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An Analysis Of Teacher Perceptions Of The Current Evaluation Systems In The State Of Indiana: Understanding Which Components Are Most Beneficial In Building Teacher Capacity And Increasing Student Academic Growth

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AN ANALYSIS OF TEACHER PERCEPTIONS OF THE CURRENT EVALUATION SYSTEMS IN THE STATE OF INDIANA: UNDERSTANDING WHICH COMPONENTS ARE MOST BENEFICIAL IN BUILDING TEACHER CAPACITY AND INCREASING STUDENT ACADEMIC GROWTH

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VITA

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ABSTRACT

The purpose of this quantitative study was to determine what Indiana K-12 public school classroom teachers believe are the critical components of new evaluation systems in increasing their self-instructional capacity, which research (e.g., Hattie, 2003) indicated should lead to increased student achievement in their classrooms. Independent variables for this study included the respondent's grade-level teaching assignment and years teaching experience. The dependent variables in this study included the respondent's composite scores from four areas—collaborative feedback, pedagogy, embedded professional development, and performance-based compensation.

There were five statistically significant findings from the study. First, the survey data indicated that Indiana public school teachers with 0–5 years of experience had significantly higher agreement than the other experience levels. This data would indicate that teachers with 0–5 years of experience perceived collaborative feedback to be more important to building their capacity and increasing student achievement in their classroom than did all other experience levels. Second, Indiana public school teachers with 0–5 years of experience had significantly higher levels of agreement regarding the importance of pedagogy than respondents with 6–10 years of experience, and those teachers with 16 or more years of experience, in building their capacity and increasing student achievement in their classrooms. The third statistically significant finding of the study indicated Indiana public K–2 teachers had significantly higher levels of agreement regarding the importance of pedagogy than teachers of Grades 9–12.

Additionally, teachers of Grades 3–5 also had significantly higher levels of agreement than teachers of Grades 9–12 regarding the impact of pedagogy on building their capacity as classroom teachers and increasing student achievement. The fourth statistically significant finding indicated teachers with Grades K–2 and 3–5 as their main teaching assignment had significantly higher levels of agreement regarding the importance of embedded professional development than teachers of Grades 9–12. The fifth and final finding from the study indicated respondents with 0–5 years of experience had significantly higher levels of agreement regarding the importance of performance-based pay embedded professional development than did teachers with 11–15 and 16 or more years of experience.

With increasing perceptions that the new Indiana evaluation systems are very costly and time intensive, the data obtained from the study may be beneficial to teachers, building leaders, and district administrators as they work to design and implement new processes for evaluation of teachers in their districts, or alter current systems already in place. These study findings may also help districts determine the amount of time and resources districts should allocate to each of the critical components including measuring student achievement, rating teacher proficiency districts make important decisions about allocating finances, staff, and time to address requirements of the teacher evaluation systems required by federal legislation (American Recovery and Reinvestment Act [ARRA], 2009).

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TABLE OF CONTENTS

LIST OF TABLES

CHAPTER 1

INTRODUCTION

In 2009, The New Teachers Project published a report that presented study findings regarding the inability for teacher evaluation systems to recognize the effectiveness of classroom teachers, entitled the *Widget Effect* (Weisberg, Sexton, Mulhern, & Keeling, 2009). The authors of the report determined the current evaluation systems are ineffective.

> Put simply, they fail to distinguish great teaching from good, good from fair, and fair from poor. A teacher's effectiveness—the most important factor for schools in improving student achievement—is not measured, recorded, or used to inform decision-making in any meaningful way. (Weisberg et al., 2009, p. 1)

Also during 2009, federal legislators set aside nearly five billion dollars in the Race to the Top legislation (American Recovery and Reinvestment Act [ARRA], 2009) to encourage states to implement new education policies. As a result of this funding "thirty-seven states have made significant changes to teacher evaluation policies between 2009 and 2013" (Goodwin & Webb, 2014, p. 1). Since the federal law was enacted, state legislators and boards of education have been involved in a substantial redevelopment of methods used to evaluate and hold teachers accountable in the educational workplace. Although the legislation generated by lawmakers allowed local districts to have flexibility in generating local evaluation systems there were minimal requirements necessary which included the measurement of student achievement, rating

teacher proficiency based on a detailed instructional rubric, embedded professional development, and merit- or performance-based pay. As a result of legislation new teacher evaluation systems were developed at the national, state, and local levels to address these four minimal requirements. As school districts evaluate and develop the new evaluation systems, it is important to consider the amount of time, effectiveness, and impact each component will bestow upon the classroom teacher. One must ask which requirements do teachers believe have the most impact on building the capacity of classroom teachers as instructional leaders? Is accountability through the measurement of student achievement the most effective tool to improve capacity and accountability of teachers? Bolyard (2015) contended, "To hold teachers accountable for test scores assumes that they have control over the circumstances that affect a student's performance on a test" (p. 76). Data from an empirical study by Coleman et al. in 1966 indicated teachers can impact student achievemen, but stated socioeconomic status (SES), home life, and peer culture had a greater impact on student learning than did curriculum and instruction.

Maybe teachers believe accountability via a detailed instructional rubric is the most important component of the new teacher evaluation systems being generated by educators working at the state and local levels. Evans, Wills, and Moretti (2015) contended many of the new evaluation systems are based on inferior instructional rubrics that are not complex enough to determine truly effective teaching. "A more robust measure of teacher quality is a complex set of components that truly measure the effectiveness and are used by teacher evaluators in a meaningful and substantial manner" (Evans et al., 2015, p. 22).

Or maybe the defining component of the new teacher evaluation systems is the collaboration and feedback associated with the new processes. Darling-Hammond (2010) stated, "I cannot stress enough that teaching improves most where common goals are set, curriculum is

jointly developed, and expertise is shared" (p. 13). Likewise, Anast-May, Penick, Schroyer, and Howell (2011) suggested, "To provide quality focused feedback, a structure needs to occur to promote reflective inquiry and conversations for facilitating the learning of teachers" (para. 8). Possibly, the piece of the system that drives building teachers' instruction capacity and student growth is the possibility for performance-based pay. Chiang et al. (2015) determined, "Pay-for-performance led to teachers and principals earning higher effectiveness ratings based on student achievement growth in their schools, but did not affect ratings based on observations of their classroom or school practices" (p. 12). Data from the same study indicated, "Pay-for performance had small, positive impacts on students reading achievement; impacts on students' math achievement were insignificant but similar in magnitude" (Chang et al., 2015, p.12).

Current research on the new evaluation system and the effectiveness of the critical components appear to be mixed as to the effectiveness of each in building the teacher instructional capacity and student achievement. The inconsistencies found in the research studied suggested further research is necessary to determine what factors teachers believe have the most impact in building their own capacity as well as students.

Statement of the Problem

As administrators in school districts nationwide continue to develop new and alter previously implemented teacher evaluation systems, it is imperative to use teacher feedback from classroom experiences to build the most impactful and beneficial model. According to White (2014),

> Teacher evaluation systems introduced by states and school systems in the past several years have focused attention on improving the performance of public school teachers, but they have been cost- and time-intensive, placing a significant burden on states' and

> districts' resources. In Tennessee, for example, trained evaluators conducted nearly 300,000 classroom observations during the 2011-2012 school year, prompting administrators to complain that the amount of time spent to implement TEAM [the state's new system] was unmanageable. (p. 1)

The literature noted the intensive amount of time that must be allocated by school leaders to plan, develop, and implement the new evaluation systems. I believe a study of K-12 classroom teachers may help determine the amount of time and resources districts should allocate to each of the critical components including measuring student achievement, rating teacher proficiency based on a detailed instructional rubric generated from multiple classroom observations, and attending embedded professional development when planning the new teacher evaluation system for local school districts. I believe the data collected from this study will help in the decision-making process, which will result in a more effective teacher evaluation system.

Purpose of the Study

This quantitative study sought to determine what Indiana K-12 public school classroom teachers believe are the critical components of new evaluation systems in increasing their self-instructional capacity, which research (e.g., Hattie, 2003) indicated should lead to increased student achievement in their classrooms. With increasing perceptions that the new evaluation systems are very costly and time intensive, the data obtained from the study may be beneficial in helping districts make important decisions about allocating finances, staff, and time to address requirements of the teacher evaluation systems required by federal legislation (ARRA, 2009). Independent variables for this study included the respondent's grade-level teaching assignment and years teaching experience. The dependent variables in this study included the respondent's composite scores from four areas—collaborative feedback, pedagogy, embedded professional

development, and performance based compensation.

Research Questions

I used the following questions to analyze Indiana public school K-12 classroom educators' beliefs regarding the critical components of the new teacher evaluation systems implemented as a result of Race to the Top federal legislation (ARRA, 2009). The study asked the following questions regarding collaborative feedback, pedagogy, embedded professional development, and performance based compensation. Within the study, respondent demographics were also analyzed for more comprehensive understanding of the issue. The study questions included

1. Is there a statistically significant difference based on the respondents' years of teaching experience and the collaborative feedback composite score?
2. Is there a statistically significant difference based on the respondents' grade level teaching assignment and the collaborative feedback composite score?
3. Is there a statistically significant difference based on the respondents' years of teaching experience and the pedagogy composite score?
4. Is there a statistically significant difference based on the respondents' grade level teaching assignment and the pedagogy composite score?
5. Is there a statistically significant difference based on the respondents' years of teaching experience and the embedded professional development composite score?
6. Is there a statistically significant difference based on the respondents' grade level teaching assignment and the embedded professional development composite score?
7. Is there a statistically significant difference based on the respondents' years of teaching experience and the performance based compensation composite score?

8. Is there a statistically significant difference based on the respondents' grade level teaching assignment and the performance based compensation composite score?
9. What is the current state of collaborative feedback, pedagogy, embedded professional development, and performance based compensation in the evaluation systems used in Indiana Public schools?

Null Hypotheses

$H_0$1: There is no statistically significant difference based on the respondents' years of teaching experience and the collaborative feedback composite score.

$H_0$2: There is no statistically significant difference based on the respondents' grade level teaching assignment and the collaborative feedback composite score.

$H_0$3: There is no statistically significant difference based on the respondents' years of teaching experience and the pedagogy composite score.

$H_0$4: There is no statistically significant difference based on the respondents' grade level teaching assignment and the pedagogy composite score.

$H_0$5: There is no statistically significant difference based on the respondents' years of teaching experience and the embedded professional development composite score.

$H_0$6: There is no statistically significant difference based on the respondents' grade level teaching assignment and the embedded professional development composite score.

$H_0$7: There is no statistically significant difference based on the respondents' years of teaching experience and the performance based compensation composite score.

$H_0$8: There is no statistically significant difference based on the respondents' grade level teaching assignment and the performance based compensation composite score.

The questions presented were collected and analyzed by an emailed survey thath asked several questions about each of the critical components of the new teacher evaluation systems in effect in the local district of the respondent. The question responses were combined to generate a composite score for each critical component. The survey was distributed to K-12 public school teachers in Indiana that were listed on the list serve provided by the Indiana Department of Education. A quantitative one-way ANOVA study was performed via SPSS to analyze the data collected.

Limitations of the Study

The study was limited by the following factors and thus findings should be considered suggestive rather than definitive when considering follow-up research. First, the study was conducted with a self-reporting survey. Self-reporting surveys cannot ensure that participants provide honest feedback. The survey was distributed to all Indiana public school K-12 teachers. As a result, the geographical region should be considered when making generalizations to other geographical areas. The final participants used for data collection consisted only of those Indiana K-12 teachers who chose to complete the survey tool. The final limitation was the use of the one-way ANOVA to determine differences in the means of the variable studied. A one-way ANOVA can determine if differences exist but cannot determine the magnitude of the effect.

Delimitations of the Study

1. Only individuals employed as K-12 public school teachers in the state of Indiana were surveyed.
2. Only K-12 public school teachers whose names are contained within the Indiana Department of Education's database for the 2015-2016 school year were sent surveys.
3. The survey was administered during the spring of the school year, which may have

limited participation given the demands placed on teachers during this time of year.

4. Teachers were grouped into ranges of years of experience as opposed to their precise years, as this better suited the inferential questions in the study.
5. Teachers were grouped into predetermined ranges for grade level teaching assignments, as this better suited the inferential questions in the study.
6. In this study only four components of the new teacher evaluation system were studied, as a method to make the study more manageable from a time standpoint.

Definition of Terms

For the purposes of this study, the following definitions are provided to assist the reader:

Collaborative feedback: The process of engaging in genuine conversations by asking questions of others and listening to what they say (Aspey, 2008).

Embedded professional development: Training provided to teachers within the content of a normal workday that supports the daily process of teaching with the end result being to increase student achievement.

Pedagogy: The art, science, or profession of teaching "(Pedagogy", 2016).

Performance-based compensation: Any systematic process for measuring teacher behavior or results, and linking these measurements to changes in teacher pay (Heneman, Milanowski, & Kimball 2007).

New teacher evaluation system: The evaluation tools generated as a result of Race to The Top federal legislation in which observations will be conducted and used to inform and generate professional development, guide compensation, promotions, and collaborative feedback

Summary and Organization of the Study

The study presented is divided into five chapters. Chapter 1 presents an introduction to

the study, a statement of the problem, the purpose of the study, research questions, null hypotheses, limitations of the study, delimitations of the study, definition of terms, and the summary. Chapter 2 presents a view of the related literature. Chapter 3 presents the methodology and procedures employed in the study. Chapter 4 presents the summarization and analyses of the data obtained in the study. Chapter 5 presents a review of the findings, implications, and recommendations for further study.

CHAPTER 2

REVIEW OF THE LITERATURE

This study sought to determine what Indiana K-12 public school classroom teachers believe are the most critical components of new evaluation systems in increasing their self-instructional capacity. Research (e.g., Hattie, 2003) indicated sound evaluation systems should lead to increased student achievement in classrooms. With increasing perceptions that the new evaluation systems are very costly and time intensive, the data obtained from the study may be beneficial in helping districts make important decisions about allocating finances, staff, and time to address requirements of the teacher evaluation systems required by federal legislation (ARRA, 2009). In Chapter 2, research regarding the history of evaluation, collaborative feedback, performance-based compensation, pedagogy, embedded professional development, teacher experience, and grade levels taught were studied. The knowledge gained helps provide an understanding of the influence and impact of each factor in the current teacher evaluation systems.

