>
<td>4.93</td>
<td>4.53</td>
</tr>
<tr>
<td>During work with a coach or consultant, I always:</td>
<td>4.81</td>
<td>4.57</td>
<td>5.44</td>
</tr>
<tr>
<td>After I work with a coach or consultant, I always:</td>
<td>5.20</td>
<td>4.50</td>
<td>5.08</td>
</tr>
<tr>
<td>During such impromptu conversations with a colleague, I always:</td>
<td>4.65</td>
<td>4.99</td>
<td>4.43</td>
</tr>
<tr>
<td>After I have an impromptu conversation with a colleague, I always:</td>
<td>4.83</td>
<td>4.94</td>
<td>4.41</td>
</tr>
<tr>
<td>During such work with a colleague in planned meetings, I always:</td>
<td>4.70</td>
<td>4.94</td>
<td>4.48</td>
</tr>
<tr>
<td>After I work with a colleague in a planned meeting, I always:</td>
<td>4.97</td>
<td>4.80</td>
<td>4.64</td>
</tr>
</tbody>
</table>

Note: Not all respondents responded to all items.
Chapter IV Summary

The details in Chapter IV present the findings of this study regarding professional learning and teacher leadership. Chapter V will offer an in-depth discussion covering the findings within this study, how they relate back to the previous research, and the recommendations for future research to be conducted around these themes. The final piece in Chapter V includes suggestions to administrators conducting professional learning activities and developing models of teacher leadership within their schools or districts.
CHAPTER V

DISCUSSION

Within Chapter II the research for professional learning and teacher leadership was explored. The search suggests that the traditional conferences or workshop sessions without any follow do not create sustainable change in knowledge and practice (Bredeson & Scribner, 2000; Frey & Fisher, 2009). The research further suggest that professional learning with follow up collaborative discussions, conversations, or coaching sessions can create changes in knowledge and practice (Bredeson & Scribner, 2000; DuFour & Marzano, 2012; Harrison & Killion, 2007).

Research prior to this study described the benefits of teacher leadership and the benefits of effective professional learning. However, there has been a gap in the research regarding any influence on teachers’ change in knowledge and practice. Further, there were questions whether a combination of the two made a difference, rather than teacher leadership and professional learning being two separate entities. Therefore this study sought to delve into the perception of teachers regarding these issues, specifically asking those teachers located in priority schools in Michigan to share their opinions. These teachers are scrutinized under a microscope to make gains quickly within a set of strict guidelines enforced by the state. A huge piece of the guidelines include changing the leadership model and planned professional learning experiences for the teachers.

Summary of Major Results

The major findings presented in this section are based on the “voice” of 89 priority school teachers in grades K-12 who completed the survey. In order to gain further insight, demographic questions were asked within the survey around: level of teaching, gender, years of service, content of teaching, and leadership experience (all
outlined in Table 2 within Chapter IV). While the majority of responses came from high school teachers, the actual group that participated at the highest percentage, based on the number invited, was middle school teachers. The makeup of the group was approximately three quarters females and one quarter males. The years of service ranged from 1 to 40 years of service, while the average years of service were 14.5 years. When teachers identified the subject(s) they teach, English language arts was the highest content area. This is influenced by the number of elementary teachers that participated due to the fact that most if not all of the elementary participants teach English language arts. Teachers were questioned whether they identified themselves as a leader or not, and just less than half roughly 48% said they were informal leaders, 34% identified themselves as formal leaders, and 18% said they would not consider themselves to be a leader. The following results are organized first by the formal learning activities that teachers engage in from most frequent to least frequent, and then informal learning activities are shared in order from most frequent to less frequent.

**Grade-Level or Department**

Data was collected on a grade-level or department meetings that included professional learning activities, and roughly 84% of teachers responded that they had participated in this type of professional learning. They also reported that this happens typically on a monthly basis. During these sessions the 61% moderately to strongly agreed that they focus on how to improve student learning outcomes, 61% moderately to strongly agreed that the session was run by an informal teacher leader, 51% moderately to strongly agreed that they had time to reflect on new instructional practice, 45% moderately to strongly agreed that the session met their individual needs to improve teaching practice, and 42% moderately to strongly agreed that they learned about new
instructional strategies. After these meetings, 62% moderately to strongly agreed that they reflected on how the information might be applied in their classroom, 57% moderately to strongly agreed that they collaborated with colleagues to implement new instruction strategies within their own classroom, 54% moderately to strongly agreed that they help within their colleague’s classrooms to implement new instructional strategies, and 47% moderately to strongly agreed that after these meetings they would change their instructional practices based on new learning.

**Building-Based**

Regarding building-based professional learning opportunities, nearly 99% of the teachers responded that they had attended a building-based learning opportunity in the past three years. These happened fairly consistently on a monthly basis. During these sessions 61% of teachers moderately to strongly agreed that they focused on how to improve student learning outcomes during these sessions, 49% moderately to strongly agreed that the session was run by informal leaders, 42% moderately to strongly agreed that the opportunity helped them to learn about a new instructional strategy, 42% moderately to strongly agreed that they had time to reflect on the new instructional practice, and 33% moderately to strongly agreed that the session met their individual needs to improve teaching. After the building-based professional learning, 61% moderately to strongly agreed that they reflected on how they might apply the new strategy within their classroom, 45% percent moderately to strongly agreed that they change their practice based on the new learning, 45% moderately to strongly agree that they collaborate with colleagues to help implement the new strategy within their own classroom, and 38% moderately to strongly agree they help someone else to implement the strategy within their colleague’s classroom.
Coach or Consultant

Almost 42% of teachers shared that they had worked with a coach or consultant during the past three years who provided them with a professional learning experience; this type of experience was reported to happen on a monthly basis. During this type of session, 70% moderately to strongly agreed that they focused on improving student outcomes, 68% moderately to strongly agreed that they learned about instructional strategies, 67% found they moderately to strongly agreed the session met their individual needs to improve teaching practices, 66% moderately to strongly agreed they had time to reflect on new instructional strategies they were learning about. After these meetings, 84% moderately to strongly agreed they reflect on how the new information can be applied in their classroom, 70% moderately to strongly agreed to collaborate to make changes within their own classroom, 70% moderately to strongly agreed they changed instructional practices based on the new learning, and 62% said they moderately to strongly agreed they would help colleagues to implement the changes in their colleague’s classrooms.

Collaborative Teacher Community

Nearly 51% acknowledged that they participated in a collaborative teacher community or professional learning community during the past three years. The results suggested that they meet within these communities on a quarterly basis. During these meetings, 68% of teachers moderately to strongly agreed that the learning focused on how to improve student outcomes, 66% moderately to strongly agreed they engaged in reflection of new instructional strategies, 63% moderately to strongly agreed these sessions are run by informal teacher leaders, 59% moderately to strongly agreed that the focus was on learning about new instructional strategies, and 50% moderately to strongly...
agreed the sessions meet their individual learning needs. After these community meetings, 68% moderately to strongly agreed that they reflect on how the new information can be applied in their classroom, 52% of them moderately to strongly agreed they changed instructional practices based on the new learning, 52% moderately to strongly agreed that they collaborated to make instructional changes within their own classroom, and 50% moderately to strongly agreed they helped a colleagues to implement the changes in their classrooms.

**District-Wide**

The next group of questions focused on district-wide professional learning. In this section nearly 98% of participants had been involved in this type of professional learning during the past three years. Based on the responses, these opportunities are offered quarterly in their districts. During such opportunities, 49% of teachers moderately to strongly agreed they had focused on student learning outcomes, 40% moderately to strongly agreed it gave them opportunities to reflect on the new learning, 36% moderately to strongly agreed that they found that the experience enhanced their knowledge about instructional strategies, 33% moderately to strongly believed that these sessions were run by informal teacher leaders, and 25% moderately to strongly agreed it met their own learning needs. After attending these sessions, the 60% moderately to strongly agreed that they reflected on how this new learning could be applied in their classrooms, 41% moderately to strongly agreed that the new knowledge helped to change their practice, 41% moderately to strongly believed that they would work with colleagues to help implement the new strategies in their own classroom, and 39% moderately to strongly that they would collaborate with colleagues to help a colleague implement the new instructional practices in the colleague’s classrooms.
**Outside Conferences or Workshops**

The survey focused on different types of professional learning, and within those questions it asked about how teacher leadership does or does not affect the experience. The first set of questions in the survey asked about experiences outside the district like a conference or workshop, and 93% had attended one of these sessions during the past three years. They reported that this happened at least annually, and for some, quarterly throughout the year. During such professional learning, 73% of teachers moderately to strongly agreed the experience helped them focus on student learning outcomes, 71% moderately to strongly agreed that the experience enhanced their knowledge about instructional strategies, 61% moderately to strongly believed the experience gave them opportunities to reflect on the new learning, 53% moderately to strongly thought it met their own learning needs, and 40% moderately to strongly agreed that these sessions were run by informal teacher leaders. After attending these sessions, 89% moderately to strongly agreed they reflected on how this new learning could be applied in their classroom, 66% moderately to strongly agreed that their practice changes were based on the new knowledge, 60% moderately to strongly agreed that they would collaborate to make instructional changes within their own classroom, and 48% of the teachers moderately to strongly agreed they would collaborate to help a colleague make changes to instructional practices.

