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Educator Perceptions of the Opitimal Professional Development Experience

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EDUCATOR PERCEPTIONS OF THE OPITIMAL PROFESSIONAL DEVELOPMENT EXPERIENCE

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ABSTRACT

The purpose of this quantitative study was to examine the educator's perception of the optimal professional development experience. Research studies have concluded that the biggest indicator to predict student achievement is teacher effectiveness (Aaronson, Barrow, & Sander, 2007; Marzano, 2003; Sanders & Horn, 1998; Wong 2001). Guskey (2000) stated, "Never before in the history of education has greater importance been attached to the professional development of educators" (p. 3). School districts continue to face reduced budgets and continue to expend resources on professional development. In addition, states such as Indiana have recently changed their evaluation system to encourage more professional development at the school and district level. A survey was created to analyze educator perceptions of professional development in five Midwest states: Indiana, Illinois, Michigan, Ohio, and Kentucky. The survey collected basic teacher demographic data: gender (male/female), licensure (elementary K–5, secondary 6–12), years of experience (0–5, 6–10, 11–15, 16–20, and 20 or more), and position type (teacher/principal). The survey consisted of 35 questions that focused on educator perceptions of professional development. In all, 396 educators from 18 school districts across five Midwest states responded to the survey instrument. A statistical analysis of the responses provided composite mean scores and standard deviations. A factorial ANOVA was used to test the first hypothesis. An independent samples *t*-test was used to test the second, fourth, and fifth hypotheses. A one-way ANOVA was used to test the third hypothesis. There was a significant difference between position type (teacher/principal) and licensure (elementary K–5, secondary

6–12) on their perceptions of professional development. Principals responded with a higher perception of professional development than teachers. Elementary licensure, K–5th grade teachers, also responded with a higher perception of professional development. There was no significant difference between gender (male/female) and years of experience (0–5, 6–10, 11–15, 16–20, and 20 or more). Educators responded that their perception of the most effective forms of professional development were having more time to work with colleagues (86.6%), using a professional learning community model (85.7%), and attending conferences and workshops (84.9%). In addition, educators had a higher perception of the effectiveness of professional development at the school level versus the district level.

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CHAPTER 1

BACKGROUND OF THE STUDY

"Nothing has promised so much and has been so frustratingly wasteful as the thousands of workshops and conferences that led to no significant change in practice when teachers returned to their classrooms" (Fullan, 1991, p. 315). Research studies have concluded that the biggest indictor to predict student achievement is teacher effectiveness. Wong (2001) found that over 40 years of educational research has pointed to the classroom teacher as the most important factor in increasing student achievement. Aaronson, Barrow, and Sander (2007) found in their study of Chicago public schools that student achievement was almost directly tied to teacher effectiveness. Yet teacher training programs, years of experience, and licensure were not significant factors when looking at increasing student achievement. Rivkin, Hanushek, and Kain (2005) authored a study in Texas that also found teacher level of education does not, by itself, impact student achievement.

Marzano (2003) published a policy brief that addressed student achievement and teacher effectiveness. Marzano found similar results to Sanders and Horn's (1998) research, which had found as much as a 39 percentage-point difference in student achievement when comparing *least* effective and *most* effective teachers, which led to the creation of a teacher value-added assessment system in the state of Tennessee. Marzano found that a student performing in the 50th percentile who spends two years with an average teacher will likely continue performing at

the 50th percentile. That same student performing at the 50th percentile who spends two years with a highly-effective teacher, however, will perform at the 96th percentile. Student achievement research has shown a correlation between teacher effectiveness and student achievement (Marzano, 2003; Sanders & Horn, 1998). Students with least effective teachers will learn less and perform lower than their classmates.

Statement of the Problem

Coleman's (1966) study was the first report to link student achievement to the teacher. Since this landmark study was published, improving professional development has become an area of focus in research. Guskey (2000) stated, "Never before in the history of education has greater importance been attached to the professional development of educators. Every proposal for educational reform and every plan for school improvement emphasizes the need for high-quality professional development" (p. 3). Successful professional development of the teacher is critical to the success of the school district and school. This study sought to demonstrate how quality professional development has a greater chance of impacting student performance through the perceptions of teachers; if they think something will work, it probably will. Hargreaves stated (1995),

> What we want for our children, we should also want for their teachers, that schools be places of learning for both of them and that such learning be suffused with excitement, engagement, passion, challenge, creativity, and joy. Meeting such goals is not only a challenge for teacher development but also fundamentally a challenge to our beliefs. (p. 27-28)

Significance of Study

School districts throughout the Midwest continue to expend resources on professional development, whether that becomes time away from school, in-service events, or purchasing materials. In addition, states such as Indiana recently changed their teacher evaluation system to encourage more professional development at the district and building levels. Indiana RISE (Indiana Department of Education, 2012c) dedicated one of the three domains in the teacher evaluation rubric to teacher leadership. Teachers are rated as *highly effective*, *effective*, *improvement necessary*, and *ineffective* based on the teacher's professional development and collaboration of their professional development with peers (Appendix A).

These changes may bring professional development closer to the top of school leaders' priorities. Marzano's (2003) research concluded that student achievement is directly linked to the teacher behavior. Increasing teacher effectiveness through changing teacher behavior by professional development should result in student achievement gains. The results of this research will provide school leaders with a better idea as to what an effective professional development approach might look like, with the intent of increasing teacher effectiveness by changing teacher behavior to increase student achievement.

Research Questions

The following research questions guided this study:

1. Is there significant interaction on the composite score for professional development among position type, years of experience, licensure, and gender?
2. Is there significant difference based on position type on the composite score for professional development?

3. Is there significant difference based on years of experience on the composite score for professional development?
4. Is there significant difference based on licensure on the composite score for professional development?
5. Is there significant difference based on gender type on the composite score for professional development?

Null Hypotheses

The following null hypotheses were addressed in the methodology of the research study.

1. There is no significant interaction on the composite score for professional development among position type, years of experience, licensure, and gender.
2. There is no significant difference based on position type on the composite score for professional development.
3. There is no significant difference based on years of experience on the composite score for professional development.
4. There is no significant difference based on licensure on the composite score for professional development.
5. There is no significant difference based on gender type on the composite score for professional development.

Personal Statement

When I interviewed for teaching positions, I would often be asked about my future personal educational goals and what type of research or educational books I read. On the applications I completed, I would always have to list the educational organizations I had membership in and for how long I was a member. This led me to a core belief about educators

and the field of education. I believed that all educators constantly focused on improving their own professional development as a teacher–learner. My mother is a retired teacher and is still taking classes and participating in professional development opportunities. With a family of teachers, conversations were always focused on professional development. I believed that educators were open sponges at staff trainings, workshops, and conferences. In addition, I thought that they spent their time researching and studying. I have discovered over the course of my career that not every teacher believes there is value in professional development. I do believe that every teacher has an internal fire that led him or her to education. As a building principal, I am driven to find the best professional development strategy that will inspire teachers to be engaged in professional development and implement what they learned at the professional development in their classroom. I believe this will make the teacher better and increase student achievement.

Definition of Terms Used

District and *corporations* refer to the larger setting of schools situated within a boundary typically aligned with geographical interests. Most districts in the Midwest will be composed of one or many elementary schools, middle schools, and high schools.

Professional development refers to the total of formal and informal learning experiences throughout one's career, from pre-service teacher education programs to when a teacher retires. The purpose of the learning experiences is to better the teacher as a classroom instructor (Fullan, 1991). For the purpose of this study, in-service and professional development pertains to any activity the educator participates in to improve his or her pedagogical practices as a teacher.

Professional learning community refers to a group of educators who meet regularly to review student data, discuss instructional practices, and seek needed professional development for a teacher-learner or the whole group (DuFour & Eaker, 1998).

Quality professional development refers to professional development that gradually changes teacher behavior in the classroom over time.

Professional learning network refers to professional development where a teacher builds a network of professionals through various informational outlets to connect with other colleagues to collaborate on a topic (Klingensmith, 2012). This allows an educator to not work in isolation.

School level versus district level refers to who is organizing the professional development. School level is organized by the building administrator and district level is organized by a district administrator.

Sponsor refers to whoever is providing the professional development. The providers could be internal, as with a school or the district, or external, such as an outside consultant or professional development organization.

Appropriate feedback refers to an administrator providing the opportunity for the teacher to have the concise and detailed information needed to implement the professional development as well as the concise and detailed information in follow-up observations to the teacher.

Teacher–learner refers to the teacher in the role of the student, as a learner.

Composite mean score is the mean of the Likert scale responses for each participant in the survey.

Summary

The purpose of this chapter was to reveal a need for better professional development in schools. Professional development done well should help engage teachers in activities that

improve their performance in the classroom. In addition, professional development of the teacher–learner has become a focus with recent changes in teacher evaluations in some states, i.e., adopting pay-for-performance models. If student achievement is contingent on a highly effective teacher, then the duty of every school district and building-level administrator is to find and implement the best professional development opportunities.

Chapter 1 provided an introduction to this study. Chapter 2 presents a literature review of professional development in the school setting. Chapter 3 focuses on the methodology used in the research study. Chapter 4 presents the summary of the data from the study. Chapter 5 is a presentation of the summary of the study.

CHAPTER 2

REVIEW OF RELATED LITERATURE

"Professional development should be able to increase the professional life of the teacher, remediate the struggling teacher, reflect the school improvement goals of the building, and help bring a systemic process change to the building" (Blandford, 1998, p. 2).

History of Teacher Licensure in Indiana

Prior to Licensure

Indiana's first state constitution, in 1816, provided for a free and appropriate education under Article XI. The General Assembly created a general education system for township schools and a state university. The state of Indiana established the first Normal School for teacher training in 1865. In 1870 the Indiana State Normal School in Terre Haute officially opened with the intent to prepare teachers for a career in education. Crumrin (n.d.) noted, "Normal schools rose upon the tide to thought that believed teaching was a 'science' which could be taught and learned just as any other science" (para. 2). According to Crumrin (n.d.), "it [Normal School] adopted a philosophy that thought it not only important to teach students how to teach, but also what to teach by giving them a good grounding in various subjects" (para. 11).

The establishment of the Indiana State Normal School and those in other states was to provide professional development prior to accepting a teaching position. This belief of providing professional development prior to teaching exists today. All states as of 2013, including Indiana,

require prospective teachers to complete some form of college degree work and, in addition, take a competence exam, which currently is the Praxis Series II test (Indiana Department of Education, 2012a). This may soon change as legislation is under way to make teacher licensing less rigorous, facilitating schools struggling to find teachers.

Life License in Indiana

Teachers completing their school work are able to apply for an Indiana Teacher's Certificate. In the past, teachers would only need to apply one time, hence the term *life license*. Upon receiving the license, teacher professional development was left up to the teacher, school, and/or local school district. This rule was in effect until 1978. The next sections follow the licensing path in the state of Indiana to present day.

Five-Year Licensure Rules 46-47

Rules 46-47 became the next assessment code adopted by the Indiana Department of Education mandated for teachers who began teacher preparation programs after August 1, 1978. Prospective teachers had until July 1, 2006, to complete their teacher preparation programs and meet the requirements of Rules 46-47. Rules 46-47 added a key change from previous licensure. Teachers under Rules 46-47 must complete six hours of professional development every five years. In 1992, the state of Indiana created the Indiana Professional Standards Board. The Indiana Professional Standards Board voted to require professional development for continued licensing. This change was due to the Indiana Professional Standards Board's position that professional development was a vital part of teacher development. Rules 46-47 also added the requirement of passing a competence exam as part of the licensure requirements. The National Teachers Exam went into effect on July 1, 1986, and became part of licensure. Prospective teachers learned the pedagogy and content knowledge skills at the preparation school and then

demonstrated their basic knowledge on the National Teachers Exam Core Battery. On September 1, 1999 the National Teachers Exam was replaced by the Praxis I and Praxis II exams.

Rules 2002

The state of Indiana continued to progress in the definitions and expectations for teachers, both current and prospective. In 2002 Steven Kimball wrote a paper about performance-based teacher licensing for the state of Indiana. In regard to the old traditional system of teaching licensure, Kimball (2002) stated, "The prior system of teacher licensure in the state of Indiana was typical of most state systems for credentialing teaching professionals. Under the former system there was little continuity in requirements along the licensure continuum" (p. 1). The Indiana Professional Standards Board began to immediately make changes to the licensure process with a renewed focus on teacher professional development. The Indiana Professional Standards Board believed that teacher professional development would increase student achievement in Indiana. Kimball noted,

> The key difference between the previous system of teacher licensure in Indiana and the one being developed and piloted is the use of new standards and performance-based assessments to ensure instructional quality across the education system. In addition to instructional accountability, the system is also intended to help higher education institutions, school districts, schools, mentors, and teachers focus on the professional growth of teachers. (p. 3)

Professional Growth Plans

On July 1, 2011, Article 10 of the Indiana Administrative Code took effect (Indiana Administrative Code, 2011). Article 10, or the professional growth plan, defined a new way for

educators to renew their licenses with professional development. The focus shifted from traditional professional development opportunities, such as college courses, to teachers being able to count a wide range of activities like serving on the school improvement team, as professional development hours. According to the Indiana Department of Education (2012b),

> Educators attend conferences, workshops, participate in curriculum development committees, participate in school improvement plans, and take coursework to stay up-to-date on the latest educational reforms in addition to their classroom responsibilities. The Professional Growth Plan (PGP) is an opportunity for teachers, administrators, and school service personnel to control their own professional development and use these experiences towards licensing renewal. (para. 1)

Mandated Teacher Professional Development

Rules 46-47 was the first teacher preparation change that required professional development for teachers for continued certification renewal from the state of Indiana. Rules 2002 increased the commitment from the state of Indiana in the value of teacher professional development after completion of the teacher preparation program. The change in Indiana law widened the scope of license renewal through professional growth plan points. The professional growth plan forces school districts to define what professional development will look like in their school district.

In 2012 Indiana had a shift in leadership at the Department of Education level that forced many to reflect on the dramatic changes in legislation and policy being forced through over the previous four years. A new teacher evaluation model was proposed and has been adopted by most schools in Indiana. This new model looks at professional development as a part of that evaluation (Indiana Department of Education, 2012c).

Teacher Licensure in States Near Indiana

Indiana is not the only state in the Midwest changing state requirements for teacher licensure. Illinois, Kentucky, Michigan, Ohio, and Wisconsin have all created variations of teacher renewal that incorporate the idea of using growth points (Illinois Department of Education, n.d.; Kentucky Department of Education, 2012; Michigan Department of Education, 2012; Ohio Department of Education, 2012; Wisconsin Department of Public Instruction, n.d.). Each state has its own terminology and total hours needed for license renewal; however, each state seems to have a similar structure. A teacher may continue to use traditional professional development formats, such as university course work, or the teacher may use a variety of alternative professional development activities to collect a minimum number of hours for licensure renewal.

Professional Development Defined

Guskey (2009) argued that a school can only improve through professional development. Guskey stated,

> In addition, scouring the education literature for examples of school improvements occurring without professional development fails to yield a single case. It is probably safe to say, in fact, that no improvement effort in the history of education has ever succeeded without thoughtfully planned and well-implemented professional development activities designed to enhance educators' knowledge and skills. (p. 226)

In reviewing the literature, the terms *in-service* and *professional development* continue to be used interchangeably. Which term is used in the literature more defines the decade in which the term was used rather than having a different meaning. West-Burnham and O'Sullivan (1998) defined in-service as "the term to define focused school improvement activities during the

1980s" (p. 5). The term professional development replaced the term in-service in the 1990s. For the purpose of this study, in-service and professional development pertains to any activity the educator participates in to improve his or her pedagogy practices.

Blandford (1998) stated, "Professional development opportunities are the result of collaboration, participation, and negotiation. . . . A prerequisite for effective schools is, therefore, professional development" (p. 2). Professional development should be able to increase the professional life of the teacher, remediate the struggling teacher, reflect the school improvement goals of the building, and help bring a systemic change to the building (Blandford, 1998). Blandford argued that effective professional development will change teacher behavior in the classroom. Professional development needs to be focused and intentional. According to Hargreaves and Fullan (1992), professional development "may entail creating a work environment which is supportive and not restrictive of professional learning, continuous improvement, and the opportunity to teach, and teach well, rather than merely survive" (p. 1). Hargreaves and Fullan argued that there are three types of training a new teacher should have to develop into an effective teacher. The professional development should focus on (a) knowledge and skill development, (b) a self-understanding of that professional development, and (c) belief in the process as an ecological change. Teacher professional development that is focused and intentional, according to Harnett and Carr (1995), "sees teacher development to be concerned with the processes, insights, structures, and ideas which enable teachers to reflect about, and improve, their practices throughout their careers" (p. 41). B. M. Harris (1980) defined professional development as "any planned program of learning opportunities afforded staff members of schools, colleges, or other educational agencies for purposes of improving the performance of the individual in already assigned positions" (p. 20).

In 2001 the U.S. government passed the No Child Left Behind Act (NCLB). Within that document the definition of professional development (Appendix B) is extremely broad and includes almost everything that a teacher would normally do or participate in. The definition is also meant to be all-inclusive so that it also covers other positions, such paraprofessionals and principals.

The professional development needs are usually different for each staff member. The needs of the first-year teacher may be different from a veteran teacher. The Centre for Education Research and Innovation (1982) added, "What is lacking are simple and short methods of analyzing the different aspects of their jobs for in-service purposes" (p. 58). The Centre for Education Research and Innovation affirmed in their 1982 study of teacher in-service that professional development is critical to teacher success. A challenge they cited was in regard to teacher professional development. The content and approach of the professional development must be designed for the adult leaner. In addition, the professional development must be differentiated according to position and skill level.

B. M. Harris (1980) stated, "In-service education is to the school operation what good eating habits and a balanced diet are to human growth and vitality" (p. 13). In-service is crucial to the professional development of the staff member and the school. B. M. Harris believed that in order to conduct effective professional development experiences, one needs to make correct assumptions about people. Once again, professional development must be seen through the lens of individual teacher learning. B. M. Harris defined 13 assumptions about people that must be considered for effective in-service and professional development:

1. People can and will learn on the job.

2. People tend to view each projected learning outcome as appropriate or inappropriate from an internal, personal frame of reference.
3. People experience satisfaction from learning what is clearly perceived as appropriate.
4. People need feedback on their own behavior to make efficient use of experiences for learning.
5. People need cognitive organizers to make efficient use of feedback in guiding learning.
6. People need direct intervention in accomplishing some learning outcomes but not others.
7. People tend to want to learn some things, at some times, under certain conditions, at certain costs (but not all things, at all times, under all conditions and costs).
8. People are capable of learning anything if the time, conditions, and motivations (rewards) are adequate.
9. People learn best those things they perceive to be meaningful, purposeful, and satisfying.
10. People have developmental as well as situational and personal needs that learning can help to satisfy.
11. People's needs are met partially by learning, but never completely (they have other needs, too).
12. People must learn in order to survive in the long run. But they do not have to learn to survive in the short run; instead, they can cope, resist, or endure.
13. People learn in active states under conditions of mild arousal, attentiveness, and stress. (p. 10)

Providing meaningful professional development means understanding that there is a connection between a staff member's desire for job satisfaction and appropriate feedback from the principal or supervisor on how to improve the staff member's instructional decisions. B. M. Harris (1980) added, "Without substantial continuing growth in competence in personnel serving in our elementary and secondary schools and colleges, the entire concept of accountability has little meaning" (p. 13).

Timpson and Tobin (1982) argued that professional development is needed as a survival tool for teacher behavior. They stated, "As a result, those who are 'natural' or 'born' teachers can survive and flourish; those with instincts less theatrical often sink into mediocrity, or worse" (Timpson & Tobin, 1982, p. 4). In addition, Timpson and Tobin believed the challenge of a college professor is to create critical components and best-practice teaching strategies for pre-service students. In short, the best university preparation struggles to fully develop an educator with all the skills new teachers need for a career. Pre-service teacher programs provide the new teacher with a desire to continue learning on the job and through professional development opportunities. Effective professional development will hopefully satisfy this desire and ultimately change teacher behaviors in the classroom. The more effective the teacher is in the classroom, the more students will achieve (Marzano, 2003).

Professional development is needed to cultivate the educator to improve practice. According to Garman (1995), "One thing we can say about the decade of the 1980s; it brought a great deal of public attention to education in general and to teacher development in particular" (p. 24). Studies such as *A Nation at Risk* and *A Nation Prepared: Teachers for the 21st Century* created a national desire for professional development (Guskey & Huberman, 1995). Guskey (2000) stated, "Never before in education has there been greater recognition of the need for

ongoing professional development. In-service training and other forms of professional development are crucial components in nearly every modern proposal for educational improvement" (p. 3).