History of Teacher Evaluation

During the last decade, legislators and state boards of education have once again become extremely involved in a substantial redevelopment of methods used to evaluate and hold teachers accountable in the educational workplace (ARRA, 2009). Although the legislation generated by lawmakers allows local districts to have flexibility in generating local evaluation systems there

are minimal requirements necessary which include the measurement of student achievement, teacher proficiency based on a detailed instructional rubric, embedded professional development, and merit pay. The evaluation system and procedures being developed today are in stark contrast to the evaluation tools that have been used throughout the history of evaluating teachers. In the 1700s, local clergy were responsible for the hiring and supervision of teachers. Tracy (1995) noted that community members believed clergy members possessed the education and knowledge to make these important decisions. This process of supervising teachers continued until the 1800s when the urbanization of the United States began to occur, which led to the increased complexity of the educational system and need for the effective evaluation of teachers to ensure the appropriate knowledge and skills were being taught (Tracy, 1995). The late 19th and early 20th century saw the move to a more formalized teacher supervision process. The formalized evaluation process was built on a more detailed scientific based process. Individuals carrying out the more formalized evaluation process looked at specific indicators to determine the effectiveness of the classroom teacher. Cubberly (1929) compared the industrial system and its processes to the educational system. He suggested the child in the educational system is similar to the raw material of industry and believed there were certain techniques and processes a teacher could follow to generate a more polished student. He also suggested teachers be rated on a scale to determine their effectiveness in the classroom (Cubberly, 1929).

The evaluation system continued to be slowly reshaped and redefined until the 1950s when Goldhammer (1969) began researching and developing a face to face interaction process between teacher and supervisor which became known as clinical supervision. Goldhammer's model of clinical supervision was based on five components: (a) pre-observation conference, (b) classroom observation, (c) analysis, (d) supervision conference, and (e) analysis of the analysis.

Goldhammer developed and expanded on the ideas generated by Cubberly (1929) but added reflective dialogue to the evaluation process. Goldhammer believed evaluators should have no preconceived perceptions of the classroom during his classroom observations. His observations were inquiry driven and based on what he saw and not on what he thought he should see. The evaluation process would then end in reflective dialogue regarding the lesson. Goldhammer's model became widely used until the 1990s in the teacher evaluation process minus the reflective dialogue.

In the 1990s, Danielson (2013) began developing a framework of 22 critical teaching components that were aligned to the Interstate Teacher and Support Consortium (INTASC) standards. The critical teaching components presented by Danielson were instrumental in measuring teacher effectiveness (Evans et al., 2015). Danielson's teaching components were distinguished from her previous colleagues due to the extensive complexity of the measurement abilities and her model celebrated the complexity of teaching and provided an extensive framework for feedback among educators. The complexity provided the ability to describe teaching outcomes from *unsatisfactory* to *distinguished* by providing extensive rubrics that have descriptors which identify proficiency levels of teachers. Danielson's (2013) ideas became the foundation of the new evaluation systems developed in the early 2000s as a new era of teacher evaluation and student growth monitoring blossomed in response to new educational laws. No Child Left Behind (NCLB; 2002) and the Race to The Top federal legislation (ARRA, 2009) caused a major shift in the educational policies of states as they quickly rushed to meet the new legislative mandates.

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No Child Left Behind

In 1965, President Lyndon B. Johnson passed the Elementary and Secondary Education Act (ESEA) as part of his *Great Society* program, which has been changed and adapted several times over the years. As recent as 2002, President George W. Bush's administration updated ESEA with the NCLB (2002) law enacted in response to legislators concern the American education system was no longer internationally competitive; and, therefore, this new law held schools accountable for student achievement more than ever before. The NCLB legislation contained verbiage which put special emphasis on select groups of students who typically score lower on achievement tests as compared to peers not in these disaggregated groups. Student groups targeted included English as second language, special education, and students of poverty. In order to receive federal funding school administrators were required to comply with NCLB legislation. Within NCLB legislation, schools are required to devise a plan to test students in reading, math, and science in grades three through eight, and once again in high school.

> Each State plan shall demonstrate that the State educational agency, in consultation with local educational agencies, has implemented a set of high quality, yearly student academic assessments that include, at a minimum, academic assessments in mathematics, reading or language arts, and science that will be used as the primary means of determining the yearly performance of the State and of each local educational agency and school in the State in enabling all children to meet the State's challenging student academic achievement standards, except that no State shall be required to meet the

> requirements of this part relating to science assessments until the beginning of the 2007–2008 school year. (U.S. Department of Education [USDOE], 2005, p. 2)

In addition, each state's plan must determine a proficiency level all students must reach by the 2013-2014 school year (NCLB, 2002). The reporting of this data for schools is known as academic yearly progress (AYP). The serious repercussions and stressors of not meeting AYP have become a great and debatable topic in the field of education. In addition to AYP, the NCLB (2002) law requires that teachers be highly qualified and have the necessary state certification.

> Strengths of the No Child Left Behind legislation are apparent with the increase in student test scores especially in the scores of minority students. The act requires educational institutions to focus on providing quality education to underserved students, including children from low-income families, those with disabilities, those who are non-English speakers, as well as those belonging to African-American and Latino communities. (Sicat, 2014, para. 4)

The extra support minority students and other struggling students receive from the benefits of regular testing allows for students to grow and improve. Schools are required to monitor themselves and link their academic content to student outcomes. Sicat (2014) stated,

> At its core, the NCLB faults curriculum and the schools themselves for student failure. However, critics claim that there are other factors to blame, including old and damaged school buildings, class size, homelessness, hunger and lack of health care. (para. 2)

Weaknesses of the No Child Left Behind law are evident as well. Sicat (2014) noted, "During the Bush Administration, the NCLB was significantly underfunded at the state level, but still required the states to comply with all its provisions or risk losing federal funds" (para. 6).

Schools were forced to make impossible decisions on where to make cuts, often resulting in staff reductions in the area of foreign language, science, and social studies, which are the areas that do not involve state testing. Ultimately, administrators and teachers are forced to invest all their time and energy assuring success in the areas that are tested (Sicat, 2014). Typically, cooperative learning and enrichment type group-work allow for the cognitive and social development. Research indicates this is a necessary component to the social development of children. With the new time constraints and pressure as a result of NCLB (2002) legislation to skill and drill to the test, teachers and students are no longer finding the time to engage in these types of social activities.

Musoleno and White (2010) believed the high-stakes testing was impeding important cognitive and social development.Young adolescents are learning about themselves and their physical growth. It is during this stage of development that their need to socialize increases. Rather than sit in rows with limited opportunity for interaction among peers, instruction in the middle school typically allows for movement and peer interaction. (Musoleno & White, 2010, p. 2)

NCLB (2002) legislation also requires districts to publicly report overall school test data and teacher performance data. Wepner (2006) explained how public reporting has added a layer of accountability that can be seen from many different viewpoints.

> Those studying the politics and practice of this law are finding that students are actually less accountable for their performance of these tests than teachers and that student subgroups are given short shrift by the very law that is supposed to help them because of the many compromises to the curriculum that are made to address testing requirements. (Wepner, 2006, p. 136)

As a result of the increase in public awareness of teacher and student performance scores teacher preparedness and professionalism formalized evaluation systems were enhanced to ensure high quality teachers were in place to ensure student achievement. It became vital to school districts to employ professional educators that were highly qualified to meet the needs of students in achieving student growth in the realm of high-stakes testing (Wepner, 2006).

> Today's teachers face a very different set of expectations and requirements in the classroom than prior generations. Teachers today must address standards and high-stakes testing at every turn because of their unmistakable prominence and permanence. As high-stakes testing has come to symbolize educational progress, the field of literacy has experienced a shift in focus to address this widespread interest in test results. (Wepner, 2006, p. 137)

Strict instructional practices are in place to ensure the most impact and growth for students now that high-stakes testing is mandated in federal legislation (NCLB, 2002). In addition to new instructional practices and strategies, educators are redesigning the daily master schedule to allow for more instructional minutes allocated to math, reading and language arts, and science due to the testing focus. One negative impact of the implementation of these high-stakes testing and the redesigning of instructional practices and curriculum design is the overwhelming amount of external pressure placed on administrators, teachers, and students to succeed. District leaders and educators unwittingly give students the impression content areas such as social studies, languages, arts, performing are not important as the time allocated towards elective classes has been diminished. Bracey (2009) noted, "Schools are under the gun to raise test scores increasingly rely on strategies that give immediate, but short-lived, results" (p. 34). Because of this shift in instructional practices and curriculum design, teachers need to be provided

professional development and professional feedback through observations and evaluations in order to meet the high AYP criteria.

Teacher evaluations are first and foremost a way to document teacher productivity and then shift to helping the teacher raise his or her productivity and success rates by holding them accountable for their lessons and teaching.

> In recent years, as the field of education has moved toward a stronger focus on accountability and on careful analysis of variables affecting educational outcomes, the teacher has proven time and again to be the most influential school-related force in student achievement. (Stronge, 2002, p. 53)

Although it is obvious that highly-qualified teachers with effective teaching methods and a passion for lesson planning is critical to student success, these professional expectations are often not evaluated as they should be. Another critical component in the process to effectively evaluate teachers in the educational setting is the development of a more rigorous and effective teacher evaluation system. According to Falender et al. (2004), effective and reliable supervision requires the "ability to provide effective formative and summative feedback" (p. 778).

Race to the Top (RTTT)

In an effort to stimulate the economy, President Obama signed into law the American Recovery and Reinvestment Act of 2009 on February 17, 2009 (ARRA, 2009). The ARRA legislation was designed to stimulate the economy, create jobs, and to also invest in and improve the U.S. education system. The ARRA supports education through investments in innovative strategies which will lead to improved success rates for students and preparation for the competitive world market. The USDOE's Race to the Top Program Summary (ARRA, 2009) focused on four main components to improve student success and teacher performance, which

could be financed through a 4.35 billion competitive grant program. These innovative strategies included standards that prepare students to be successful in the workplace, improving failing or underachieving schools, and the use of student data for the evaluation of student growth and teacher performance. The component most impactful on the teacher evaluation system was the requirement that districts use student data for the measure of teacher performance. Before Race to the Top (ARRA, 2009), most evaluation systems were based on a single measure of performance such as one-time student success rates on state tests. Data of this nature were usually not received for several months and often had little or no impact on teacher instructional practices. Hershberg and Robertson-Kraft (2010) believed the Race to the Top (RTTT; ARRA, 2009) legislation would be more effective by "focusing on the growth that individual students make over the year, rather than their achievement level at a particular point in time" (Hershberg & Robertson-Kraft, 2010, p. 128). Another component of the ARRA (2009) grant required states to include new compensation models, career advancement ladders, and tenure implications based on collected student growth data.

Developing great teachers and leaders was the largest factor in qualifying for the RTTT (ARRA, 2009) grant funds. In the application process schools can earn 138 points for creating new innovative avenues for teacher advancement, evaluation, and professional development. The RTTT criteria has had substantial impact on the new teacher development systems. These criteria included providing high-quality pathways for aspiring teachers, improving teacher and principal effectiveness based on performance, ensuring equitable distribution of teachers and principals, improving the effectiveness of teacher and principal preparation systems, and providing effective support to teachers and principals (ARRA, 2009). Improving teacher and principal effectiveness based on performance is an area where many points can be earned. "Like

the No Child Left Behind Act of 2001, RTTT emphasizes the importance of improving teacher quality as a vehicle for accelerating student progress and closing achievement gaps" (Hershberg & Roberston-Kraft, 2010, p. 1). The RTTT legislation tried to implement new strategies and incentives that demand schools create new teacher support and evaluation systems that are evidence based, thus creating highly qualified and effective teachers for U.S. schools.

> The challenge for current policy makes will be to overcome the shortcomings of previous attempts by employing metrics that take into account the multiple dimensions of teachers' work, producing results teachers view as accurate, and providing sufficient training to help them interpret and utilize the data to improve their instructional practice. (Hershberg & Robertson-Kraft, 2010, p. 1)

Schools in the United States have long struggled to effectively evaluate classroom teachers due to the ineffective evaluation systems of the past due to the absence of student growth data as a fundamental component. The widget effect (Weisberg et al., 2009) described the tendency of school districts to assume classroom effectiveness is the same from teacher to teacher. This decades-old fallacy fosters an environment in which teachers cease to be understood as individual professionals, but rather as interchangeable parts. In its denial of individual strengths and weaknesses, it is deeply disrespectful to teachers; in its indifference to instructional effectiveness, it gambles with the lives of students (Weisberg et al., 2009).

> This inability not only keeps schools from dismissing consistently poor performers, but also prevents them from recognizing excellence among top-performers or supporting growth among the broad plurality of hardworking teachers who operate in the middle of the performance spectrum. Instead, school districts default to treating all teachers as

> essentially the same, both in terms of effectiveness and need for development. (Weisberg et al., 2009, p. 2)

The National Institute of Excellence in Teaching (NIET) has been at the forefront of the development of teacher evaluation system incorporating all of the requirements mandated by NCLB (2002) and RTTT (ARRA, 2009) legislation. The program developed by the NIET is named the Teacher Advancement and Placement System (TAP). This new system is rich in data collection for the purposes of extensive evaluation and coordinated feedback with educators about their craft of classroom instruction. Systems typically consist of a well-orchestrated lesson pre-conferences, informal unannounced walk-throughs of classrooms, formal observations, lesson post-conferences, and individualized professional development implemented with accountability (NIET, 2016). These components are carried out by a leadership team, which generally consists of building level teachers, coaches, principals, and district leaders. The Center for Excellence in Leadership of Learning indicated that the TAP evaluation system is currently being used in over 500 schools nationwide impacting over 200,000 students (University of Indianapolis, 2011).

The TAP teaching skills, knowledge, and responsibilities performance standards are the backbone of TAP's instructionally focused accountability element (NIET, 2016). To measure teaching skills, knowledge, and responsibilities, one must define the skills and determine how they are demonstrated at different levels of performance. These standards were developed based on education psychology and cognitive science research focusing on learning and instruction, as well as an extensive review of publications from national and state teacher standards organizations (NIET, 2016).

The TAP system has determined a set of indicators, which teachers are evaluated on for each lesson (NIET, 2016). These indicators are believed to be the foundation for an effective lesson which should correlate with student achievement. NIET (2016) described walk-throughs as short 10-20 minute information gathering sessions conducted by the leadership team. After several walk-throughs, a formal classroom visit occurs. During this time, the teacher's words, actions, student activities, and student reactions are recorded as evidence to present in the formal post-conference. The formal post-conference is then conducted by the leadership team member who conducted the formal classroom visit. At this meeting an area of reinforcement and refinement is presented to the classroom teacher by the observer. The area of reinforcement is chosen with evidence from the formal observation lesson that displays how the indicator was successfully implemented. The educator is then provided with an area of refinement with evidence, or lack of evidence, of how this indicator was not effectively implemented in class. The person leading the conference then provides a concrete example of how this area of refinement can be addressed. "This is an example of differentiated professional development, which many teachers perceive is what lacks in many evaluation reports" (Maharaj, 2014, p. 3). The evaluator will then perform a walk-through within the next two weeks to determine if the teacher has instituted the concrete example that was provided, which leads to a level of accountability that has not been present in past historical evaluation processes.