**Impromptu Conversations**

Nearly all teachers, 94%, disclosed that they have impromptu conversations with colleagues concerning change in their own instructional practices during the past three years. This type of conversation seems to be happening on a weekly basis. During these encounters, 64% of teachers moderately to strongly agreed that they discussed improving
student outcomes, 53% moderately to strongly agreed that the session met their individual needs, 51% moderately to strongly agreed that they learned about instructional strategies, and 50% moderately to strongly agreed that they had time to reflect on these new instructional strategies they were learning about. After these discussions, 62% moderately to strongly agreed that they reflect on how the new information can be applied in their classroom, 56% of teachers moderately to strongly agreed collaborated to help colleague’s implement instructional change, 55% moderately to strongly agreed they were being helped by colleagues to implement the changes in their own classroom, and 50% found they moderately to strongly agreed they had changed instructional practices based on the new learning.

**Colleague Meetings**

Roughly 72% of students shared that they had at least one planned meeting with a colleague concerning changing or refining instructional practices within their classroom during the past three years. This type of conversation seems to be happening on a monthly basis. During these sessions 72% of teachers moderately to strongly agreed that they are focusing on how to improve student learning outcomes, 61% moderately to strongly agreed that they reflect on new instructional practices, 59% moderately to strongly found that this type of learning met their individual needs to improve their teaching practice, 48% of teachers moderately to strongly agree that they are learning about new instructional strategies. After these discussions, 74% moderately to strongly agreed that they reflect on how the new information can be applied in their classroom, 63% moderately to strongly that they change instructional practices based on the new learning, 63% moderately to strongly agreed they were being helped by colleagues to
implement the changes in their own classrooms, and 63% moderately to strongly agreed they collaborated to help a colleague.

Open-ended Responses

The survey contained one open-ended response question; it asked the teachers to explain their preferred method for learning new instructional strategies. Please see Table 20 for the results. The most preferred professional learning opportunity was conferences or workshops outside the district with roughly 27% responding. Grade level or department meetings came next with roughly 23%, colleague conversations were next with 15%, then modeling or peer interactions followed with about 12%, coaching or consulting with 12%, building-based and collaborative teacher community both had a 3% response and the lowest response was district-wide with only about 2%. See appendix D for all of the information collected from the open-ended response question. There were 69 professional learning activities categorized out of 60 responses, some responses were not categorized as they did not fit into any of these opportunities.

Table 20

Open-ended Responses about Professional Learning

<table>
<thead>
<tr>
<th>Category of Professional Learning (What)</th>
<th>N</th>
<th>%</th>
<th>Where</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outside Conference or Workshop</td>
<td>16</td>
<td>27%</td>
<td>Outside District</td>
</tr>
<tr>
<td>Grade Level or Department Meetings</td>
<td>14</td>
<td>23%</td>
<td>Building Based</td>
</tr>
<tr>
<td>Colleague Conversations</td>
<td>9</td>
<td>15%</td>
<td>Building Based</td>
</tr>
<tr>
<td>Modeling or Peer Interactions</td>
<td>8</td>
<td>13%</td>
<td>Building Based</td>
</tr>
<tr>
<td>Coaching or Consulting</td>
<td>7</td>
<td>12%</td>
<td>Building Based</td>
</tr>
<tr>
<td>Collaborative Teacher Community</td>
<td>2</td>
<td>3%</td>
<td>Building Based</td>
</tr>
<tr>
<td>Building-Based Training</td>
<td>2</td>
<td>3%</td>
<td>Building Based</td>
</tr>
<tr>
<td>District Training</td>
<td>1</td>
<td>2%</td>
<td>District Wide</td>
</tr>
<tr>
<td>Not Specified only where or what</td>
<td>10</td>
<td>17%</td>
<td>Not Specified</td>
</tr>
</tbody>
</table>

Note: Not all respondents responded to all items, 69 activities out of 60 responses.
Overall Effectiveness and Preferences

Teachers were asked to reflect on the effectiveness of different types of professional learning, using a scale of 6 being extremely effective to 1 being not effective at all, see Table 21 for the reported rankings. The scale did not contain descriptions for numbers two through 5 and was left for the teacher to interpret. The type of learning ranked as most effective with a mean of 4.61 was impromptu conversations with colleagues, followed by conferences or workshops outside their districts to be somewhat effective with a mean of 4.44, then by planned informal meetings with colleagues with a mean of 4.28, followed very closely by collaborative teacher communities with a mean of 4.24, and then grade level or department meetings with a mean of 4.20, followed by building-based training sessions with a mean of 3.72, then working with a coach or consultant with a mean of 3.55, and the opportunity for professional learning ranked the lowest was district-wide training sessions with a mean of 2.98.
Table 21

*Overall Effectiveness Ranking Report*

<table>
<thead>
<tr>
<th>Professional Learning activity</th>
<th>1 (%)</th>
<th>2 (%)</th>
<th>3 (%)</th>
<th>4 (%)</th>
<th>5 (%)</th>
<th>6 (%)</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impromptu conversations with colleagues</td>
<td>1 (1.2)</td>
<td>4 (4.8)</td>
<td>13 (15.5)</td>
<td>15 (17.9)</td>
<td>27 (32.1)</td>
<td>24 (28.6)</td>
<td>4.61</td>
</tr>
<tr>
<td>Conference or workshop outside my district</td>
<td>4 (4.7)</td>
<td>4 (4.7)</td>
<td>8 (9.4)</td>
<td>26 (30.6)</td>
<td>21 (24.7)</td>
<td>22 (25.9)</td>
<td>4.44</td>
</tr>
<tr>
<td>Planned informal meetings with colleagues</td>
<td>6 (7.2)</td>
<td>4 (4.8)</td>
<td>14 (16.9)</td>
<td>14 (16.9)</td>
<td>27 (32.1)</td>
<td>18 (21.7)</td>
<td>4.28</td>
</tr>
<tr>
<td>Collaborative teacher communities</td>
<td>4 (4.7)</td>
<td>7 (8.4)</td>
<td>11 (13.3)</td>
<td>20 (24.1)</td>
<td>25 (30.1)</td>
<td>16 (19.3)</td>
<td>4.24</td>
</tr>
<tr>
<td>Grade level or department meetings</td>
<td>6 (7.0)</td>
<td>5 (5.8)</td>
<td>16 (18.6)</td>
<td>15 (17.4)</td>
<td>27 (31.4)</td>
<td>17 (19.8)</td>
<td>4.20</td>
</tr>
<tr>
<td>Building-based training</td>
<td>6 (7.0)</td>
<td>9 (10.5)</td>
<td>21 (24.4)</td>
<td>24 (27.9)</td>
<td>19 (22.1)</td>
<td>7 (8.1)</td>
<td>3.72</td>
</tr>
<tr>
<td>Working with a coach or consultant</td>
<td>9 (11.7)</td>
<td>10 (13.0)</td>
<td>19 (24.7)</td>
<td>18 (23.4)</td>
<td>11 (14.3)</td>
<td>10 (13.0)</td>
<td>3.55</td>
</tr>
<tr>
<td>District-wide training session</td>
<td>12 (14.0)</td>
<td>19 (22.1)</td>
<td>28 (32.6)</td>
<td>14 (16.3)</td>
<td>12 (14.0)</td>
<td>1 (1.2)</td>
<td>2.98</td>
</tr>
</tbody>
</table>

Note: Not all respondents responded to all items. Likert scale: 1=not effective at all to 6=extremely effective.

After examining the information in the overall effectiveness section of the survey, it was important to examine how teachers rated what happened during and after the professional learning activity. The information in Table 22 shows the results starting at the left side of the table with the least preferred activity, a district-wide training session and moving to the right and the most effective rating impromptu conversations.
### Table 22

**Overall Value of Professional Learning Activities**

(Percent that teachers reported they moderately to strongly agreed with each statement)

<table>
<thead>
<tr>
<th>Prompts asked in the Survey</th>
<th>District-wide</th>
<th>Coaching</th>
<th>Building-based</th>
<th>Grade level or Department</th>
<th>Collaborative Teacher Community</th>
<th>Colleague meeting</th>
<th>Outside conference or workshop</th>
<th>Impromptu conversations with colleagues</th>
</tr>
</thead>
<tbody>
<tr>
<td>I always learn new strategies</td>
<td>36.3%</td>
<td>67.5%</td>
<td>41.6%</td>
<td>42.1%</td>
<td>59.1%</td>
<td>48.4%</td>
<td>70.6%</td>
<td>51.2%</td>
</tr>
<tr>
<td>I always focus on student learning outcomes</td>
<td>48.9%</td>
<td>70.2%</td>
<td>60.6%</td>
<td>60.6%</td>
<td>68.1%</td>
<td>71.9%</td>
<td>72.6%</td>
<td>64.3%</td>
</tr>
<tr>
<td>I always reflect on instructional practices</td>
<td>39.8%</td>
<td>65.7%</td>
<td>41.6%</td>
<td>50.7%</td>
<td>65.9%</td>
<td>61.0%</td>
<td>61.1%</td>
<td>50.0%</td>
</tr>
<tr>
<td>I always find the session meets my needs</td>
<td>25.0%</td>
<td>66.7%</td>
<td>33.3%</td>
<td>44.7%</td>
<td>50.0%</td>
<td>59.4%</td>
<td>52.9%</td>
<td>53.0%</td>
</tr>
<tr>
<td>I always find the session is run by an informal leader</td>
<td>33.3%</td>
<td>Note: This was not asked for this activity</td>
<td>48.9%</td>
<td>61.3%</td>
<td>62.8%</td>
<td>Note: This was not asked for this activity</td>
<td>40.0%</td>
<td>Note: This was not asked for this activity</td>
</tr>
<tr>
<td>I always reflect on how I can apply information in my classroom</td>
<td>60.2%</td>
<td>83.7%</td>
<td>60.6%</td>
<td>61.9%</td>
<td>68.1%</td>
<td>73.5%</td>
<td>89.4%</td>
<td>61.9%</td>
</tr>
<tr>
<td>I always change instruction based on new learning</td>
<td>41.0%</td>
<td>70.2%</td>
<td>45.0%</td>
<td>47.4%</td>
<td>52.3%</td>
<td>62.5%</td>
<td>65.5%</td>
<td>50.0%</td>
</tr>
<tr>
<td>I always collaborate to make changes in my classroom</td>
<td>41.1%</td>
<td>70.2%</td>
<td>44.9%</td>
<td>56.6%</td>
<td>52.3%</td>
<td>62.6%</td>
<td>60.0%</td>
<td>54.3%</td>
</tr>
<tr>
<td>I always collaborate to help others make changes</td>
<td>39.0%</td>
<td>62.1%</td>
<td>38.2%</td>
<td>54.0%</td>
<td>50.0%</td>
<td>62.5%</td>
<td>48.2%</td>
<td>55.9%</td>
</tr>
</tbody>
</table>
Table 23 displays the opportunities for formal and informal professional learning and is organized with the highest to the lowest ratings. This explains both frequency and the opportunities provided to teachers during the past three years. The data implies that informal professional learning happens more frequently than formal professional learning opportunities with means of 3.78 (weekly) for impromptu conversations and 3.39 (monthly) for planned meetings with colleagues. Formal professional learning opportunities means range from the highest for grade level or department meetings 2.73 (monthly), building-based 2.70 (monthly), and working with a coach or consultant 2.66 (monthly), to the lower opportunities collaborative teacher community 2.17 (quarterly), district-wide 2.01 (quarterly), and attending a conference or workshop 1.61 (quarterly).