Guskey and Huberman (1995) felt that the expectations and work load practitioners had to manage resulted in the need for even more professional development. Guskey (2000) added, "Every proposal for educational reform and every plan for school improvement emphasizes the need for high-quality professional development" (p. 3). School schedules create challenges in finding time for consistent professional development. Teacher contracts create additional challenges in providing the needed time for professional development. As technology and research continue to evolve at a fast rate, educators need to find time for professional development, according to Guskey (2000) who wrote,

> As these knowledge bases expand, new types of expertise are required of educators at all levels. Like practitioners in other professional fields, educators must keep abreast of this emerging knowledge and must be prepared to use it to continually refine their conceptual and craft skills. (p. 3)

As we learn more about the students we teach, we need to be flexible in our delivery of content and approach to teaching.

Why Professional Development Does Not Work

Decades upon decades of research show a need for teacher in-service and professional development. The biggest challenge is finding good research on what are the effective types of professional development (Guskey, 2009). Guskey (2009) added,

> The challenge of assuring rigor in the methodological, the time and resources needed for the research, being able to collect meaningful data, and even when that happens being

> able to conclude clear results creates a challenge that keeps most researchers away from studying the effectiveness of professional development. (p. 226)

B. M. Harris (1980) believed that the assumptions of professional development would stay relevant due to the fact that the assumptions are based on the adult as a learner. The research shows that professional development is needed and that we must understand the teacher as a learner. However, even though those conditions exist, why does professional development continue to fail or make only a minor impact? Lieberman and McLaughlin (1996) stated,

> Yet the popularity of networks suggests that teachers stay away from conventional staff development activities—or attend only if required—not because of a lack of interest in professional growth but because the in-service training formats fail to meet their needs. (p. 63)

Even with the research on how the teacher learns, the structure continues to not support the teacher learner. Cochran-Smith and Lytle (1996) added,

> What is missing from the knowledge base for teaching are the voices of teachers themselves, the questions teachers ask, the ways teachers use writing and intentional talk in their work lives, and the interpretive frames teachers use to understand and improve their own classroom practices. (p. 92)

A possible reason why professional development does not have the impact that it was designed to achieve may be due to teacher perceptions and attitudes. It is the difference between the educator controlling the professional development and the professional development happening to the educator approach that may reveal hidden tensions. Clark (1992) addressed this dilemma.

> In some quarters the phrase "professional development of teachers" carries a great deal of negative undertones. It implies a process done to teachers; that teachers need to be forced into developing; that teachers have deficits in knowledge and skill that can be fixed by training; and that teachers are pretty much alike. Now, as a teacher, how eager would you feel about co-operating in a process in which you are presumed to be passive, resistant, deficient, and one of a faceless, homogeneous herd? This is hardly an ideal set of conditions for adult learning, support, and development. (Clark, 1992, p. 75)

The adult learner must be active in the process or in control of the learning. The teacher must believe that they have control of their professional development. Clark (1992) added,

> Why should teachers, individually and collectively, take charge of their own professional development? Why is this a good idea? First, we need to recognize that adult development is voluntary—no one can force a person to learn, change, or grow. (p. 77)

The school culture can lead to an educator's perception and attitude about learning. Rosenholtz (1991) stated,

> When teachers conversed in either moderate or low consensus schools, they stressed students' failing instead of their triumphs. . . . In high consensus schools, by contrast, shared goals, beliefs, and values led teachers through their talk to a more ennobling vision that placed teaching interests in the forefront, and that bound them, including newcomers, to pursue that same vision. (p. 39)

Effective professional development ideas need time, and they need to build capacity in the teacher at the same time. A. Harris and Muijs (2005) stated,

> Where professional development opportunities are insensitive to the concerns of individual participants, and make little effort to relate learning experiences to workplace

> conditions, they make little impact upon teachers or their pupils. . . . Research has shown that to achieve improvements in teaching and better learning outcomes for students, teachers need to be engaged in meaningful professional development that promotes inquiry, creativity, and innovation. (p. 58)

Reasons that A. Harris and Muijs gave as to why professional development does not work were lack of time, acknowledge when the teacher learns, negative experiences in the classroom, and lack of a true professional development *plan*. Hardy (2012) found that most professional development fails due to the fact that the school structure has stayed in a traditional format, which in turn forces teachers to leave collaborative meetings to actually work and implement in isolation. In addition, Guskey (2000) stated, "Reviews of the professional development literature typically do a better job of documenting inadequacies than prescribing solutions" (p. 32). Guskey argued that one reason that professional development fails is due to disagreement on the criteria used to evaluate professional development. Thus we find the misalignment between teachers and principals emerging as a factor to consider.

The Teacher as an Adult Learner

Blandford (2000) stated, "In order for professional development to be effective, the coordinators should be aware of the needs of teachers as adult learners" (p. 21). The teacher must have a constancy of purpose, alertness to opportunities, and the insight into the variability of setting (Burke, 1997). "Adults learn through their experiences and the experiences of others" (Webster-Wright, 2009, p. 720). Teachers need time to experience, reflect, and be active and engaged in the learning process. Traditional professional development focused on the individual, more recent professional development focuses on a learning community. Webster-Wright stated, (2009), "Within most professions, the individual and his or her knowledge and practice has been

the focus of research into PL (personal learning), albeit with recent recognition of the importance of community and context" (p. 723). Adults as learners need to experience, read, and reflect, but they also need to be able to discuss with colleagues the experiences they have had, successful or not. This leads to the questions, what are the traditional forms of professional development and what are the current forms of professional development? Is it simply a group focus rather than individual focus all that needs to change?

Traditional Styles of Professional Development

The traditional styles are still commonly used today. Progress in technology and the approach to professional development has created more avenues for a teacher to participate in professional development. Technology such as Blackboard™ allows for the structure of a traditional university-style class setting from a student's home or work environment. Blandford (2000) divided professional development into four categories: practitioner development, professional education, professional training, and professional support.

Blandford (2000) defined *practitioner development* as "school-based development, self-development, induction, mentoring, observation, job-shadowing, and team teaching" (p. 6). This approach has a progressive feeling to it as contrasted with what Blandford defined *professional education* as: "Award bearing courses managed and taught at higher education institutions (HEIs), focusing on the relationship between educational theory and practice, and leading to higher education accreditation and professional qualifications" (p. 6). A more traditional approach is also found in the idea of *professional training*, which has been defined as "conferences, courses, and workshops that emphasize practical information and skills, managed and delivered by local education authority (LEAs), schools' external consultants or trainers from HEIs. Such courses may lead to academic awards or accreditation towards national standards"

(Blandford, 2000, p. 7). *Professional support* has been defined as "provided by colleagues and managers in fulfillment of contractual conditions of service; e.g. recruitment and selection procedures (including job descriptions), promotion, career development, appraisal, mentoring, team building, redeployment and equality of opportunity" (Blandford, 2000, p. 7). This approach seems to reflect the recent changes some states have positioned evaluation and licensure with.

Workshops are typically a form of a one-day, or multi-day conference or training. Cohen and Ball (1999) found that workshops do not necessarily connect to the academic content the teacher needs to increase student achievement. Parsad, Lewis, and Farris (2001) found that workshops, due to the lack of connection to the teachers' students' needs, have little impact on changing teacher behavior in the classroom. Hargreaves (1995) stated,

> Generally, professional development literature derides short, 'one-shot deal' in-service workshops that simply raise teachers' awareness about new initiatives or expose them to new programs or skills, on the grounds that absence of follow-up, further training, or support minimizes the chances of initial or sustained impact, let alone of integrating newly learned skills into teachers' existing repertoires. (p. 149)

The inexpensive cost of most workshops is a main reason why workshops continue to stay popular. Addressing the cost of workshops, Hargreaves added, "Nonetheless, these are the forms of professional development that continue to dominate in practice—largely because they are cheaper, clearer, more visibly concrete, and more easily controlled than most of their competitors" (p. 149). Sparks and Hirsh (2000) found that professional development must evolve from an off-site general training in an area to a continuous learning that the adult is engaged in daily. This approach advocates for school-level efforts that exist within a plan.

Current Styles of Professional Development

In-Service Training

Koehler (1999) defined in-service in most schools as, "synonymous with large group presentations . . . periodic and relatively limited exposure to education's most recent trends, usually followed by insufficient opportunities to practice and master the concepts" (p. 30). Schools select a few topics and then bring in speakers or give presentations on the topic (Koehler, 1999). The concept of *training* brings to mind the idea that certain behaviors have been identified as efficient (not necessarily effective) and thus need to be adopted. Koehler indicated that in-service should be "routine process for communicating new knowledge to teachers and other school professionals, and it should be followed by relevant opportunities to master such new knowledge" (p. 31). Teachers need time after the in-service to collaborate and implement the information shared. This provides a potential for in-service recipients to scrutinize the training and perhaps modify it to meet local needs.

Collaborative Teacher Research

Cochran-Smith and Lytle (1993) defined collaborative teacher research as "systematic and intentional inquiry carried out by teachers" (p. 7). Building-level principals must provide teachers that want to work on teacher research the freedom to do so, yet the collaborative approach may not be appropriate for everyone. As noted by Cochran-Smith and Lytle, "In many school systems, however, teachers have not been encouraged to work together on voluntary, self-initiated projects or to speak out with authority about instructional, curricular, and policy issues" (p. 21). In short, the building and district administration must be supportive of teacher research, encouraging it but not forcing it.

Collaborative teacher research allows teachers to respond and adjust their instructional practices through a process that involves a team of teachers. Grimmett (1995) stated, "Teacher research focus groups provide the kind of cultural conditions in which individuals and groups can become familiar with and experiment around the goals and principles of the proposed change" (p. 124). In collaborative teacher research, professional development comes from, and is driven by, what the teachers learn in the research. Lassonde and Israel (2010) believed that collaborative groups allow teachers to reflect on and define their own needed professional development. This provides ownership to the teacher and alignment to their area of need in new theory and knowledge. Teachers then take turns sharing their research in a collaborative group. The sharing builds the expertise and knowledge of the whole group.

Professional development should be continuous and based on research. Collaborative teachers can become a learning community. This form of professional development is teacher-driven and is typically based on teacher preference in topic of research and of colleagues in the group. Teachers may also write for publications information they learned during the process (Grimmett, 1995). The intent is to further improve the effectiveness of the teacher participating in the research, and perhaps add to the body of knowledge in education. Rust and Meyers (2003) argued that the collaborative teacher research approach better allows teachers to examine their classrooms and their schools. Through this process teachers are able to participate in creating policies that affect the students, teachers, and community.

Action Research

One approach to collaborative teacher research has evolved into a methodology. Mertler (2009) defined action research as "systematic inquiry conducted by teachers, administrators, counselors, or others with a vested interest in the teaching and learning process or environment"

(p. 4). Action research is a process that follows the steps of identifying an area of focus, collecting data, analyzing and interpreting the data, and developing a plan of action (Mertler, 2009). Grady (1998) defined action research as "reflective inquiry undertaken by educators in order to better understand the education environment and to improve practice" (p. 43). Teachers review their own data and make professional development decisions about their own needs, based on the tenets of scientific inquiry. This leads to teacher empowerment (Mertler, 2009). Davis (2008) argued that action research is "research in motion" (p. 18) and that due to the research being an active process for the teacher, the teacher will improve their teaching and the student will increase in achievement. Davis stated, "Action research is flexible, adaptive, recursive, experimental, incremental, and woven into the daily work of teaching" (p. 18). In this process teachers participating in the action research are able to identify answers to key areas. The teachers may begin by looking at three key areas; a teaching method, identifying a problem, and/or examining an area of interest (Mertler, 2009). The responses then either provide the needed professional development or identify areas of need.

Action research can be a form of qualitative research, which may be better suited for the busy and complex school experience (Grady, 1998). Grady (1998) stated, "While action research projects follow the same research regimen as other forms of qualitative research, such projects are geared toward reflecting on practice and often toward solving specific school or classroom problems" (p. 43). Macintyre (2000) added that a literature review is critical to high quality action research; "studying and selecting and eventually reporting the literature which has been used, gives the work an academic base" (p. 3). The literature review must be completed to help with the planning and implementation of the action research and the interventions implemented (Hendricks, 2009). The literature review demonstrates that the researchers have

studied developments in the particular field of inquiry and that they will begin their own investigations from an informed stance.

Teachers that participate in action research generally have a more positive attitude towards professional development (Parsons & Brown, 2002). Reflection is also an important component of action research and leads to more effective professional development. Hendricks (2009) gave three reasons:

> Reflection must be critical, which requires going beyond merely thinking about experience. . . . Reflection is a meaningful and important part of a practitioner's professional development. . . . Self-understanding, whether through autobiographical reflection or internally directed reflection, is an important part of the reflective process because it allows an educator to focus on the ways in which experiences and values affect actions. (pp. 29-30)

Action research is a way to provide constant professional development and improve the teaching practices for a teacher and school (Grady, 1998). Hardy (2012) stated, "Action research is also described as an approach to research which encourages teachers to theorize their own practice, such that the traditional division between theory and practice, and teaching and research encouraged by positivism is challenged" (p. 71).

Mentoring or Peer-Coaching

Johnson (2008) stated that the concept of mentoring to help beginning teachers survive and to improve teacher attrition began in the 1980s. According to Johnson, the concept expanded, and by 1998 there were over 30 states whose departments of education had mandated teacher mentoring programs. A key component of the mentoring program was having a seasoned or veteran teacher helping a beginning teacher navigate the first years of teaching.

Professional development is critical in the mentoring process. Mentoring or peer-coaching, created in theory for the beginning teacher, is also useful for teachers who are no longer novice teachers. Teachers on their own or by administrator direction may work with a mentor teacher in an identified area of weakness. Learning groups (Johnson, 2008) is one way that teachers and mentors may work together. The learning group concept is very familiar to professional learning communities (Dufour & Eaker, 1998), except that this learning group is differentiated to have a weaker teacher partnered with a stronger teacher. This approach assumes the mentor derives less from the experience than the teacher.

Johnson (2008) also discussed co-mentoring or peer-coaching. Peer-coaching is more interactive between the two teachers and generally produces growth in both teachers. Duchaine, Jolivette, and Fredrick (2011) found that implementing peer-coaching to provide professional development for special education and inclusion teachers increased the teachers' ability to implement the program being used. Johnson (2008) stated,

> Integration of professional development should be ongoing, incorporated in staff development programs as well as in more focused work on particular instructional skills. Development must include helping the new teacher increase content knowledge, master instructional techniques, and understand how students learn. (p. 90)

Professional development in the co-mentoring concept, according to Johnson, includes setting goals, learning resources, engaging in discussion/reflection, and developing portfolios. Hargreaves (1995) added, "In some places, initiatives in peer coaching and mentoring between teachers have provided the structured contexts of practice, feedback, and support for teachers that are needed for successful implementation" (p. 149).

The critical component of the co-mentoring or peer-coaching approach is the selection of the veteran teacher. Co-mentoring or peer coaching may not always have a positive effect on the beginning teacher. Blandford (1998) warned of

> possible drawbacks to mentoring. Mentors may: pass on bad habits, not be qualified or able to impart their knowledge of the job; lack the patience required; be reluctant to pass on their skills; be too closely involved to see their job from another person's perspective (p. 87).

A principal may be unknowingly passing on poor practices through the selection of a mentor whose values and beliefs do not reflect the vision of the school.

E-Learning

Technology has created and added new formats that teachers can use for professional development. Halse and Mallinson (2009) found that podcasting, blogging, social networking tools, microblogging, and collaborative editing are the most issued forms of professional development. Podcasting is defined by Educause Learning Initiative (2005) as "a term inspired by the Apple Computer Corporation's iPod—a portable digital audio player that allows users to download music from their computer directly to the device for later listening" (para. 4). The audio format is able to be downloaded using MP3 or iPod technology. Blogging allows teachers to take part in collaborative professional development. Carvin (2006) wrote, "Lots of educators blog so they can have a professional dialog with their colleagues. Everyone can benefit from discussing the various challenges we all face in our work, and blogs serve as a mechanism for sharing those ideas" (para. 15). Social networking tools continue to grow. Examples of social networking sites are Facebook, Twitter, Pinterest, and LiveJournal (Carvin, 2006).

According to Faulkner and Watson (2007), microblogging is like blogging with a limited number of characters for the posting. Examples of microblogging are Twitter, SMS, and instant messaging. A far more full-featured tool, collaborative editing is when multiple people can work on a document at once, as with Google documents for instance. Teachers are able to collaborate on the same document at the same time while physically being in different locations.

E-learning has also accelerated the use of the personal learning network (PLN). A PLN is developed by the teacher and is designed to meet his or her particular needs (Klingensmith, 2012; Patnoudes 2012). Teachers use PLNs to connect through social media for resources and professional development. Most PLNs contain some or all of the following types of social media: Facebook, Twitter, Pinterest, LinkedIn, microblogging, professional profiles, wikis, blogs, reader/news aggregators, social bookmarking, webinars, and backchanneling of conferences (Klingensmith 2012; Patnoudes, 2012).

Although e-learning of all types continues to increase greatly due to ever-evolving technology, there is still little research on the effectiveness of its tools as a way to provide better professional development for teachers. This study may reveal some insight regarding teachers' perceptions of these media for professional development use.

Distance Learning, Webinars, Live Virtual Classrooms, Skype, and Video Conferencing

Distance learning, webinars, virtual classrooms, Skype, and other forms of video conferencing are all designed around a common theme of flexibility. The teacher does not have to leave his or her classroom or house to participate in professional development. The research is limited on the level of effectiveness of these formats. Sherry warned in 1995,

> Too often, instructional designers and curriculum developers have become enamored of the latest technologies without dealing with the underlying issues of learner

> characteristics and needs, the influence of media upon the instructional process, equity of access to interactive delivery systems, and the new roles of teacher, site facilitator, and the student in the distance learning process. (p. 337)

The degree to which we are impressed with the format might overstate the value of the content.

McCullagh (2012) argued that using video technology is a motivating form of professional development. Teachers are able to view their own teaching skills and interactions with their pupils. The teacher is also able to monitor their development of improving their instructional delivery. Video recording also allows for peer conversation and supervisor conversation. This could be a form of data collection for an action research project.

Data Teams

Besser, Anderson-Davis, and Peery (2005) described the concept of having data teams as a process of an actual team of teachers, typically a grade or content-area team, that reviews student data. The process is designed to be ongoing professional development with the intent of improving teaching practices. Data teams look at previous grade-level or student data to plan for areas where the students need support. Once an area of need is decided upon, the data team creates a pretest. After the pretest, the data team reviews the student performance data to plan groups and instruction. The data teams look at the student performance to plan which teaching strategies will be used in that data round. Instruction is then given and students take a posttest at the end of the round.

White (2005) added, “Data that is collected should be analyzed and used to make improvements (or analyzed to affirm current practices and stay the course)” (p. 13). The data team then reviews the data to decide if students have made the expected growth. If the data team decides the expected growth was not met, the team discusses the teaching strategies used and

selects new strategies. If the data team decides expected growth was met, an intervention plan is created for students still not at the expected growth and the data team then looks at student data to create the next learning concept for the next round. White stated, "Data teams adhere to continuous improvement cycles, examine patterns and trends, and establish specific timelines, roles, and responsibilities to facilitate analysis that results in action" (p. 18).

Data teams that are well implemented are continuous professional development opportunities. Teachers identify their instructional weaknesses, based on student data. In addition, teachers create the pretest and posttest, in which teachers complete on-going professional development on test writing. The professional development really becomes differentiated for each data team within a building. Oberman and Symonds (2005) stated,

> In schools that have made significant progress in closing the achievement gap, more than three quarters (77%) of respondents report discussing data with colleagues at least a few times a month, with about one-third (32%) talking about data a few times a week. Respondents in non-gap-closing schools discuss data far less frequently–just about one-half (47%) only discuss data a few times a year. (p. 9)

The teacher's continuous use of data, test writing, and instructional strategies will show a positive effect on professional development and student achievement. Teachers meet with colleagues to discuss the information and discuss strategies for instruction. One aspect yet to be reconciled is the degree to which these data collections should become part of the student's assessment profile. If the intent is to identify teacher weaknesses, should those data also count toward the student's grade?

Train the Trainer Model

Pancucci (2007) argued that the "train the trainer model" (p. 15) is the second most-used form of professional development in schools. The model, according to Pancucci, "focuses on bringing one or more lead teachers to central workshops, training them in specific skills or programs, and requiring them to train their colleagues at their home school in the demonstrated skills" (p. 15). The model is cost-effective for a school district, but the professional development depends on the ability and credibility of the lead teacher and the school providing adequate time for teachers to implement the ideas.

The lead teacher typically attends a full training that provides time to process the information and plan implementation (Pancucci, 2007). The same level of training is usually not replicated at the school. Pancucci (2007) added,

> A major limitation of the Train the Trainer model is that is does not provide the time for teachers to assimilate the knowledge, skills, philosophies, and concepts that are essential for a deep understanding and appropriate application of the training provided. (p. 15)

Thus, to employ this approach may seem efficient, yet there are many subtle issues that may compromise its effectiveness. School leaders need to be aware that efficiency and quality are not always easy to attain at the same time.