In addition to feedback in the post conference, the teacher is provided with his or her evaluation score. Teachers are evaluated a total of four times each year and the scores are used to determine an overall skills, knowledge, and responsibilities (SKR) score at the end of the school year (NIET, 2016). Based upon these SKR scores, classroom achievement gains and

student achievement gains, the teacher receives a formulated compensation pay (Jerald & Van Hook, 2011).

Indiana Department of Education Evaluation Option: RISE

To comply with Indiana Public Law 90, the Indiana Department of Education (IDOE) designed the teacher evaluation system called RISE. The RISE evaluation system is the state of Indiana's answer to an evaluation system that was fair, credible, and accurate to measure teacher and principal performance and support professional growth (IDOE, 2016). This evaluation system was designed for school corporations to adopt or to use as a model when designing their own. The IDOE staff and Teacher Evaluation Cabinet modeled this new evaluation system on three beliefs:

1. Nothing we can do for our students matters more than giving them effective teachers. Research has proven this time and again. We need to do everything we can to give all our teachers the support they need to do their best work, because when they succeed, our students succeed. Without effective evaluation systems, we can't identify and retain excellent teachers, provide useful feedback and support, or intervene when teachers consistently perform poorly.
2. Teachers deserve to be treated like professionals. Unfortunately, many evaluations treat teachers like interchangeable parts—rating nearly all teachers the same and failing to give teachers the accurate, useful feedback they need to do their best work in the classroom. We need to create an evaluation system that gives teachers regular feedback on their performance, opportunities for professional growth, and recognition when they do exceptional work. We're committed to creating evaluations that are

fair, accurate and consistent, based on multiple factors that create a complete picture of each teacher's success in helping students learn.

3. A new evaluation system will make a positive difference in teachers' everyday lives. Novice and veteran teachers alike can look forward to detailed, constructive feedback, tailored to the individual needs of their classrooms and students. Teachers and principals will meet regularly to discuss successes and areas for improvement, set professional goals, and create an individualized development plan to meet those goals. (IDOE, 2016, p. 5)

The IDOE's (2016) evaluation handbook states that over the course of the school year, a teacher will have two extended evaluations lasting approximately 40 minutes each in the RISE model, whereas the TAP evaluation system requires four. Like TAP, a primary evaluator will be assigned to each teacher and will be responsible for conducting the extended evaluations. In addition to these extended evaluations, a teacher will have three short evaluations lasting approximately 10 minutes. During these less formal evaluations, secondary evaluators can gather instructional evidence and report that back to the primary evaluator. It is the job of the primary evaluator to provide the final summative rankings of teachers at the end of the school year. The performance indicators used for the evaluation process are similar to the TAP evaluation system previously discussed, using the RISE evaluation components and rubrics, teachers are assigned a summative evaluation score. This score then places teachers into a ranking of *ineffective, improvement necessary, effective,* or *highly effective*.

One of the major differences in comparing the RISE and TAP evaluation systems is the level of subjectivity in the determination of the final effectiveness score compilation. In the RISE evaluation system each teacher is observed by the same observer the entire year (IDOE,

2016). In the RISE system the observer is then given what is deemed as professional judgment when compiling final evaluation score as discussed in the RISE document.

> Using professional judgment, evaluators should consider the ways and extent to which teachers' practice grew over the year, teacher's responses to feedback, how teachers adapted their practice to the their current students, and the many other appropriate factors that cannot be directly accounted for in the Teacher Effectiveness Rubric before settling on a final rating. (IDOE, 2016, p. 17)

The TAP system does not provide for the professional judgment. The teacher's final score is compiled using the average of the four observations which are done by four different observers from the leadership team. The end result of the formalized systems, whether TAP or RISE, is the ability of teachers to obtain performance-based pay or merit pay. The performance-based compensation the teachers receive is based on two overriding factors. The growth in the instructional capacity from the final scores associated with the observations is the first factor which is rewarded. Student test score growth is the second factor in determining the final compensation a teacher receives each year.

Performance-Based Compensation

Weldon (2011) explained in the 1800s teacher compensation was based on a *boarding round* system due to the rural environment and one-room school houses. Teacher pay included room and board and the teacher would travel from student home to student home. The industrial economy of the late 1800s led to a more skilled teacher and therefore a teacher pay model where teachers were compensated by their level of education. Teachers at the elementary level were paid less due to the accepted philosophy that the lower grade teachers required less skill to teach. Women and minority teachers were also undervalued and paid less than men.

The most sustainable teacher pay model used was introduced in the 20th century. The single-salary schedule is a uniform way of compensating teachers based upon years of experience and level of education. "By 1950, 97% of all schools had adopted the model" (Weldon, 2011, p. 2). By the late 1960s and the introduction of collective bargaining, the single-salary schedule method was deemed to be a fair and non-discriminating method to pay teachers (Weldon, 2011). Although this method erased the bias in earlier pay models by creating a pay-step system for all teachers, it too has flaws and unfair biases in regards to compensating teachers. In this single-salary schedule of pay, teachers that have a higher degree of effectiveness on student achievement are paid the same as those less effective teachers of similar tenure and level of education.

In 2012, the Obama administration created new RTTT (ARRA, 2009) legislation which established funds for teacher merit pay. "U.S. Secretary of Education Arne Duncan stated merit pay for teachers was the U.S. Department of Education's highest priority" (as cited in Rosales, 2016, para. 4). Despite the support and funding of the U.S. government, compensation-based pay is not widely used in school corporations across the country. In corporations where merit pay is implemented, the pay plans are not differentiated enough for teachers to make meaningful impacts.

Barnett and Ritter (2008) believed that compensation-based pay can be linked to an individual teacher and based on evaluations alone. In this case, the teacher would be incentivized and rewarded for mastering the craft of teaching and developing a better understanding and implementation of their daily instruction. Compensation-based pay can also be linked to the individual teacher and include value-added achievement of students. In this case, a teacher is not only evaluated on his or her own skill as a classroom teacher, but his or her

student's test scores and student growth scores are used to determine teacher effectiveness. Finally, compensation-based pay can be linked to a team or school data. In this case, a teacher is evaluated and then team student data or school student data is used to determine effectiveness. This process holds the teacher more accountable and rewarding which will keep them in the profession longer (Barnett & Ritter, 2008).

Critics of the compensation-based pay model argue that along with bias, student ability and favoritism can lead to unfair evaluations of effectiveness. Ramirez (2010) argued that this model created competition rather than cooperation and also provided no clear model of what good teaching is. He also explained this process had a negative impact in the classroom in the fact that good teachers would not want to teach the most challenging students for the following reasons:

1. It creates competition among teachers rather than cooperation.
2. There is no clear definition of what constitutes a *good teacher*.
3. Teachers won't want to teach the most challenging students.
4. Teachers are not the students' only influence.
5. Teaching is not a business and should not be compensated using the same models used in business. (Ramirez, 2010, para. 2)

Another challenging factor for many school systems was the reduction in federal, state, and local funding for school budgets. This decrease in funding made it very difficult to implement a compensation-based system.

Compensation-based pay can only work if the funding for the program is available. Schools, unlike other businesses, rely solely on government funding and must fit within extreme tight budgets. Teachers will find merit pay incentives motivating only if the

> amount is large enough. Unions are skeptical about promises of extra bonus money because they realize that money is in short supply. They know that teachers' salaries function in an almost zero-sum environment. Awarding bonuses usually means diminishing cost-of-living raises for the entire teaching corps. (Ramirez, 2010, para. 25)

School districts with limited resources may struggle to compete with their more financially stable neighbors. The ability to finance teacher compensation pay may be limited in districts which allows more financially stable districts to recruit teachers away. Fensterwald (2016) stated,

> To better compete in a time of shortage, a handful of districts have negotiated changes in their pay scales that are making it easier to recruit veteran teachers. Doing so isn't adding to the overall teacher supply or winning friends in neighboring districts. But it is helping some districts solve a personnel crunch as well as provide broader job opportunities for experienced teachers. (para.1)

In addition to needing appropriate funding to implement compensation-based pay effectively, it is also likely that the current staff may request more professional development and support to assure success in the classroom to obtain more compensation. As a result, many school districts need to implement a more robust teacher professional development program.

Effective Professional Development

Stewart (2014) stated, "Teacher learning has gone through a 'reform' movement over the last decade as a prevailing belief links high quality professional development (PD) to higher-quality teaching and high-quality teaching to student achievement" (p. 28). When a district decides to implement a performance-based compensation system, a strong PD program must also be implemented. Professional educators can no longer rely on their acquiring a bachelor degree

in education or even a master's degree in education to prepare them to teach a specific subject. College teacher preparedness programs can be general in studies or broad in their design to meet the needs of many potential teachers. Once assigned to a particular grade level, teachers can find that they have much to learn about the curriculum content, the age and development of the students, and the varying learning styles within the classroom. According to the National Commission on Teaching and America's Future (NCTAF; 1996), "Nearly a quarter of secondary school teachers need extra training because they lack adequate preparation in the subject they teach. Subsequently, students often do not have quality teachers" (p. 320). The debate now becomes what qualifies as effective professional development. The NCLB (2002) required schools to provide high-quality professional development to increase student achievement, but fails to provide any guidance or components of such programs.

Professional development can be categorized into two main classifications; traditional and nontraditional. Bayar (2014) stated, "The international literature has compared traditional professional development activities—consisting of short workshops, conferences, etc.—to non-traditional professional activities—consisting of mentoring, coaching, peer observation, and so on" (p. 320). Non-traditional professional development provides a more successful and beneficial outcome for teachers due to the fact that there is more time invested in a mentoring or coaching experience. In order for professional development to be effective it must be specific and individualized to meet the needs of a teacher or team of teachers or a whole school with a common goal and provided for a long period of time. The professional development must relate to real classroom situations. This philosophy of using a specific need to determine professional development therefore would require teachers to be in the forefront of planning and designing the professional development opportunities provided. Bayar (2014) concluded, "Another

important component of any effective professional development activity is a design that allows the participant to engage in active participation during the activities; they want to learn by doing" (p. 324). Finally, the instructors leading the professional development must be high quality and specialists in their field. Instructors should be an inspiration and a motivation for teachers, who will then take the material and learning back to the schools and classrooms to engage and motivate students to success.

This shift of traditional professional development to non-traditional professional development has come to be known as a professional learning community (PLC). Typically, this involves a group or team of teachers with a common need. Using this common need to determine the professional development, they create a PLC to collaborate and share in objectives and curriculum ideas. "Learning communities thrive when all participants are invested in the work they are doing. If members of a learning group do not feel comfortable together, they may not be able to offer or receive feedback in a constructive manner" (Stewart, 2014, p. 28). The giving and receiving of professional feedback is critical to the success of any PLC. Honesty and trust to critique each other's work must be developed to attain effective professional development. Knight (2011) described several principles that outline a healthy group-learning environment in which teachers are personally motivated. He summarized that teachers should be allowed to have input in the development of activities, along with what and how they learn. He also believed that teachers must have a voice during the professional development. Finally, Knight concluded that participants must experience real-life scenarios along with being reflective in their learning.

Once a PLC is formed and the professional *norms* are working in an effective manner, the activities should shift to student centered. Examples of PLC activities include examining student

data, analyzing student work, creating and analyzing common assessments and or projects, and discussing strategies to improve instruction. Taking the time to investigate these areas of student and classroom work allow teachers to more effectively plan and engage students in the future. The activities and professional learning that are planned for these PLCs are to be just as thought out as the rest of the PLC dynamic. PD instructors need to account for the professional learning styles of the individuals attending each PLC session. When teachers attend workshops that have "active learning" there is a greater chance to improve teaching practices. Stewart (2014) noted, "The distinction from passively gathering information to actively working with information occurs as the approach deepens from reading to training to professional development or learning" (p. 31). Stewart also believed that professional development can be taken another step further by not just changing practices in the classroom but by changing teacher philosophy and assumptions based on working and collaborating with other teachers in reviewing, reflecting, on student and their growth data in the classroom. This process of detailed feedback among a group of educators builds a strong professional learning model in the district.

Collaborative Feedback

Observations using feedback are very helpful to developing teacher instruction and creating an enhanced learning environment. Ruparelia and Payne (2014) believed this learning environment shifts from thinking about oneself to the learning. "Feedback needs to address the difference between the actual level of achievement and the desired level of constructively, and must be directed towards encouraging the trainee to think about the process of learning rather than themselves" (Ruparelia & Payne, 2014, p. 9). This feedback shifts the focus from how teacher plans lessons to how their students learn. This allows the mentee the opportunity to gain knowledge about instructional philosophies and learn in actual practice in a classroom and see

first-hand this is no longer just in theory. One type of effective feedback that can be used for building capacity in educators is collaborative feedback. Ruparelia and Payne (2014) insisted that collaborative feedback provides an opportunity for both the teacher and observer to have a meaningful discussion and converse about what occurred in the lesson observed. The conversation is guided by questions that the mentor offers based on listening to the statements of the mentee. This allows the mentor an opportunity to hear, understand, and share philosophies of instruction, learning, discipline, and all other areas of the classroom. Eri (2014) felt this process allowed both individuals in the process to gain from the experience and allowed each to develop an understanding of the teaching and learning goals to be applied in future lessons. Collaborative feedback also allows for multiple purposes. It allows for an assessment of lesson learning objectives met using student data in addition to an assessment of the trainee's success and how they can improve.

The participation in collaborative feedback is only purposeful if the participants are willing to openly share and collaborate. The mentor must develop an honest and open level of trust for the mentee to feel willing to discuss his or her classroom instruction practices. Siddiqui, Jonas-Dwyer, and Carr (2007) advocated, "It is important to respect the confidentiality of this relationship, and both peers should show integrity and maintain the highest and professional and ethical standards . . . and should not be discussed with colleagues" (p. 299). As educators, whether new and developing or a veteran of your field, the classroom and its goings on is a very personal and protected space to the classroom teacher. Educators feel protective of their students, curriculum, and educational philosophies. It is the role of the mentor to be authentic and respectful of all discussions. People want to know that they are valued and their views are important even when being guided towards a new direction.

Another type of feedback that can be used to inform and coach teachers with is the 360-degree feedback model. This model is a compilation of feedback from multiple sources. Much as teachers gather multiple forms of data to assess a student's overall progress, 360-degree feedback model works in the same manner. This type of feedback for teachers is gathered from principals, mentors, students, parents, and all others stakeholders for that teacher and his or her classroom. Nowack and Mashihi (2012) determined, "Inviting more, rather than fewer raters would be helpful in ensuring accuracy and a large enough rater pool to make the 360-degree feedback findings relevant and useful" (p. 161). The purpose for gathering data from multiple stakeholders is that each can provide a specific and unique set of information for the individual being observed. The 360-degree feedback model offers an opportunity for the teacher to hear feedback in varying aspect of the instructional environment with each rater offering a perspective that is valuable to them. This larger spectrum of evidence can bring to light areas of consideration that may have not been on the radar previously.