Table 23

*Highest and Lowest Rated Opportunities for Formal and Informal Professional Learning*

<table>
<thead>
<tr>
<th>Category</th>
<th>Highest Rated Items (Mean or Percent)</th>
<th>Lowest Rated Items (Mean or Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency of Formal Learning Opportunities</td>
<td>• Grade level or department meeting (2.73, monthly)</td>
<td>• Collaborative teacher community (2.17, quarterly)</td>
</tr>
<tr>
<td></td>
<td>• Building-based professional learning (2.70, monthly)</td>
<td>• District-wide professional learning (2.01, quarterly)</td>
</tr>
<tr>
<td></td>
<td>• Work with a coach or consultant (2.66, monthly)</td>
<td>• Conference or workshop outside district (1.61, quarterly)</td>
</tr>
<tr>
<td>Frequency of Informal Learning Opportunities</td>
<td>• Impromptu conversations with colleagues (3.78, weekly)</td>
<td>• Planned meetings with colleagues (3.39, weekly)</td>
</tr>
<tr>
<td>Availability of Formal Learning Opportunities</td>
<td>• Building-based professional learning (98.9%)</td>
<td>• Department or grade level professional learning (84.4%)</td>
</tr>
<tr>
<td></td>
<td>• District-wide professional learning (97.8%)</td>
<td>• Collaborative teacher community learning (50.6%)</td>
</tr>
<tr>
<td></td>
<td>• Workshop or conference outside the district (92.7%)</td>
<td>• Learning with the guidance of a coach or consultant (41.6%)</td>
</tr>
<tr>
<td>Availability of Informal Learning Opportunities</td>
<td>• Impromptu conversation around professional learning (94.4%)</td>
<td>• Planned meeting with a colleague around professional learning (72.1%)</td>
</tr>
</tbody>
</table>
Results by Research Question

The following section will explore the major finding for each of the four research questions. At the end of this section, a summary of the key findings for each of the four research questions is displayed in Table 23.

Research Question 1

Research Question 1 asked: To what extent do teachers in Michigan’s priority schools believe that they are provided with (a) formal learning opportunities (b) informal learning opportunities? When it comes to formal professional learning, almost all of the teachers shared that they have attended an outside conference; however, 33.8% of teachers felt it only happened on a quarterly basis, and 36.3% of teachers thought that district-wide professional learning happens on a quarterly basis. Forty-seven percent claimed that they have also have attended building based professional learning on a monthly basis. The majority (66.7%) also shared that they attend at least a monthly grade level or department meeting that focus on professional learning. Half (50.6%) of the teachers have attended some type of collaborative teacher meeting involving professional learning. These teachers reported that they meet on a quarterly basis. Less than half (41.6%) work with a coach or consultant. Such teachers reported that the meeting occurred on a monthly basis. As the researchers have shared (Bredeson & Scribner, 2000; DuFour & Marzano, 2012; Harrison & Killion, 2007), it is essential to not only have one-shot learning, but also to have follow-up collaboration either with peers or a coach. Given the teachers’ perspective on professional learning the results might suggest why these schools are continuing to fail. These priority school teachers seem to be expressing that they are not give the support to learn about instructional best practices,
how to implement them into their classrooms with fidelity, and how to work as a collaborative group.

In the case of informal professional learning, nearly all of the teachers (94%) felt they had impromptu conversations with a colleague involving professional learning with 41% of teachers reporting it happens on a weekly basis. The majority (72%) also meet with a colleague to talk about how they could improve instruction with 24% identify these interactions happened once a month. In general, informal learning opportunities happen more frequently.

**Research Question 2**

Research Question 2 asked: To what extent do teachers in Michigan’s priority school believe that (a) formal learning opportunities and formal teacher leadership, (b) formal learning opportunities and informal teacher leadership (c) informal learning opportunities and formal teacher leadership and (d) informal learning opportunities and informal teacher leadership are impacting their knowledge and change in practice?

Within Table 7 the results for formal professional learning with formal teacher leadership teachers are shown. Sixty-three percent moderately to strongly agreed that collaborative learning sessions where led by informal teacher leaders, 61% moderately to strongly agreed that grade level/department meetings we led by informal teacher leaders, 49% of teachers moderately to strongly agreed that informal leaders led building-based learning, 40% moderately to strongly agreed that conferences or outside professional learning opportunities were led by informal teacher leaders, and 33% moderately to strongly agreed that district-wide learning opportunities were led by informal teacher leaders.

This data suggest that for the most part professional learning offered within the building
is typically run by informal leader. During outside professional learning or district-wide sessions the leadership may be formal.

The next part of this question explored formal learning with informal teacher leadership, the results are shown in Table 8. Teacher reported that after attending some type of professional learning, they found it necessary to work with a colleague to implement new strategies in their classroom. This is a valued and necessary part of their learning experience. When it came to helping others, 56% moderately to strongly agreed that they collaborated after a conference, 51% moderately to strongly agreed they collaborated after a department or grade level meeting, 51% moderately to strongly agreed they work with colleagues after a collaborative teacher community session, 42% moderately to strongly agreed they collaborated after a building professional learning experience, and 40% moderately to strongly agreed this happened after a district experience to support a colleague implement new strategies. This might suggest teachers feel they can help support one another and that the sense of community has value.

When asked about working with a formal leader like a coach or consultant in an informal setting, teachers believed this opportunity was beneficial to them, the results for this section are shown in Table 9. During and after collaborating with a coach, 84% of teachers moderately to strongly agreed they had reflected on what they learned and would be implemented in their classroom, 70% reported they moderately to strongly agreed they had focused on improving student learning, 70% moderately to strongly agreed they had collaborated with others to support their growth, 70% moderately to strongly agreed they could change instructional practices with their new knowledge, and 68% report they moderately to strongly agreed they had learned new instructional strategies, and 62% moderately to strongly agreed they had influenced the growth of others as a professional.
This might suggest that working with a coach or consultant helps the teacher to build confidence and knowledge to continue with the implementation phase of learning.

The results for what teacher reported about informal learning opportunities and informal teacher leadership teachers can be found in Table 10. During impromptu conversation or planned meetings with colleagues, 51% moderately to strongly agreed they had learned about new instructional strategies during a conversation, while 48% moderately to strongly agreed for a planned meeting; 71% moderately to strongly agreed during a planned meeting they had focused on how to improve student learning, and 64% moderately to strongly agreed that during an impromptu conversation they focused on learning how to improve student learning; 61% report they moderately to strongly agreed reflection occurred during a planned meeting with a colleague, but only 50% moderately to strongly agreed they took the time to reflect on new instructional practices during impromptu conversations; and 59% moderately to strongly agreed that planned meetings met their needs, likewise 53% moderately to strongly agreed that impromptu conversations met their individual professional learning needs.

After impromptu conversation or planned meetings with colleagues 63% moderately to strongly agreed that collaborating with each other to support the implementation of new instructional practices within their classroom happened after a planned meeting, while 55% moderately to strongly agreed that collaborating with each other to support the implementation of new instructional practices within their classroom was important after an impromptu conversation; 63% moderately to strongly agreed they changed their instructional practices based on their learning after a planned meeting with a colleague, while only 50% reported they moderately to strongly agreed they changed their instructional practices based on their learning after an impromptu conversation; 74%
reported that they moderately to strongly agreed that after a planned meeting with a
colleague they reflect on how the information might be applied in their classroom, and
62% moderately to strongly agreed they reflected after an impromptu conversation; and
63% moderately to strongly agreed they had support a colleague after a planned meeting,
and 56% moderately to strongly agreed they had supported their colleague after an
impromptu conversation. Teachers reported that both planned meetings and impromptu
conversations can be beneficial. When reporting on planned meetings with colleagues,
teachers seemed to share more positive experiences than with impromptu conversations.
This might be due to the intentional time set aside for this professional learning to occur.