Professional Learning Communities

The structure a school uses to implement a professional learning community can look many different ways. There is not a standard definition of the structure. Hord (1997) stated,

> The *professional community of learners* is one in which the teachers in a school and its administrators continuously seek and share learning, and act on their learning. The goal of their actions is to enhance their effectiveness as professionals for the students' benefit;

> thus, this arrangement may also be termed *communities of continuous inquiry and improvement*. (p. 1)

According to Pancucci (2007), "One of the more complex models of professional development is that of the learning community, which has, in recent years, become the model of choice for many school boards" (p. 14). A professional learning community (PLC) focuses on three big ideas (DuFour, 2004). The first is ensuring that all students learn. Dufour (2004) stated, "The professional learning community model flows from the assumption that the core mission of formal education is not simply to ensure that students are taught but to ensure that they learn" (p. 8). The second big idea is having a culture of collaboration. Dufour added, "Educators who are building a professional learning community recognize that they must work together to achieve their collective purpose of learning for all" (p. 9). The final big idea of a professional learning community is a focus on results.

Dufour and Eaker (1998) found that schools that implement professional learning communities show sustained school improvement, and the increase in student achievement can be attributed to the professional learning community. In addition, Dufour and Eaker found that schools with professional learning communities also reported that teachers had a reduction of feeling of isolation, increased commitment to the mission and goals of the school, shared responsibility for student success, greater job satisfaction and higher morale, and lower rates of absenteeism. Professional learning communities must be focused and teachers must agree on the shared goals of that community (Dufour, 2004).

Little and McLaughlin (1993) stated,

> And for professional communities, what made the difference between communities rigidly vested in one right way or in unexamined orthodoxies and communities that could

> play this teaching function was the existence of norms of ongoing technical inquiry, reflection, and professional growth. (p. 99)

Stoll, Bolam, McMahon, Wallace, and Thomas (2006) found that professional learning communities can be most successful when their purpose is to enhance teacher effectiveness for the ultimate benefit to students. Teachers are practicing in consistent professional development that is geared directly to their classroom.

Fogarty and Pete (2011) explained that "a professional learning community is created when teams with common goals and needs are formed. A professional learning community could be a grade level team, content team, vertical team, department team and so on" (p. 14). Huffman, Hipp, Pankake, and Moller (2001) discovered that three themes are apparent in well-implemented professional learning communities. The professional learning communities had (a) a proactive administrator along with teacher leadership, (b) purposeful decision making, and (c) job-embedded professional development.

Bolam et al. (2005) identified schools with strong professional learning communities had a strong vision that is connected to student learning and continuous teacher improvement. In addition, Moller (2006) found that shared leadership structures, including opportunities to build teacher leadership capacity, are more evident in schools that have better implemented professional learning communities. Schools that have strong professional learning communities have a strong teacher professional development component.

DuFour and Marzano (2011) argued that professional learning communities should have big ideas

> to ensure that all students learn at high levels . . . that we are to help all students learn . . . [and that] educators must create a results orientation in order to know if students are learning and to respond appropriately to their needs. (pp. 22-25)

The belief of a professional learning community is that through a well-implemented learning community, students will have a guaranteed and viable curriculum (DuFour & Marzano, 2011). Rigelman and Ruben (2012) found that teacher candidates also benefited from being able to participate in a learning community. "Teacher candidates stated that collaboration was central to their learning" (Rigelman & Ruben, 2012, p. 987).

Measuring Professional Development

Once professional development has been experienced, a feedback tool is needed. This tool may provide feedback to the presenter of the professional development or show the level of implementation for the professional development. Craft (1996) stated, "Questionnaires are the most commonly used evaluation method, although the typical 'end of course questionnaire', has its limitations" (p. 97). Questionnaires can be featured in a variety of ways. A questionnaire can range from a question with a ranking number, typically, to a one-to-five order to select preference (Craft, 1996; Koehler, 1999). Another popular style is the open-ended evaluation question. In addition to questionnaires, interviews are another commonly used form.

Observation of the teacher is another way to measure the success of the professional development. Through observation, a visiting teacher looks to what depth the classroom teacher can implement the content from the professional development experience (Craft, 1996; Koehler, 1999). A teacher who sends in a collection of artifacts and then an analysis of those artifacts from peers can also provide feedback of the professional development experience. A teacher who keeps a diary and writes in a narrative explaining the implementation of the professional

development experience is another feedback form, as would be having the class audiotaped (Koehler, 1999). When teachers audiotape themselves implementing the new learning, it allows the team to assess the degree to which the teacher implemented professional development ideas. Although the forms of collecting the information can be different, the purpose is the same, to determine the impact of the professional development experience.

Marston, Brunetti, and Courtney (2005) found that elementary teachers preferred working in close groups whereas high school teachers preferred freedom and flexibility. In addition, the research identified a difference between the attitudes of the elementary and high school teachers toward the subject area that they taught (Marston, 2010; Marston et al., 2005). High school teachers will typically teach one subject area and elementary teachers generally teach multiple subjects. This may set up a preference aligned with grade level, making district-level productions potentially less inspiring.

Relationships were also different. Elementary teachers valued working with other teachers and the principals more so than secondary teachers. Marston et al.'s (2005) research found a difference in beliefs of what teachers value between elementary school and high school. Again, these differences compound the potential for district-level professional development activities to be limited in how they can impact the behaviors of teachers in the classrooms. This research sought to provide some focus on the various levels of school educators and the most effective professional development perceived by each.

Pancucci (2007) found that "professional learning communities are the most effective professional development" (p. 16). A. Harris and Muijs (2005) stated,

> Building leadership capacity requires a constructivist approach to learning where teachers learn together and construct meaning from interaction, discussion, and professional

> dialogue. . . . Improvements in teaching are most likely to occur when there are opportunities for teachers to work together and to learn from each other. (p. 58)

In addition, Harris and Muijs (2005) found building professional learning communities as "one of the best ways to implement meaningful professional development" (p. 134). Hardy (2012) stated that the purpose of a professional learning community is "providing an intellectual space to enable teachers' professional growth. This is achieved by organizing time in particular ways, structuring talk and text, and having a shared purpose" (p. 81). DuFour, DuFour, and Eaker (2008) defined professional learning communities as "educators committed to working collaboratively in ongoing processes of collective inquiry and action research to achieve better results for their students" (p. 14).

Unfortunately this approach may not be appreciated by secondary teachers as much as elementary teachers. The idea of having to share and be somewhat dependent upon relationships seems to fit the elementary approach to learning. If secondary teachers value freedom and flexibility, a PLC may be viewed as restricting that freedom. The purpose of this research was to possibly reveal those attitudes and differences.

CHAPTER 3

METHODOLOGY

This chapter defines the design of the research study to include research questions, null hypotheses, research design, population and sample size of participants in this study, data collections, instrumentation, survey reliability, data analysis, and summary. This chapter provides the methodological context of this research study as presented in Chapter 1. Chapter 1 attempted to explain how the quality of the teacher impacts student achievement, and how teacher quality is impacted by professional development. Guskey (2000) wrote,

> Never before in the history of education has greater importance been attached to the professional development of educators. Every proposal for educational reform and every plan for school improvement emphasize the need for high-quality professional development. (p. 3)

Schools leaders need to be aware of the best professional development opportunities available and at the same time realize that few professional development experiences actually change teacher behavior in the classroom. This problem creates a need to understand what the most effective professional development practices may be, according to teachers, and whether principals are in agreement? If not, they may not support it.

Chapter 2 provided a history of teacher licensure in the state of Indiana and how the concept of professional development has become part of that process. In addition, a review of

the literature was provided on professional development, the various different types of professional development, and why professional development may not make a difference. Chapter 2 concluded with the idea that elementary teachers may prefer different approaches to professional development than secondary teachers.

Technology has created an entirely new avenue for professional development. Professional development in the past generally consisted of a teacher attending a college class, a conference, or a workshop. Technologies such as Skype, webinars, E-learning, Twitter, Pinterest, and Facebook all provide virtual classrooms. Video conferencing has provided school teachers and principals with many more options for large-group professional development experiences. Due to the multiple ways a school or district can provide professional development, teachers and building principals must find effective professional development that can be aligned and sustained (DuFour & Berkey, 1995; Goodlad, 1984; Sparks, 1984) to make a difference in teachers' practices. Hardy (2012) found that the traditional school structure is the main reason most professional development efforts fail; how do you create an effective professional development system when teachers leave the professional development to return to the isolation of their classrooms? Which format of professional development has the biggest impact on changing teacher behavior in the classroom?

This study sought to shed light on these issues. The data collection was completed through an online survey. To answer the questions of this study, an online survey was designed (Appendix C) for teachers and principals to respond to regarding professional development preferences. The results from this online survey study were compared to current research on professional development at all school levels. The online survey questions were based on the research of current professional development as presented in Chapter 2. I will share what

teachers believe to be effective approaches to professional development from the perspective of being actually implemented in the classroom.

Research Questions

The following research questions guided this study:

1. Is there significant interaction on the composite score for professional development among position type, years of experience, licensure, and gender?
2. Is there significant difference based on position type on the composite score for professional development?
3. Is there significant difference based on years of experience on the composite score for professional development?
4. Is there significant difference based on licensure on the composite score for professional development?
5. Is there significant difference based on gender type on the composite score for professional development?

Null Hypotheses

The following null hypotheses were addressed in the methodology of the research study.

1. There is no significant interaction on the composite score for professional development among position type, years of experience, licensure, and gender.
2. There is no significant difference based on position type on the composite score for professional development.
3. There is no significant difference based on years of experience on the composite score for professional development.

4. There is no significant difference based on licensure on the composite score for professional development.
5. There is no significant difference based on gender type on the composite score for professional development.

Research Design

This quantitative study sought to provide insight into what teachers believe to be the most effective professional development opportunities based on practitioner responses. The survey design was based on literature support to establish content validity. Each survey item was represented by a citation, denoting its importance to the research questions (Appendix C). The survey was in an electronic format with a two-week timeframe for participants to respond. Responses were collected and analyzed using descriptive statistics, repeated measures *t*-test, and ANOVA. Creswell (1996) supported the use of quantitative methods when the questions search for impact or differences. This study sought to amass a large enough sample size to report findings with confidence. Given the proposed sample size, findings should be easy to generalize to other schools across the Midwest. The online survey was piloted by educators from school districts across Indiana. The educators who participated in the piloting of the survey instrument provided feedback on the wording of the questions, the time they spent completing the survey instrument, and how easy the instrument was to complete. Based on the feedback from the pilot study, changes in the layout design, wording, and placement of questions were made to the survey.

Data Collection and Instrumentation

The survey was sent to 18 school districts from five Midwest states. Each of the following states had school districts that participated in the study: Indiana, Illinois, Michigan,

Ohio, and Kentucky. In order to ensure that a teacher was exposed to both school-level and district-level professional development, each district selected had a minimum of 5,000 students. Each school district in the state that had more than 5,000 students was assigned a number and placed on a number table. Then numbers were randomly drawn. The selected districts were requested to participate in the survey. I was able to assume the survey results were applicable to all teachers in the Midwest in school districts with 5,000 student enrollments or higher due to the reasonable power of the survey. The repeated measures *t*-test utilized an alpha level of .05 and a power of .8. The ANOVA utilized an alpha level of .05 and a power of .8. What teachers believe to be the most effective professional development approaches and discussion of the impact of alignment, or lack thereof, between the teacher and the building-level principal regarding professional development was documented.

The online survey consisted of 35 questions regarding professional development (Appendix C) to 18 total school districts in the Midwest. The survey was sent in accordance with Institutional Review Board (IRB) standards. An email was placed to school district leaders for each of the identified schools in order to receive approval from the corporation office to email a letter to school teachers and building-level principals inviting them to participate. Data from the survey were collected in the spring of 2013. The 35 online survey questions addressed professional development approaches in the participant's school and corporation. The sample participants were asked to provide basic demographic information (gender, years experience, and licensure area). Then they were asked to rate types of professional development using a 1 to 5 Likert-scale system relative to impact with some differentiating between school-based and district-based experiences. In this format, a 1 was considered a *very low impact* on changing the

teacher behavior and a 5 was considered a *very high level of impact* on changing the teacher behavior.

Data Analysis

For the first research question—What do teachers believe to be the most effective forms of professional development?—descriptive analyses revealed their preferences. For the second research question— Are there significant differences among teachers regarding most effective forms of professional development relative to gender, years of experience, and licensure area?—a 2 (gender) x 2 (licensure area) x 5 (years of experience) factorial ANOVA was run combining school-level and district-level responses. Teacher perception of effective professional development was the dependent variable. Gender, licensure area, and years of experience were the independent variables. Using a factorial ANOVA, I was able to report on the main effect of each independent variable (gender, licensure area, and years of experience) and the interactions between the independent variables. For the third research question—Is there a significant difference between teacher perceptions in regard to the ratings of quality of school-level versus district-level professional development?—because school level and district level were both independent variables and the same participant data were used, a repeated measures *t*-test was used. For the fourth research question—Is there alignment between teachers' responses and principals' responses?—a descriptive analyses revealed if there is alignment in perceptions.

Limitation

One possible limitation of this study was how the teacher and principal would respond. The research study was an online survey. I contacted school districts for permission to send teachers and principals the survey. I informed teachers and principals that their responses would be confidential and only used for my reporting as a group in the research study. Even with this

guarantee, some teachers and principals may have felt that their answers would be seen or known by their supervisors. Some of their answers could be affected by believing that the information would not be truly confidential.

Summary

Public school leaders are typically responsible for the professional development opportunities teachers seek and participate in. Sometimes they sponsor the activity, sometimes it is outsourced but still on the school property, sometimes the professional development occurs outside of the school jurisdiction. As presented in Chapter 2, despite all the time and money given to professional development, there is usually little change in teacher behavior, thus, student achievement. Well-implemented professional development should influence teacher behavior in the classroom. A challenge that teachers and administrators face is choosing from the different types of professional development available, especially when electronic delivery systems choices have become vast. Teachers and administrators need to know the best form of professional development and how to best implement that professional development, especially if it is produced by the school or district, with the intent of it making meaningful changes to teacher behavior in the classroom.

The purpose of this study was to find the best way to provide professional development in all grade-level school settings. The sample size in the study was currently employed, licensed, public school teachers and administrators from 18 different school corporations, in five different states in the Midwest.

CHAPTER 4

ANALYSIS OF DATA

The purpose of this quantitative study was to examine teachers' and principals' perception of the most effective professional development. Randomly selected school districts in five Midwest states with an enrollment of over 5,000 students were asked to participate in this online survey. Teacher and principal participation were completely voluntary. The online survey was then analyzed to determine teacher and principal perceptions of the most effective professional development. This chapter provides a description and analysis of the online survey. It presents a narrative of the descriptive data and the analysis of hypotheses and concludes with a summary.

Descriptive Data

This quantitative research study was focused on teacher and principal perception of effective professional development from five Midwest states: Indiana, Illinois, Ohio, Michigan, and Kentucky. A total of 396 teachers and principals participated in the study.

The research questions that guided this quantitative research study were:

1. Is there significant interaction on the composite score for professional development among position type, years of experience, licensure, and gender?
2. Is there significant difference based on position type on the composite score for professional development?

3. Is there significant difference based on years of experience on the composite score for professional development?
4. Is there significant difference based on licensure on the composite score for professional development?
5. Is there significant difference based on gender type on the composite score for professional development?

The online survey gathered demographic data in order to analyze teacher and principal perception of effective professional development. The first demographic question focused on the role of the participant, teacher or principal. Teachers represented 370 (93.4%) of the online survey participants. Principals represented 24 (6.1%) of the online survey participants. The second demographic question focused on the years of experience for each participant. The educators within this study had various levels of experience within the field of education. There were 49 (12.4%) with 0–5 years, 89 (22.5%) with 6–10 years, 63 with (15.9%) with 11–15 years, 63 with 16–20 years, and 106 educators with more than 20 years (26.8). The online survey collected licensure area data as well. Kindergarten–5th grade represented 197 (49.7%) of the online survey, 6th–12th grade represented 198 (50%) of the survey, and one participant (.3%) did not select a licensure type. The final demographic question asked the participants to identify their gender. There were 100 men (25.3%) and 295 women (74.5%) within the sample. One participant (.3%) did not identify his or her gender.

The participants were asked to complete an online survey of 35 questions on their perceptions of professional development. The survey used a 5-point Likert scale. The questions asked participants to answer professional development perception between school-level and

district-level professional development. It also asked participants to rate their perceptions of effective forms of professional development.

Table 1 shows the responses the participants selected on the online survey. The table contains the survey question number, the number of participants to answer the survey question, and the percent of participants responses of *strongly disagree*, *disagree*, *neutral*, *agree*, and *strongly agree.*

Table 1

Number (and Percentage) of Responses to Survey Items

	Responses				
Item	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Survey Question 1: I grow professionally through my experiences in professional development.	9 (2.3%)	55 (13.9%)	59 (14.9%)	211 (53.3%)	61 (15.4%)
Survey Question 2A: I grow professionally through my experiences in professional development at the school level.	2 (.5%)	23 (5.8%)	84 (21.2%)	157 (39.6%)	129 (32.6%)
Survey Question 2B: I grow more professionally by experience than professional development at the district level.	8 (2.0%)	39 (9.8%)	122 (30.8%)	123 (31.1%)	91 (23.0%)
Survey Question 4: Professional development activities always have learning outcomes appropriate for me.	29 (7.3%)	169 (42.7%)	61 (15.4%)	119 (30.1%)	16 (4.0%)
Survey Question 6A: I have a voice in professional development at the school level.	64 (16.2%)	124 (31.3%)	68 (17.2%)	108 (27.3%	32 (8.1%)
Survey Question 6B: I have a voice in professional development at the district level.	86 (21.7%)	154 (38.9%)	73 (18.4%)	66 (16.7%)	14 (3.5%)

Table 1 (continued)

Item	Responses				
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Survey Question 7A: I receive appropriate feedback from administration about implementations of the professional development at the school level.	62 (15.7%)	127 (32.1%)	84 (21.2%)	101 (25.5%)	22 (5.6%)
Survey Question 7B: I receive appropriate feedback from administration about implementation of the professional development at the district level.	79 (19.9%)	145 (36.6%)	102 (25.8%)	60 (15.2%)	7 (1.8%)
Survey Question 8A: After professional development, I am left to implement by myself at the school level.	8 (2.0%)	45 (11.4%)	56 (14.1%)	220 (55.6%)	67 (16.9%)
Survey Question 8B: After professional development, I am left to implement by myself at the district level.	3 (.8%)	34 (8.6%)	53 (13.5%)	210 (53.0%)	93 (23.5%)
Survey Question 9A: Professional development is engaging at the school level.	23 (5.8%)	88 (22.2%)	119 (30.1%)	149 (37.6%)	16 (4.0%)
Survey Question 9B: Professional development is engaging at the district level.	29 (7.3%)	105 (26.5%)	125 (31.6%)	122 (30.8%)	12 (3.0%)
Survey Question 10A: I am allowed to provide feedback to administrators regarding professional development at the school level.	29 (7.3%)	90 (22.7%)	62 (15.7%)	180 (45.5%)	34 (8.6%)
Survey Question 10B: I am allowed to provide feedback to administrators regarding professional development at the district level.	34 (8.6%)	81 (20.5%)	70 (17.7%)	175 (44.2%)	33 (8.3%)

Table 1 (continued)

Item	Responses				
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Survey Question 11A: I receive focus support from administrators to implement the professional development at the school level.	40 (10.1%)	128 (32.3%	81 (20.5%)	134 (33.8%)	13 (3.3%)
Survey Question 11B: I receive focus support from administrators to implement the professional development at the district level.	53 (13.4%)	145 (36.6%)	104 (26.3%)	85 (21.6%	6 (1.5%)
Survey Question 12A: I am given time and resources to implement the strategies from professional development by the school administrator.	59 (14.9%)	134 (33.8%)	78 (19.7%)	117 (29.5%)	8 (2.0%)
Survey Question 12B: I am given time to implement the strategies from professional development by the district level administrators.	65 (16.4%)	138 (34.8%)	89 (22.6%)	100 (25.3%)	1 (.3%)
Survey Question 13A: I would be successful without professional development at the school level.	31 (7.8%)	95 (24.0%)	59 (14.9%)	167 (42.3%)	43 (10.9%)
Survey Question 13B: I would be successful without professional development at the district level.	31 (7.8%)	83 (21.0%)	74 (18.7%)	157 (39.6%)	48 (12.2%)
Survey Question 14A: School level professional development is aligned to school goals.	6 (1.5%)	25 (6.3%)	62 (15.7%)	240 (60.6%)	63 (15.9%)
Survey Question 14B: District level professional development is aligned to school goals.	12 (3.0%)	41 (10.4%)	87 (22.0%)	207 (52.3%)	47 (11.9%)