Due to the 360-degree feedback provided being confidential and anonymous, the recipient will not have knowledge of who has replied positively or negatively. Although this can seem to be helpful, it can often lead to a less constructive outcome. Nowack and Mashihi (2012) explained that when recipients of feedback hear negative feedback that is anonymous, recipients tend to discredit the *unknown* individual. If the recipient had knowledge of whom was stating the comments and had a respect for the rater, that the recipient could have a completely different reaction to the data. Perception is reality and how the rater responds will have a direct correlation to how the data is used to improve the instructional environment.

Another form of collaboration used in providing feedback to educators is termed peer observation.

> Peer observation of teaching is a reciprocal process where a peer observes another's teaching (classroom, virtual, on-line or even teaching resource such as unit outlines, assignments). Peers then provide constructive feedbacks that would enable teaching professional development through the mirror of critical reflection by both the observer and the observed. (Brookefield, 1995, p. 48)

This method of feedback is best conducted in pairs or small groups and with peers who are experts in a similar field as to provide true and in-depth feedback on content, strategies, and implementation of curriculum. The chosen peer should be one that can be professional and non-judgmental.

Eri (2014) explained that the strength of this peer observation of teaching feedback method is that the pair or small group meet prior to the observation and derive several essential questions. If all involved in the process understand the goal of the observation lesson and the objectives attempting to be met, then the feedback can be directed to that end. This can provide educators to dig deeper and gain a better understanding of where and how to improve. Not only does this ensure that the takeaway feedback is helpful and insightful, it also gives teachers ownership of his or her professional development.

Bell and Mladenovic (2008) believed that the peer observation of teaching feedback model can provide many benefits, which help teachers in enhancing of teaching skills, gaining confidence, acquiring new ideas, sharing of techniques, and building a commitment to education with another teaching professional. Peers providing feedback in this model need to be mindful of the professional aspect of the task at hand. Eri (2014) explained, "The feedback report had to keep a balance between being too critical to being too admiring" (p. 629). Often, it is human nature not to want to upset or offend others and negative feedback or constructive criticism can

be hard to take for some personalities. Raters will try to *even out* the positive and negative feedback in an effort not to offend and although this can be a good strategy, it is important not to conjure up positive feedback just for the sake of being positive. Let the feedback be true and honest. This allows the teacher time for thoughtful reflection. If there is any initial discomfort upon hearing negative or critical feedback, a few days can calm those feelings and allow for the feedback to truly be absorbed.

Change Theory and Teacher Experiences

In attempting to develop an effective district evaluation plan important decisions must be made to determine where to allocate finances, staff, and differentiate the amount of time spent on each of the major components. The district evaluation plans must be made with the consideration of how teacher experience should factor into the process. Research would suggest that evaluation plans should not be developed, differentiated and administered by experience levels, but instead by effectiveness levels, which can be determined through extensive classroom observation and monitoring. Through research, Hattie (2003) identified five characteristics of excellent teachers. These characteristics include identifying essential representations of their subject, guiding learning through classroom interactions, providing quality feedback, awareness of social emotional attributes of students, and the ability to influence student outcomes. Much of today's research has a focus on comparing or differentiating coaching support on experience levels. Rice (2010) explained that research indicated experience had the most impact on student achievement levels of experienced teachers mainly during their first years on job, but soon after performance and student impact level off. She also noted, "Teachers with more than 20 years' experience are more effective than teachers with no experience, but are not much more than teachers with 5 years of experience" (Rice, 2010, p. 2).

Rice's (2010) findings appear to indicate that a major emphasis of the design and implementation of a district evaluation system should have an extensive focus on the support of teachers in the 0-5 year experience range. Boyd, Grossman, Lankford, Loeb, and Wyckoff (2008) conducted research that indicated, "Teachers showed their greatest productivity gains during their first few years on the job, after which time their performance tends to level off" (p. 1). This data might also indicate that legislators and school districts should develop or continue to push strategies and professional development opportunities that focus on productivity and student achievement for more experienced teachers. Fortunately, many districts have already implemented embedded professional development opportunities, collaborative feed-back, and PLCs which support the findings of Rice (2010) and Boyd et al. (2009). Further research by Leithwood, Seashore, Anderson, and Wahlstrom (2004) indicated an increase in student achievement and teacher capacity when distributive leadership and collaborative feedback are pillars of the district philosophy.

The challenge that districts face in developing and properly implementing quality teacher evaluation systems that are successful in increasing growth is again finding what teachers perceive are the most important components in the evaluation system that actually increase their capacity as a classroom teacher and leads to increased student achievement. Schools are on the right track with the implementation of PLCs and other embedded professional development, but there appears to be a larger issue in the implementation of initiatives from a district standpoint. Fullan (2006) described how when creating a process to implement change or new initiatives, it is imperative for the proper approach to include one key component, which is motivation. The PLC and other embedded professional development opportunities are imperative as they allow teachers to decipher data, collaborate, and compare results from surrounding schools. These data

digs are often the first step in recognizing factors, which may begin to provide motivation needed for beginning and more experienced teachers to be motivated to improve in the classroom. Onjoro, Arogo, and Embeywa (2015) stated, "For productivity, efficiency, effectiveness, quality delivery and quality outcomes in the educational system which will guarantee quality assurance; their motivational needs count" (p. 6).

As building and district administrators look to implement change in their buildings they must think a little differently on how to do this effectively as the data indicates it can be different based on experience levels in the classroom. Richards (2007) found that the greatest need for beginning teachers is emotional support and the sense of safety. The principal must provide an environment where the teacher feels supported even when they are often fledging. She also explained that it was imperative to provide feedback and recognize successes as much as possible to build confidence in teachers and keep them motivated during the struggles of learning how to effectively implement strategies and classroom management procedures. This same study found that teachers with 6–10 years of experience have typically gained the confidence and tools to manage their classroom successfully and as a result now seek the respect of their principal and fellow teachers as motivation. Richards (2007) found that teachers with 10 or more years of experience are looking for an administrator to "ask their opinion, value their input, and give them opportunities for decision making" (p. 49).

The experience levels of teachers in the district buildings plays a very important role when planning and implementing change in any organization. Differentiation by experience level must be considered in all stages. From the development, to the implementation, and to the follow up and support that occurs in the building. Each experience level has its specific needs that must be met in order to most effectively develop an environment where teachers feel

supported and students are successful in their academic endeavors. The one characteristic that is required in all experience levels from the new teacher to 40 year veteran is motivation! "If one's theory of action does not motivate people to put in the effort-individually and collectively-that is necessary to get results, improvement is not possible" (Fullan, 2006, p. 8).

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

In reviewing the literature regarding teacher evaluation systems, it was clear that over the last decade legislators and state boards of education have been involved in a substantial redevelopment of methods used to evaluate and hold teachers accountable in the educational workplace (ARRA, 2009). In the review of the components of the new teacher evaluation systems, it was discovered that there were four key components in building an evaluation system that was instrumental in building the capacity of classroom educators.

What was not uncovered during the review was what practicing classroom teachers perceived to be the most beneficial factor to their growth. As a result, the purpose of the quantitative study sought to determine what Indiana K–12 public school classroom teachers believe are the critical components of new evaluation systems in increasing their self-instructional capacity, which should lead to increased student achievement in their classrooms, as research indicates that teachers are influential in increasing student as discussed previously, the new evaluation systems are very costly and time intensive.

The data obtained from this study may be beneficial in helping districts make important decisions about allocating finances, staff, and time to address the requirements of the teacher evaluation systems required by the 2009 RTTT federal legislation and by Every Student Succeeds Act (ESSA; Civic Impulse, 2017). For the quantitative study, I generated a survey that

gathered information pertaining to which critical components teachers believed built their classroom instructional capacity. The components of the new teacher evaluation systems to be analyzed from the study included collaborative feedback, pedagogy, performance-based compensation, and embedded professional development. Teacher's grade level teaching assignment and years of teaching experience were also analyzed as part of the study.

Chapter Organization

This chapter begins with the discussion of the research rationale and design, which is followed by the research questions and null hypotheses. The sample population is described along with process and procedures for collecting data. Next, information and research are provided to explain the creation of the survey instrument and elements covered within the survey. Following the survey development, research is presented to explain how survey questions and data collected were evaluated for reliability and validity. A method of analysis section is included which explains how the descriptive and inferential results were determined. The chapter concludes with a summary of the information presented and previews the remaining chapters in the dissertation.

Research Rationale and Design

The quantitative study was designed to collect data from Indiana public school K–12 teachers to examine their perceptions about the critical components of the new teacher evaluation systems in building their classroom instructional capacity. Use of the quantitative approach was appropriate per Creswell (2003), in which he discussed the use of this approach by stating, "In this scenario, the researcher tests a theory by specifying narrow hypotheses and the collection of data to support or refute the hypotheses" (p. 20). The tool used in this study was a survey which was designed to collect data to support or refute the following research questions.

Research Questions

1. Is there a statistically significant difference based on the respondents' years of teaching experience and the collaborative feedback composite score?
2. Is there a statistically significant difference based on the respondents' grade level teaching assignment and the collaborative feedback composite score?
3. Is there a statistically significant difference based on the respondents' years of teaching experience and the pedagogy composite score?
4. Is there a statistically significant difference based on the respondents' grade level teaching assignment and the pedagogy composite score?
5. Is there a statistically significant difference based on the respondents' years of teaching experience and the embedded professional development composite score?
6. Is there a statistically significant difference based on the respondents' grade level teaching assignment and the embedded professional development composite score?
7. Is there a statistically significant difference based on the respondents' years of teaching experience and the performance-based compensation composite score?
8. Is there a statistically significant difference based on the respondents' grade level teaching assignment and the performance-based compensation composite score?
9 What is the current state of collaborative feedback, pedagogy, embedded professional development, and performance-based compensation in the evaluation systems used in Indiana Public schools?

Null Hypotheses

$H_0$1: There is no statistically significant difference based on the respondents' years of teaching experience and the collaborative feedback composite score.

$H_0$2: There is no statistically significant difference based on the respondents' grade level teaching assignment and the collaborative feedback composite score.

$H_0$3: There is no statistically significant difference based on the respondents' years of teaching experience and the pedagogy composite score.

$H_0$4: There is no statistically significant difference based on the respondents' grade level teaching assignment and the pedagogy composite score.

$H_0$5: There is no statistically significant difference based on the respondents' years of teaching experience and the embedded professional development composite score.

$H_0$6: There is no statistically significant difference based on the respondents' grade level teaching assignment and the embedded professional development composite score.

$H_0$7: There is no statistically significant difference based on the respondents' years of teaching experience and the performance-based compensation composite score.

$H_0$8: There is no statistically significant difference based on the respondents' grade level teaching assignment and the performance-based compensation composite score.

Survey Design

The construction of the survey instrument was based on the attempt to obtain the perceptions of Indiana public K-12 classroom teachers so the analysis of the four major components of the teacher evaluation systems and the research-based components can effectively occur. Upon completion of survey, content validity was strengthened when the questions were provided to the Indiana State University doctoral candidates cohort who were taking classes at the offsite Greensburg location to review and to obtain any further suggestions for clarity and improvement. The cohort included 17 practicing Indiana school leaders. Their range of

administrative experience was as few as two years of experience to as many as 30 years of experience. The questions asked of the cohort regarding the survey included the following:

1. Where the questions easy to understand?
2. Do the questions make conceptual sense?
3. What suggestions for improvement do you have?
4. How long did it take you to complete the survey?

Suggestions received from the cohort were taken into consideration to improve the survey instrument. When developing questions in the survey, care was taken to avoid confusing and leading questions that might cause inaccuracies in the data collected. The statements on the survey instrument were used to develop a composite score for each dependent variable. A majority of the questions on the survey instrument utilized a Likert-type scale rating system that was based on a 1–6 rating system, with scores representing the following: 1 = *strongly disagree*, 2 = *disagree,* 3 = *somewhat disagree, 4 = somewhat agree, 5 = agreement,* and *6 = strong agreement.* Six responses were provided for each question based on a Likert scale. The reason for six responses was based on research that participants' perceptions may be considered slight (weak), moderate, or substantial (strong) for both positive and negative evaluations (Alwin & Krosnick, 1991).

The first section of the survey contained six questions regarding collaborative feedback. The second section had seven questions regarding pedagogy. The next category had seven questions pertaining to professional development. The fourth section had seven questions concerning performance-based compensation. The final section of the survey instrument contained three participant demographic questions, which determined the participants experience and grade level assignment. Two versions of the survey were generated. The first version

contained references to the experts whose writings influenced the development of the question (Appendix A). In order to reduce potential bias when participants engaged in the survey, another version was included that removed the reference to the experts (Appendix B).

To determine reliability, the results of the questions that were used to calculate a Cronbach's alpha score for each group of questions that formed a composite score. According to Field (2013), this can be thought of as the survey "reflects the construct that is measuring" (p. 706). Field also suggested that although a Cronbach's alpha score of .7 to .8 is acceptable, .7 is most suitable, and as a result was the reliability value used in this study. If the Cronbach alpha results were less than .7 when analyzing the results of the data collected from the survey, then it was edited by removing the inferior or weak statement(s). The removal of the statement may have improved the reliability of the survey questions and overall results. If a composite score of .7 was achieved by removing a single statement, the statement was eliminated that was impacting reliability. If the question could not be removed, then an exploratory factor analysis was done to find a group of statements that loaded on the same factor. If an eigenvalue of 1.0 or higher could be formed with a series of statements, then the composite score was generated. If the statement loaded on two factors with eigenvalues over 1, then the statements with the highest eigenvalues were used to form the composite score for that section. If none of these steps resulted in evidence that a reliable composite could be formed, then the null hypotheses related to that composite score was not explored in Chapter 4.

Data Sources and Collection

For the purpose of this quantitative study, K–12 Indiana public school teachers with an IDOE recognized email were invited to participate regardless of age, gender, race, or years of experience. The email addresses of the targeted participants were obtained through a public

records request from the state of Indiana (Appendix C). Data were analyzed using the Statistical Package for the Social Sciences (SPSS Version 22) to code and tabulate scores collected from the survey. An email regarding informed consent (Appendix D) was sent to all educators as described previously. Within this email, the potential survey respondent was provided details of the study. The risk involved was discussed along with the discussion about their right to withdraw from the study at any point. Also, at no time was any information collected that identified the participants in any matter other than the Internet Protocol address, which SPSS collected, and this information was securely protected. Upon reading the email, respondents were given the opportunity to link to the survey. By linking to and starting the survey they had given their consent to participate in the study.