**Research Question 3**

Research Question 3 asked: To what extent does participation within informal
learning activities that include formal and informal teacher leadership change the
perception of knowledge and change in such teachers? The finding for informal
professional learning and formal teacher leadership show a positive influence on change
of knowledge and practice for teachers. I anticipated that they would both play a
similarly, significant role. The results suggest that formal teacher leaders may have a
slightly higher rate of influence (3.35) when it comes to changing knowledge and practice
of instructional strategies, while the informal teacher leadership has a slightly lower rate
of influence (2.79). The teachers surveyed expressed their opinions that through both
formal and informal learning opportunities with informal and formal leader leadership,
changes of knowledge and instructional practices occurred in the classroom. However, it
is easier to identify a formal leader than an informal leader as it is typically one with a
title or paid position. Teachers are more likely to recognize this type of leadership; this
could be the reason for an increase in the effects size of formal teacher leaders. This was
quite a surprise for me; I thought that informal teacher leadership would play a more significant role.

**Research Question 4**

Research Question 4 asked: How do teachers’ perceptions of teacher leadership and professional learning vary by the level at which they teach? Within this question both the area of teacher leadership and professional learning were examined by level. The results show that when elementary and middle school teachers’ perceptions were compared there was no difference. However when elementary is compared to high school teachers there is a difference in perceptions; likewise when middle is compared to high school there is also a difference in teachers’ perceptions. These differences could be in part to the fact that high schools have such a formal structure and seem to be so departmentalized that it can be difficult to break the barriers and build a collegial community.

In order to perform the ANOVA analysis, 16 questions were utilized to compare the results of the survey by level for professional learning. When the means of all 16 questions were averaged the numbers started with elementary school level being the highest (4.85), then middle school level was lower (4.62), and high school level being the lowest (4.43), these results can be found in Table 22. In general, this data would suggest that elementary level teachers answered questions agreeing much more than high school level teachers, which might suggest that they find professional learning opportunities more beneficial. This same difference lies between middle and high school suggesting the same idea that middle school level teachers find professional learning more beneficial than high school level teachers. In the remaining five questions that did not show this same trend, four of them showed that middle school level had a higher average mean than
both elementary and high school levels. There was only one question in which the high school level had the greatest mean (5.43), as compared to the middle level (4.57) and the elementary level (4.81), that was during work with a coach or consultant high school teacher agreed more readily to the questions.

Only four questions were utilized to compare results of the survey by level for teacher leadership. These results did not have the same trends, when asked about formal teacher leadership, the high school level had the greatest mean (5.26), the elementary school level had the next greatest mean (5.01), and the middle school level had the lowest (4.54), these results are shown in Table 16. On the other hand, the question that asked about informal leadership had a very different result with the middle school level being the greatest mean (4.96), the elementary school level being the next greatest mean (4.74), and the high school level being the lowest mean (4.42). Table 24 summarized all the major findings by the corresponding question.
### Table 24

**Research Questions Major Findings**

<table>
<thead>
<tr>
<th>Question</th>
<th>Major Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>To what extent do teachers in Michigan’s priority schools believe that they are provided with (a) formal learning opportunities and (b) informal learning opportunities?</td>
<td>(a) Formal learning occurs less frequently</td>
</tr>
<tr>
<td></td>
<td>(b) Informal learning occurs more frequently</td>
</tr>
<tr>
<td>To what extent do teachers in Michigan’s priority school believe that:</td>
<td>(a) Formal professional learning is more likely run by a formal leader when it takes place outside of the district or at a district-wide opportunity</td>
</tr>
<tr>
<td>(a) formal learning opportunities and formal teacher leadership,</td>
<td>(b) During and after formal learning opportunities teachers work with informal leaders to make instructional changes</td>
</tr>
<tr>
<td>(b) formal learning opportunities and informal teacher leadership,</td>
<td>(c) During and after informal learning opportunities teachers work with formal leaders to focusing on improving student outcomes and reflecting on how the new learning can be applied.</td>
</tr>
<tr>
<td>(c) informal learning opportunities and formal teacher leadership, and</td>
<td>(d) During and after informal learning opportunities teachers work with informal leaders to focusing on improving student outcomes and reflecting on how the new learning can be applied.</td>
</tr>
<tr>
<td>(d) informal learning opportunities and informal teacher leadership are impacting their knowledge and change in practice?</td>
<td>Informal learning with both formal and informal teacher leadership will increase teachers’ perception of knowledge and change in instructional practices. Formal leadership has a slightly higher incremental rate of increased knowledge than informal teacher leadership.</td>
</tr>
<tr>
<td>To what extent does participation within informal learning activities that include formal and informal teacher leadership alter the perception of knowledge and change of instructional practices in such teachers?</td>
<td>(a) Differences in perception of teachers lie between high and elementary and high and middle.</td>
</tr>
<tr>
<td>How do teachers’ perceptions of (a) teacher leadership and (b) professional learning vary by the level at which they teach?</td>
<td>(b) Differences in perception of teachers lie between high and elementary and high and middle.</td>
</tr>
</tbody>
</table>

### Relationship of Results to Existing Studies

In chapter II the topics explored included: distributed leadership, teacher leadership both formal and informal, and professional learning both formal and informal. Each of these pieces is unique and helps to put the puzzle of change in knowledge and practice together. They all hold significance in their own way and even though I did not specifically ask about the leadership model within the participants’ school, it can be inferred by the way they answered each question. For example, when asked if they identified themselves as a formal leader, informal leader or neither, an astounding 82%
said they were some type of leader. If they consider themselves to be some type of leader, they must have a form of distributed or collegial leadership as defined by Anderson (2008) as the voice and influence of the teaching staff on one another. Marks and Printy (2003) found that teachers want to take on leadership roles and improve their schools by helping each other. This was confirmed first and foremost by 82% of teachers identifying themselves as a leader of some form. It was further confirmed by asking the teachers if they collaborated with other teachers to help them implement a new instructional strategy after a professional learning activity, and 59% moderately to strongly agreed (mean=4.45). This might show the significance of collaboration and collectivity around change in knowledge and practice.

My study confirmed what Mullen and Jones (2008) learned that allowing teachers time together to plan and reflect is beneficial. Within my study teachers shared that they somewhat moderately and strongly agreed (depending on the activity) that after a professional learning experience they felt it was helpful in changing their knowledge and practice to reflect and work with a colleague. The change enacted through collaboration was a key finding in several previous research pieces (Barth, 2001; Donaldson, 2007; Gigante & Firestone, 2008; Harris & Muijs, 2003; Searby & Shaddix, 2008). This was confirmed in my study again when teachers shared that they prefer to work with colleagues to plan, have impromptu conversations, attend grade level or department meetings and work with coaches or consultants. In the collaborative setting, they felt they learned and could implement changes successfully afterwards.

While reflecting on formal teacher leadership research, Scott, Cortina and Carlisle (2012) shared that coaching played a significant role in teachers’ growth of knowledge and practice of instructional strategies. My research confirmed these findings as teachers
moderately agreed that they learn new instructional strategies and practices and implemented them within their classrooms after working with a coach or consultant. Brown et al. (2007) talked about how working with a coach in a job embedded professional learning was beneficial, which my research confirmed. My findings pushed the collaboration even further, as teachers moderately agreed that after working with a coach they would collaborate with another teacher to implement the changes to help each other.

In the case of informal teacher leadership research Hanuscin, Tello, and Sinha (2012) found that the influence exerted was not always recognized by others. This was contrary to my findings, as teachers identified that in most cases professional learning activities were led by informal teacher leaders. Especially in the case of collaborative teacher communities or departments or grade level sessions, as teachers moderately to strongly agreed that these sessions were run by informal teacher leaders. Harrison and Killion (2007) found that informal teachers are often life-long learners and continuously work to improve their instruction working toward the growth of their students. My study, being made up of mostly informal teacher leaders, has parallel suggestions as teachers somewhat agreed that after a professional learning opportunity they would collaborate to help other teachers implement instructional strategies. Danielson (2006) also shared that informal teacher leadership bubbles up to fulfill a need. The teachers in my study saw the need that their colleagues had when it came to learning about new instructional strategies, and they somewhat agreed that they would fulfill that need by helping others implement the change in knowledge and instructional practices.

Previous formal professional learning research shared the importance of its reflective nature and the need to work to support each other. This was confirmed by my
study as 52% of teachers moderately to strongly agreed that they were reflective when the professional learning took place within a collaborative teacher community (DuFour, 2007; McNaughten & Lai, 2009; Tillema & van der Westhuizen, 2006). Further research on the topic of professional learning communities was reinforced by several pieces of research that found learning in a PLC helped teachers to change instructional practices (Kanold, Toncheff, & Douglas, 2008; Lubel, 2005; Vaughn, Hughes, Schumen, & Klinger, 1998). In my study, teachers moderately agreed that after working in a PLC model they were able to change their instructional. Additional research was confirmed as authors had found that district and building professional learning opportunities were piecemeal and generally a negative experience (Grossman, Wineburg, & Woolworth, 2001; Kragler, Martin, & Koeger, 2008). My study found that teachers ranked both district and building based professional learning in the bottom three out of eight choices. It was quite surprising to me that unlike Bredson and Scribner’s (2000) findings, teachers in my study preferred attending a conference or out of district workshop in that it was in the top two of the ranking list, and on the open ended question, 32% of teachers, which was a tie for first place, responded that it was their preferred method for learning about new instructional strategies. I wonder if this might be due to the fact that they are involved with failing schools and may or may not have faith within their district or even within their own building.