Table 1 (continued)

Item	Responses				
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Survey Question 15A: Professional development accommodates adult learning style at the school level.	49 (12.4%)	142 (35.9%)	90 (22.7%)	105 (26.5%)	0 (2.3%)
Survey Question 15B: Professional development accommodates adult learning style at the district level.	57 (14.4%)	150 (37.9%)	100 (25.3%)	81 (20.5%)	6 (1.5%)
Survey Question 16A: I try to fully implement school level professional develop activities in my classroom.	4 (1.0%)	16 (4.0%)	74 (18.7%)	248 (62.6%)	50 (12.6%)
Survey Question 16B: I try to fully implement district level professional development activities in my classroom.	6 (1.5%)	29 (7.3%)	89 (22.5%)	218 (55.1%)	48 (12.1%)
Survey Question 18A: Time to observe teachers at the school level would be effective professional development.	5 (1.3%)	14 (3.5%)	39 (9.8%)	184 (46.5%)	154 (38.9%)
Survey Question 18B: Time to observe teachers at the district level would be effective professional development.	6 (1.5%)	22 (5.6%)	53 (13.4%)	168 (42.4%)	144 (36.4%)
Survey Question 17: Receiving more money is a motivating factor to stay in education.	15 (3.8%)	37 (9.3%)	38 (9.6%)	138 (34.8%)	167 (42.3%)
Survey Question 20: I believe that higher education institutions are an effective form of professional development.	10 (2.5%)	38 (9.6%)	72 (18.2%)	188 (47.5%)	87 (22.0%)

Table 1 (continued)

Item	Responses				
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Survey Question 21: Attending conferences and workshops away from school is an effective form of professional development.	1 (1.0%)	10 (2.5%)	44 (11.1%)	192 (48.5%)	144 (36.4%)
Survey Question 22: More time to discuss student data and instructional practices is an effective form of professional development.	6 (1.5%)	18 (4.5%)	28 (7.1%)	173 (43.7%)	170 (42.9%)
Survey Question 23: Time to watch a podcast or read a blog is an effective form of professional development.	19 (4.8%)	81 (20.5%)	123 (31.1%)	138 (34.8%)	35 (8.8%)
Survey Question 24: Social media (Facebook, Twitter, Pinterest, or Live Journal) is an effective form of professional development.	51 (12.9%)	120 (30.3%)	107 (27.0%)	94 (23.7%)	21 (5.3%)
Survey Question 25: Webinars, virtual classrooms, Skype, and video conferencing are effective forms of professional development.	12 (3.0%)	68 (17.2%)	120 (30.3%)	166 (41.9%)	30 (7.6%)
Survey Question 26: Working in a professional learning community would be an effective form of professional development.	3 (.8%)	12 (3.0%)	41 (10.4%)	218 (55.1%)	121 (30.6%)
Survey Question 29: Professional development provides me with more leadership opportunities in the building.	39 (9.8%)	116 (29.3%)	92 (23.2%)	118 (29.8%)	31 (7.8%)
Survey Question 30: Principal led professional development makes a better teacher.	35 (8.8%)	90 (22.7%)	126 (31.8%)	115 (29.0%)	28 (7.1%)

Table 1 (continued)

Item	Responses				
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Survey Question 31: I implement deeper with a community of learners versus by myself.	4 (1.0%)	19 (4.8%)	58 (14.6%)	209 (52.8%)	104 (26.3%)
Survey Question 27: My school uses a professional learning community model for professional development.	28 (7.1%)	75 (18.9%)	105 (26.5%)	138 (34.8%)	46 (11.6%)
Survey Question 32: I would be more effective implementing professional development with a mentor or peer-coach.	28 (7.1%)	75 (18.9%)	105 (26.5%)	138 (34.8%)	46 (11.6%)
Survey Question 34: Accountability by a team of teachers will increase implementation of professional development.	14 (3.5%)	48 (12.1%)	65 (16.4%)	214 (54.0%)	54 (13.6%)
Survey Question 35: Accountability by the principal will increase implementation of professional development.	23 (5.8%)	72 (18.2%)	80 (20.2%)	176 (44.4%)	43 (10.9%)
Survey Question 36: I enjoy my career as an educator.	4 (1.0%)	10 (2.5%)	24 (6.1%)	134 (33.8%)	224 (56.6%)

Of the 61 respondents who *strongly agreed* to this Question 1, 41 of the respondents were licensed in kindergarten–5th grade. Of the 64 respondents that who *disagreed* or *strongly disagreed*, 33 were also licensed in kindergarten–5th grade.

In terms of years of experience, 28% of teachers with 0–5 years of experience and 26.9% of teachers with 6–10 years of experience *disagreed* or *strongly disagreed*. For teachers with 21 or more years of experience, 9.4% chose *disagree* or *strongly disagree*. Male and female

responses were similar to each other. Male respondents (*N* = 15, 15%) chose *strongly agree* as did 15.6% of the female respondents. A higher percentage of principals (*N* = 19, 78.9%) chose *agree* or *strongly agree* as compared to teachers (*N* = 255, 67.9%). Also, proportionately more principals (*N* = 3, 12.5%) chose *strongly disagree* compared to teachers (*N* = 9, 2.4%).

Teachers and principals regardless of licensure area, years of experience, or gender responded that they believe they grow more from experience than they do by professional development. Teachers and principals showed a difference in their choice of *strongly agree* to Question 2A. Teachers (*N* = 125, 33.8%) selected that they *strongly agreed* to classroom experience over professional development as compared to principals (*N* = 4, 16.7%).

Teacher and principals (*N* = 214, 54.1%) chose classroom experience over professional development at the district level. Question 2B also reported a high number of *neutral* (*N* = 122, 30.8%) responses. Principals (*N* = 15, 62.5%) took more of a *neutral, disagree*, or *strongly disagree* response versus teachers (*N* = 154, 41.6%). Teachers and principals selected *agree* or *strongly agree* to show that they believed that they grew more through professional development at the school level (*N* = 286, 72.2%) versus district level (*N* = 214, 54.1%). Teachers and principals selected *disagree* or *strongly disagree* more at the district level (*N* = 47, 11.8%) than at the school level (*N* = 25, 6.3%). In both responses school-level and district-level participants showed that their perceptions were that they learned more through experience than professional development.

Both areas of licensure, in 6th–12th grade (*N* = 107, 54.0%) and kindergarten–5th grade (*N* = 90, 45.7%) showed a higher percent that *strongly disagreed* or *disagreed* to Question 4. Years of experience did show a difference of perception, especially after the first five years of teaching. Years of experience showed the following results for *strongly disagree* or *disagree*: 0–

5 (*N* =19, 38.7%); 6–10 (*N* = 50, 56.2%); 11–15 (*N* = 48, 53.9%); 16–20 (*N* = 32, 50.8%); and 21 or more years of experience (*N* = 49, 45.2%). Female respondents (*N* = 155, 52.6%) were more likely to *strongly disagree* or *disagree* versus male respondents (*N* = 42, 42%). Principal and teacher perception was also different. Principals (*N* = 13, 54.2%) believed that there was more alignment and chose *agree* or *strongly agree* versus teachers (*N* = 120, 32.4%).

In Question 6A perception of having no voice in professional development at the school level, licensure area for both kindergarten–5th grade (*N = 89*, 45.2%) and 6th–12th grade (*N = 98*, 49.2%) responded with *strongly disagree* or *disagree*. The perception of having no voice in professional development at the school level stayed constant through years of experience: 0–5 (*N* = 24, 49%); 6–10 (*N* = 46, 51.7%); 11–15 (*N* = 41, 46.1%); 16–20 (*N* = 27, 42.9%); and 20 or more years of experience (*N* = 50, 47.2%). In addition, male respondents (*N* = 46; 46%) and female respondents (*N* = 141, 47.8%) continued the perception of having no voice in professional development at the school level. Teachers and principals showed a difference in perception of having a voice in professional development at the school level. Teachers (*N* = 184, 49.7%) revealed a high percent of not having a voice in comparison to principals (*N* = 4, 16.7%).

In Question 6B perception of having no voice in professional development at the district level Kindergarten–5th grade (*N* = 120, 61.2%) and 6th–12th grade (*N* = 119, 60.7%) licensure areas participants both selected *strongly disagree* or *disagree*. Years of experience also showed a higher perception of *strongly disagree* or *disagree* on having a voice on professional development activities at the district level; 0–5 (*N* = 26, 53.1%); 6–10 (*N* = 57, 64%); 11–15 (*N* = 57, 16–20; *N* = 33, 54.1%); and 20 or more years of experience *(N* = 67, 63.2%). Male respondents (*N* = 64, 64%) and female respondents *(N* = 175, 59.9%) continued the high response of having a perception of no voice in district level professional development. Teachers

and principals showed different perceptions of voice in district level professional development. Teachers (*N* = 233, 63.5%) *strongly disagreed* or *disagreed* on having a voice versus principals (*N* = 7, 29.2%). If you add in the category *neutral* to the teachers and principals, the split of perception becomes greater—teachers (*N* = 300, 82%) and principals (*N* = 11, 45.8%). In responses at both the school level and district level to having a voice in professional development, there was a lack of a perception of a voice. Teachers at both levels, school (*N* = 184, 49.7%) and district (*N* = 233, 63.5%) showed a perception of no voice. Teacher perception for *strongly agree* or *agree* was a little stronger for school level (*N* = 140, 35.4%) voice versus district level (*N* = 80, 20.2%).

The respondents in Question 7A with a 6th–12th grade licensure (*N* =102, 51.5%) were more likely to *strongly disagree* or *disagree* than kindergarten–5th grade licensure respondents (*N* = 86, 43.7%) on receiving appropriate feedback from their building administrator. Years of experience showed a difference in teacher perception of receiving appropriate feedback from their building administrators. Participants responded *strongly disagree* or *disagree* by years of experience: 0–5 (*N* = 18, 36.7%); 6–10 (*N* = 45, 50.6%); 11–15 (*N* = 44, 49.4%); 16–20 (*N* = 35, 55.6%); and 20 or more years of experience (*N* = 47, 44.3%). Principals (*N* = 13, 54.1%) held the perception that they *agreed* or *strongly agreed* that they provide appropriate feedback about teacher implementation of the professional development. Teachers (*N* = 109, 29.5%) held the perception that they *agreed* or *strongly agreed* that the building principal provides appropriate feedback in order to implement the professional development.

Kindergarten–5th grade licensure respondents (*N* = 35, 17.8%) and 6th–12th licensure respondents (16.1%) areas both had a small percent of participants that had the perception that they received appropriate feedback from district level administrators by choosing *agree* or

strongly agree in Question 7B. Years of experience also showed a small percent of participants had the perception that the district level provides appropriate feedback for the implementation of professional development based on *agree* or *strongly agree* responses: 0–5 (*N* = 10, 20.4%); 6–10 (*N* = 10, 11.2%); 11–15 (*N* = 17, 19.1%); 15–20 (*N* = 8, 12.7%); and 20 or more years of experience (*N* = 22, 20.8%). Female respondents (*N* = 176, 60.3%) had a much higher percent than male respondents (*N* = 47, 47%) to have a perception that the district level did not provide appropriate feedback as indicated by *strongly disagree* or *disagree* response. Teachers (*N* = 55, 14.9%) and principals (*N* =11, 45.8%) showed a very different perception of the level of appropriate feedback from the district level based by *agree* or *strongly agree* responses. Participants' perceptions of appropriate feedback by an administrator of the implementation of the professional development showed higher percent of appropriate feedback for school level administration (*N* = 123, 31.1%) versus district level administration (*N* = 67, 17%) based on *agree* or *strongly agree* responses.

The respondents in Question 8A who were 6th–12th grade teachers (*N* = 152, 76.8%) had a higher perception of being left alone to implement professional development than kindergarten–5th grade teachers (*N* = 134, 68%). Both identified a high perception regardless of licensure that they are left alone to implement the professional development at the school level. Years of experience showed a small percent of participants felt a perception of support after the professional development, based on responses of *agree* or *strongly agree* that they are left alone to implement professional development: 0–5 (*N* = 31, 63.2%), 6–10 (*N* = 66, 74.1%), 11–15 (*N* = 68, 76.4%), 16–20 (*N* =47, 74.6%), and 20 or more years of experience (*N* = 75, 70.8%).

Female respondents (*N* = 217, 73.6%) had a greater perception of being left alone to implement professional development compared to male respondents (*N* = 69, 69.0%). Teachers

(*N* = 271, 73.3%) had the perception that they are left alone to implement school level professional development. Principals (*N* = 15, 62.5%) had the perception that they are left alone to implement professional development.

Participants in Question 8B for both licensure area kindergarten–5th grade (*N* = 20, 10.1%) and 6th–12th grade (*N* = 17, 8.6%) showed perception of a low level of support from the district level to implement the information from the professional development. Years of experience showed a perception of low level of district support to implement the information from the professional development training: 0–5 (*N* = 3, 6.1%), 6–10 (*N* = 9, 10.1%), 11–15 (*N* = 11, 12.3%), 16–20 (*N* = 5, 7.9%), and 20 or more years of experience (*N* = 9, 8.5%). Male respondents (*N* = *11*, 11%) and female respondents (*N* = 26, 8.8%) showed a perception of lack of support from the district level. Teachers (*N* = 33, 8.9%) displayed that teachers have a strong perception of being left alone to implement professional development by the district level. Participants' perceptions of professional development were that they are left alone to implement the professional development at both the school and district level.

Less than half of the participants in Question 9A in both licensure area kindergarten–5th grade (*N* = 86, 43.7%) and 6th–12th grade (*N* = 78, 39.4%) had the perception that professional development was engaging at the school level. This perception of lack of engaging professional development activities was seen in every level of years of experience: 0–5 (*N* = 24, 49%), 6–10 (*N* = 30, 33.7%), 11–15 (*N* = 39, 43.8%), 15–20 (*N* = 28, 44.4%), and 20 or more years of experience (*N* = 44, 41.5%), in both male respondents (*N* = 40, 40%) and female respondents (*N* = 125, 42.3%). Principals (*N* = 15, 62.5%) and teachers (*N* = 149, 40.3%) had very different perceptions of the engagement of school level professional development.

In Question 9B, both licensure area, kindergarten–5th grade (*N* = 73, 37.1%) and 6th–12th grade (*N* = 61, 30.8%) have a strong perception that they agree or strongly agree that district level professional development is not engaging. Teachers with 0–5 (*N* = 50, 44.9%) years of experience were more likely to have a perception that district level professional development is engaging compared to other levels: 6– (10 *N* = 25, 28%), 11–15 (*N* = 26, 29.2%), 16–20 (*N* = 21, 33.3%) and 20 or more years of experience (*N* = 40, 37.7%). Principals (*N* = 16, 66.7%) were much more likely to have the perception that district level professional development was engaging compared to teachers (*N* = 117, 31.6%).

In focusing on the perception of engagement at both the school level (*N* = 165, 41.6%) and district level (*N* = 134, 33.8%), participants had a perception that professional development is not engaging. In addition principals were much more likely to have the perception that professional development was engaging when compared to teachers.

About half of participants in Question 10A, regardless of whether the licensure area was kindergarten–5th grade (*N* = 96, 53.8%) or 6th–12th grade (*N* = 108, 54.6%), had the perception that they were allowed to provide meaningful feedback to administrators about professional development at the school level. Teachers with 20 or more years of experience (*N* = 61, 57.6%) and those in the range 0 – 5 (*N* = 29, 59.2%) were more likely to have the perception that they could provide meaningful feedback to the school level administrator verses other levels of years of experience: 6–10 (*N* = 46, 51.7%), 11–15 (*N* = 47, 52.8%) and 16–20 (*N* = 31, 49.2%). Principals (*N* = 18, 75%) had a much higher perception that opportunity is provided for meaningful feedback than teachers (*N* = 195, 52.7%).

About half of participants in Question 10B regardless of licensure area, kindergarten–5th (*N* = 109, 55.3%) and 6th–12th (*N* = 99, 50%), had the perception that they were allowed to

provide meaningful feedback to administrators about professional development at the district level. Participants with 20 or more years of experience (*N* = 59, 55.7%) and 6–10 (*N* = 51, 57.3%) reported the highest percent of perception that they could provide meaningful feedback to district level administrators as compared to other levels: 0–5 (*N* = 26, 53.1%), 11–15 (*N* = 41, 46%), and 16–20 (*N* = 31, 49.2%). Female respondents (*N* = 165, 55.9%) reported a higher perception of being able to provide meaningful feedback of professional development to district level administrators than male respondents (*N* = 44, 44%). Principals (*N* = 16, 66.7%) reported a higher perception of being able to provide meaningful feedback of professional development to district level administrators than teachers (*N* = 191, 51.6%). Just over half of the participants at the school level (*N* = 214, 54.1%) and at the district level (*N* = 208, 52.5%) had a perception that they had an opportunity to provide meaningful feedback to administrators.

In Question 11A, participants from both licensure areas, kindergarten–5th (*N* = 82, 41.6%) and 6th–12th grade (*N* = 65, 32.8%), had a perception that they *agree* or *strongly agree* that they received focus support from administrators to implement the professional development. In every level of experience, less than half the participants had the perception that they received focus support from the building administrator when implementing professional development. Participants with 0–5 years of experience (*N* = 22, 44.9%) and 20 years or more of experience (*N* = 47, 44.4%) were more likely to have the perception that they receive focus support from the school level administrator to implement the professional development compared to other levels of years of experience: 6–10 (*N* = 24, 26.9%), 11–15 (*N* = 29, 32.6%), and 16–20 (*N* = 25, 39.6%).

Female respondents (*N* = 103, 35%) were more likely to have the perception of support compared to male respondents (*N* = 31, 31%). Principals (*N* = 20, 83.3%) reported a high level

of perception of providing focus support of implementation of professional development. In fact, not one principal recorded that they *disagreed* or *strongly disagreed*. Teachers (*N* = 126, 34.1%) reported a much lower level of perception that they receive focus support to implement professional development.

In Question 11B, kindergarten–5th (*N* = 69, 35%) and 6th–12th grade teachers (*N* = 45, 22.7%) responded that they *agree* or *strongly agree* with the perception that they received focus support from a district administrator to implement the professional development. Both licensure areas had a lower percent agree or strongly agree compared to the school level. Participants with 20 or more years of experience (*N* = 32, 30.2%) and 16 – 20 years of experience (*N* = 20, 31.8%) reported the highest level of perception that they receive focus support to implement professional development from a district administrator as compared to the other levels of experience: 0–5 (*N* = 12, 24.5%), 6–10 (*N* = 11, 12.4%), and 11–15 (*N* = 16, 17.9%). Male respondents (*N* = 42, 42%) reported a higher *agree* or *strongly agree* with the perception of focus support from a district administrator as compared to female respondents (*N* = 60, 20.4%). Principals (*N* = 15, 62.5%) reported a much higher perception of focus support by a district administrator than teachers (*N* = 75, 20.3%). Participants had a perception of more focus support from the school level (*N* = 144, 37.1%) administrator than from the district level (*N* = 91, 23%) administrator. At both the school level and the district level, principals were much more likely to agree or strongly agree that support is provided.

In Question 12A, kindergarten–5th grade (*N* = 85, 43.2%) reported a perception that they *disagree* or *strongly disagree* that they are given ample time and resources to implement professional development by the school level administrator with (*N* = 43, 21.8%) selecting *neutral*. When *neutral* was included, 65% of kindergarten–5th grade licensure teachers did not

agree or *strongly agree* with Question 12A. Teachers in 6th–12th grade (*N* = 107, 54.1%) licensure also showed a perception of *disagree* or *strongly disagree* that they are given ample time and resources to implement professional development by the school level administrator with (*N* = 35, 17.7%) selecting *neutral*. When *neutral* was included, 71.8% of 6th–12th grade licensure teachers did not *agree* or *strongly agree*. Participants with 0–5 (*N* = 15, 30.6%) years of experience were much more likely to not choose *strongly disagree* or *disagree* as compared to the other levels of years of experience; 6–10 (*N* = 50, 56.2%), 11–15 (*N* = 39, 43.8%), 16–20 (*N* = 33, 54.0%), and 20 or more years of experience (*N* = 33, 54%).

Male respondents (*N = 42*, 42%) were much more likely to *agree* or *strongly agree* that they received ample time and resources than female respondents (*N* = 83, 28.2%). Principals (*N = 16*, 66.7%) had a much higher perception that ample time and resources to implement professional development activities by the school level administrator than teachers (*N* = 109, 29.5%).