Method of Analysis

In the study, the four major legislative requirements of the teacher evaluation systems survey results were analyzed using one-way ANOVA as the tool. A one-way ANOVA determined if there were any statistically significant differences in the means based on the independent variable. According to Gravetter and Wallnau (2013), "The major advantage of using an ANOVA is that it can be used to compare three or more treatments" (p. 387), which explains why it is an ideal statistical tool to analyze the multiple components of the study. In the study, the four major components composite scores, known as factors, were evaluated based on mean differences of the independent variables, which in the study included the respondent's grade-level teaching assignment and years teaching experience. Each independent variable in the study consisted of four levels. For grade-level teaching assignment, these levels included K–2, 3–5, 6–8, and 9–12. The four levels of the independent variable for years teaching experience included 0–5 years, 6–10, 11–15, and 16 years and more. The analyzation was accomplished

using the *F* statistic. According to Field (2013), "The *F*-test assesses whether 'overall' there are differences between means" (p. 442). The *F* statistic is calculated by mathematically dividing the variance between sample means by variance expected with no treatment. Gravetter and Wallnau (2013) explained, "In each case a large value for the test statistic provides evidence that the sample mean differences (numerator) are larger than would be expected if there were no treatment effects (denominator)" (p. 391). There are many critical components to building a teacher's capacity as a classroom instructor, but these four were chosen based on the requirements and emphasis of the RTTT legislation (ARRA, 2009).

The first two null hypotheses examined whether there was a significant difference on the collaborative feedback composite score (dependent variable) based on the person's years of teaching experience (Null Hypothesis 1) and respondent's grade-level teaching assignment (Null Hypothesis 2). The next two null hypotheses examined whether there was a significant difference on the pedagogy composite score (dependent variable) based on the person's years of teaching experience (Null Hypothesis 3) and respondent's grade-level teaching assignment (Null Hypothesis 4). The next two null hypotheses examined whether there was a significant difference on the professional development composite score (dependent variable) based on the person's years of teaching experience (Null Hypothesis 5) and respondent's grade-level teaching assignment (Null Hypothesis 6). The final two null hypotheses examined whether there was a significant difference on the performance-based compensation (dependent variable) based on the person's years of teaching experience (Null Hypothesis 7) and respondent's grade-level teaching assignment (Null 8). And finally, Research Question 9 was analyzed via descriptive statistics which included but was not limited to mean, standard deviation, frequencies and percentages.

A one-way ANOVA was the procedure used for testing each of the Null Hypotheses 1 through 8. Field (2013) explained that three assumptions must be assessed to insure validity of the data. The first assumption is normality. Normality can be defined as the dependent variable being normally distributed in each level of the independent variable, and can be tested using Shapiro-Wilk's test. The second assumption is that homogeneity of variance is met. This stated the variation in the populations being compared must have the same variance. This method was chosen as it provides more flexibility than a standard *t* test, because it allows the researcher to compare more than two treatments (Gravetter & Wallnau, 2013). The homogeneity of variance was tested via the Levene's test. The final assumption of a one-way ANOVA is ensuring independence is met, which was addressed in this research by ensuring that no scores were in multiple levels of an independent variable. The final question, Research Question 9, used descriptive statistics to analyze and present data results as this allowed more comparisons since the independent variable for each null hypothesis had three or more groups or levels included in them.

Summary

The information contained in this chapter was meant to provide a detailed description of the methodology and processes that were used in conducting the research for the study on teacher perceptions of the major components of the teacher classroom evaluation systems. The purpose of the study and the gap in literature that exists was presented to provide the rationale for developing this research study. With increasing perceptions that the new evaluation systems are very costly and time intensive, the data obtained from the study may be beneficial in helping districts make important decisions about allocating finances, staff, and time to address requirements of the teacher evaluation systems required by federal legislation (ARRA, 2009).

Through analyzing *F* statistics, comparison of the means and simple percentages will aid in determining any associations between the dependent and independent variables in the study. In addition, the respondents were able to report on what they perceive as the current state of evaluation systems in Indiana.

CHAPTER 4

FINDINGS OF THE STUDY

The purpose of this quantitative study was to determine what Indiana K–12 public school classroom teachers believe are the critical components of new evaluation systems in increasing their self-instructional capacity, which research (e.g., Hattie, 2003) indicated should lead to increased student achievement in their classrooms. The research methodology in Chapter 3 outlined the key processes in the development of the research design and rationale, the survey design, the process of data collection, and methods used to analyze the survey data. Each process was crucial to ensuring the data were reliable and sound for making assumptions and recommendations in Chapter 5.

The construction of the survey instrument was based on the attempt to obtain the perceptions of Indiana public K–12 classroom teachers and the impact of collaborative feedback, embedded professional development, compensation-based pay, and pedagogy as they related to teacher effectiveness and the increase in student achievement. These four variables were then analyzed using a one-way ANOVA as the chosen inferential test. The ANOVA determined if there were any statistically significant differences in the means based on the independent variable. Each independent variable in the study consisted of four levels. For grade-level teaching assignment, these levels included K–2, 3–5, 6–8, and 9–12. The four levels of the independent variable for years teaching experience included 0–5 years, 6–10, 11–15, and 16

years and more. The analyzation of the data occurred by using the *F* statistic. Field (2013) stated, "The *F*-test assesses whether 'overall' there are differences between means" (p. 442). The *F* statistic is calculated by mathematically dividing the variance between sample means by variance expected with no treatment.

Survey Sample and Reliability

Of the 3,500 surveys distributed to Indiana K-12 public school classroom teachers 563 were completed, which was a return rate of 16%. The data from the 563 surveys were first analyzed for reliability via Cronbach's alpha, which determined the reliability of the questions that composed each composite score. As discussed in Chapter 3, Field (2013) suggested that a Cronbach's alpha score greater than .7 would indicate reliability of the questions that make up the composite score. For the six questions associated with collaborative feedback, the Cronbach alpha reliability value was .833. For the seven questions that formed the pedagogy composite score, the Cronbach alpha reliability value was .825. For the seven questions which composed the professional development composite score, the Cronbach alpha reliability value was .781. For the final seven questions, which composed the performance-based composite score, the Cronbach alpha reliability value was .947. As a result of the acceptable Cronbach alpha scores, the survey tool was determined to be appropriate and reliable, and no questions were eliminated in determining the four composite scores. The four composite scores were calculated using SPSS and were utilized for descriptive and inferential purposes.

Descriptive Statistics

When looking at the data there were two characteristics surveyed which helped describe the whole sample population. The first characteristic was the number of years of classroom teaching experience each respondent possessed. Of the 563 respondents, 98 (17.4%) had 0–5

years of teaching experience. There were 94 (16.7) who had 6–10 years of experience. Another 106 (18.8%) had 11–15 years of classroom experience, followed by 265 (47.1) who possessed 16 or more years of experience as a classroom teacher.

When examining current teaching assignment for the 563 respondents of the survey, the results indicated that 85 (15.1%) had the greatest percentage of their teaching assignment in the K–2 classroom. Another 110 (19.5%) answered Grades 3–5. The survey indicated there were 127 (22.6%) with Grades 6–8 as the current assignment, and finally, the study indicated that 241 (42.8%) answered Grades 9–12 as their greatest percentage of their current teaching assignment.

Next, the questions on the survey were organized into their focus area to define the agreement level among respondents in the whole sample. There were six survey questions associated with the collaboration composite score. The first question was on collaboration over instructional strategies significantly improved student achievement in the classroom. The data indicate that 528 (94%) of the respondents demonstrated some level of agreement. The second question about using information from classroom visit to improve instruction indicated that 447 (79%) demonstrated some level of agreement. The third question, using ideas from administrators to make classroom more effective, indicated 362 (64%) demonstrated some level of agreement. The fourth question, capacity as classroom teacher increased due to discussions with colleagues, indicated 527 (94%) demonstrated some level of agreement. The fifth question, collaborating with teaching professionals about instructional strategies has substantially increased student achievement, indicated 523 (93%) demonstrated some level of agreement. The final question corresponding to the collaboration composite score, evaluating an analyzing student work with other teaching professionals was valuable, indicated 454 (81%) showed some level of agreement.

The next seven questions of the survey were associated with the pedagogy composite score. The first question, standards and objectives are very important in increasing my capacity as a classroom teacher, indicated 413 (73%) showed some level of agreement. The second question, effectively using thinking and problem-solving activities is important, indicated 543 (96%) showed some level of agreement. The third question, understanding effective questioning techniques and strategies will help me become a better teacher, indicated 547 (97%) showed some level of agreement. The fourth question, managing student behavior can increase teacher effectiveness, indicated 547 (97%) showed some level of agreement. The fifth question, discussions of effectively grouping students can increase student achievement, indicated 513 (91%) showed some level of agreement. The sixth question, learning how to effectively motivate students can increase student achievement, indicated 552 (98%) showed some level of agreement. The final question associated with the pedagogy composite score, learning how to effectively provide feedback to students can increase teacher effectiveness, indicated 547 (97%) showed some level of agreement.

The next seven questions of the survey were associated with the professional development composite score. The first question, professional development is an important component in increasing my capacity as a teacher, indicated 523 (93%) showed some level of agreement. For the second question, discussing teaching strategies obtained from peer's observation of your classroom is considered effective professional development, 447 (79%) showed some level of agreement. The third question, weekly professional development opportunities are substantially more helpful than one-time workshops in building my capacity, indicated 366 (65%) showed some level of agreement. The fourth question, examining and reflecting on how student data has substantially improved my teaching techniques, indicated 419

(74%) showed some level of agreement. The fifth question, actively participating in professional development is much more effective than sitting and listening to a presentation, indicated 517 (92%) showed some level of agreement. The sixth question, professional development that is followed by support is more beneficial in changing classroom practices, indicated 545 (97%) showed some level of agreement. The final question associated with the professional development composite score, professional development that follow-up within a week helps me implement the strategy more effectively, indicated 514 (91%) showed some level of agreement.

The final seven questions of the survey were associated with the performance-based compensation composite score. The first question, performance-based compensation substantially increased my effectiveness as a classroom teacher, indicated 136 (24%) showed some level of agreement. The second question, performance-based compensation has increased student achievement in my classroom, indicated 95 (17%) showed some level of agreement. The third question, the attitude of teachers in my building improved due to performance-based compensation, indicated 85 (15%) showed some level of agreement. The fourth question, I choose to attend more professional development due to performance-based compensation, indicated 93 (17%) showed some level of agreement. The fifth question, my collaboration with other teachers has increased due to performance-based compensation, indicated 83 (15%) showed some level of agreement. The sixth question, performance-based compensation is an extremely important component in motivating teachers to work hard, indicated 106 (19%) showed some level of agreement. The final question associated with the performance-based compensation composite score, performance-based compensation is considerable motivation to stay in teaching longer, indicated 67 (12%) showed some level of agreement.

When examining the data, it was important to break down the data by experience level and by grade-level teaching assignment. Respondents were disaggregated by experience level to determine if patterns or trends were present for particular experience levels or grade-level teaching assignments could be addressed. Table 1 represents data for the questions associated with the collaborative feedback composite score for respondents with 0–5 years experience.

Table 1

Collaborative Feedback Ratings for Teachers With 0–5 Years of Experience

Question	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
1. Collaborating with other professionals about instructional strategies is important	44 (44.9%)	35 (35.7%)	16 (16.3%)	1 (1.0%)	2 (2.0%)	0 (0.0%)
2. Using info obtained through classroom visit	17 (17.3%)	47 (48.0%)	25 (25.5%)	5 (5.1%)	3 (3.1%)	1 (1.0%)
3. Ideas from Admin make classroom more effective	12 (12.2%)	23 (23.5%)	40 (40.8%)	16 1(6.3%)	7 (7.1%)	0 (0.0%)
4. Capacity increased due to discussions w/colleagues	41 (41.8%)	40 (40.8%)	14 (14.3%)	2 (2.0%)	1 (1.0%)	0 (0.0%)
5. Collaborating with colleagues about instructional strategies	34 (34.7%)	40 (40.8%)	22 (22.4%)	1 (1.0%)	1 (1.0%)	0 (0.0%)
6. Evaluating student work with colleagues is valuable	26 (26.5%)	25 (25.5%)	36 (36.7%)	6 (6.1%)	4 (4.1%)	1 (1.0%)

Note. $N = 98$.

The data regarding the collaboration composite score were very similar in the overall percentages in the levels of disagreement for all statements analyzed. In contrast, teachers with 0–5 years experience had a 15.9% higher level of strong agreement about collaborating with professionals and the impact on student achievement than did the whole sample. They also had a 10.9% higher level of strong agreement of the impact of how educational discussions with colleagues impacts their capacity as a classroom teacher. Similarly, teachers with 0–5 years

experience had 13% higher levels of strong agreement about the value of analyzing student work with other teaching professionals. Another noticeable difference was the 10.2% higher levels of strong agreement of respondents with 0–5 years experience regarding the impact of collaborating with other professionals about instructional strategies and the impact on student achievement than the whole sample. In Table 2, the results from the survey questions related to pedagogy are presented for the teachers with 0–5 years of experience.

Table 2

Pedagogy Ratings for Teachers With 0–5 Years of Experience

Question	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
1. Discussing proper use of standards and objectives in lesson are important.	12 (12.2%)	34 (34.7%)	35 (35.7%)	5 (5.1%)	3 (3.1%)	0 (0.0%)
2. Discussing effective problem and thinking activities is important.	39 (39.8%)	40 (40.8%)	16 (16.3%)	3 (3.1%)	0 (0.0%)	0 (0.0%)
3. Understanding questioning techniques is important in becoming better teacher.	37 (37.8%)	44 (44.9%)	15 (15.3%)	1 (1.0%)	1 (1.0%)	0 (0.0%)
4. Learning student behavior management techniques can increase my effectiveness.	58 (59.2%)	33 (33.7%)	6 (6.1%)	1 (1.0%)	0 (0.0%)	0 (0.0%)
5. Discussing effective grouping strategies can increase achievement.	26 (26.5%)	45 (45.9%)	22 (22.4%)	4 (4.1%)	1 (1.0%)	0 (0.0%)
6. Motivating students can increase student achievement.	58 (59.2%)	33 (33.7%)	7 (7.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
7. Effective feedback to students can increase my teaching effectiveness.	29 (29.6%)	52 (53.1%)	15 (15.3%)	1 (1.0%)	1 (1.0%)	0 (0.0%)

Note. $N = 98$.