Informal professional learning research was confirmed whereby several authors found that through these experiences teachers develop relevant skills and knowledge in order to allow them to change instructional practices in their classrooms (Butler et al, 2004; Flint, Zisook, & Fisher, 2011; Shapiro, 2003). One set of researchers also focused on the importance of the freedom to meet and be involved in a professional discussion
with a colleague (Butler et al 2004). This is also what my research showed; as impromptu conversations with colleagues was ranked number one for professional learning activities. Further, they found the importance of helping one another whereby teachers moderately agreed, that after an informal professional learning activity with a colleague, they asked for additional help or additionally helped another teacher. Table 25 contains a summary of the results when comparing current research with my research.

Table 25

*Comparison Summary between Topolinski (2014) and Previous Research*

<table>
<thead>
<tr>
<th>Key Findings (Topolinski, 2014)</th>
<th>Previous Research</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Distributed leadership</strong></td>
<td></td>
</tr>
<tr>
<td>• Formal or Informal leadership role for 82% of participants.</td>
<td>• Teachers want to take on leadership roles to improve their schools. (Anderson, 2008; Marks &amp; Printy, 2003)</td>
</tr>
<tr>
<td><strong>Collaboration between teachers</strong></td>
<td></td>
</tr>
<tr>
<td>• Allowing time for planning and reflecting collaboratively is beneficial (68% moderately to strongly agreed reflection was important during and after a collaborative meeting with a colleague).</td>
<td>• Allowing time for planning and reflecting collaboratively is beneficial. (Mullen &amp; Jones, 2008)</td>
</tr>
<tr>
<td>• After a professional learning activity, it is key to reflect and work collaboratively with a colleague (74% moderately to strongly agreed reflection was important after a collaborative meeting with a colleague).</td>
<td>• Change is enacted through collaboration. (Barth, 2001; Donaldson, 2007; Gigante &amp; Firestone, 2008; Harris &amp; Muijs, 2003; Searby &amp; Shaddix, 2008)</td>
</tr>
<tr>
<td><strong>Formal teacher leadership</strong></td>
<td></td>
</tr>
<tr>
<td>• Coaching plays a key role in the growth of teachers (70% moderately to strongly agreed they changed practice after working with a coach).</td>
<td>• Coaching plays a key role in the growth of teachers. (Scott, Cortina, &amp; Carlisle, 2012)</td>
</tr>
<tr>
<td>• Job embedded professional learning is beneficial (68% of teachers moderately to strongly agreed they learned about instruction while working with a coach).</td>
<td>• Job embedded professional learning is beneficial (Brown et al., 2007)</td>
</tr>
</tbody>
</table>
Table 25—Continued

**Informal teacher leadership**

- Informal teacher leaders continuously work to improve their instruction as they work with colleagues to continue their own learning (59% moderately to strongly agreed it was important to collaborate in order to implement new strategies).

- Informal teacher leaders saw the need to help colleagues when new instructional strategies were being implemented (59% agreed it was important to help a colleague implement new instructional strategies).

- The influence of informal teacher leaders is recognized (82% of teachers identified themselves as teacher leaders).

**Formal professional learning**

- Needs to contain reflection and collaboration to be a successful model (58% moderately to strongly agree it was important to reflect during and after formal learning and 48% moderately to strongly agree it was important to collaborate with colleagues).

- Learning through a professional learning community helps to change instructional practices (52% moderately to strongly agreed they changed instruction based on a PLC).

- Learning at the district level as well as building level, were generally negative experiences (On the effectiveness scale district training was rate as somewhat ineffective and building-based was only rated somewhat effective number 6 and 8 out of 8).

- Teachers preferred attending outside conferences or workshops, and felt they acquired knowledge about instructional practices (In the ranking list outside conferences and workshop was number 2 and 66% moderately to strongly agree they had changed their practice after a conference or workshop).

**Informal professional learning**

- Working with colleagues informally helps teachers change instructional practices (57% moderately to strongly agree they changed their practice after working informally with a colleague).

- Impromptu conversations with colleagues are beneficial (53% found that these conversations met their individual needs).

**Affirms:**

- Informal teacher leaders are life-long learners and want to continuously improve their teaching. (Harrison & Killion, 2007)

- Informal teacher leaders will rise to the occasion to fulfill a need within their school. (Danielson, 2006)

- The influence of teacher leaders was not always recognized. (Hanuscin, Tello, & Sinha, 2012)

**Disputes:**

- Needs to contain reflection and collaboration to be a successful model. (DuFour, 2007; McNaughten & Lai, 2009; Tillema & van der Westhuizen, 2006)

- Learning through a professional learning community helps to change instructional practices. (Kanold, Toncheff, & Douglas, 2008; Lubel, 2005; Vaughn, Hughes, Schumen, & Klinger, 1998)

- Learning at the district level as well as building level were generally negative experiences. (Grossman, Wineburg, & Woolworth, 2001; Kragler, Martin, & Koeger, 2008)

- Teachers didn’t prefer attending outside conferences and workshops, nor could they feel applied what was learned. (Bredson & Scribner, 2000)

**Affirms:**

- Working with colleagues informally helps teachers change instructional practices. (Butler et. al., 2004; Flint, Zisook, & Fisher, 2011; Shapiro, 2003)

- Impromptu conversations with colleagues are beneficial. (Butler, et al., 2004)
Implications for Future Research

Within my study there were several limitations which have implications for future researchers. The main limitation was a low response rate of roughly 16%. If I were to do this same study again, I would hope that by conducting the survey at a different time of year, most likely January to February, the response rate would increase significantly. The fall can be one of the most difficult times, with teachers beginning to establish classroom routines, getting to know their students, and there can also be information overload as many districts try to conduct professional development in the fall. Another thing I noticed was that each time I sent out a reminder to participants, my rate of responses would increase. Had the survey been either open longer, with one more round of reminders, or reminders sent more frequently, this would have counteracted the low rate of response.

There is an enormous amount of pressure on these teachers as they are in the lowest performing schools in the state of Michigan. I knew this going in, but what I did not realize what that this fact alone would hold people back from completing the survey. I had one teacher email me and say that their district would not be participating as they had contacted the superintendent and it was not required of them to participate. I felt saddened by this in that it is more about what they have to do, almost like checking off the list, than taking the survey to help learn more about the power of teacher leadership and professional learning.

If I could go back in time, I would survey not just teachers in priority schools, but rather a wide sample of teachers from all schools in Michigan. This would make my research more well-rounded and balanced. I also believe that the response rate would be higher had it been designed this way initially. I do feel like the survey tool was useful
and designed in a way to force teachers to either agree or disagree on the six point Likert scale, which makes the most sense and allowed responses to be either positive or negative and not neutral. The only thing I would change about the survey itself is to have certain questions be required. In the actual survey teachers were allowed to skip any question except the first once requesting their permission to participate in the survey. This did make the data analysis a bit difficult as the number of participants was constantly changing. However, it would have still been the case with a number of questions because of the skip logic in the intentional set up of the survey. This could not be avoided as it was essential to know whether or not teachers have opportunities for professional learning experiences. As this survey was only the perceptions of the teachers, it would have been interesting to have data to support whether or not the instructional changes being made in the classroom had an impact on student achievement.

As Lubel (2004) did with a case study, following a priority school through this important work in a case study would be an illuminating experience. To see the teachers go through each phase required by being on the priority school list, and whether or not they can make the changes necessary, would open the eyes of the research world. This type of study would take years to complete, however. Looking deeply in a qualitative research study of a priority school that is making changes and may now even be on the rewards school list for major improvements, would be another intriguing way to approach the same topic of both teacher leadership and professional learning.

Based on my findings it is essential to further explore informal professional learning activities as my research suggests that teachers find this to be a positive learning experience. Also, that by working closely with colleagues they can make changes in their knowledge and practice. This research field does not have many findings around this
topic and it could be the key to unlock what teachers, especially those in priority schools, need to really make the difference in the lives of students.

**Implications for Policy, Practice, Organization**

For policy makers it is imperative that they understand the complex cognitive nature involved in teachers’ learning about and implementing new instructional strategies; that this takes time to truly change one’s old habits and practice. Further, those actions are done most successfully with the support and guidance of colleagues. Within priority schools, a set of rules and regulations cannot just be thrown at them without the gift of time and money to not only attend outside conferences and workshops, but also the time to meet with colleagues or collaborative communities to reflect on what they have learned and how the changes within their classrooms are going.

For the purpose of practice and organizational structure, the more professional learning time that can be dedicated to working collaboratively and reflecting on instructional strategies, the better it will be for not only the teachers, but the students as well. Moreover, it is important to have leadership spread among both formal and informal teacher leaders to allow the knowledge and support to be infiltrated into the system of a school. Teachers appreciate being able to work closely with colleagues and feel supported which creates a healthy environment for professional learning to take place.
REFERENCES


Department of Education, School Improvement Grants; American Recovery and Reinvestment Act of 2009 (AARA); Title I of the Elementary and Secondary Education Act of 1965, as Amended (ESEA), Federal Register 75:208 (28 October 2010), 66363-66371.


Public Act, 123 M. C. L. § 5606 (2006)

Public Act, 124 M. C. L. § 1124 (2006)

Public Act, 355 M. C. L. § 1526 (1993)

Public Act, 380 M. C. L. § 1527 (2012)


SPSS Inc. (2010). SPSS base 18.0 for windows user's guide. SPSS Inc., Chicago IL.


Appendix A

Survey Instrument
A Survey of Teachers' Perception of Teacher Leadership and Professional Development

Consent to Participate

Please read the consent information before beginning the survey.

1. You are invited to participate in a research project entitled "LEADERSHIP AND LEARNING: A SURVEY OF TEACHERS IN PRIORITY SCHOOLS" designed to understand the perceptions of teachers around leadership and professional learning. The study is being conducted by Dr. Sue Poppink and Christen Conklin Topolinski from Western Michigan University, Department of Educational Leadership Research & Technology. This research is being conducted as part of the dissertation requirements for Christen Conklin Topolinski.