In Question 12B, only one participant indicated *strongly agree* that the district level provided ample time and resources to implement professional development. Only 25.3% (*N* = 101) responded *agree* or *strongly agree* that the district provides ample time and resources to implement professional development. Kindergarten–5th grade licensure participants (*N* = 97, 50%) selected *strongly disagree* or *disagree* and (*N* = 45, 22.8%) *neutral* accounting for 73.2% of participants. Licensure participants in 6th to 12th grades (*N* = 105, 53%) selected *strongly disagree* or *disagree* and (*N* = 44, 22.2%), *neutral* accounting for 75.2% of participants. Participants with 0–5 years of experience (*N* = 13, 26.5%) were the least likely to *disagree* or *strongly disagree* with the perception that they are given ample time and resources to implement professional development as compared to other levels of years of experience: 6–10 (*N* = 53,

59.6%), 11–15 (*N* = 44, 49.4%), 16–20 (*N* = 38, 61.3%), and 20 years or more of experience (*N* = 55, 52.9%).

Female respondents (*N* = 160, 54.8%) were much more likely to *strongly disagree* or *disagree* than male respondents (*N* = 42, 42%) with the perception that they are given ample time and resources to implement professional development. Teachers (*N* = 199, 54.2%) were much more likely to *strongly disagree* or *disagree* than principals (*N* = 3, 12.5%) with the perception that they are given ample time and resources to implement professional development by the district level. At both the school level (*N* = 193, 48.7%) and the district level (*N* = 203, 51.2%), participants perception was that they *strongly disagreed* or *disagreed* with Questions 12A that they are given ample time and resources to implement professional development. Principals and teachers also showed a very different perception to Question 12B.

In Question 13A, kindergarten–5th grade licensure participants (*N* = 92, 46.7%) and 6th–12th grade licensure participants (*N* = 118, 59.6%) selected *agree* or *strongly agree* with the perception that they would be successful without professional development at the school level. When looking at years of experience, 0–5 (*N* = 25, 51%), 6–10 (*N* = 48, 53.9%), 11–15 (*N* = 51, 53.7%), 16–20 (*N* = 31, 49.2%), and 20 or more years of experience (*N = 55*, 51.9%) chose *agree* or *strongly agree* with the perception that they would be successful without professional development at the school level.

Male respondents (*N* = 51, 51%) and female respondents (*N* = 149, 50.5%) showed almost the exact same response of *agree* or *strongly agree* with the perception that they would be successful without professional development at the school level. Teachers (*N* = 201, 54.4%) were more likely to have the perception that they would successful without professional development than principals (*N* = 9, 37.5%).

In Question 13B, the respondents with a 6th–12th grade licensure (*N* = 117, 59.1%) were more likely to have the perception of *strongly agree* or *agree* to being successful without professional development by the district level compared to kindergarten–5th grade licensure participants (*N* = 88, 44.6%). Participants with 15–20 years of experience (*N* = 48, 76.2%) were more likely to have the perception of *strongly agree* or *agree* to being successful without professional development by the district level as compared to other levels of experience: 0–5 (*N* = 24, 49%), 6–10 (*N* = 46, 51.7%), 11–15 (*N* = 48, 53.9%), or 20 or more years of experience (*N* = 54, 51%).

Male respondents *(N* = 61, 61%) were more likely to have the perception of *strongly agree* or *agree* to being successful without professional development by the district level compared to female respondents (*N* = 144, 48.8%). Teachers *(N* = 195, 52.57%) were more likely to have the perception of *strongly agree* or *agree* to being successful without professional development by the district level compared to principals (*N* = 10, 41.7%).

In Question 14A, both kindergarten–5th grade (*N* = 150, 76.1%) and 6th–12th grade (*N* = 152, 76.8%) responded with the perception of *agree* or *strongly agree* that their professional development at the school level is aligned to school goals. Participants with 0–5 (*N* = 42, 85.7%) were much more likely to have the perception of *agree* or *strongly agree* compared to other levels of experience; 6–10 (*N* = 63*, 70.8%),* 11–15 *(N* = 70, 78.7%), 16–20 (*N* = 48, 76.2%), and 20 or more years of experience (*N* = 80, 75.4%). Principals (*N* = 21, 87.5%) had more of a perception that school level professional development is aligned to school goals in comparison to teachers (*N* = 235, 75.7%).

In Question 14B, kindergarten–5th grade licensure (*N = 124*, 62.9%) and 6th–12th grade licensure participants (*N* = 130, 65.7%) provided similar perceptions to district level professional

development being aligned to school goals. Participants with 0–5 (*N* = 36, 73.4%) years of experience had a perception to *agree* or *strongly agree* that district level professional development was aligned to school goals in comparison to other levels of experience: 6–10 (*N* = 54, 60.7%), 11–15 (*N* = 50, 56.2%), 16–20 (*N* = 42, 66.6%), and 20 or more years of experience (*N* = 72, 67.9%). Male respondents (*N* = 68, 68%) were a little more likely to *agree* or *strongly agree* with perception that district level professional development was aligned to school goals compared to female respondents (*N* = 186, 63.1%). Principals (*N* = 17, 70.8%) were a little more likely to *agree* or *strongly agree* with the perception that district level professional development was aligned to school goals compared to teachers (*N* = 186, 73.5%). Participants perception of professional development being aligned to school goals resulted in *agree* or *strongly agree* at the school level (*N* = 303, 76.5%) more so than at the district level (*N* = 254, 64.2%).

In Question 15A, kindergarten–5th grade licensure participants' (*N* = 57, 29%) and 6th–12th grade licensure participants' (*N* = 57, 28.8%) perception that school level professional development takes into account adult learning styles. Participants with 0–5 (*N* = 17, 34.7%) had a higher perception that school level professional development takes into account adult learning styles in comparison to other levels of experience: 6–10 (*N* = 24, 27%), 11–15 (*N* = 25, 28.1%), 16–20 (*N* = 19, 30.2%), and 20 or more years of experience (*N* = 29, 27.4%).

Female respondents (*N* = 86, 29.1%) were a little more likely to *agree* or *strongly agree* with the perception that school level professional development takes into account adult learning styles compared to males (*N* = 28, 28%). Principals (*N* = 12, 50%) were a little more likely to *agree* or *strongly agree* with the perception that school level professional development takes into account adult learning styles compared to teachers (*N* = 101, 27.3%).

In Question 15B, kindergarten–5th grade licensure participants (*N* = 44, 22.8%) and 6th–12th grade licensure participants (*N* = 42, 21.2%) had the perception that district level professional development takes into account adult learning styles. Participants with 0–5 (*N* = 13, 26.5%) had a higher perception that district level professional development takes into account adult learning styles in comparison to other levels of experience: 6–10 (*N* = 17, 19.1%), 11–15 (*N* = 18, 20.2%), 16–20 (*N* = 15, 23.8%), and 20 or more years of experience (*N* = 24, 23.8%). Female respondents (*N* = 232, 78.6%) were a more likely to *agree* or *strongly agree* with the perception that district level professional development takes into account adult learning styles compared to male respondents (*N* = 65, 65%). Principals (*N* = 10, 41.7%) were much more likely to *agree* or *strongly agree* with the perception that district level professional development takes into account adult learning styles compared to teachers (*N* = 101, 25.3%). Both school level (*N* = 114, 28.8%) and district level (*N* = 87, 22%) had a low percent of participants to *agree* or *strongly agree* with the perception that the school or district took into account their adult learning style when providing professional development.

Both kindergarten–5th grade licensure teachers (*N* = 155, 78.7%) and 6th–12th grade licensure teachers (*N* = 142, 71.7%) had a high perception of *agree* or *strongly agree* with Question 16A that they try to fully implement school level professional development into their classroom. Participants regardless of years of experience had a high perception that they try to fully implement school level professional development into their classrooms: 0–5 (*N* = 40, 81.6%), 6–10 (*N* = 60, 67.4%), 11–15 (*N* = 68, 76.4%), 16–20 (*N* = 50, 79.4%), and 20 or more years of experience (*N* = 80, 75.5%).

Although both had a high perception, female respondents (*N* = 222, 78.6%) had a little higher *agree* or *strongly agree* response with Question 16A that they try to fully implement

school level professional development into their classroom than males (*N* = 65, 65%). Teachers (*N* = 278, 75.1%) and principals (*N* = 18, 75%) had almost the exact same perception based on percent for trying to fully implement school level professional development into the classroom.

In Question 16B, both kindergarten–5th grade licensure teachers (*N* = 142, 72.1%) and 6th–12th grade licensure teachers (*N* = 123, 62.1%) showed by selecting *agree* or *strongly agree* that they do have a high perception of trying to fully implement district level professional development into their classrooms. Female respondents (*N* = 210, 71.2%) had a much higher perception of trying to fully implement district level professional development than male respondents (*N* = 55, 55%). Teachers (*N* = 248, 67.1%) responded with a higher perception of trying to implement district level professional development than principals (*N* = 16, 66.6%).

In Question 18A, both kindergarten–5th grade licensure teachers (*N* = 169, 85.8%) and 6th–12th grade licensure teachers (*N* = 168, 84.9%) selected *agree* or *strongly agree* that their perception is that being given time to observe other teachers in their school would be an effective form of professional development. Principals (*N* = 22, 91.7%) were slightly higher in their perception based on *agree* or *strongly agree* that time to observe teachers at the school level would be effective professional development than teachers (*N* = 314, 84.9%).

In Question 18B, both licensure area kindergarten–5th grade (*N* = 159, 80.7%) and 6th–12th grade (*N* = 152, 76.7%) reported a high *agree* or *strongly agree* perception percent that having time to observe teachers at a district level would be an effective form of professional development. Teachers with 20 or more years of experience (*N* = 76, 71.7%) reported the smallest percent to have the perception of *agree* or *strongly agree* compared to other levels of experience: 0–5 (*N* = 40, 81.7%), 6–10 (*N* = 74, 83.2%), 11–15 (*N* = 70, 78.7%), and 16–20 (*N* = 52, 82.5%). Female respondents (*N* = 236, 80%) were just a little higher than male respondents

(*N* = 75, 75%). Principals (*N* = 22, 91.6%) had a higher perception than teachers (*N* = 288, 77.8%) that observing other teachers a district level is an effective form of professional development.

In Question 17, both licensure area kindergarten–5th grade teachers (*N* = 151, 76.7%) and 6th–12th grade teachers (*N* = 153, 77.2%) reported a high *agree* or *strongly agree* perception that receiving more money is a motivating factor to continue in education. Although all levels of experience reported a high percent, teachers with 0–5 (*N* = 45, 91.9%) years or experience reported a higher perception that making more money was a motivating factor compared to other level of years of experience: 6–10 (*N* = 74, 83.2%), 11–15 (*N* = 68, 76.4%), 16–20 (*N* = 49, 77.8%). Male respondents (*N* = 75, 75%) and female respondents (*N* = 229, 77.6%) reported close to the same perception percent for *agree* or *strongly agree*. Principals (*N* = 12, 50%) showed the lower perception of *agree* or *strongly agree* than teachers (*N* = 298, 79%).

In Question 20, kindergarten–5th grade licensure teachers *(N* = 137, 69.5%) and 6th–12th grade licensure teachers (*N* = 137, 69.2%) had almost the exact same perception that higher education institutions is an effective form of professional development. Teachers with 0–5 (*N* = 39, 79.6%) years of experience reported the highest perception percent that higher education institutions are an effective form of professional development compared to other levels of experience: 6–10 (*N* = 60, 67.4%), 11–15 (*N* = 64, 71.9%), 16–20 (*N* = 33, 68.2%) and 20 or more years of experience (*N* = 69, 65.1%). Male respondents (*N* = 69, 69%) and female respondents (*N* = 206, 69.8%) reported almost the same percent. Principals (*N* = 19, 79.2%) reported a high perception than teachers (*N* = 156, 69.2%) that continuing courses at higher education institutions are an effective form of professional development.

In Question 21, both Kindergarten–5th grade licensure teachers (*N* = 170, 86.3%) and 6th–12th grade licensure teachers (*N* = 165, 83.4%) showed a high selection of *agree* or *strongly agree* to the perception that attending conferences and workshops away from school is in effective form of professional development. Teachers with 0–5 (*N* = 45, 91.8%) reported the highest *agree* or *strongly agree* with the perception that attending conferences and workshops away from school is in effective form of professional development compared to other levels of experience: 6–10 (*N* = 72, 80.9%), 11–15 (*N* = 72, 80.9%), 16–20 (*N* = 54, 85.7%), and 20 or more years of experience (*N* = 93, 87.7%). Female respondents (*N* = 259, 87.8%) reported a higher perception of *agree* or *strongly agree* than male respondents (*N* = 77, 77%). Principals (*N* = 20, 83.3%) and teachers (*N* = 315, 85.2%) reported close to the same percent of perception of *agree* or *strongly agree.*

In Question 22, kindergarten–5th grade licensure teachers (*N* = 176, 89.3%) and 6th–12th grade licensure teachers (*N* = 166, 83.9%) both reported high levels of *agree* or *strongly agree* with the perception that more time to discuss student data and instructional practices is an effective form of professional development. All levels of years of experience, 0–5 (*N* = 43, 87.8%), 6–10 (*N* = 76, 85.3%), 11–15 (*N* = 79, 88.8%), 16–20 (*N* = 55, 87.3%) and 20 or more years of experience (*N* = 90, 84.9%), reported a high percent of *agree* of *strongly agree* with the perception that more time to discuss student data and instructional practices is an effective form of professional development.

Female respondents (*N* = 264, 89.5%) were more likely to have a perception to *agree* or *strongly agree* that more time to discuss student data and instructional practices is an effective form of professional development than male respondents (*N* = 78, 78%). Principals (*N* = 23, 95.8%) were more likely to have a perception that they *agree* or *strongly agree* that more time

to discuss student data and instructional practices is an effective form of professional development than teachers (*N* = 318, 85.9%).

In Question 23, kindergarten–5th grade licensure teachers (*N* = 93, 47.2%) and 6th–12th grade licensure teachers (*N* = 80, 40.4%) reported a perception of *agree* or *strongly agree* that more time to watch a professional podcast or read a professional blog is an effective form of professional development. All levels of years of experience, 0–5 (*N* = 23, 47%), 6–10 (*N* = 40, 45%), 11–15 (*N* = 37, 41.6%), 16–20 (*N* = 24, 38.1%) and 20 or more years of experience (*N* = 49, 46.2%), reported less than half of the participants *agree* of *strongly agree* with the perception that more time to watch a professional podcast or read a professional blog is an effective form of professional development.

Female respondents (*N* = 139, 47.1%) reported a higher percent of perception that more time to watch professional podcast or read a professional blog is an effective form of professional development compared to male respondents (*N* = 34, 34%). Principals (*N* = 14, 58.4%) reported a higher percent of perception that more time to watch professional podcast or read a professional blog is an effective form of professional development compared to teachers (*N* = 159, 43%).

In Question 24, kindergarten–5th grade licensure teachers (*N = 72*, 36.5%) reported a higher level of *agree* or *strongly agree* with the perception that social media (Facebook, Twitter, Pinterest, and Live Journal) is an effective form of professional development than 6th–12th grade licensure teachers (*N* =43, 21.7%). Participants with 6–10 years of experience (*N* = 37, 41.6%) reported a higher level of *agree* or *strongly agree* with the perception that social media (Facebook, Twitter, Pinterest, and Live Journal) is an effective form of professional development than other levels of experience: 0–5 (*N* = 16, 32.6%), 11–15 (*N* = 13, 14.6%), 16–20 (*N* = 18,

28.6%), and 20 or more years of experience (*N* = 31, 29.3%). Female respondents (*N* = 101, 34.3%) reported a higher level of *agree* or *strongly agree* than male respondents (*N* = 14, 14%). Teachers (*N* = 112, 30.3%) reported a higher level of *agree* or *strongly agree* than principals (*N* = 3, 12.5%).

In Question 25, kindergarten–5th grade licensure teachers (*N* = 103, 52.3%) reported a higher level of perception of *agree* or *strongly agree* that distance learning through webinars, live virtual classrooms, Skype, and video conferencing is an effective form of professional development compared to 6th–12th grade licensure teachers(*N* = 93, 47%). Years of experience stayed consistent on perception of *agree* or *strongly agree* that distance learning through webinars, live virtual classrooms, Skype, and video conferencing is an effective form of professional development: 0–5 (*N* = 24, 48.9%), 6–10 (*N* = 46, 51.7%), 11–15 (*N* = 42, 47.2%), 16–20 (*N* = 32, 50.8%), and 20 or more years of experience (*N* = 52, 49%).

Female respondents (*N* = 156, 52.7%) did have a higher percent response than male respondents (*N* = 39, 39%) for *agree* or *strongly agree* that distance learning through webinars, live virtual classrooms, Skype, and video conferencing is an effective form of professional development. Principals (*N* = 13, 54.1%) did have a higher percent response than teachers (*N* = 183, 49.5%) for *agree* or *strongly agree* that distance learning through webinars, live virtual classrooms, Skype, and video conferencing is an effective form of professional development.

In Question 26, kindergarten–5th grade licensure teachers (*N* = 176, 89.3%) and 6th–12th grade licensure teachers (*N* = 162, 81.8%) both reported a high perception of *agree* or *strongly agree* that working in a professional learning community is an effective form of professional development. Years of experience responses stayed consistent on the perception of *agree* or *strongly agree* that working in a professional learning community is an effective form of

professional development: 0–5 (*N* = 42, 85.7%), 6–10 (*N* = 73, 82%), 11–15 (*N* = 77, 86.5%), 16–20 (*N* = 52, 82.5%), and 20 or more years of experience (*N* = 139, 89.6%).

Female respondents (*N* = 266, 88.9%) did have a higher percent response than male respondents (*N* = 76, 76%) for *agree* or *strongly agree* that professional learning community is an effective form of professional development. Principals (*N* = 23, 95.9%) did have a higher percent response than teachers (*N* = 314, 84.8%) for *agree* or *strongly agree* that professional learning community is an effective form of professional development.

In Question 29, kindergarten–5th grade licensure teachers (*N* = 75, 38%) and 6th–12th grade licensure teachers (*N* = 73, 36.9%) reported a lower percent of perception of *agree* or *strongly agree* that professional development provides leadership opportunities in the building. Participants with 15–20 (*N* = 27, 42.9%) reported the highest percent of perception of *agree* or *strongly agree* that professional development provides leadership opportunities in the building compared to other levels: 0–5 (*N* = 19, 38.8%), 6–10 (*N* = 32, 35.9%), 11–15 (*N* = 32, 36%), 20 or more years of experience (*N* = 39, 36.8%). Principals (*N* = 17, 70.8%) reported a higher perception of *agree* or *strongly agree* that professional development provides leadership opportunities in the building than teachers (*N* = 131, 35.4%).

In Question 30, kindergarten–5th grade licensure teachers (*N* = 80, 40.7%) reported a higher perception of *agree* or *strongly agree* that professional development led by the principal makes a better teacher than 6th–12th grade licensure teachers (*N* = 63, 31.8%). Participants with 0–5 (*N* = 21, 42.8%) reported the highest percent of perception to *agree* or *strongly agree* that professional development led by the principal makes a better teacher compared to other levels of experience: 6–10 (*N* = 32, 35%), 11–15 (*N* = 28, 31.5%), 16–20 (*N* = 21, 33.3%), and 20 or more

years of experience (*N* = 41, 38.7%). Principals (*N* = 18, 75%) reported a higher *agree* or *strongly agree* perception percent than teachers (*N* = 290, 78.3%).

In Question 31, kindergarten–5th grade licensure teachers (*N* = 161, 81.8%) reported a higher percent level of *agree* or *strongly agree* on the perception that the implementation of the professional development is deeper with a community of learners than 6th–12th grade licensure teachers (*N* = 151, 76.3%). Participants with 15–20 years of experience (*N* = 55, 87.3%) reported the highest percent perception to *agree* or *strongly agree* that the implementation of the professional development is deeper with a community of learners compared to other levels of experience: 0–5 (*N* = 38, 77.6%), 6–10 (*N* = 67, 65.2%), 11–15 (*N* = 75, 84.2%) and 20 or more years of experience (*N* = 56, 52.9%).

Female respondents (*N* = 240, 81.1%) reported a higher percent level of *agree* or *strongly agree* on the perception that the implementation of the professional development is deeper with a community of learners than male respondents (*N* = 72, 72%). Principals (*N* = 21, 87.5%) reported a higher of a percent level of *agree* or *strongly agree* on the perception that the implementation of the professional development is deeper with a community of learners than teachers (*N* = 290, 78.3%).

In Question 27, the respondents with a 6th–12th grade licensure teachers (*N* = 108, 54.9%) reported a little higher percent of perception that they *agree* or *strongly agree* that their school uses a professional learning community model for professional development compared to kindergarten–5th grade licensure teachers (*N* = 106, 53.8%). Participants with 20 or more years of experience (*N* = 56, 52.9%) reported the highest percent perception to *agree* or *strongly agree* that their school uses a professional learning community model for professional development

compared to other levels of experience: 0–5 (*N* = 24, 49%), 6–10 (*N* = 35, 39.4%), 11–15 (*N* = 40, 44.9%) and 16 – 20 (*N* = 29, 46.1%).