The data indicate that teachers with 0–5 years experience had an 8.5% higher level of strong agreement about understanding effective questioning techniques and strategies ability to help them become better classroom teachers than the whole group. They also had a significantly (18.9%) higher level of strong agreement of the value of increasing their effectiveness through learning techniques about managing student behavior than did the whole sample. Similarly, teachers with 0–5 years experience had significantly higher (15%) levels of strong agreement about student achievement can be affected by learning how to motivate students in their classroom. In Table 3, the results from the survey questions regarding professional development for teachers with 0–5 years of experience are presented.

Table 3

Professional Development Ratings for Teachers With 0–5 Years of Experience

Question	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
1. Individualized PD is important in increasing my capacity.	37 (37.8%)	36 (36.7%)	19 (19.4%)	4 (4.1%)	0 (0.0%)	2 (2.0%)
2. Discussing strategies from peer evaluations is effective PD.	20 (20.4%)	30 (30.6%)	32 (32.7%)	10 (10.2%)	5 (5.1%)	1 (0.0%)
3. Weekly PD is more helpful than short one-time workshops.	14 (14.3%)	27 (27.65)	25 (25.5%)	18 (18.4%)	12 (12.2%)	2 (2.0%)
4. Examining and reflecting upon student data has improved my teaching.	14 (14.3%)	35 (35.7%)	32 (32.7%)	6 (6.1%)	9 (9.2%)	2 (2.0%)
5. Active participation in PD is more effective than passive learning.	38 (38.8%)	39 39.8%)	16 (16.3%)	5 (5.1%)	0 (0.0%)	0 (0.0%)
6. PD with support is more impactful on changing my classroom practices.	38 (38.8%)	42 (42.9%)	15 (15.3%)	2 (2.0%)	1 (1.0%)	0 (0.0%)
7. PD with follow-up within a week help implement new strategies more effectively.	27 (27.6%)	36 (36.7%)	27 (27.6%)	5 (5.1%)	3 (3.1%)	0 (0.0%)

Note. $N = 98$.

Data for professional development contain some interesting differences when comparing teachers with 0–5 years experience to the whole sample. Teachers with 0–5 years experience perceived discussing strategies obtained from peer observations effective professional development, 20% had strong agreement as opposed to only 13% of the whole sample. Similarly, there were 6 % more teachers with 0–5 years experience who agreed examining and reflecting on student data substantially improved their teaching techniques. Teachers with 0–5years experience also 6.8% more who strongly agreed that professional development that included follow-up within a week helped implement the strategy more effective. In contrast, the whole sample had 7.8% more than teachers with 0–5 years who agreed with the statement above. The fourth and final composite score questions for teachers with 0–5 years experience, performance-based compensation, is presented in Table 4 below.

Table 4

Performance-Based Compensation Ratings for Teachers With 0–5 Years of Experience

Question	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
1. Performance-based compensation has substantially increased my effectiveness.	11 (11.2%)	4 (4.1%)	17 17.3%)	19 (19.4%)	20 (20.4%)	27 (27.6%)
2. Performance-based compensation has increased student achievement.	7 (7.1%)	4 (4.1%)	13 (13.3%)	17 (17.3%)	27 (27.6%)	30 (30.6%)
3. Attitudes of teachers have improved due to performance-based compensation.	5 (5.1%)	8 (8.2%)	13 (13.3%)	10 (10.2%)	31 (31.6%)	31 (31.6%)
4. PD attendance has increased due to performance-based compensation.	10 (10.2%)	5 (5.1%)	18 (18.4%)	9 (9.2%)	31 (31.6%)	25 (25.5%)
5. Collaboration has increased due to performance-based compensation.	8 (8.2%)	3 (3.1%)	16 (16.3%)	14 (14.3%)	36 (36.7%)	21 (21.4%)
6. Performance-based compensation motivates teachers.	7 (7.1%)	6 (6.1%)	20 (20.4%)	12 (12.2%)	18 (18.4%)	35 (35.7%)
7. Performance-based compensation is motivating teachers to stay in teaching longer.	6 (6.1%)	5 (5.1%)	15 (15.3%)	12 (12.2%)	23 (23.5%)	36 (36.7%)

Note. $N = 97$.

Data indicate the questions regarding performance-based pay were perceived more importantly overall by teachers with 0–5 years experience compared to the whole sample. Teachers with 0–5years experience had strong agreement of 6.8% more than the whole group when questioned about the impact performance-based pay had on their effectiveness as classroom teachers. More of the whole sample respondents (12.0%) showed strong disagreement of the impact of performance-based compensation on student achievement than did teachers with 0–5 years experience. The 0–5 years experience teachers also had strong disagreement of 16.4% less than the whole sample when they were questioned regarding performance-based compensation improving the attitude of classroom teachers in their building. Similarly, they had 15.4% less than the whole sample who strongly disagreed that teachers were attending more PD as a result of implementing performance-based compensation. Teachers with 0–5 years experience also indicated 17% less often that they strongly disagreed that collaboration with teachers had notably decreased. Similarly, they indicated they were 15.1% less likely to strongly disagree that performance-based compensation was an important component in motivating teachers to work hard. Finally, teachers with 0–5 years experience had 15.3% less strong disagreement in regard to performance-based compensation motivating teachers to remain in teaching longer than did the whole sample. Table 5 presents data for collaborative feedback as it pertains to teachers with 6–10 years of classroom teaching experience.

Table 5

Collaborative Feedback Ratings for Teachers With 6–10 Years of Experience

Question	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
1. Collaborating with other professionals about instructional strategies is important.	24 (25.5%)	45 (47.9%)	23 (24.5%)	2 (2.1%)	0 (0.0%)	0 (0.0%)
2. Using info obtained through classroom visit.	7 (7.4%)	36 (38.3%)	30 (31.9%)	13 (13.8%)	5 (5.3%)	3 (3.2%)
3. Ideas from Admin make classroom more effective.	4 (4.3%)	18 (19.1%)	41 (43.6%)	18 (19.1%)	10 (10.6%)	3 (3.2%)
4. Capacity increased due to discussions w/colleagues.	36 (38.3%)	43 (45.7%)	10 (10.6%)	2 (2.1%)	3 (3.2%)	0 (0.0%)
5. Collaborating with colleagues about instructional strategies.	19 (20.2%)	52 (55.3%)	17 (18.1%)	4 (4.3%)	2 (2.1%)	0 (0.0%)
6. Evaluating student work with colleagues is valuable.	11 (11.7%)	37 (39.4%)	22 (23.4%)	14 (14.9%)	7 (7.4%)	3 (3.2%)

Note. $N = 94$.

The data indicate that teachers with 6–10 years experience had more agreement (8.3%) than the whole group when questioned about increased student achievement when collaborating with other teaching professionals about instructional strategies occurred. There were also 0% of respondents who answered *disagree* or *strongly disagree* to this same question as opposed to

4.4% of the whole sample. The data also show that 7.4% more teachers with 6–10 years experience *strongly agreed* that their capacity as classroom teachers had significantly increased due to education discussions with colleagues than did the whole sample data. Data also indicate that 55.3% of teachers with 6–10 years experience *agreed* that collaboration with other teaching professionals regarding instructional strategies had increased student achievement as opposed to only 41.4% of the whole sample. The final significant data piece noticed was the fact there were 10.5% fewer respondents of 6–10 years experience who perceived evaluating and analyzing student work with their teaching professionals as valuable process compared to the whole sample. In Table 6, the results from the survey questions related to pedagogy are presented for the teachers with 6–10 years of experience.

Table 6

Pedagogy Ratings for Teachers With 6–10 Years of Experience

Question	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
1. Discussing proper use of standards and objectives in lesson are important.	8 (8.5%)	27 (28.7%)	34 (36.2%)	11 (11.7%)	11 11.7%)	2 (2.1%)
2. Discussing effective problem and thinking activities is important.	27 (28.7%)	47 (50.0%)	15 (16.0%)	2 (2.1%)	3 (3.2%)	0 (0.0%)
3. Understanding questioning techniques is important in becoming better teacher.	26 (27.7%)	52 (55.3%)	13 (13.8%)	2 (2.1%)	1 (1.0%)	0 (0.0%)
4. Learning student behavior management techniques can increase my effectiveness.	34 (36.2%)	43 (45.7%)	15 (16.0%)	2 (2.1%)	0 (0.0%)	0 (0.0%)
5. Discussing effective grouping strategies can increase achievement.	17 (18.1%)	36 (38.3%)	30 (31.9%)	9 (9.6%)	2 (2.1%)	0 (0.0%)
6. Motivating students can increase student achievement.	39 (41.5%)	34 (36.2%)	17 (18.1%)	3 (3.2%)	1 (1.1%)	0 (0.0%)
7. Effective feedback to students can increase my teaching effectiveness.	23 (24.5%)	47 (50.0%)	22 (23.4%)	2 (2.1%)	0 (0.0%)	0 (0.0%)

Note. N = 94.

The observations from the questions that composed the pedagogy composite score are presented below. The data indicate that 50% of the teachers with 6–10 years experience agreed discussing the effective use of thinking and problem-solving activities is important as opposed to only 45.6% of the whole sample. The data for the teachers with 6–10 years and the whole sample were extremely similar for the pedagogy questions related to learning about providing effective feedback to students, importance of standards and objectives, and the importance of effectively motivating students. In contrast the teachers with 6–10 years experience agreed 4.2% fewer than the whole sample regarding increasing student achievement by the effective grouping of students. In Table 7, information regarding the professional development ratings for teachers with 6–10 years of experience is presented.

Table 7

Professional Development Ratings for Teachers With 6–10 Years of Experience

Question	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
1. Individualized PD is important in increasing my capacity.	30 (31.9%)	43 (45.7%)	14 (14.9%)	6 (6.4%)	1 (1.1%)	0 (0.0%)
2. Discussing strategies from peer evaluations is effective PD.	13 (13.8%)	29 (30.9%)	36 (38.3%)	10 (10.6%)	4 (4.3%)	2 (2.1%)
3. Weekly PD is more helpful than short one-time workshops.	5 (5.3%)	20 (21.3%)	42 (44.7%)	16 (17.0%)	5 (5.3%)	6 (6.4%)
4. Examining and reflecting upon student data has improved my teaching.	5 (5.3%)	40 (42.6%)	29 (30.9%)	9 (9.6%)	9 (9.6%)	2 (2.1%)
5. Active participation in PD is more effective than passive learning.	38 (40.4%)	24 (25.5%)	22 (23.4%)	7 (7.4%)	1 (1.1%)	2 (2.1%)
6. PD with support is more impactful on changing my classroom practices.	34 (36.2%)	45 (47.9%)	12 (12.8%)	2 (2.1%)	1 (1.0%)	0 (0.0%)
7. PD with follow-up within a week help implement new strategies more effectively.	20 (21.3%)	42 (44.7%)	24 (25.5%)	5 (5.3%)	2 (2.1%)	1 (1.1%)

Note. $N = 94$.

The data indicate that teachers with 6–10 years experience responded with agreement (45.7%) as opposed to 39.8 % for the whole sample data. Teachers with 6–10 years experience had 4.3% less strong agreement than the whole sample, of the importance of weekly professional development opportunities being more helpful than one-time workshops. In contrast, the 6–10 year experienced teachers' data indicate 24.1% more, somewhat agreed weekly professional development to be helpful than one-time workshops than did the whole sample. In reference to the question regarding substantially improving their teaching by examining and reflecting on student data, the teachers with 6–10 years experience agreed 12.9% more than did the whole sample. There were 40.4% of teachers with 6–10 years experience who strongly agreed participation in professional development to be more effective than siting, or passive learning, as compared to 35.2 % of the whole sample. In contrast there were 9.7% fewer teachers with 6–10 years experience who agreed that active participation in PD was more beneficial than the whole sample. In Table 8, data related to performance-based compensation were provided for teachers with 6–10 years experience.

Table 8

Performance-Based Compensation Ratings for Teachers With 6–10 Years of Experience

Question	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
1. Performance-based compensation has substantially increased my effectiveness.	7 (7.4%)	7 (7.4%)	13 (13.8%)	11 (11.7%)	26 (27.7%)	30 (31.9%)
2. Performance-based compensation has increased student achievement.	3 (3.2%)	4 (4.3%)	10 (10.6%)	13 (13.8%)	29 (30.9%)	35 (37.2%)
3. Attitudes of teachers have improved due to performance-based compensation.	2 (2.1%)	4 (4.3%)	8 (8.5%)	13 (13.8%)	29 (30.9%)	38 (40.4%)
4. PD attendance has increased due to performance-based compensation.	1 (1.1%)	7 (7.4%)	7 (74%)	12 (12.8%)	34 (36.2%)	33 (35.1%)
5. Collaboration has increased due to performance-based compensation.	1 (1.1%)	4 (4.3%)	8 (8.5%)	14 (14.9%)	28 (29.8%)	39 (41.5%)
6. Performance-based compensation motivates teachers.	4 (4.3%)	4 (4.3%)	10 (10.6%)	8 (8.5%)	22 (23.4%)	46 (48.9%)
7. Performance-based compensation is motivating teachers to stay in teaching longer.	1 (1.1%)	3 (3.2%)	5 (5.3%)	14 (14.9%)	23 (24.5%)	48 (51.1%)

Note. $N = 94$

The data indicate 31.9% of teachers with 6–10 years experience strongly disagreed that performance-based compensation substantially increased their effectiveness as classroom teachers as opposed to 39.8% of the whole sample. Similarly, 37.2% of teachers with 6–10 years experience strongly disagreed performance-based compensation was a factor that increased student achievement as opposed to 42.6% of the whole group. The survey data indicate 7.6% more of the whole group strongly disagreed that the attitude of teachers improved due to performance-based compensation than did the teachers with 6–10 years experience. Another interesting piece of data pertained to the survey question regarding, is performance-based compensation a motivation to stay in teaching. Teachers with 6–10 years experience had 85% of some level of disagreement which was similar to the 87.9% for the whole group. In Table 9, data related to the collaborative feedback composite score were provided for teachers with 11–15 years experience.

Table 9

Collaborative Feedback Ratings for Teachers With 11–15 Years of Experience

Question	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
1. Collaborating with other professionals about instructional strategies is important.	36 (34.0%	39 (36.8%)	27 (25.5%)	0 (0.0%)	4 (3.8%)	0 (0.0%)
2. Using info obtained through classroom visit.	18 (17.0%)	30 (28.3%)	33 (31.1%)	10 (9.4%)	13 (12.3%)	1 (.9%)
3. Ideas from Admin make classroom more effective.	7 (6.6%)	26 (24.5%)	32 (30.2%)	19 (17.9%)	16 (15.1%)	6 (5.7%)
4. Capacity increased due to discussions w/colleagues.	32 (30.2%)	48 (45.3%)	19 (17.9%)	5 (4.7%)	2 (1.9%)	0 (0.0%)
5. Collaborating with colleagues about instructional strategies.	29 (27.4%)	43 (40.6%)	30 (28.3%)	1 (.9%)	3 (2.8%)	0 (0.0%)
6. Evaluating student work with colleagues is valuable.	12 (11.3%)	40 (37.7%)	38 (35.8%)	9 (8.5%)	6 (5.7%)	1 (.9%)

Note. N = from 105 to 106.