With this survey, I will be asking about eight types of professional learning activities, and how often you participate in each of the eight types, and what happens after you have participated in these eight types. These eight different types are: (1) professional learning activities outside of your district, (2) district-wide professional development workshops, (3) building-based professional learning activities, (4) grade level or departmental professional learning activities, (5) collaborative teacher communities, (6) working with coaches or consultants, (7) impromptu conversations with colleagues, and (8) planned informal meetings with colleagues.

After completing the survey, a window will appear and you will have the opportunity to win a $100 gift card to Amazon.com through Survey Monkey. Your email address will NOT be linked to your survey results as this survey is completely anonymous.

This survey will take approximately 5 to 10 minutes to complete.

If you have any questions, you may contact Dr. Sue Poppink at (269) 387-3569 or sue.poppink@wmich.edu or the student investigator, Christen Conklin Topolinski at (616) 666-6282 or christen.c.topolinski@wmich.edu. The Human Subjects Institutional Review Board (269-387-6293) or the vice president for research (269-387-6298).

This consent document has been approved for use for one year by the Human Subjects Institutional Review Board starting in August 2013. You should not participate in this project if the date is beyond August 2014.

Thank you for your participation.
I. Professional Learning Outside My District

2. I have attended at least one professional development activity OUTSIDE MY DISTRICT (workshop, conferences, other groups) in the last three years?
   - Yes
   - No

3. How often have you attended such professional development activities outside your district during the past three years?
   - Annually
   - Quarterly
   - Monthly
   - Weekly
   - Daily

4. DURING such professional development activities outside my district I ALWAYS:

   A) Learn about new instructional strategies.

   B) Focus on how to improve student learning outcomes.

   C) Have opportunities to engage in reflection on new instructional practices.

   D) Find the session meets my individual needs for improving my teaching practices.

   E) Find the session is run by informal teacher leaders.
5. **AFTER I attend a professional development activity outside my district, I ALWAYS:**

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Moderately Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
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</table>

A) Reflect on how the information might be applied in my classroom.

B) Change my instructional practice(s) based on what I have learned.

C) Collaborate with colleague(s) to implement new instructional practices in my classroom.

D) Collaborate with colleague(s) to help them implement new instructional practices in their classrooms.

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II. **District-Wide Professional Development Workshops**

6. I have attended at least one DISTRICT-WIDE professional development training in the last three years?

- A) Yes
- B) No

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7. How often have you attended such district-wide professional development activities within your district during the past three years?

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8. DURING such district-wide professional development activities, I ALWAYS:

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<th>Strongly Disagree</th>
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<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
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<tbody>
<tr>
<td>A) Learn about new instructional strategies.</td>
<td>C</td>
<td>C</td>
<td>C</td>
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<tr>
<td>B) Focus on how to improve student learning outcomes.</td>
<td>C</td>
<td>C</td>
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<tr>
<td>C) Have opportunities to engage in reflection on new instructional practices.</td>
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<td>D) Find the session meets my individual needs to improve my teaching practices.</td>
<td>C</td>
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<td>E) Find the session is run by ________________</td>
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9. AFTER I attend a district-wide professional development activity, I ALWAYS:

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<th>Strongly Disagree</th>
<th>Moderately Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Moderately Agree</th>
<th>Strongly Agree</th>
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<tr>
<td>A) Reflect on how the information might be applied in my classroom.</td>
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<td>C</td>
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<tr>
<td>B) Change my instructional practice(s) based on what I have learned.</td>
<td>C</td>
<td>C</td>
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<tr>
<td>C) Collaborate with colleague(s) to implement new instructional practices in my classroom.</td>
<td>C</td>
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<td>D) Collaborate with colleague(s) to help them implement new instructional practices in their classrooms.</td>
<td>C</td>
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III. BUILDING-BASED PROFESSIONAL LEARNING ACTIVITIES

10. I have attended at least one BUILDING-BASED professional development activities during the last three years?

- A) Yes
- B) No
11. How often do you attend such building-based professional development activities?

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12. DURING building-based professional development activities, I ALWAYS:

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<th>Strongly Disagree</th>
<th>Moderately Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
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- A) Learn about new instructional strategies.
- B) Focus on how to improve student learning outcomes.
- C) Have opportunities to engage in reflection on new instructional practices.
- D) Find the session meets my individual needs to improve my teaching practices.
- E) Find the session is run by informal teacher leaders.

13. AFTER I attend a building-based professional development activity, I ALWAYS:

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<tr>
<th>Strongly Disagree</th>
<th>Moderately Disagree</th>
<th>Somewhat Disagree</th>
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- A) Reflect on how the information might be applied in my classroom.
- B) Change my instructional practice(s) based on what I have learned.
- C) Collaborate with colleague(s) to implement new instructional practices in my classroom.
- D) Collaborate with colleague(s) to help them implement new instructional practices in their classrooms.

14. I have attended at least ONE GRADE LEVEL OR DEPARTMENT MEETING that includes professional development activities during the past three years?

- A) Yes
- B) No
15. How often does your grade level or department hold such meetings?

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16. DURING grade level or department meetings, I ALWAYS:

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<th>Statement</th>
<th>Strongly Disagree</th>
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<tr>
<td>A) Learn about new instructional strategies.</td>
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<td>B) Focus on how to improve student learning outcomes.</td>
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<td>C) Have opportunities to engage in reflection on new instructional practices.</td>
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<td>D) Find the session meets my individual needs to improve my teaching practices.</td>
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<td>E) Find the session is run by informal teacher leaders.</td>
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17. AFTER I attend a grade level or departmental meeting, I ALWAYS:

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<th>Statement</th>
<th>Strongly Disagree</th>
<th>Moderately Disagree</th>
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<td>A) Reflect on how the information might be applied in my classroom.</td>
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<tr>
<td>B) Change my instructional practice(s) based on what I have learned.</td>
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<tr>
<td>C) Collaborate with colleague(s) to implement new instructional practices in my classroom.</td>
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<tr>
<td>D) Collaborate with colleague(s) to help them implement new instructional practices in their classrooms.</td>
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V. Collaborative Teacher Communities

18. I have participated in at least one COLLABORATIVE TEACHER COMMUNITY that provides professional development activities during the past three years?
   - ( ) Yes
   - ( ) No

19. How often do you attend such a collaborative teacher community focused on professional development activities?

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20. DURING my collaborative teacher community meeting, I ALWAYS:

A) Learn about new instructional strategies.

B) Focus on how to improve student learning outcomes.

C) Have opportunities to engage in reflection on new instructional practices.

D) Find the session meets my individual needs to improve my teaching practices.

E) Find the session is run by informal teacher leaders.
21. **AFTER I attend my collaborative teacher community meeting, I ALWAYS:**

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Moderately Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
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A) Reflect on how the information might be applied in my classroom.

B) Change my instructional practice(s) based on what I have learned.

C) Collaborate with colleague(s) to implement new instructional practices in my classroom.

D) Collaborate with colleague(s) to help them implement new instructional practices in their classrooms.

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**VI. Working with a Coaches or Consultants**

22. **I have used a COACH OR CONSULTANT who provides me with professional learning opportunities during the past three years?**

- A) Yes
- B) No

---

23. **How often do you work with such a coach or consultant?**

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### 24. DURING my work with a coach or consultant, I ALWAYS:

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<th>Strongly Disagree</th>
<th>Moderately Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Moderately Agree</th>
<th>Strongly Agree</th>
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<tbody>
<tr>
<td>A) Learn about new instructional strategies.</td>
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<tr>
<td>B) Focus on how to improve student learning outcomes.</td>
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<tr>
<td>C) Have opportunities to engage in reflection on new instructional practices.</td>
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<tr>
<td>D) Find the session meets my individual needs to improve my teaching practices.</td>
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### 25. AFTER I work with a coach or consultant, I ALWAYS:

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<th>Strongly Disagree</th>
<th>Moderately Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Moderately Agree</th>
<th>Strongly Agree</th>
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<tr>
<td>A) Reflect on how the information might be applied in my classroom.</td>
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<tr>
<td>B) Change my instructional practice(s) based on what I have learned.</td>
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<td>C) Collaborate with colleague(s) to implement new instructional practices in my classroom.</td>
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<tr>
<td>D) Collaborate with colleague(s) to help them implement new instructional practices in their classrooms.</td>
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### VII. Impromptu Conversations with Colleagues (Hall, Phone, Other)

26. I have had at least ONE IMPROMPTU CONVERSATIONS WITH COLLEAGUES CONCERNING CHANGING OR REFINING YOUR INSTRUCTIONAL PRACTICES during the last three years?

- ☐ A) Yes
- ☑ B) No
27. How often do you have such impromptu conversations?