Male respondents (*N* = 53, 53%) reported a higher percent of perception that they *agree* or *strongly agree* that their school uses a professional learning community model for professional development compared to female respondents (*N* = 131, 44.4%). Principals (*N* = 17, 70.9%) reported a higher percent of perception that they *agree* or *strongly agree* that their schools use a professional learning community model for professional development compared to teachers (*N* = 165, 44.6%).

In Question 32, kindergarten–5th grade licensure teachers (*N* = 106, 53.8%) and 6th–12th grade licensure teachers (*N* = 108, 54.5%) report almost the same perception percent that they *agree* or *strongly agree* that they would be more effective in a professional learning community model for professional development. Participants with 0–5 years of experience (*N* = 32, 65.3%) reported the highest percent perception to *agree* or *strongly agree* that they would be more effective in a professional learning community model for professional development compared to other levels of experience: 6–10 (*N* = 48, 53.9%), 11–15 (*N* = 52, 58.4%), 16–20 (*N* = 31, 49.2%) and 20 or more years of experience (*N* = 52, 49.1%).

Male respondents (*N* = 58, 58%) reported a higher perception percent that they *agree* or *strongly agree* that they would be more effective in a professional learning community model for professional development than female respondents (*N* = 157, 53.3%). Principals (*N* = 20, 83.4%) reported a higher perception percent that they *agree* or *strongly agree* that they would be more effective in a professional learning community model for professional development than teachers (*N* = 193, 52.2%).

In Question 34, kindergarten–5th grade licensure teachers (*N* = 139, 70.5%) reported a higher level of *agree* or *strongly agree* with the perception that accountability by a team of teachers will increase the implementation of professional development compared to 6th–12th grade licensure teachers (*N* = 128, 64.6%). Participants with 20 or more years of experience (*N* = 58, 54.7%) reported the lowest percent perception to *agree* or *strongly agree* that that accountability by a team of teachers will increase the implementation of professional development compared to other levels of experience: 0–5 (*N* = 38, 77.5%), 6–10 (*N* = 59, 66.3%), 11–15 (*N* = 65, 73%), and 16–20 (*N* = 48, 76.2%).

Female respondents (*N* = 209, 70.9%) reported a higher level of *agree* or *strongly agree* with the perception that accountability by a team of teachers will increase the implementation of professional development compared to male respondents (*N* = 59, 59%). Principals (*N* = 20, 83.3%) reported a higher level of *agree* or *strongly agree* with the perception that accountability by a team of teachers will increase the implementation of professional development compared to teachers (*N* = 246, 66.5%).

In Question 35, kindergarten–5th grade licensure teachers (*N* = 113, 57.4%) reported a higher level of *agree* or *strongly agree* with the perception that accountability by the principal will increase the implementation of professional development compared to 6th–12th grade licensure teachers (*N* = 105, 53%). Participants with 0–5 years of experience (*N* = 35, 71.4%) reported the highest percent perception to *agree* or *strongly agree* that accountability by the principal will increase the implementation of professional development compared to other levels of experience: 6–10 (*N* = 46, 51.7%), 11–15 (*N* = 53, 59.6%), 16–20 (*N* = 40, 63.5%), and 20 or more years of experience (*N* = 46, 51.7%).

Female respondents (*N* = 164, 55.2%) reported a very slightly higher level of *agree* or *strongly agree* with the perception that accountability by the principal will increase the implementation of professional development compared to male respondents (*N* = 56, 56%). Principals (*N* = 20, 83.3%) reported a higher level of *agree* or *strongly* agree with the perception that accountability by the principal will increase the implementation of professional development compared to teachers (*N* = 199, 53.8%).

In Question 36, the respondents with a 6th–12th grade licensure (*N = 183*, 92.4%) reported a higher level of agreement (*agree* or *strongly agree*) with the perception that they enjoy their career as an educator compared to kindergarten–5th grade licensure teachers (*N = 174*, 88.3%). Participants with 0–5 years of experience (*N* = 46, 93.9%) reported the highest percent perception to *agree* or *strongly agree* that they enjoy their career as an educator compared to other levels of experience: 6–10 (*N* = 80, 89.8%), 11–15 (*N* = 79, 88.8%), 16–20 (*N* = 55, 87.3%), 20 or more years of experience (*N* = 98, 92.4%). Females respondents (*N* = 268, 90.8%) reported a slightly higher level of *agree* or *strongly agree* with the perception that they enjoy their career as an educator compared to males respondents (*N* = 90, 90%). Principals (*N* = 23, 95.8%) reported a higher level of *agree* or *strongly agree* with the perception they enjoy their career as an educator compared to teachers (*N* = 334, 90.3%).

A composite mean and standard deviation were found for position type, years of experience, licensure area, and gender. Then, a composite mean and standard deviation was found for each subgroup.

For position type, principals (*M* = 3.778, *SD* = .424) responded with a much higher composite score mean than whole sample (*M* = 3.25, *SD* = .636). Teachers (*M* = 3.218, *SD* = .633) responded with a lower composite score mean than the whole sample (*M* = 3.25, *SD* =

.636). Principal perception of effective forms of professional development was higher than teacher composite score mean.

Teachers with 0–5 years of experience (*M* = 3.439, *SD* = .492) responded much higher than the whole sample (*M* = 3.25, *SD* = .636). Interestingly, teachers with 6–10 years of experience (*M* = 3.1.36, *SD* = .725) responded much lower than the whole sample (*M* = 3.25, *SD* = .636). Teachers with 11–15 years of experience (*M* = 3.260, *SD* = .540) reported a composite mean score slightly above the whole sample (*M* = 3.25, *SD* = .636). Teachers with 16–20 years of experience (*M* = 3.244, *SD* = .689) responded slightly below the whole sample (*M* = 3.25, *SD* = .636). Teachers with 20 or more years of experience (*M* = 3.269, *SD* = .645) reported higher than the whole sample (*M* = 3.25, *SD* = .636).

Elementary licensure, kindergarten–5th grade (*M* = 3.337, *SD* = .658), responded with a much higher composite mean than the whole sample (*M* = 3.25, *SD* = .636). Secondary licensure, 6th to12th grade (*M* = 3.175, *SD* = .604) reported a much lower composite mean than the whole sample (*M* = 3.25, *SD* = .636).

Male respondents (*M* = 3.248, *SD* = .669) reported slightly below the whole sample composite score (*M* = 3.25, *SD* = .636). Female respondents (*M* = 3.258, *SD* = .625) responded slightly above the whole sample (*M* = 3.25, *SD* = .636).

Analysis of Hypotheses

Null Hypothesis 1

The first null hypothesis was there is no significant interaction on the composite score for professional development among position type, years of experience, licensure, and gender.

This hypothesis was tested by using a factorial ANOVA. The dependent variable was the composite score for professional development and the factors were position type, years of experience, licensure, and gender.

The first assumption tested sought to detect outliers within the model. The test looked for outliers in the dependent variable for each group tested within the factorial ANOVA. Boxplots were used to determine whether any of the data points were more than 1.5 box-lengths away from the edge of the box thus indicating a presence of an outlier. The assumption was met as no data points were outside 1.5 box-lengths from the edge of the box. A Shapiro-Wilk test was used to test the assumption of normality. The assumption was met as all Shapiro-Wilk tests were non-significant with $p > .05$. Levene's test of equality of variances was used to test the assumption of homogeneity of variances. This assumption was met as values were non-significant with $p > .05$. The assumption of independence was met, as no data points were present in multiple groups. Using a factorial ANOVA, no significant interaction between the dependent variable scores within position type, years of experience, licensure, and gender were found, $F(4, 391) = .303$, $p = .582$, two tailed.

Null Hypothesis 2

The second null hypothesis was there is no significant difference based on position type on the composite score for professional development. This hypothesis was tested using an independent samples *t*-test. The dependent variable was the composite score for professional development and the independent variable was the respondent's position type (principal or teacher).

The first assumption tested sought to detect outliers within the model. The test looked for outliers in the dependent variable for each group analyzed within this test. Boxplots were used

to determine whether any of the scores were more than 1.5 box-lengths away from the edge of the box thus indicating a presence of an outlier. The assumption was met as no data points were outside 1.5 box-lengths from the edge of the box. A Shapiro-Wilk test was used to test the assumption of normality. The assumption was met as the Shapiro-Wilk test was non-significant with $p > .05$.

The Levene's test of equality of variances was used to test the assumption of homogeneity of variances. This assumption was not met with a significant Levene's test value of $F = 4.88$, $p = .028$. To correct this assumption violation, the degrees of freedom utilized within this test were reduced from 392 to 30.08. The assumption of independence was met, as no dependent variable scores were present in multiple groups. Using an independent samples *t*-test, it was determined that significant differences existed between the position type, $t(30.08) = -6.045$, $p < .001$, two tailed. Principals ($M = 3.778$, $SD = .424$) reported a significantly higher perception of professional development importance over teachers ($M = 3.218$, $SD = .633$).

Null Hypothesis 3

The third null hypothesis was there is no significant difference based on years of experience on the composite score for professional development. This hypothesis was tested by using one-way ANOVA. The dependent variable was the composite mean score and the independent variable was the five levels of experience within the study: 0–5 ($M = 3.439$, $SD = .491$, 6–10 ($M = 3.136$, $SD = .725$), 11–15 ($M = 3.261$, $SD = .539$), 16–20 ($M = 3.244$, $SD = .689$), and 20 or more years of experience ($M = 3.269$, $SD = .645$).

The first assumption tested looked to detect outliers within the model. The test looked for outliers in the dependent variable for each group tested within the one-way ANOVA. Boxplots were used to determine whether any of the scores were more than 1.5 box-lengths away

from the edge of the box thus indicating a presence of an outlier. The assumption was met as no data points were outside 1.5 box-lengths from the edge of the box. A Shapiro-Wilk test was used to test the assumption of normality. The assumption was met as all Shapiro-Wilk tests were non-significant with $p > .05$. The Levene's test of equality of variances was utilized to test the assumption of homogeneity of variances and this assumption was met as the Levene's value was non-significant with $p > .05$. The assumption of independence was met, as no data points were present in multiple groups. Using a one-way ANOVA, it was determined there were no significant differences on the dependent variable among the levels of years of experience, $F(4, 391) = 1.841$, $p = .120$, two tailed.

Null Hypothesis 4

The fourth null hypothesis was there is no significant difference based on licensure on the composite score for professional development. This hypothesis was tested by using an independent samples *t*-test. The dependent variable was the composite mean score and the independent variable was licensure type, elementary licensure (kindergarten–5th grade) and secondary licensure (6th–12th grade).

The first assumption tested looked to detect outliers within the model. The test looked for outliers in the dependent variable for each group tested within the *t*-tests. Boxplots were used to determine whether any of the scores were more than 1.5 box-lengths away from the edge of the box thus indicating a presence of an outlier. The assumption was met as no data points were outside the 1.5 box-lengths from the edge of the box. A Shapiro-Wilk test was used to test the assumption of normality. The assumption was met as the Shapiro-Wilk test was non-significant with $p > .05$. The Levene's test of equality of variances was utilized to test the assumption of homogeneity of variances. The assumption was met as the Levene's value was non-significant,

$F = 2.44$, $p = .12$. The assumption of independence was met, as no data points were present in multiple groups. Using an independent samples *t*-test, it was found that significant differences did exist on the dependent variable among the different types of licensure, $t(393) = 2.548$, $p = .011$, two tailed. Elementary licensure, kindergarten–5th grade ($M = 3.337$, $SD = .658$) reported a significantly higher perception of professional development over secondary licensure, 6th–12th grade ($M = 3.175$, $SD = .604$).

Null Hypothesis 5

The fifth null hypothesis was there is no significant difference based on gender type on the composite score for professional development. This hypothesis was tested by using an independent samples *t*-test. The dependent variable was the professional development composite score and the independent variable was gender, male and female.

The first assumption tested sought to detect outliers within the model. The test looked for outliers in the dependent variable for each group tested within the *t*-test. Boxplots were used to determine whether any of the scores were more than 1.5 box-lengths away from the edge of the box thus indicating a presence of an outlier. The assumption was met as no data points were outside 1.5 box-lengths from the edge of the box. A Shapiro-Wilk test was used to test the assumption of normality. The assumption was met as the Shapiro-Wilk test was non-significant, $p > .05$. The Levene's test of equality of variances was tested to test the assumption of homogeneity of variances. This assumption was met as the Levene's value was non-significant, $F = .22$, $p = .64$. The assumption of independence was met, as no data points were present in multiple groups. Using an independent samples *t*-test, it was determined that no significant differences exist on the professional development composite score among gender, $t(393) = -.131$, $p = .896$, two tailed. Male respondents ($M = 3.248$, $SD = .669$) and female respondents (M

= 3.258, *SD* = .625) did not have significant differences for their perceived level of importance regarding the most effective forms of professional development. Gender did not impact perception of professional development importance.

Summary

This quantitative research study focused on the perceptions of professional development. Teachers and principals voluntarily took on online survey about their perceptions of the most effective professional development. The participants provided some basic demographic data: position type (principal and teacher), years of experience (0–5, 6–10, 11–15, 16–20, 20 or more years), licensure (kindergarten–5th grade and 6th–12th grade), and gender. Participants were then asked to answer a series of questions on the most effective forms of professional development. A Likert scale was used with a 1 considered a *very low impact* on changing the teacher behavior and a 5 considered a *very high level of impact* on changing the teacher behavior. The survey was then analyzed to determine if there were differences within each demographic category and if the interaction of these independent variables demonstrated significant differences.

The tests that were run showed that the various factors did not have a significant interaction between them. The tests also showed that there were no significant differences in both gender (males and females) and years of experience (0–5, 6–10, 11–15, 16–20, 20 or more years). The test did show that there were significant differences between position type (principal and teacher) and licensure (kindergarten–5th grade and 6th–12th grade). Chapter 5 explains what the results mean, the impact of the results for the education field, and what research could be done in the future based on the results provided in this chapter.

CHAPTER 5

SUMMARY OF THE STUDY

Chapter 5 is divided into four sections. The first section of this chapter will be a presentation of the findings of this study. The first section will also include a summary of the descriptive data. In addition, the first section will include a summary of the hypotheses that were tested and conclusions. The second section of this chapter will include a summary of the study. The third section of this chapter will focus on the implications of this quantitative study. The fourth and final section of this chapter will discuss recommendations for future research on the topic of Kindergarten–12th grade professional development at the school level and the district level.

Summary of Descriptive Data

The purpose of this quantitative study was to better understand the perceptions of educators to help school and district leaders create the optimal professional development experience. The research study focused on five Midwest states: Indiana, Illinois, Michigan, Ohio, and Kentucky. In all, 18 school districts with student enrollments of over 5,000 from across five Midwest states participated in the research study. Participants were asked to identify their perceptions of the most effective forms of professional development using a 5-point Likert scale with a 1 being considered a *very low impact* on changing the teacher behavior and a 5 being considered a *very high level of impact* on changing the teacher behavior. Data for this research

study were collected using an online survey instrument. Participants were asked to provide some basic demographic information: position type (principal or teacher), years of experience (0–5, 6–10, 11–15, 16–20, 20 or more), licensure area (Kindergarten–5th grade, 6th–12th grade) and gender (male or female). A composite score mean and standard deviation was determined for each demographic subgroup. *T*-tests, factorial ANOVA, and a one-way ANOVA were used to test the null hypotheses. Significance for the statistical analysis of tests used was identified at the .05 level.

From the total of 18 school districts across five Midwest states that participated in the online survey, 396 teachers and principals completed the online survey instrument. Of the 396 participants, 370 (93.4%) were teachers, 24 (6.1%) were principals and 2 (.5%) did not identify a position. For years of experience 49 (12.4%) were identified with 0–5 years of experience, 89 (22.5%) were identified with 6–10 years of experience, 89 (22.5%) were identified with 11–15 years of experience, 63 (15.9%) were identified with 15–20 years of experience, and 106 (26.8%) were identified with 20 or more years of experience. In terms of licensure, 197 (49.7%) were identified with a Kindergarten–5th grade licensure, 198 (50%) were identified with a 6th–12th grade licensure and one participant (.3%) did not identify area of licensure. Finally, for gender, 100 (25.3%) were identified as male, 295 (74.5%) were identified as female, and one participant (.3%) did not identify a gender.

School Level Versus District Level

The study asked participants about their perceptions of the most effective forms of professional development at the school level and the district level. Table 2 reflects the perception percent of the participants' beliefs on whether they *agree* or *strongly agree* to the question about professional development.

Table 2

School Level Versus District Level

Professional development statement	School level % who agree or strongly agree	District level % who agree or strongly agree
Survey Question 2: I grow professionally through my experiences in professional development.	72.2%	54.1%
Survey Question 3: I have a voice in professional development.	35.4%	20.2%
Survey Question 7: I receive appropriate feedback from administration about implementation of the professional development.	31.1%	18.0%
Survey Question 8: I am left to implement by myself.	72.5%	76.5%
Survey Question 9: I believe professional development is engaging.	41.6%	33.8%
Survey Question 10: I am provided meaningful feedback.	54.1%	52.5%
Survey Question 11: I received focused support from administration.	37.1%	23.0%
Survey Question 12: I am given ample time and resources to implement.	31.5%	25.6%
Survey Question 13: I would be successful without professional development.	53.1%	51.7%
Survey Question 14: I believe professional development is aligned to school goals.	76.5%	64.2%
Survey Question 15: My learning style is taken into account.	28.8%	22.0%
Survey Question 16: I try to fully implement in my classroom.	75%	67.2%
Survey Question 18: I would observe other teachers.	84.4%	78.8%

Table 2 shows the comparison of participants' perceptions of professional development of school level versus district level. The percent reflects that participants *agree* or *strongly agree*.

Traditional and Current Styles

Social media and technology has increased the available forms of professional development. The study defined and described in Chapter 2 both traditional and current styles of professional development. Participants were asked about their perceptions of the most effective forms of professional development. Table 3 provides the participants perception percentage of *agree* or *strongly agree* to both traditional and current styles of professional development.

Table 3

Traditional and Current Styles

Professional development statement	% who agree or strongly agree
Survey Question 20: Higher education institutions	69.6%
Survey Question 21: Conferences and workshops	84.9%
Survey Question 22: More time to work with colleagues	86.6%
Survey Question 23: Podcast or professional blog	33.6%
Survey Question 24: Facebook, Twitter, Pinterest, LiveJournal	29.0%
Survey Question 25: Webinars, virtual classrooms, Skype, video conferencing	49.5%
Survey Question 26: Professional learning communities (PLC)	85.7%
Survey Question 27: School is currently PLC	46.6%

Educator Perceptions

Chapter 2 discussed evaluation measures, like Indiana's RISE model, which contains components that rate teachers based on how well they collaborate and their involvement in professional development. These components are part of the entire evaluation that determines teacher pay and continuation of employment. Table 4 provides participant perceptions of accountability, salary motivation, and career enjoyment. The results in the table reflect combined participant perception percentage of *agree* or *strongly agree* with the questions.

Table 4 shows perceptions on accountability, pay, and job satisfaction. The table reflects the combined response of *agree* or *strongly agree* with Questions 34, 35, 17, and 36.

Table 4

Educator Perceptions

Professional development statement	% who agree or strongly agree
Survey Question 34: I believe being held accountable by working with a team of teachers will make implementation of the professional development more likely.	67.6%
Survey Question 35: I believe being held accountable by the principal will make implementation of the professional development more likely.	55.3%
Survey Question 17: Receiving more money on the pay scale is a motivating factor for me to continue in education.	78.4%
Survey Question 36: I enjoy my career in education.	90.4%

Summary of the Hypotheses and Conclusions

The following is a summary of the five hypotheses that were tested and the conclusions from each of the tests.

1. The first hypothesis was is there significant interaction on the composite score for professional development among position type, years of experience, licensure, and gender? The first hypothesis was tested by using a factorial ANOVA. Using the factorial ANOVA, it was found that there were no significant differences between the interactions of position type, years of experience, licensure, and gender, $F(1, 392) = .303$, $p = .582$, two tailed, on perception of the most effective forms of professional development.

   Conclusion: There is no significant difference in the interactions between all independent variables of position type, years of experience, licensure, and gender. By showing no significant difference in interaction between all the independent variables, any significant differences would need to come from within an independent variable.

2. The second hypothesis was is there significant difference based on position type on the composite score for professional development? The second hypothesis was tested using *t*-tests. By using *t*-tests, it was found that significant differences exist between the interactions of position type, principal and teacher, $t(30.08) = -6.045$, $p < .001$, two tailed.