The data from the collaborative feedback composite score questions indicate that 17.0% of teachers with 11–15 years experience strongly agreed that information from classroom visits was used to improve classroom instruction, although 11% of the whole sample strongly agreed. In contrast 30.2% of teachers with 11–15 years experience somewhat agreed regarding the value

of administrator's ideas making their classrooms more effective, and 40.1% of the whole sample somewhat agreed. Finally, the data indicate that 37.7 % of teachers with 11–15 years experience agreed that evaluating and analyzing student work with other teaching professionals has been a valuable process as opposed to only 33.2% of the whole sample. Table 10 presents data related to the questions which made up the pedagogy composite score for teachers with 11–15 years experience.

Table 10

Pedagogy Ratings for Teachers With 11–15 Years of Experience

Question	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
1. Discussing proper use of standards and objectives in lesson are important.	9 (8.5%)	38 (35.8%)	32 (30.2%)	13 (12.3%)	11 (10.4%)	3 (2.8%)
2. Discussing effective problem and thinking activities is important.	41 (38.7%)	44 (41.5%)	18 (17.0%)	1 (.9%)	2 (1.9%)	0 (0.0%)
3. Understanding questioning techniques is important in becoming better teacher.	32 (30.2%)	53 (50.0%)	14 (13.2%)	5 (4.7%)	2 (1.9%)	0 (0.0%)
4. Learning student behavior management techniques can increase my effectiveness.	40 (37.7%)	43 (40.6%)	19 (17.9%)	1 (.9%)	3 (2.8%)	0 (0.0%)
5. Discussing effective grouping strategies can increase achievement.	24 (22.6%)	48 (45.3%)	27 (25.5%)	4 (3.8%)	3 (2.8%)	0 (0.0%)
6. Motivating students can increase student achievement.	45 (42.5%)	39 (36.8%)	18 (17.0%)	3 (2.8%)	1 (.9%)	0 (0.0%)
7. Effective feedback to students can increase my teaching effectiveness.	32 (30.2%)	52 (49.1%)	17 (16.0%)	0 (0.0%)	5 (4.7%)	0 (0.0%)

Note. $N = 106$

The data indicate that 38.7% of teachers with 11–15 years experience strongly agreed that effectively using thinking and problem-solving activities in the classroom were extremely important compared to only 32.5% of the whole sample. The data also indicate that 22.6% of teachers with 11–15 years experience strongly agreed regarding the importance of discussions about the effective grouping of students and the impact on student achievement, and only 17.9% of the whole sample. The data for teachers with 11–15 years experience were very similar to the whole sample for the final two questions which made up the pedagogy composite score. These two questions referenced learning about effective grouping and how to provide effective feedback to students. Table 11 provides results for the questions, which make up the professional development composite score for teachers with 11–15 years experience.

Table 11

Professional Development Ratings for Teachers With 11–15 Years of Experience

Question	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
1. Individualized PD is important in increasing my capacity.	37 (34.9%)	39 (36.8%)	21 (19.8%)	5 (4.7%)	3 (2.8%)	1 (.9%)
2. Discussing strategies from peer evaluations is effective PD.	13 (12.3%)	33 (31.1%)	32 (30.2%)	14 13.2%)	9 (8.5%)	4 (3.8%)
3. Weekly PD is more helpful than short one-time workshops.	12 (11.3%)	30 (28.3%)	32 (30.2%)	19 (17.9%)	8 (7.5%)	5 (4.7%)
4. Examining and reflecting upon student data has improved my teaching.	14 (13.2%)	32 (30.2%)	32 (30.2%)	12 (11.3%)	14 (13.2%)	2 (1.9%)
5. Active participation in PD is more effective than passive learning.	32 (30.2%)	35 (33.0%)	29 (27.4%)	7 (6.6%)	2 (1.9%)	1 (.9%)
6. PD with support is more impactful on changing my classroom practices.	33 (31.1%)	53 (50.0%)	14 (13.2%)	5 (4.7%)	1 (.9%)	0 (0.0%)
7. PD with follow-up within a week help implement new strategies more effectively.	22 (20.8%)	48 (45.3%)	23 (21.7%)	7 (6.6%)	4 (3.8%)	2 (1.9%)

Note. $N = 106$.

The data from the questions which formed the professional development composite score indicate that 91.5% of teachers with 11–15 years experience had some level of agreement of the importance of individualized professional development in increasing their capacity, as did 92.9% of the whole sample. The data also show that 28.3% of teachers with 11–15 years experience agreed that weekly professional development was substantially more helpful in building capacity than one time workshops, but only 22.7% of the whole sample agreed. The data also indicate that teachers with 11–15 years experience and the whole group had the exact same percentage, 20.8%, who strongly agreed that professional development that included follow-up within one week helped implement strategies or ideas more effectively. Table 12 provides results for the questions, which make up the performance-based compensation composite score for teachers with 11–15 years experience.

Table 12

Performance-Based Compensation Ratings for Teachers With 11–15 Years of Experience

Question	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
1. Performance-based compensation has substantially increased my effectiveness.	2 (1.9%)	7 (6.6%)	13 (12.3%)	13 (12.3%)	23 (21.7%)	48 (45.3%)
2. Performance-based compensation has increased student achievement.	0 (0.0%)	5 (4.7%)	12 (11.3%)	12 (11.3%)	32 (30.2%)	45 (42.5%)
3. Attitudes of teachers have improved due to performance-based compensation.	0 (0.0%)	2 (1.9%)	13 (12.3%)	11 (10.4%)	26 (24.5%)	54 (50.9%)
4. PD attendance has increased due to performance-based compensation.	2 (1.9%)	5 (4.7%)	6 (5.7%)	15 (14.2%)	33 (31.1%)	45 (42.5%)
5. Collaboration has increased due to performance-based compensation.	1 (.9%)	1 (.9%)	9 (8.5%)	12 (11.3%)	36 (34.0%)	47 (44.3%)
6. Performance-based compensation motivates teachers.	1 (.9%)	2 (1.9%)	13 (12.3%)	13 (13.3%)	18 (17.0%)	59 (55.7%)
7. Performance-based compensation is motivating teachers to stay in teaching longer.	0 (0.0%)	1 (.9%)	7 (6.6%)	12 (11.3%)	29 (27.4%)	56 (52.8%)

Note. N = 105 to 106.

The final composite score dealt with questions which formed the performance-based compensation composite score. The data analyzed indicate that 1.9% of classroom teachers with 11–15 years experience strongly agreed that performance-based compensation substantially increased their effectiveness as classroom teachers, as opposed to 4.4 % of the whole sample. In contrast 11.3% of teachers with 11–15 years experience agreed that performance-based compensation increased student achievement in the classroom, where only 3.9% of the whole sample agreed on the impact of performance-based compensation on student achievement. Data related to whether the attitude of teachers in the building were improved due to performance-based learning were similar, 14.2 % of teachers with 11–15 years experience, had some level of agreement compared to 15.1% of the whole sample. Data indicate that 55.7% of teachers with 11–15 years experience strongly disagreed that performance-based compensation was an important component in motivating teachers to work hard, as did 50.8% of the whole group sample. The final question of the performance-based compensation composite score referenced the ability of performance-based compensation to motivate teachers to continue working more years. The results indicated that 91.5% of teachers with 11–15 years and 87.7% of the whole sample had some level of disagreement of the ability of performance-based compensation to motivate them to work for more years in the field of education. Table 13 presents data for teachers with 16 or more years of experience and provides information from questions associated with the collaborative feedback score.

Table 13

Collaborative Feedback Ratings for Teachers With 16 or More Years of Experience

Question	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
1. Collaborating with other professionals about instructional strategies is important.	60 (22.6%)	104 (39.2%)	74 (28.3%)	9 (3.4%)	13 (4.9%)	4 (1.5%)
2. Using info obtained through classroom visit.	23 (8.7%)	87 (32.8%)	94 (35.5%)	27 (10.2%)	24 (9.1%)	9 (3.4%)
3. Ideas from admin make classroom more effective.	7 (2.6%)	39 (14.7%)	113 (42.6%)	54 (20.4%)	38 (14.3%)	13 (4.9%)
4. Capacity increased due to educational discussions w/colleagues.	65 (24.5%)	120 (45.3%)	59 (22.3%)	14 (5.3%)	4 (1.5%)	3 (1.1%)
5. Collaborating with colleagues about instructional strategies.	56 (21.1%)	98 (37.0%)	83 (31.3%)	15 (5.7%)	11 (4.2%)	2 (.8%)
6. Evaluating student work with colleagues is valuable.	27 (10.2%)	85 (32.1%)	95 (35.8%)	30 (11.3%)	24 (9.1%)	2 (.8%)

Note. $N = 265$.

The data indicate that 60 (22.6%) teachers with 16 or more years experience strongly agreed that collaborating with other teaching professionals about instructional strategies had substantially increased student in their classroom as opposed to 65 (29.1%) of the whole sample. The data also indicate that 159 (59.9%) of teachers with 16 or more years experience had some

level of agreement that ideas received from administrators made their classroom more effective as did 362 (64%) of the whole sample. When looking at the question regarding increasing their capacity as classroom teachers due to educational discussions with colleagues, only 65 (24.5%) strongly agreed to this statement as opposed to 174 (30.9%) of the whole sample. Table 14 represents the perceptions of teachers with 16 or more years experience regarding pedagogy and the classroom.

Table 14

Pedagogy Ratings for Teachers With 16 or More Years of Experience

Question	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
1. Discussing proper use of standards and objectives in lesson are important.	17 (6.4%)	78 (29.4%)	89 (33.6%)	35 (13.2%)	35 (13.2%)	11 (4.2%)
2. Discussing effective problem and thinking activities is important.	76 (28.7%)	126 (47.5%)	54 (20.4%)	5 (1.9%)	3 (1.1%)	0 (0.0%)
3. Understanding questioning techniques is important in becoming better teacher.	70 (26.4%)	134 (50.6%)	57 (21.5%)	2 (.8%)	1 (.4%)	1 (.4%)
4. Learning student behavior management techniques can increase my effectiveness.	95 (35.8%)	116 (43.8%)	45 (17.0%)	6 (2.3%)	2 (.8%)	0 (0.0%)
5. Discussing effective grouping strategies can increase achievement.	34 (12.8%)	110 (41.5%)	94 (35.5%)	16 (6.0%)	10 (3.8%)	1 (.4%)
6. Motivating students can increase student achievement.	107 (40.4%)	103 (38.95)	52 (19.6%)	2 (.8%)	0 (0.0%)	1 (.4%)
7. Effective feedback to students can increase my teaching effectiveness.	67 (25.3%)	138 (52.1%)	53 (20.0%)	4 (1.5%)	2 (.8%)	1 (.4%)

Note. $N = 265$

The data indicate that 256 (97.0%) of teachers with 16 or more years experience and 543 (96.6%) of the whole sample had some level of agreement about the importance of discussing how to use problem solving and thinking activities in the classroom. The data also indicate that 95 (35.8%) of teachers with 16 or more years experience strongly agreed that learning techniques about managing student behavior could increase their effectiveness, in contrast to 227 (40.3%) of the whole sample. Teachers with 16 or more years experience had some level of agreement pertaining to how effectively motivating students substantially increased student achievement, 262 (98.9%) as did the whole sample, 552(98.0%). Table 15 presents data regarding the questions which were made up the professional development composite scores.

Table 15

Professional Development Ratings for Teachers With 16 or More Years of Experience

Question	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
1. Individualized PD is important in increasing my capacity.	88 (33.2%)	106 40.0%)	53 (20.0%)	10 (3.8%)	6 (2.3%)	2 (.8%)
2. Discussing strategies from peer evaluations is effective PD.	27 (10.2%)	97 (36.6%)	85 (32.1%)	26 (9.8%)	23 (8.7%)	7 (2.6%)
3. Weekly PD is more helpful than short one-time workshops.	23 (8.7%)	51 (19.2%)	85 (32.1%)	63 (23.8%)	30 (11.3%)	12 (4.5%)
4. Examining and reflecting upon student data has improved my teaching.	27 (10.2%)	60 (22.6%)	99 (37.4%)	39 (14.7%)	26 (9.8%)	14 (5.3%)
5. Active participation in PD is more effective than passive learning.	73 (27.5%)	100 (37.7%)	71 (26.8%)	17 (6.4%)	4 (1.5%)	0 (0.0%)
6. PD with support is more impactful on changing my classroom practices.	90 (34.0%)	117 (44.2%)	52 (19.6%)	51 (1.9%)	0 (0.0%)	1 (.4%)
7. PD with follow-up within a week help implement new.	48 (18.1%)	119 (44.9%)	78 (39.4%)	15 (5.7%)	4 (1.5%)	1 (.4%)

Note. $N = 275$.

The data from the questions that composed the professional development composite score indicate that 267 (93.2%) of teachers with 16 or more years experience and 523 (92.9%) of the whole sample had some level of agreement when questioned about individualized professional development being an important component in increasing their capacity as a teacher. The data also indicate that only 129 (60.2%) of teachers with 16 or more years experience and 366 (65.1%) of the whole sample had some level of agreement about weekly professional development being more helpful in building capacity compared to one-time workshops. The data also show that only 73 (27.5%) of teachers with 16 or more years experience perceived that active participation in professional development was more effective than passive learning during a presentation compared to 181 (32.1%) of the whole sample. Finally, the data indicate that 259 (97.7%) teachers with 16 or more years experience and 545 (96.8%) of the whole sample had some level of agreement that professional development being more beneficial in changing practices when followed up with support. Table 16 contains the data from the performance-based compensation composite score questions and the final table for teachers with 16 or more years of experience.