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<th>Annually</th>
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28. DURING such impromptu conversations with a colleague, I ALWAYS:

<table>
<thead>
<tr>
<th>A) Learn about new instructional strategies.</th>
<th>Strongly Disagree</th>
<th>Moderately Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Moderately Agree</th>
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<th>B) Focus on how to improve student learning outcomes.</th>
<th>Strongly Disagree</th>
<th>Moderately Disagree</th>
<th>Somewhat Disagree</th>
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<tr>
<th>C) Have opportunities to engage in reflection on new instructional practices.</th>
<th>Strongly Disagree</th>
<th>Moderately Disagree</th>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>D) Find the session meets my individual needs to improve my teaching practices.</th>
<th>Strongly Disagree</th>
<th>Moderately Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Moderately Agree</th>
<th>Strongly Agree</th>
</tr>
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<tbody>
<tr>
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</tr>
</tbody>
</table>

29. AFTER I have an impromptu conversation with a colleague, I ALWAYS:

<table>
<thead>
<tr>
<th>A) Reflect on how the information might be applied in my classroom.</th>
<th>Strongly Disagree</th>
<th>Moderately Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Moderately Agree</th>
<th>Strongly Agree</th>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B) Change my instructional practice(s) based on what I have learned.</th>
<th>Strongly Disagree</th>
<th>Moderately Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Moderately Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>C) Collaborate with colleague(s) to implement new instructional practices in my classroom.</th>
<th>Strongly Disagree</th>
<th>Moderately Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Moderately Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
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<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>D) Collaborate with colleague(s) to help them implement new instructional practices in their classrooms.</th>
<th>Strongly Disagree</th>
<th>Moderately Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Moderately Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
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<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

VIII. Planned Informal Meetings with Colleagues

30. I have had at least ONE PLANNED MEETING with colleagues concerning changing or refining your instructional practices (joint planning period, before or after school and the like) during the past three years?

| A) Yes | B) No |
**31. How often do you have such planned meetings?**

<table>
<thead>
<tr>
<th></th>
<th>Annually</th>
<th>Quarterly</th>
<th>Monthly</th>
<th>Weekly</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**32. DURING such work with a colleague in planned meetings, I ALWAYS:**

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Moderately Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Moderately Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>A) Learn about new instructional strategies.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B) Focus on how to improve student learning outcomes.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C) Have opportunities to engage in reflection on new instructional practices.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D) Find the session meets my individual needs to improve my teaching practices.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**33. AFTER I work with a colleague in a planning meeting, I ALWAYS:**

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Moderately Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Moderately Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>A) Reflect on how the information might be applied in my classroom.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B) Change my instructional practice(s) based on what I have learned.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C) Collaborate with colleague(s) to implement new instructional practices in my classroom.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D) Collaborate with colleague(s) to help them implement new instructional practices in their classrooms.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
34. Overall rate the effectiveness of the following professional development activities that help you better teach your students.

<table>
<thead>
<tr>
<th>(1) Not Effective at All</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6) Extremely Effective</th>
</tr>
</thead>
<tbody>
<tr>
<td>A) Conference or workshop outside my district</td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
</tr>
<tr>
<td>B) District training session</td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
</tr>
<tr>
<td>C) Building-based training session</td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
</tr>
<tr>
<td>D) Grade level or department meetings</td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
</tr>
<tr>
<td>E) Collaborative teacher communities</td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
</tr>
<tr>
<td>F) Working with a coach or consultant</td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
</tr>
<tr>
<td>G) Impromptu conversations with colleagues</td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
</tr>
<tr>
<td>H) Planned informal meetings with colleagues</td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
<td>❌</td>
</tr>
</tbody>
</table>

35. Please describe your preferred method for learning a new instructional strategy to use in your classroom?

[Blank space for description]

36. Which BEST describes your current teaching assignment?

- [ ] A) Elementary School
- [ ] B) Middle School
- [ ] C) High School

37. Would you identify yourself as a(n):

- [ ] A) Formal Teacher Leader (grade level or department chair, coach/consultant, or mentor)
- [ ] B) Informal Teacher Leader (someone who voluntarily has influence outside their classroom but not a formal title)
- [ ] C) Neither a Formal nor Informal Teacher Leader

38. Including the 2012-2013 school year, how many years of experience do you have as a classroom teacher? (Please enter the number in digits, e.g. 12)
39. Which subject BEST describes your current teaching assignment or the majority of your current assignment? SELECT ALL THAT APPLY.

☐ A) Science
☐ B) Math
☐ C) English / English Language Arts
☐ D) Social Studies

40. Please indicate your gender.

☐ A) Male
☐ B) Female
Appendix B

Email Message to Participants
Initial Email Invitation to Potential Participants

From: [Researcher’s email address]  
To: [Group email address]  
Subject: Teacher Leadership and Professional Learning Request

Body of the Email:

My name is Christen Conklin Topolinski, and I am a doctoral student in the Department of Educational Leadership, Research and Technology at Western Michigan University. This email is being sent to request your participation in a research study. This research is being conducted as part of the requirements for my doctorate degree in K-12 Educational Leadership. The research was designed to understand when, how and with whom teachers learn new instructional best practices.

Playing the role of an informal teacher leader previously and a formal teacher leader currently, as an instructional coach, I am deeply invested in this topic. It is my understanding that there is a tremendous pressure on you working with students in a “priority” school. It is my hope that this research will benefit you by uncovering what type of teacher leadership and professional learning help guide the changes in priority schools. It is my goal to continue to support teachers, like you, to deliver the best instructional practices for the growth of all students.

Once you have completed the survey you will have a chance to win a $100 gift card to Amazon.com

The anonymous, online survey will take five to seven minutes to complete. All your responses will be kept confidential.

The link to the survey is: https://www.surveymonkey.com/s/TLPL

Your email address was obtained from your district and/or school website.

As a measure to protect your privacy, a blind copy email format is being used so that the list of recipients will not appear to others.

Thank you for taking the time to assist in this research.

Sincerely,
Christen Conklin Topolinski

This research has been approved by the Western Michigan Human Subjects Institutional Review Board. For further information please feel free to contact the Human Subjects Institutional Review Board (269-387-8293) or the vice president for research (269-387-8298).
Follow-up Email #1

From: [Researcher’s email address]
To: [Group email address]
Subject: Teacher Leadership and Professional Learning Survey Request

Body of the Email:

My name is Christen Conklin Topolinski, and I am a doctoral student in the Department of Educational Leadership, Research and Technology at Western Michigan University. If you have already taken the survey I truly appreciate your time, thank you so much! If you have not, please continue to read this email.

This email is being sent to request your participation in a research study. This research is being conducted as part of the requirements for my doctorate degree in K-12 Educational Leadership. The research was designed to understand when, how and with whom teachers learn new instructional best practices.

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Institutional Review Board (269-387-8293) or the vice president for research (269-387-8298).
Follow-up Email #2

From: [Researcher’s email address]
To: [Group email address]
Subject: Final Survey Request for Teacher Leadership and Professional Learning

Body of the Email:

My name is Christen Conklin Topolinski, and I am a doctoral student in the Department of Educational Leadership, Research and Technology at Western Michigan University. If you have already taken the survey I truly appreciate your time, thank you so much! If you have not, please continue to read this email.

This email is being sent to request your participation in a research study. This research is being conducted as part of the requirements for my doctorate degree in K-12 Educational Leadership. The research was designed to understand when, how and with whom teachers learn new instructional best practices.

Playing the role of an informal teacher leader previously and a formal teacher leader currently, as an instructional coach, I am deeply invested in this topic. It is my understanding that there is a tremendous pressure on you working with students in a “priority” school. It is my hope that this research will benefit you by uncovering what type of teacher leadership and professional learning help guide the changes in priority schools. It is my goal to continue to support teachers, like you, to deliver the best instructional practices for the growth of all students.

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Christen Conklin Topolinski

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Institutional Review Board (269-387-8293) or the vice president for research (269-387-8298).
Appendix C

Human Subjects Institutional Review Board Letter of Approval
Date: August 19, 2013

To: Sue Poppink, Principal Investigator
   Christen Topolinski, Student Investigator for dissertation

From: Amy Naugle, Ph.D., Chair

Re: HSIRB Project Number 13-08-08

This letter will serve as confirmation that your research project titled “Professional Learning and Teacher Leadership: A Survey of Teacher in Priority Schools” has been approved under the exempt category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note: This research may only be conducted exactly in the form it was approved. You must seek specific board approval for any changes in this project (e.g., you must request a post approval change to enroll subjects beyond the number stated in your application under “Number of subjects you want to complete the study.”) Failure to obtain approval for changes will result in a protocol deviation. In addition, if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

Reapproval of the project is required if it extends beyond the termination date stated below.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: August 19, 2014
Appendix D