   Conclusion: There are significant differences between principal and teacher perceptions of professional development. As stated in Chapter 2, evaluation measures, such as Indiana's RISE, have greatly changed the evaluation system in education. The focus is changed to more evidence-based professional development and principals have a large percent of their evaluation tied to teacher training, growth, and test scores. It is possible that principals are more motivated and see the

professional development as an opportunity to train the teachers so that the programs the school or district is currently using are being fully implemented to fidelity. Through the training, the principal would hope that the teacher's implementation of professional development in the classroom increases, thus improving instruction and student achievement. If this process is done well, the principal may believe that his or her evaluation will be higher. The principal is directly tied to the ability of the teacher. The teacher, however, in evaluation systems such as Indiana's RISE, creates student learning objectives (SLOs). Where the principal and teacher agree on the SLO, the teacher has a lot of control over the SLO. There is a good chance that the teacher would use a program that he or she already knows well to create his or her SLO thus meaning that most of the school-level or district-level professional development would be not be seen as relatable to their own personal goals. In this study, there was also a low level of *agree* or *strongly agree* with the perception of having a voice in the professional development structure, appropriate feedback to the implementation of the professional development, support from the school-level and district-level administrators during the implementation process, a lack of engaging professional development activities, and a view that the professional development does not incorporate the adult learning style. Teachers may see professional development that they must attend as something happening to them versus the teacher being a part of the process of creating the professional development. In Chapter 2, professional learning networks were discussed. Teachers may feel they have more control of or a voice in professional development and find professional development more engaging and a better alignment to their adult learning styles if the principal

allowed the teachers to create a professional learning network as their professional development.

3. The third research question in the study was is there significant difference based on years of experience on the composite score for professional development? The third hypothesis was tested using a one-way ANOVA. Using a one-way ANOVA, it was found that no significant differences exist between the interactions of years of experience, $F(4, 391) = 1.841$, $p = .582$, two tailed.

   Conclusion: There were no significant differences in years of experience for perception on effective forms of professional development. The results did show that teacher's with 0–5 years of experience ($M = 3.439$, $SD = .492$) had the highest composite mean and standard deviation. Based on the composite score mean, teachers with 0–5 years of experience responded with the highest perception of effective forms of professional development. In addition, in today's technology-driven culture of Smartphones, tablets, and information on demand, they ranked conferences/workshops and higher education institutions as the top two most effective forms of professional development. Teachers with 20 or more years of experience ($M = 3.269$, $SD = .645$) were the second highest. Also interesting was that educators with 6–10 years of experience ($M = 3.136$, $SD = .725$) had the lowest composite score mean. A reason for this could be that they value experience over professional development. States have adoption cycles for curriculum that could range around eight years. Educators in this bracket could also have only taught one curriculum and feel that they have mastered the curriculum thus not needing additional professional development to improve teaching behavior in the classroom. Another reason could

be that education has seen many pendulum swings, like phonics to whole language to phonics. Teachers in this range of years of experience may have taught long enough to feel they have mastered the current belief of instructional curriculum but not taught long enough to have that belief swing on them to another belief, whereas teachers with 11–15 years of experience (M = 3.260, SD = .539), 16–20 (M = 3.244, SD = .688), and 20 or more years of experience may have.

4. The fourth hypothesis tested was, is there significant difference based on licensure on the composite score for professional development? A *t*-test was used to test for licensure. Using a *t*-test, it was found that significant differences do exist between the interactions of licensure, $t(393) = 2.548$, $p = .011$, two tailed.

   Conclusion: There are significant differences based on licensure, kindergarten–5th grade and 6th grade–12th grade. Kindergarten–5th grade licensure had a higher perception of effective professional development (M = 3.337, SD = .658) compared to 6th–12th grade licensure (M = 3.175, SD = .604). It is possible that some of the recent changes in education could be the reason for the significant differences. The literacy block in elementary school has increased from 60 minutes to 90 minutes. Common core has added an increase in text complexity, lexile ranges, and information text. The movement to a growth model increases the emphasis on high math and English/language arts test scores, which in elementary school is typically taught by the same teacher. In addition, many states are still trying to figure out a growth model in high school grades or the high school model does not include all taught content areas. For example, the high school's Future Farmers of America (FFA) teacher's knowledge of literacy or math may not carry the same weight as the

English department teacher's knowledge of literacy. In elementary school, teachers typically teach everything and the state uses the state assessments as the measure of teacher ability. In Indiana, there has been the addition of the IREAD assessment. The lack of the same level of accountability for the educator with a secondary licensure may also mean items such as the literacy standards are implemented at a slower rate versus the educator with an elementary licensure. Following this same line of thought, an FFA teacher may find professional development on literacy not engaging or relevant to the classroom. The teacher's accountability to the implementation of the professional development would be more tied to a teacher's controlled SLO. Again, at the elementary school setting, a professional development focusing on literacy will more than likely address most of the teachers. The teacher's accountability to the implementation of the professional development may more likely be tied to a growth model, or an assessment like DIBELS, Aimsweb, NWEA, or the state assessments.

5. The fifth hypothesis tested was is there significant difference based on gender type on the composite score for professional development? A *t*-test was conducted to address this hypothesis. Using a *t*-test, it was found that no significant differences existed between the interactions of gender, $t(393) = -.131$, $p = .896$, two tailed.

   Conclusions: There was no significant difference between the composite score mean of male respondents and female respondents. An educator's gender will not impact his or her perception of the most effective forms of professional development.

Summary of the Study

The purpose of this study was to find the most optimal professional development. If a school or district level administrator has a better understanding of teacher perception of the most effective forms of professional development, there is a better chance of a higher level of implementation of the professional development. This should have a positive change on teacher behavior in the classroom, thus increasing teacher ability and raising student achievement. The research questions for this study were

1. Is there significant interaction on the composite score for professional development among position type, years of experience, licensure, and gender?
2. Is there significant difference based on position type on the composite score for professional development?
3. Is there significant difference based on years of experience on the composite score for professional development?
4. Is there significant difference based on licensure on the composite score for professional development?
5. Is there significant difference based on gender type on the composite score for professional development?

The perception composite score mean of professional development between the principals (M = 3.778, SD = .424) and the teacher (M = 3.218, SD = .632) was significant. Principals reported a much higher perception. Principals may want to conclude from this study that teachers may not see the same value in professional development as they do. In addition, the principal will want to stay cognizant that this study found a perception of not having a voice, lack of appropriate feedback on the implementation, little support through time and resources to

implement, and the professional development not taking into account their adult learning style, thus not being engaging. On this point, a district-level administrator would also want to take notice. The school-level responses were higher than the district responses. This means that the perception of district-level professional development is even lower than that of the school level. District-level administrators will have to work even harder to make their professional development more engaging and relative to the educator in the hopes for higher implementation and changed teacher behavior.

Chapter 2 of the literature review addressed that elementary and secondary teachers have different values and expectations for professional development. This study found there was a significant difference in perception of professional development between elementary (Kindergarten–5th grade; $M = 3.337$, $SD = .658$) and secondary (6th grade–12th grade; $M = 3.175$, $SD = .604$) licensure areas. It is possible that some of the recent changes in education, such as the 90-minute literacy block, Common core, growth model, and state assessments have increased the perception of a necessity of professional development at the elementary level versus the secondary level.

All other research questions in this study showed no significant differences in perception. Male respondents ($M = 3.249$, $SD = .669$) and female respondents ($M = 3.258$, $SD = .625$) did not show a significant difference. In addition, there were no significant differences in different levels of years of experience; 0–5 ($M = 3.439$, $SD = .492$), 6–10 ($M = 3.136$, $SD = .725$), 11–15 ($M = 3.261$, $SD = .539$), 16–20 ($M = 3.244$, $SD = .689$) and 20 or more years of experience ($M = 3.269$, $SD = .645$) on perception. Finally, there was also no significant difference in the interaction between position type, levels of experience, licensure, and gender on perception.

Other findings in the study showed that despite the changes in education, such as the Indiana RISE model, 90.4% of participants agreed or strongly agreed that they enjoyed their career. In addition, 78.4% of participants had the perception that receiving more money on the pay scale is a motivating factor to continue in education.

Participants' perceptions of social media tools such as Facebook, Twitter, Pinterest, and Live Journal (29%) was rated as the least effective form of professional development. In fact, other forms of professional development that involve technology also received much lower perception percent of *agree* or *strongly agree* as being an effective form of professional development: podcast or professional blog (33.6%) and webinars, virtual classrooms, Skype, and video conferencing (49.5%). The study also found that participants continue to have a strong perception of the effectiveness of higher education institutions (69.6%) as professional development. Participants rated conferences and workshops (84.9%) as the second highest form of effective professional development. Participants' perceptions of the most effective form of professional development were PLCs (85.7%). In addition, participants indicated *agree* or *strongly agree* that more time to work with colleagues on data and instructional strategies (86.6%) would increase their implementation of professional development. Teacher perception of the most effective form of professional development aligns with the research review presented in Chapter 2. A reason for this could be, as suggested in Chapter 2, the adult learning style needs. Participants, however, only reported *agree* or *strongly agree* at 46% the perception that their school used a professional learning community model.

Implications

As states continue to emphasize professional development and collaboration in evaluation tools, as with Indiana's RISE model, understanding the most effective forms of professional

development is critical. The implications of this research study and their implications for school level and district level administrators are as follows:

1. Men and women have no significant differences in their perception of professional development. In addition, years of experience does not matter either. One item the study did find was that teachers with 6–10 years of experience had the lowest perception of professional development. This could mean for principals and district-level administrators their biggest resistance to professional development is the teachers in this experience bracket. Finally, position type, years of experience, licensure, and gender do not have any significant interactions with one another.
2. Perception of the most effective forms of professional development is critical. Principals and teachers showed a significant difference in their perceptions of effective professional development. The result of this study aligns with Guskey's (2000) study, which found the misalignment between teacher and principal could be a reason professional development fails. This becomes even more critical for district-level administrators as participants in this study had a lower perception of professional development at the district level for every question in the study that compared school and district level professional development. This study found that participants felt they had no voice, lacked appropriate feedback, lacked adequate time and resources for implementation, and thought the activities were not engaging. Administrators need to be cognizant of the teachers as an adult learner. The results of this study aligned with Cochran-Smith and Lytle's (1996) finding that teachers believe they have no voice in professional development. The participants showed a

perception that aligned with Lieberman and McLaughlin's (1996) finding that teachers do not find professional development engaging.

3. There is a significant difference in perception of the most effective forms of professional development between elementary licensure and secondary licensure. Elementary educators have a more favorable perception. This could be that many of the recent changes in education focus more on the elementary level. Elementary teachers have more accountability through growth models, state assessment, and local assessments such as DIBELS, Aimsweb, and NWEA. In addition elementary teachers have had changes such as the 90-minute literacy block and Common Core. Secondary professional development may need to be more differentiated to meet the needs of educators. Administrators may want to look at a couple professional development models. One would be PLNs. According to Klingensmith (2012), teachers create PLNs for resources, support, and professional development. Consider the following example of how it could look in a school setting. A teacher creates a plan based on his or her personal strengths and weaknesses. The teacher creates his or her own professional development goal and a plan to reach the goal. The administrator and teacher meet throughout the year to discuss and review the plan. A second example would be a professional learning community, which will be discussed later in this chapter.
4. The study found that teachers want to observe other teachers. Eighty-four percent of participants responded *agree* or *strongly agree* to the perception that observing other teachers would be an effective form of feedback. Hardy (2012) found that most professional development fails because teachers leave to work in isolation. Webster-

Wright (2009) found that adults need time to experience, read, and reflect. Teachers being able to observe each other and collaborate could be a way to lessen the feeling of isolation. Principals and district-level administrators may want to discuss and find ways to allow teachers to observe other teachers. One model could be a special assignment building sub. The staff member reports to the school each day and covers rooms so teachers can observe other teachers. Another model could be to rearrange schedules to allow for teachers to cover a classroom so that a given teacher would be able to observe another room.

5. This study also found that teachers prefer accountability from their peers (67.6%) over their principal (55.3%). Fogarty and Pete (2011) found that student achievement will increase when a group of teachers create common goals and common needs are formed.
6. Participants' perceptions of PLCs ranked it as the most effective form of professional development (85.7%). In addition, participants also had a perception that more time to work with colleagues to review data and instructional strategies would increase the success of fully implementing professional development (86.6%). Dufour and Eaker (1998) found that educators that build a community of learners saw and sustained an increase in student achievement. Huffman et al. (2001) found that PLCs created job-embedded professional development. Rigelman and Ruben (2012) found that teacher candidates believe that collaboration through a learning community was central to their learning. An interesting finding in this study was that although elementary licensure (81.8%) did have a higher perception of PLCs that would align with the literature review in Chapter 2, secondary licensure (76.3%) also had a high perception

for PLCs. Although the perception that PLCs are the most effective form of professional development, 46.6% of participants responded that they *agree* or *strongly agree* that their school uses a PLC model. Principals and district level administrators may want to implement a PLC model.

7. Educators are motivated to earn more money. This study did not look at or ask about pay for performance. Participants were only asked if receiving more money on the pay scale is a motivating factor to continue in education. Of the participants in the study, 75% responded with *agree* or *strongly agree*.
8. Educators enjoy teaching. Despite all the political pressure and changes in education, 90.4% of participants indicated *agree* or *strongly agree* that they enjoy their career.

Research Recommendations

This research study focused on finding educators' perceptions of the optimal professional development experience. Based on the findings in this research study, the following recommendations for future research are made.

1. A qualitative research study should be completed to discover the meaning behind perceptions of professional development for both teachers and principals.
2. A qualitative research study to define teacher perception on items such as what ample time means, what support means or looks like, and how they define appropriate feedback.
3. A comparative study on the perceptions of principals and teachers.
4. A qualitative research study to better understand the dip in professional development perception of teachers with 6–10 years of experience.

5. A quantitative research study that more separates current professional development styles, including aggregating formats of social media such as Twitter, Facebook, and Pinterest.
6. A mixed research study that focuses deeper into the different teacher perceptions of school level and district level professional development.
7. A quantitative research study that includes the opinions of district office personal. This would allow for perceptions from all levels: teacher, principal, and district administrator.

REFERENCES

Aaronson, D., Barrow, L., & Sander, W. (2007). Teachers and student achievement in the Chicago public high schools. *Journal of Labor Economics, 25*(1), 95-135. Retrieved from http://faculty.smu.edu/millimet/classes/eco7321/papers/aaronson%20et%20al.pdf

Aimsweb. (2013). *About Aimsweb.* Retrieved from http://www.aimsweb.com/about

Besser, L., Anderson-Davis, D., & Peery, A. (2005). *Data teams*. Englewood, CO: Center for Performance Assessment.

Blandford, S. (1998). *Professional development in schools manual*. London, England: Management Solutions Series.

Blandford, S. (2000). *Managing professional development in schools.* London, England: Routledge.

Bolam, R., McMahon, A., Stoll, L., Thomas, S., Wallace, M., Hawkey, K., & Greenwood, A. (2005). *Creating and sustaining effective professional learning communities.* [Research Report]. London: England: University of Bristol. Retrieved from https://www.education.gov.uk/publications/eOrderingDownload/RR637-2.pdf

Burke, L. A. (1997). Improving positive transfer: A test of relapse prevention training on transfer outcomes. *Human Resource Development Quarterly, 8*, 115-128. doi: 10.1002/hrdq.3920080204

Carvin, A. (2006). *What exactly is a blog, anyway?* Retrieved from http://www.pbs.org/teachers/learning.now/2006/05/what_exactly_is_a_blog_anyway.html

Centre for Educational Research and Innovation. (1982). *In-service education and training of teachers.* Paris, France: Organization for Economic Co-operation and Development.

Clark, C. M. (1992). *Teachers as designers in self-directed professional development in understanding teacher development.* New York, NY: Teacher College Press.

Cochran-Smith, M., & Lytle, S. L. (1993). *Inside/outside: Teacher research and knowledge.* New York, NY: Teachers College Press.

Cochran-Smith, M., & Lytle, S. L. (1996). Communities for teacher research: Fringe or forefront? In M. W. McLaughlin & I. Oberman (Eds.), *Teacher learning: New policies, new practices* (pp. 92-112). New York, NY: Teacher College Press.

Cohen, D. K., & Ball, D. L. (1999). *Instruction, capacity, and improvement.* Philadelphia, PA: Consortium for Policy Research in Education.

Coleman, J. C. (1966). *Equality of educational opportunity*. Washington, DC: U.S. Department of Health, Education, and Welfare.

Craft, A. (1996). *Continuing professional development: A practical guide for teachers and schools.* London, England: Routledge.

Creswell, J. W. (1996). *Qualitative inquire and research design. Choosing among five traditions.* Thousand Oaks, CA: Sage.

Crumrin, T. (n.d.). *Teacher education and the normal school movement in Indiana.* Retrieved from http://www.connerprairie.org/Learn-And-Do/Indiana-History/America-1860-1900/Teacher-Education-and-Indiana.aspx

Davis, S. (2008). *Research and practice in education: The search for common ground*. Lanham, MD: Rowman & Littlefield.

DIBELS. (2013). *About us*. Retrieved from https://dibels.uoregon.edu/about/

Duchaine, E. L., Jolivette, K., & Fredrick, L. D. (2011). The effect of teacher coaching with performance feedback on behavior-specific praise in inclusion classrooms. *Education and Treatment of Children, 34,* 209-227. Retrieved from ERIC database. (EJ920437)

DuFour, R. (2004). What is a professional learning community? *Educational Leadership,* 6-11. Retrieved from http://www.allthingsplc.info/pdf/articles/DuFourWhatIsA ProfessionalLearningCommunity.pdf

DuFour, R., & Berkey, T. (1995). The Principal as staff developer. *Journal of Staff Development* 16(*4*). 2-6.

DuFour, R., & Eaker, R. (1998). *Professional learning communities at work: Best practices for enhancing student achievement.* Bloomington, IN: National Education Service. Retrieved from ERIC database. (ED426472)

DuFour, R., & Marzano, R. J. (2011). *Leaders of learning: How district, school, and classroom leaders improve student achievement.* Bloomington, IN: Solution Tree Press.

DuFour, R., DuFour R., & Eaker, R. (2008). *Revisiting professional learning communities at work.* Bloomington, IN: Solution Tree.

Educause Learning Initiative. (2005). *Advancing learning through IT innovation.* Retrieved from http://net.educause.edu/ir/library/pdf/ELI7003.pdf

Faulkner, G., & Watson, T. (2007). *What is microblogging?* Retrieved from http://www.ibm.com/podcasts/shortcuts/Shortcuts31.pdf

Fogarty, R., & Pete, B. M. (2011). *Supporting differentiated instruction: A professional learning communities approach*. Bloomington, IN: Solution Tree Press.

Fullan, M. G. (1991). *The new meaning of educational change.* London, England: Cassell.

Garman, N. B. (1995). The schizophrenic rhetoric of school reform and the effects on teacher development. In J. Smyth (Ed.), *Critical discourses on teacher development* (pp. 26-33). Trowbridge, Wiltshire, UK: Redwood.

Goodlad, J. (1984). *A place called school.* New York, NY: McGraw-Hill.

Grady, M. (1998). *Qualitative and action research: A practitioner handbook.* Bloomington, IN: Phi Delta Kappa International.

Grimmett, P. (1995). Developing voice through teacher research: Implications for educational policy. In Smyth, J. (Ed.), *Critical discourses on teacher development* (pp. 113-129). London, England: Cassell.

Guskey, T. R. (2000). *Evaluating professional development.* Thousand Oaks, CA: Corwin Press.

Guskey, T. (2009). Closing the knowledge gap on effective professional development. *Educational Horizons, 87*(4), 224-233. Retrieved from ERIC database. (EJ849021)

Guskey, T. R., & Huberman, M. (1995). *Professional development in education: New paradigms & practices.* New York, NY: Teachers College Press.

Halse, M. L., & Mallinson, B. J. (2009). Investigating popular Internet applications as supporting e-learning technologies for teaching and learning with Generation Y. *International Journal of Education and Development Using Information and Communication Technology, 5*(5), 58-71. Retrieved from ijedict.dec.uwi.edu

Hardy, I. (2012). *The politics of teacher professional development: Policy, research and practice.* New York, NY: Routledge.

Hargreaves, A. (1995). *Development and desire: A postmodern perspective.* New York, NY: Teachers College Press.

Hargreaves, A., & Fullan, M. G. (1992). *Understanding teacher development.* New York, NY: Teachers College Press.

Harnett, A., & Carr, W. (1995). *Education, teacher development and the struggle for democracy.* Maidenhead, UK: Open University Press.

Harris, A., & Muijs, D. (2005). *Improving schools through teacher leadership.* Maidenhead, UK: Open University Press.

Harris, B. M. (1980). *Improving staff performance through in-service education.* Boston, MA: Allyn & Bacon.

Hendricks, C. (2009). *Improving schools through action research: A comprehensive guide for educators.* Upper Saddle River, NJ: Pearson.