Open-ended Responses from the Survey Tool
<table>
<thead>
<tr>
<th>Number</th>
<th>Response Text</th>
<th>Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I prefer to learn new strategies outside the District because the quality of professional development offered by the district is poor and there are no measurements to ensure that there is improvement.</td>
<td>Outside District</td>
</tr>
<tr>
<td>2</td>
<td>working with a coach</td>
<td>Coaching</td>
</tr>
<tr>
<td>3</td>
<td>Out of district professionally lead conferences</td>
<td>Outside District</td>
</tr>
<tr>
<td>4</td>
<td>Hands on. Learn and informal practice. Modeling,</td>
<td>Model or Peer Interaction</td>
</tr>
<tr>
<td>5</td>
<td>I prefer to learn of new instructional strategies by my educational peers within the building as well as in my professional educational endeavors.</td>
<td>Colleague conversation</td>
</tr>
<tr>
<td>6</td>
<td>Workshops</td>
<td>Not specified</td>
</tr>
<tr>
<td>7</td>
<td>I have found meeting with my department colleagues is the most effective method. We have the opportunity to share, adapt, and implement what is learned from each other. Our department has been quite strong due to this collaboration.</td>
<td>Grade Level or Department</td>
</tr>
<tr>
<td>8</td>
<td>Face to face meetings</td>
<td>Not specified</td>
</tr>
<tr>
<td>9</td>
<td>workshop outside my district</td>
<td>Outside District</td>
</tr>
<tr>
<td>10</td>
<td>Department meetings</td>
<td>Grade Level or Department</td>
</tr>
<tr>
<td>11</td>
<td>Impromptu conversations with colleagues</td>
<td>Colleague conversation</td>
</tr>
<tr>
<td>12</td>
<td>I do not like the &quot;sit and get&quot; training sessions. When the presenter allowing for reflection, collaboration, and hands-on methods, and when I can actually practice what is being taught, I feel like the session has been worth my time.</td>
<td>Outside District, Not specified</td>
</tr>
<tr>
<td>13</td>
<td>Prefer expertise from someone with experience in a classroom and intensive education.</td>
<td>Coaching</td>
</tr>
<tr>
<td>14</td>
<td>conference or workshop outside my district with my colleagues</td>
<td>Outside District</td>
</tr>
<tr>
<td>15</td>
<td>Attending a session personally, not through video conferencing or on-line learning. I also learn the new strategy best when the presenter models the strategy (using the audience as &quot;students in a classroom&quot;.</td>
<td>Model or Peer Interaction</td>
</tr>
<tr>
<td>16</td>
<td>Small group led by teachers in that content area with a specific strategy focus.</td>
<td>Collaborative teacher com</td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td>Source</td>
</tr>
<tr>
<td>---</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>17</td>
<td>I find that too much information just gets lost. I need meetings/training to focus on my subject area only. If I am overloaded with information - I can't keep it all straight. Talking with colleagues informally helps to make sense of it all.</td>
<td>Colleague conversation</td>
</tr>
<tr>
<td>18</td>
<td>At a conference or in-service with an engaging presenter, speaking of items fairly easy to implement.</td>
<td>Outside District, Not specified</td>
</tr>
<tr>
<td>19</td>
<td>Professional Developments and practice</td>
<td>Not specified</td>
</tr>
<tr>
<td>20</td>
<td>I enjoy new and fresh ideas. While I learn from speaking with fellow teachers, I gain newer insight from people outside of the district that will do things differently. As far as content and covering materials go, I learn the most from speaking with my colleagues, but learning new teaching strategies comes from people/meetings outside of my school.</td>
<td>Outside District</td>
</tr>
</tbody>
</table>
|21 | 1. hear/read about it and data to support it  
2. Opportunity to practice it outside of class  
3. Opportunity to reflect and discuss it  
4. Opportunity to practice it in class  
5. opportunity to reflect and discuss it | Colleague conversation, Model or Peer Interaction |
|22 | Hands on learning. I need the information to be told to me, shown to me, and allow me time to practice or participate.                                                                                                                                               | Model or Peer Interaction       |
|23 | colleague recommendation then seek additional training if necessary                                                                                                                                                                                                 | Colleague conversation          |
|24 | Small groups who decide their path.                                                                                                                                                                              | Not specified                   |
|25 | Coach who is a colleague                                                                                                                                                                                        | Coaching                        |
|26 | Outside the district conferences and impromptu conversations with colleagues                                                                                                                                                                                          | Outside District                |
|27 | Working with respected colleagues                                                                                                                                                                               | Colleague conversation          |
|28 | Working with other teachers within my department. I am the only elective teacher of my content in my building so it is rare to have the opportunity to meet with the other middle school or high school teachers that would benefit my subject. | Grade Level or Department       |
Your survey is limited in scope as to needs and availability of funds. In a “priority” district there is not money or opportunity to go "out of district", or at best for only one teacher. You didn't give an option that allowed for that so your numbers will be askew. Also, many times "what" is needed by an experienced teacher is seldom what is being offered. There should be a box to note that or again, your numbers are askew. I am a resource teacher. I need to be on the same track as the Core Teachers that I work with. I have "short" periods of time to help students fill in the learning holes that are holding them back. For this reason, I picked Teacher or Grade communications. This really wasn't provided for the survey. Finally, as a teacher of 20 years, and I do believe experience and a love for the job adds more insight than remade basic ideas with a cheerleader, ANY review of information, or a view point for a strategy is helpful. What works with one group of students, may or may not work with the next group. We, as teachers, need a full bag of strategies and skills, we need to keep updating and reviewing those skills to keep our attitudes fresh. However, we do need more say as to what we need more of, and what we "get sent" to it needs to be applicable to our students, not just what looks good on paper to someone who has had limited if any varied classroom and district experience. Also, I am sick and tired of being sent to meeting held at an elementary level and then being told to "just bump it up" for my secondary. I am assumed to do this on my own, so why did I pay to be taught and waste my time. This is a real thorn of irritation. Good luck with your work and I hope you are training to "Help" educators and not tear us down farther.

### Conversations with Colleagues
- **29**
  - conversations with colleagues I respect
  - Colleague conversation

### Professional Development
- **30**
  - Research it, learn it, implement it and practice it.
- **31**
  - Hands-on PD with FOLLOW UP that is DIFFERENTIATED TO OUR DISTRICT!!!!!!!
  - District
- **32**
  - Usually with a coach where I have time to practice
  - Coaching
- **33**
  - conferences in my discipline
  - Outside District
- **34**
  - Grade Level Meetings and Impromptu conversations with colleagues.
  - Grade Level or Department, Colleague conversation
- **35**
  - Outside conference where you train the teacher to bring strategies back.
  - Outside District
<table>
<thead>
<tr>
<th></th>
<th>PD is good as long as it is not a whole lot of extra work to implement because we are already overloaded. I like to go to PD outside of my district because I can usually tailor it to what I need. I like district trainings because they are close and if teachers are allowed to pick and choose, they can be very meaningful. Grade-level and colleague meetings are good as well. Overall I love all PD as long as it is meaningful and not a waste of time.</th>
<th>Grade Level or Department, Outside District</th>
</tr>
</thead>
<tbody>
<tr>
<td>37</td>
<td>Building level</td>
<td>Building</td>
</tr>
<tr>
<td>38</td>
<td>I prefer learning about new techniques from TEACHERS who have used them successfully in their own classes and can explain clearly the how's and why's.</td>
<td>Not specified</td>
</tr>
<tr>
<td>39</td>
<td>Attending training outside of my &quot;district&quot; presented by respected teaching professionals. My charter school &quot;district&quot; has not provided anything of value in the three years I've taught for them. It's a lot of fluff that isn't practical or relevant.</td>
<td>Outside District</td>
</tr>
<tr>
<td>40</td>
<td>I would prefer to have time to sit down with colleagues and develop a plan for improving instruction. I would also love to have time to try things that are new and be able to reflect on how to implement them. Often when we attempt to change, our school will jump through the hoops but we don't stick with anything for very long. I would love to be part of your research.</td>
<td>Colleague conversation</td>
</tr>
<tr>
<td>41</td>
<td>Conferences or workshops</td>
<td>Outside District</td>
</tr>
<tr>
<td>42</td>
<td>I prefer intensive workshops that last several consecutive days or are broken up (ongoing) over the course of the year.</td>
<td>Outside District</td>
</tr>
<tr>
<td>43</td>
<td>If love to work with colleagues who teach the same subjects that I teach and to learn from them of new instructional strategies.</td>
<td>Colleague conversation</td>
</tr>
<tr>
<td>44</td>
<td>I prefer to hear from an expert in the field or from a colleague that has a good sense of how the main strategy works.</td>
<td>Coaching, Colleague conversation</td>
</tr>
<tr>
<td>45</td>
<td>project based</td>
<td>Not specified</td>
</tr>
<tr>
<td>46</td>
<td>I love working with individuals form other districts to see what they are implementing and how it is going.</td>
<td>Outside District</td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td>Method</td>
</tr>
<tr>
<td>---</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>48</td>
<td>I would prefer to use a planned informal meeting with my dept. IF it would be led by a competent person other than who is in our building.</td>
<td>Colleague conversation</td>
</tr>
<tr>
<td>49</td>
<td>Working with our ELA consultant in either a department meeting or informal planned meetings with colleagues.</td>
<td>Grade Level or Department, Coaching</td>
</tr>
<tr>
<td>50</td>
<td>Conference or workshop outside my district</td>
<td>Outside District</td>
</tr>
<tr>
<td>51</td>
<td>Small group collaboration using proven techniques and creative solutions. I find that &quot;experts&quot; often don't have a realistic grasp on what happens in our classrooms.</td>
<td>Collaborative teacher com</td>
</tr>
<tr>
<td>52</td>
<td>I prefer learning from other teachers in an informal setting where we are able to discuss different methods of instruction and assessment. For me, learning how to be a more effective teacher occurred best when we, as teachers, could work together as a team towards a common goal.</td>
<td>Colleague conversation</td>
</tr>
<tr>
<td>53</td>
<td>To observe it demonstrated instead of just written as a theory.</td>
<td>Model or Peer Interaction</td>
</tr>
<tr>
<td>54</td>
<td>Grade level and team meetings, it seems to be the most effective and pertinent to what I do.</td>
<td>Grade Level or Department</td>
</tr>
<tr>
<td>55</td>
<td>I prefer spending time with our consultant and meetings with my colleagues. There never seems to be enough time in the day to get together with colleagues, but we try to make it a priority to improve our teaching and our relationships with students.</td>
<td>Coaching, Colleague conversation</td>
</tr>
<tr>
<td>56</td>
<td>Hands on. Practice with peers</td>
<td>Model or Peer Interaction</td>
</tr>
<tr>
<td>57</td>
<td>Observation of strategy in a peer teacher's classroom and having time to debrief with colleagues to see how to implement that strategy in our own classrooms.</td>
<td>Model or Peer Interaction</td>
</tr>
<tr>
<td>58</td>
<td>I like to see it modeled for me and then is given an opportunity to try it.</td>
<td>Model or Peer Interaction</td>
</tr>
<tr>
<td>59</td>
<td>Building or grade level professional development.</td>
<td>Grade Level or Department, Building</td>
</tr>
<tr>
<td>60</td>
<td>Using the strategy on us as the teachers in my content area.</td>
<td>Grade Level or Department</td>
</tr>
</tbody>
</table>