Hord, S. M. (1997). *Professional learning communities: Communities of continuous inquiry and improvement.* Austin, TX: Southwest Educational Development Laboratory.

Huffman, J. B., Hipp, K. A., Pankake, A. M., & Moller, G. (2001). Professional learning communities: Leadership, purposeful decision making, and job-embedded staff development. *Journal of School Leadership, 11,* 448-463. Retrieved from ERIC database. (EJ634844)

Illinois Department of Education. (n.d.). *Preparation and evaluation.* Retrieved from http://www.isbe.net/prep-eval/htmls/prof_develop.htm

Indiana Administrative Code. (2011). *Article 10: Workplace specialist license requirements.* Retrieved from http://www.in.gov/legislative/iac/T05150/A00100.PDF

Indiana Department of Education. (2012a). *Indiana licensing advisors.* Retrieved from http://www.doe.in.gov/student-services/licensing/indiana-licensing-advisors

Indiana Department of Education. (2012b). *Professional growth plan (PGP).* Retrieved from http://www.doe.in.gov/student-services/licensing/professional-growth-plan-pgp

Indiana Department of Education. (2012c). *RISE evaluation and development system: Indiana teacher effectiveness rubric 2.0.* Retrieved from http://www.riseindiana.org/sites/default/files/files/RISE%20Rubric%202%200%20final.pdf

Johnson, K. F. (2008). *Being an effective mentor: How to help beginning teachers succeed.* Thousand Oaks, CA: Corwin.

Kentucky Department of Education. (2012). *Education professional standards board.* Retrieved from http://www.kyepsb.net/certification/certstandardroutes.asp#renewal

Kimball, S. M. (2002). *Performance-based teacher licensure in Indiana*. Madison, WI: Consortium for Policy Research in Education. Retrieved from http://cpre.wceruw.org/tcomp/research/standards/licensure.php

Klingensmith, K. (2012). PLN: Your personal learning network made easy. *Edudemic.* Retrieved from http://edudemic.com/2012/10/build-personal-learning-network/

Koehler, M. (1999). *Administrator's staff development activities kit*. San Francisco, CA: Jossey-Bass.

Lassonde, C. A., & Israel, S. E. (2010). *Teacher collaboration for professional learning.* San Francisco, CA: Jossey-Bass.

Lieberman, A., & McLaughlin, M. W. (1996). *Networks for educational change: Powerful and problematic.* New York, NY: Teachers College Press.

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

Macintyre, C. (2000). *The art of action research in the classroom.* London, England: David Fulton.

Marston, S. H. (2010). Why do they teach? A comparison of elementary, high school, and college teachers. *Education, 131,* 437-454. Retrieved from ERIC database. (EJ930614)

Marston, S. H., Brunetti, G. J., & Courtney, V. B. (2005). Elementary and high school teachers: Birds of a feather? *Education, 125,* 469-495. Retrieved from ERIC database. (EJ698828)

Marzano, R. J. (2003). *What works in school: Translating research into action*. Alexandria, VA: Association for Supervision and Curriculum Development.

McCullagh, J. (2012). How can video supported reflection enhance teachers' professional Development? *Cultural Studies of Science Education, 7*(1), 145-161. Retrieved from ERIC database. (EJ956302)

Mertler, C. A. (2009). *Action research: Teachers as researchers in the classroom.* Thousand Oaks, CA: Sage.

Michigan Department of Education. (2012). *Facts on educator certification*. Retrieved from http://www.michigan.gov/documents/mde/Facts_About_Teacher_Certification_In_Michigan_230612_7.pdf

Moller, G. (2006). Teacher leadership emerges within professional learning communities. *Journal of School Leadership, 16,* 520-533. Retrieved from ERIC database. (EJ835457)

NWEA. (2013). *About NWEA.* Retrieved from http://www.nwea.org/about-nwea-1

Oberman, I., & Symonds, K. W. (2005). What matters most in closing the gap? *Leadership, 34*(3), 8–11. Retrieved from ERIC database. (EJ709733)

Ohio Department of Education. (2012). *Renew certificate/license*. Retrieved from http://education.ohio.gov/GD/Templates/Pages/ODE/ODEDetail.aspx?page=3&TopicRelationID=541&ContentID=628&Content=126109

Pancucci, S. (2007). Train the trainer: The bricks in the learning community scaffold of professional development. *International Journal of Human and Social Sciences, 2*(1), 14-21. Retrieved from https://www.waset.org/journals/ijhss/v2/v2-1-3.pdf

Parsad, B., Lewis, L., & Farris, E. (2001). *Teacher preparation and professional development: 2000.* Washington, DC: National Center for Education Statistics.

Parsons, R. D., & Brown, K. S. (2002). *Teacher as reflective practitioner and action researcher*. Belmont, CA: Wadsworth/Thomson Learning.

Patnoudes, E. (2012). What is a PLN? *Edudemic*. Retrieved from http://edudemic.com/2012/10/build-personal-learning-network/

Rigelman, N. M., & Ruben, B. (2012). Creating foundations for collaboration in schools: Utilizing professional learning communities to support teacher candidate learning and visions of teaching. *Teaching and Teacher Education, 28,* 979-989. Retrieved from ERIC database. (EJ975319)

Rivkin, S. G., Hanushek, E. A, & Kain, J. F. (2005). Teachers, schools and academic achievement. *Econometrica, 73,* 417-458. Retrieved from http://www.econ.ucsb.edu/~jon/Econ230C/HanushekRivkin.pdf

Rosenholtz, S. J. (1991). *Teacher's workplace.* New York, NY: Teachers College Press.

Rust, F., & Meyers, E. (Eds). (2003). *Taking action with teacher research*. Portsmouth, NH: Heinemann.

Sanders, W., & Horn, S. (1998). Research findings from the Tennessee value-added assessment system (TVAAS): Mixed methodology in educational assessment. *Journal of Personnel Evaluation in Education, 8,* 299-311. Retrieved from http://www.sas.com/govedu/edu/ed_eval.pdf

Sherry, L. (1995). Issues in distance learning. *International Journal of Educational Telecommunications, 1,* 337-365. Retrieved from http://home.comcast.net/~lorraine.sherry/publications/issues.html

Sparks, D. (1984). Staff development and school improvement: An interview with Ernest Boyer. *Journal of Staff Development, 5*(2), 32-39. Retrieved from ERIC database. (EJ312945)

Sparks, D., & Hirsch, S. (2000). *Learning to lead: Leading to learn—Improving school quality through principal professional development*. Oxford, OH: National Staff Development Council.

Stoll, L., Bolam, R., McMahon, A., Wallace, M., & Thomas, S. (2006). Professional learning communities: A review of the literature. *Journal of Educational Change, 7,* 221-258. Retrieved from http://schoolcontributions.cmswiki.wikispaces.net/file/view/PROFESSIONAL+LEARNING+COMMUNITIES+A+REVIEW+OF.pdf

Timpson, W. M., & Tobin, D. N. (1982). *Teaching as performing: A guide to energizing your public presentation.* Englewood Cliffs, NJ: Prentice-Hall.

Webster-Wright, A. (2009). Reframing professional development through understanding authentic professional learning. *Review of Educational Research, 79,* 702-739. Retrieved from ERIC database. (EJ879472)

West-Burnham, J., & O'Sullivan, F. (1998). *Leadership and professional development in schools: How to promote techniques for effective professional learning.* Lanham, MI: Pitman.

White, S. (2005). *Beyond the numbers.* Englewood, CO: Lead + Learn Press.

Wisconsin Department of Public Instruction. (n.d.). *Professional growth requirement for license renewal.* Retrieved from http://tepdl.dpi.wi.gov/pdp/pdp-requirements-for-licensing

Wong, H. K. (2001). Mentoring can't do it all. *Education Week, 20*(43), 46-50. Retrieved from http://www.edweek.org

APPENDIX A: RISE INDIANA DOMAIN 3: TEACHER LEADERSHIP

RISE Indiana dedicates one of the three domains in the evaluation rubric to teacher leadership. Competency 3.1 addresses contributing to school culture. An effective teacher uses educational knowledge to contribute ideas and expertise to further the schools' mission and initiatives and a highly effective teacher meets that criteria and in addition, seeks out leadership roles. Competency 3.2 focuses on collaboration with peers. An effective teacher seeks out collaboration opportunities to both learn from and provide help to peers. A highly effective teacher meets that criteria and also coaches peers and takes leadership roles such as leading the school's professional learning community. The first two competencies have an indirect focus on professional development. A teacher would need to stay current in order to be highly effective. Competency 3.3 is directly aligned to professional development. A teacher is marked needs improvement if the teacher only attends mandatory professional development. An effective teacher is a teacher who seeks out professional development. A highly effective teacher meets the criteria of the effect teacher and is a building leader in sharing the new knowledge and leading professional development.

APPENDIX B: NO CHILD LEFT BEHIND DEFINITION OF PROFESSIONAL DEVELOPMENT

The term professional development includes activities that improve and increase teachers' knowledge of the academic subjects the teachers teach, and enable teachers to become highly qualified; are an integral part of broad school-wide and district-wide educational improvement plans; give teachers, principals, and administrators the knowledge and skills to provide students with the opportunity to meet challenging state academic content standards and student academic achievement standards; improve classroom management skills; are high quality, sustained, intensive, and classroom-focused in order to have a positive and lasting impact on classroom instruction and the teacher's performance in the classroom; and are not 1-day or short-term workshops or conferences; support the recruiting, hiring, and training of highly qualified teachers, including teachers who became highly qualified through State and local alternative routes to certification; advance teacher understanding of effective instructional strategies that are based on scientifically based research (except that this subclause shall not apply to activities carried out under part D of title II); and strategies for improving student academic achievement or substantially increasing the knowledge and teaching skills of teachers; and are aligned with and directly related to State academic content standards, student academic achievement standards, and assessments; and the curricula and programs tied to the standards; are developed with extensive participation of teachers, principals, parents, and administrators of schools to be served under this Act; are designed to give teachers of limited English proficient children, and other teachers and instructional staff, the knowledge and skills to provide instruction and appropriate language and academic support services to those children, including the appropriate use of curricula and assessments; to the extent appropriate, provide training for teachers and principals in the use of technology so that technology and technology

applications are effectively used in the classroom to improve teaching and learning in the curricula and core academic subjects in which the teachers teach; as a whole, are regularly evaluated for their impact on increased teacher effectiveness and improved student academic achievement, with the findings of the evaluations used to improve the quality of professional development; provide instruction in methods of teaching children with special needs; include instruction in the use of data and assessments to inform and instruct classroom practice; and include instruction in ways that teachers, principals, pupil services personnel, and school administrators may work more effectively with parents; and may include activities that involve the forming of partnerships with institutions of higher education to establish school-based teacher training programs that provide prospective teachers and beginning teachers with an opportunity to work under the guidance of experienced teachers and college faculty; create programs to enable paraprofessionals (assisting teachers employed by a local educational agency receiving assistance under part A of title I) to obtain the education necessary for those paraprofessionals to become certified and licensed teachers; and provide follow-up training to teachers who have participated in activities described in subparagraph (A) or another clause of this subparagraph that are designed to ensure that the knowledge and skills learned by the teachers are implemented in the classroom.

APPENDIX C: ONLINE SURVEY

1. I believe that I grow professionally through my experiences in the classroom (Harris, 1980, p. 10, Assumption 1). (Research Questions 2, 4)

   1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

2. I believe that I grow professionally through my experiences in professional development activities (Harris, 1980, p. 10, Assumption 1). (Research Questions 2, 3, 4)

   A. At the school level:
   1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree
   B. At the district level:
   1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

3. I believe that I grow more professionally from my experiences in the classroom compared to professional development activities (Harris, 1980, p. 10, Assumption 1). (Research Questions 2, 3)

   A. At the school level:
   1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree
   B. At the district level:
   1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

4. I believe that professional development activities always have learning outcomes appropriate for me (Harris, 1980, p. 10, Assumption 2; Muijs, 2005, p. 58). (Research Questions 2, 3)

   At the school level:
   1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree
   At the district level:
   1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

5. I believe that professional development activities meet my needs as a teacher (Harris 1980, p. 10, Assumption 3; Muijs, 2005, p. 58). (Research Questions 2, 3)

   A. At the school level:
   1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree
   B. At the district level:
   1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

6. I have a voice in the structure of professional development activities (Smith & Lytle, 1996, p. 92, Clark, 1992, p. 75). (Research Questions 2, 3)

   At the school level:
   1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree
   At the district level:
   1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

7. I believe that I receive appropriate feedback from administration about my classroom implementation from professional development activities (Harris 1980, p. 10, Assumption 4). (Research Questions 2, 3, 4)

   At the school level:
   1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree
   At the district level:
   1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

8. I believe that after I participate in professional development activities I am left to implement the training by myself (Hardy, 2012, p. 75). (Research Questions 2, 3)

   A. At the school level:
   1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree
   B. At the district level:
   1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

9. I believe that professional development activities are engaging (Webster-Wright 2009, p. 720). (Research Questions 2, 3)

   A. At the school level:
   1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree
   B. At the district level:
   1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

10. I am provided with an opportunity to provide meaningful feedback to administrators regarding professional development activities (Guskey, 2000, p. 32-33). (Research Questions 2, 3, 4)

    A. At the school level:
    1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree
    B. At the district level:
    1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

11. I believe I receive focused support from administration that helps me fully implement the strategies from professional development activities (Harris, 1980, p. 10, Assumption 6). (Research Questions 2, 3, 4)

    A. At the school level:
    1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree
    B. At the district level:
    1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

12. I believe that I am given ample time and resources to implement the strategies presented at professional development activities (Harris, 1980, p. 10, Assumption 8). (Research Questions 2, 3, 4)

    A. At the school level:
    1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree
    B. At the district level:
    1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

13. I believe that I would be successful without professional development activities (Timpson & Tobin, 1982, p. 4). (Research Questions 2, 3)

    A. At the school level:
    1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree
    B. At the district level:
    1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

14. I believe that professional development activities are aligned with my school's goals (Rosenholtz, 1991, p. 39). (Research Questions 2, 3)

    A. At the school level:
    1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree
    B. At the district level:
    1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

15. I believe professional development activities take into account my learning style as an adult learner (Blandford, 2000, p. 21). (Research Questions 2, 3, 4)

    A. At the school level:
    1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree
    B. At the district level:
    1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

16. I try to fully implement professional development activities into my classroom (Webster-Wright, 2009). (Research Questions 2, 3)

    A. At the school level:
    1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree
    B. At the district level:
    1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

17. Receiving more money on the pay scale is a motivating factor for me to continue my education (Harris, 1980, p. 10, Assumption 8). (Research Question 2)

    1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

18. I believe time allowed to observe other teachers would be an effective form of professional development (Blandford, 2000, p. 6, Practitioner Development). (Research Questions 1, 2, 4)

    1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

19. I believe being able to observe other teachers would not benefit my professional development as a teacher (Blandford, 2000, p. 6, Practitioner Development). (Research Questions 1, 2, 4)

    1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

20. I believe continuing my education in courses from higher education institutions would be an effective form of professional development (Blandford, 2000, p. 6, Professional Education). (Research Questions 1, 2, 4)

    1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

21. I believe that attending conferences and workshops away from school would be an effective form of professional development (Blandford, 2000, p. 7, Professional Training). (Research Questions 1, 2, 4)

    1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

22. I believe more time working with my colleagues to discuss student data and instructional practices would be an effective form of professional development (Blandford, 2000, p. 7, Professional Support). (Research Questions 1, 2, 4)

    1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

23. I believe that having time to watch a professional podcast or read a professional blog would be an effective form of professional development (Halse & Mallinson, 2009). (Research Questions 1, 2, 4)

    1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

24. I believe that having time to search social media networking sites like Facebook, Twitter, Pinterest, or Live Journal would be an effective from of professional development (Carvin, 2006). (Research Questions 1, 2, 4)

    1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

25. I believe that distance learning through webinars, live virtual classrooms, Skype and video conferencing would be an effective form of professional development (Harrison & Yaffe, 2012, p. 159). (Research Questions 1, 2, 4)

    1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

26. I believe that a professional learning community, working with small groups of teachers, would be an effective form of professional development (Hord, 1997). (Research Questions 1, 2, 4)

    1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

27. My school uses a professional learning community model for professional development (DuFour & Eaker, 1998). (Research Questions 1, 2, 4)

    1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

28. I believe that I could teach more effectively if I did not have to spend so much time on professional development (Martston, 2005). (Research Questions 1, 2, 4)

    1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

29. I believe that the professional development activities I participate in provide me with more leadership opportunities in the building (Harris & Muijs, 2005). (Research Questions 1, 2, 4)

    1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

30. I believe professional development guided by my principal makes me a better teacher (Martston, 2010). (Research Questions 1, 2, 4)

    1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

31. I believe that I implement professional development ideas more effectively when I am working with a community of learners rather than in isolation (Webster-Wright, 2009). (Research Questions 1, 2, 4)

    1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

32. I believe I would implement professional development ideas more effectively in my classroom if I worked with a mentor or peer-coach (Johnson, 2008). (Research Questions 1, 2, 4)

    1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

33. I believe analyzing student data with a team of teachers would be the best way to create effective professional development (White, 2005). (Research Questions 1, 2, 4)

    1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

34. I believe that being held accountable by working with a team of teachers will make implementation of my professional development ideas more likely (Oberman & Symonds, 2005). (Research Questions 1, 2, 4)

    1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

35. I believe that being held accountable by working with my principal will make implementation of my professional development ideas more likely (Oberman & Symonds, 2005). (Research Question 4)

    1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

36. I enjoy my career as an educator.

    1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

APPENDIX D: REQUIREMENT REQUEST LETTER

Dear Superintendent,

Effective professional development is a need in the Midwest. Teacher evaluation rubrics and school/district improvement plans continue to emphasize professional development. At the same time, school budgets continue to tighten. The purpose of this quantitative research study is to understand teacher and principal perception of effective professional development. Through better understanding the teacher and principal's perception of effective professional development, building and district level administrators will be able to provide more effective professional development. This quantitative research study is being completed through an online survey based on content validity research on professional development and the adult learner.

We are requesting your permission to contact your district's teachers and principals by email to request their participation in this dissertation research project. Teachers and principals will not receive any money for participating in this study. Their names and the district they work for will not be collected. Your teachers and principals will benefit through results found in the study that will help increase the effectiveness of professional development. We will contact your teachers and principals through e-mail and provide them with the letter attached to this email. Then teachers and principals will be asked to click on the online survey link. The survey should not take the teacher or principal more than 5-10 minutes to complete.

If you would be willing to allow us to contact your teachers and principals by email, please contact me at (317) 738-5780 or respond to this email.

Thank you for your time and consideration of this request for assistance.

Sincerely,

Kent L. Pettet
Principal Investigator
Needham Elemenary School
1399 Upper Shelbyville Road
Franklin, IN 46131
(317) 738-5780
pettetk@franklinschools.org

Dr. Steve Gruenert, Associate Professor
Department Chairperson
Indiana State University
Bayh College of Education
Terre Haute, IN 47809
(812) 237-2902
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APPENDIX E: INFORMED CONSENT ANONYMOUS LETTER

You are being invited to participate in a research study about educators' perceptions of what is the optimal professional development. The purpose of this study is to provide more effective professional development. This study is being conducted by Kent Pettet and Dr. Steve Gruenert, from the Educational Leadership Department at Indiana State University. The research is being conducted for the completion of a doctoral dissertation.

You were selected as a possible participate in this study because you are currently a teacher or a principal and you either participate in or help organize your school or district's professional development.

There are no known risks if you decide to participate in this research study. There are no costs to you for participation. The information you provide will be collected as part of a five state data collection on teacher and principal perception of effective professional development. The survey will take about 5-10 minutes to complete. The information collected may not benefit you directly, but the information learned in this study should provide more general benefits to how professional development is delivered.

This survey is anonymous. The researcher will not be collecting IP addresses nor asking for or attaching names to the data base. The researcher cannot guarantee there will be absolute anonymity on an Internet survey. No one will be able to identify you or your answer, and no one will know whether or not you participated in the study. Individuals from Indiana State University and the Institutional Review Board may inspect these records. Should the data be published, no individual information will be disclosed.

Your participation in this study is voluntary. By completing the online survey embedded in the email you received, you are voluntarily agreeing to participate. If you have any questions about the study, please contact Kent Pettet, Principal Investigator, by mail at Needham Elementary School 1399 Upper Shelbyville Rd. Franklin, IN 46131, by phone at (317) 738-5780, or e-mail pettetk@franklinschools.org

If you have any questions about your rights as a research subject or if you feel you've been placed at risk, you may contact the Indiana State University Institutional Review Board (IRB) by mail at Indiana State University, Office of Sponsored Programs, Terre Haute, IN, 47809, by phone at (812) 237-8217, or by e-mail at irb@indstate.edu.

Sincerely,

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