Table 16

Performance-Based Compensation Ratings for Teachers With 16 or More Years of Experience

Question	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
1. Performance-based compensation has substantially increased my effectiveness.	5 (1.9%)	17 (6.4%)	33 (12.5%)	34 (12.8%)	57 (21.5%)	119 (44.9%)
2. Performance-based compensation has increased student achievement.	0 (0.0%)	9 (3.4%)	28 (10.6%)	35 (13.2%)	63 (23.8%)	130 (49.1%)
3. Attitudes of teachers have improved due to performance-based compensation.	0 (0.0%)	7 (2.6%)	23 (8.7%)	34 (12.8%)	54 (20.4%)	147 (55.5%)
4. PD attendance has increased due to performance-based compensation.	2 (.8%)	11 (4.2%)	19 (7.2%)	27 (10.2%)	79 (29.8%)	127 (47.9%)
5. Collaboration has increased due to performance-based compensation.	1 (.4%)	10 (3.8%)	21 (7.9%)	32 (12.1%)	87 (32.8%)	114 (43.0%)
6. Performance-based compensation motivates teachers.	4 (1.5%)	9 (3.4%)	26 (9.8%)	27 (10.2%)	52 (19.7%)	146 (55.1%)
7. Performance-based compensation is motivating teachers to stay in teaching longer.	0 (0.0%)	6 (2.3%)	18 (6.8%)	35 (13.2%)	53 (20.0%)	153 (57.7%)

Note. $N = 265$

The data from the performance- based compensation composite questions indicate that 119 (44.9%) of teachers with 16 or more years of experience and 224 (39.8%) of the whole sample strongly disagreed that performance-based compensation had increased their effectiveness as a classroom teacher. The data also show that 228 (86.1%) of teachers with 16 or more years experience, and 468 (83%) of the whole sample had some level of disagreement regarding performance-based compensation increasing student achievement in their classroom. The data indicate that 146 (55.1%) of teachers with 16 or more years experience strongly disagreed compared to 286 (50.8%) of the whole sample. The final question from the performance-based compensation composite score indicated 241 (90.9%) of teachers with 16 or more years experience and 494 (87.7%) of the whole sample had some level of disagreement regarding performance-based compensation being a motivator for staying in education longer. Data from the collaborative feedback questions for teachers with K–2 teaching assignments are presented in Table 17.

Table 17

Collaborative Feedback Ratings for Teachers With K–2 Teaching Assignments

Question	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
1. Collaborating with other professionals about instructional strategies is important.	31 (36.5%)	31 (36.5%)	17 (20.0%)	3 (3.5%)	2 (2.4%)	1 (1.2%)
2. Using info obtained through classroom visit.	13 (15.3%)	32 (37.6%)	27 (31.8%)	6 (7.1%)	2 (2.4%)	5 (5.9%)
3. Ideas from Admin make classroom more effective.	5 (5.9%)	21 (24.7%)	31 (36.5%)	17 (20.0%)	6 (7.1%)	5 (5.9%)
4. Capacity increased due to educational discussions w/colleagues.	20 (23.5%)	45 (52.9%)	13 (15.3%)	5 (5.9%)	2 (2.4%)	0 (0.0%)
5. Collaborating with colleagues about instructional strategies.	29 (34.1%)	29 (34.1%)	22 (25.9%)	2 (2.4%)	1 (1.2%)	2 (2.4%)
6. Evaluating student work with colleagues is valuable.	21 (24.7%)	28 (32.9%)	23 (27.1%)	8 (9.4%)	4 (4.4%)	1 (1.2%)

Note. $N = 85$.

The data from the collaborative feedback composite score questions indicate that 31 (36.5%) of teacher K–2 teachers strongly agreed that collaborating with other professionals about instruction strategies has substantially increased student achievement compared with 164 (29.1%) of the whole sample. That data also indicate that only 20 (23.5%) of K–2 teachers

strongly agreed that their capacity was increased by participating in educational discussions with colleagues, as opposed to 174 (30.9%) of the whole sample. The data from the question regarding the increase in student achievement due to collaboration with other teaching professionals indicate K–2 teachers strongly agreed 29 (34.1%) compared to only 138 (24.5%) of the whole sample. K–2 teachers also strongly agreed 21 (24.7%) that evaluating student work with other teaching professionals was an extremely valuable process as opposed to only 76 (13.5%) of the whole sample. Table 18 displays results from the pedagogy composite score for K–2 teachers.

Table 18

Pedagogy Ratings for Teachers With K–2 Teaching Assignments

Question	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
1. Discussing proper use of standards and objectives in lesson are important.	9 (10.6%)	36 (4.2%)	18 (21.2%)	11 (12.9%)	7 (8.2%)	4 (4.7%)
2. Discussing effective problem and thinking activities is important.	34 (40.0%)	34 (40.0%)	15 (17.6%)	2 (2.4%)	0 (0.0%)	0 (0.0%)
3. Understanding questioning techniques is important in becoming better teacher.	30 (35.3%)	40 (47.1%)	12 (14.1%)	2 (2.4%)	1 (1.2%)	0 (0.0%)
4. Learning student behavior management techniques can increase my effectiveness.	48 (56.5%)	28 (32.9%)	8 (9.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
5. Discussing effective grouping strategies can increase achievement.	23 (27.1%)	43 (50.6%)	15 (17.6%)	1 (1.2%)	3 (3.5%)	0 (0.0%)
6. Motivating students can increase student achievement.	45 (52.9%)	27 (31.8%)	11 (12.9%)	1 (1.2%)	0 (0.0%)	1 (1.2%)
7. Effective feedback to students can increase my teaching effectiveness.	31 (36.5%)	36 (42.4%)	14 (16.5%)	1 (1.2%)	2 (2.4%)	1 (1.2%)

Note. $N = 84$ to 85.

Data from the pedagogy composite score questions indicate 34 (40%) of the K–2 teachers strongly agreed with the importance of discussing how to effectively use thinking and problem-solving activities in the classroom, and 183 (32.5%) of the whole sample strongly agreed. The data also indicate that K–2 teachers had strong agreement 48 (56.5%) as opposed to 227 (40.35%) of the whole sample, when asked about the impact of learning techniques about managing student behavior and the ability to increase their classroom effectiveness. Data also indicate that K–2 teachers strongly agreed (23, 27.1%) that discussions about effective grouping can substantially help the achievement of students in their class, as did 101 (17.9%) of whole sample. The question regarding learning how to effectively motivate students and its ability to increase student achievement indicated K–2 teachers strongly agreed (45, 52.9%), of the time in comparison to 249 (44.2%) of the whole sample. The final question from the pedagogy composite score section indicated K–2 teachers strongly agreed (31, 36.5%) learning how to provide effective feedback to students can considerably increase the effectiveness of their teaching, and the whole sample strongly agreed (151, 26.8%) to this question. Table 19 presents the professional development data for teachers with K–2 teaching assignments.

Table 19

Professional Development Ratings for Teachers With K–2 Teaching Assignments

Question	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
1. Individualized PD is important in increasing my capacity.	30 (35.3%)	39 (45.9%)	10 (11.8%)	4 (4.7%)	1 (1.2%)	1 (1.2%)
2. Discussing strategies from peer evaluations is effective PD.	11 (12.9%)	31 (36.5%)	24 (28.2%)	6 (7.1%)	11 (12.9%)	2 (2.4%)
3. Weekly PD is more helpful than short one-time workshops.	12 (14.1%)	20 (23.5%)	31 (36.5%)	11 (12.9%)	8 (9.4%)	3 (3.5%)
4. Examining and reflecting upon student data has improved my teaching.	16 (18.8%)	26 (30.6%)	29 (34.1%)	8 (9.4%)	4 (4.7%)	2 (2.4%)
5. Active participation in PD is more effective than passive learning.	28 (32.9%)	33 (38.8%)	22 (25.9%)	2 (4.4%)	0 (0.0%)	0 (0.0%)
6. PD with support is more impactful on changing my classroom practices.	31 (36.5%)	46 (54.1%)	6 (7.1%)	1 (1.2%)	1 (1.2%)	0 (0.0%)
7. PD with follow-up within a week help implement new strategies more effectively.	24 (28.2%)	40 (47.1%)	17 (20.0%)	2 (2.4%)	2 (2.4%)	0 (0.0%)

Note. $N = 85$.

Data from the professional development composite score indicate that 81 (95.3%) of K–2 teachers had some level of agreement of the importance of individualized professional development in increasing their capacity as teachers, as did 523 (92.9%) of the whole sample. The data also indicate that 63 (74.1%) of K–2 teachers and 366 (65.1%) of the whole sample had some level of agreement regarding weekly professional development being substantially more beneficial in building their capacity than short one-time workshops. The data indicate that 83 (97.6%) of K–2 teachers and 545 (96.8%) of the whole sample had some level of agreement regarding the statement that professional development followed up with support is considerably more beneficial in changing classroom practices. Table 20 provides K–2 teacher responses to performance-based compensation composite score questions.

Table 20

Performance Based Compensation Ratings for Teachers With K–2 Teaching Assignments

Question	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
1. Performance-based compensation has substantially increased my effectiveness.	8 (9.4%)	5 (5.9%)	7 (8.2%)	11 (12.9%)	27 (31.8%)	27 (31.8%)
2. Performance-based compensation has increased student achievement.	4 (4.7%)	3 (3.5%)	8 (9.4%)	11 (12.9%)	33 (38.8%)	26 (30.6%)
3. Attitudes of teachers have improved due to performance-based compensation.	2 (2.4%)	7 (8.2%)	4 (4.7%)	10 (11.8%)	30 (35.3%)	32 (37.6%)
4. PD attendance has increased due to performance-based compensation.	4 (4.7%)	2 (2.4%)	10 (11.8%)	6 (7.1%)	38 (44.7%)	25 (29.4%)
5. Collaboration has increased due to performance-based compensation.	3 (3.5%)	3 (3.5%)	9 (10.6%)	10 (11.8%)	38 (44.7%)	22 (25.9%)
6. Performance-based compensation motivates teachers.	3 (3.5%)	6 (7.1%)	9 (10.6%)	11 (12.9%)	16 (18.8%)	40 (47.1%)
7. Performance-based compensation is motivating teachers to stay in teaching longer.	2 (2.4%)	5 (5.9%)	5 (5.9%)	8 (9.4%)	26 (30.6%)	38 (44.7%)

Note. N = 84 to 85.

The data from the last composite score for K–2 teachers indicate that 8 (9.4%) of K–2 teachers and 25 (4.4%) of the whole group strongly agreed that performance-based compensation substantially increased their effectiveness as classroom teachers. The data also indicate that 70 (84.4%) of K–2 teachers and 468 (83.1%) had some level of disagreement regarding the statement that performance-based compensation has increased student achievement in their classrooms. The data also indicate that 69 (81.2%) of K–2 teachers and 470 (83.5%) of the whole group had some level of disagreement regarding performance-based compensation causing them to attend more professional development opportunities. K–2 teachers strongly disagreed (40, 47.1%) that performance-based compensation motivated them to work harder, as did 286 (50.8%) of the whole sample. The final statement of the performance-based compensation composite score indicated that 72 (85.7%) of K–2 teachers and 494 (88.1%) of the whole sample had some level of disagreement that performance-based compensation would motivate them to stay in teaching longer. Table 21 provides data from teachers with Grades 3–5 as their principal teaching assignment.

Table 21

Collaborative Feedback Ratings for Teachers With Grade 3–5 Teaching Assignments

Question	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
1. Collaborating with other professionals about instructional strategies is important.	35 (31.8%)	42 (38.2%)	25 (22.7%)	2 (1.8%)	5 (4.5%)	1 (.9%)
2. Using info obtained through classroom visit.	21 (19.1%)	45 (40.9%)	26 (23.6%)	9 (8.2%)	8 (7.3%)	1 (.9%)
3. Ideas from Admin make classroom more effective.	9 (8.2%)	27 (24.5%)	39 (35.5%)	18 (16.4%)	13 (11.8%)	3 (2.7%)
4. Capacity increased due to educational discussions w/colleagues.	36 (32.7%)	41 (37.3%)	22 (20.0%)	7 (6.4%)	2 (1.8%)	2 (1.8%)
5. Collaborating with colleagues about instructional strategies.	28 (25.5%)	44 (40.0%)	25 (22.7%)	7 (6.4%)	6 (5.5%)	0 (0.0%)
6. Evaluating student work with colleagues is valuable.	14 (12.7%)	44 (40.0%)	36 (32.7%)	9 (8.2%)	7 (6.4%)	0 (0.0%)

Note. N = 109 to 110.

When reviewing the questions that composed the collaborative feedback composite score the data for Grade 3–5 teachers indicate that 102 (92.7%) had some level of agreement that collaborating with other teaching professionals about instructional strategies substantially increased student achievement in my classroom, as did 528 (93.8%) of the whole sample. The

data also indicated that 41 (37.3%) of Grade 3–5 teachers and 251 (44.6%) agreed that their capacity as classroom teachers had significantly increased due to educational discussions with teaching colleagues. Finally, the question regarding evaluating and analyzing student work with other teaching professionals was found to be a valuable process had some level of agreement by 94 (85.5%) of Grade 3–5 teachers and 454 (80.9%) of the whole sample. Table 22 presents data from questions pertaining to the pedagogy composite score questions.

Table 22

Pedagogy Ratings for Teachers With Grade 3–5 Teaching Assignments

Question	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
1. Discussing proper use of standards and objectives in lesson are important.	10 (9.1%)	49 (44.5%)	32 (29.1%)	9 (8.2%)	10 (9.1%)	0 (0.0%)
2. Discussing effective problem and thinking activities is important.	32 (29.1%)	61 (55.5%)	14 (12.7%)	2 (1.8%)	0 (0.0%)	0 (0.0%)
3. Understanding questioning techniques is important in becoming better teacher.	35 (31.8%)	58 (52.7%)	16 (14.5%)	0 (0.0%)	1 (.9%)	0 (0.0%)
4. Learning student behavior management techniques can increase my effectiveness.	54 (49.1%)	44 (40.0%)	10 (9.1%)	1 (.9%)	1 (.9%)	0 (0.0%)
5. Discussing effective grouping strategies can increase achievement.	26 (23.6%)	49 (44.5%)	30 (27.3%)	3 (2.7%)	2 (1.8%)	0 (0.0%)
6. Motivating students can increase student achievement.	53 (48.2%)	40 (36.4%)	17 (15.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
7. Effective feedback to students can increase my teaching effectiveness.	29 (26.4%)	61 (55.5%)	18 (16.4%)	0 (0.0%)	2 (1.8%)	0 (0.0%)

Note. N = 109 to 110.

When reviewing the level of agreement regarding the importance of discussing how to effectively use thinking and problem-solving activities in the classroom, 107 (98.2%) of Grade 3–5 teachers and 543 (96.6%) of the whole sample had some level of agreement. The data also indicate that 54 (49.1%) of Grade 3–5 teachers and 227 (40.3%) of the whole sample strongly agreed that learning techniques about managing student behavior can greatly increase their effectiveness as a classroom teacher. The data also show that 110 (100%) of Grade 3–5 teachers and 552 (98%) of the whole sample had some level of agreement regarding learning how effectively motivating students can increase student achievement. Table 23 provides results from the questions from the professional development composite portion of the survey.

Table 23

Professional Development Ratings for Teachers With Grade 3–5 Teaching Assignments

Question	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
1. Individualized PD is important in increasing my capacity.	42 (38.2%)	40 (36.4%)	21 (19.1%)	6 (5.5%)	1 (.9%)	0 (0.0%)
2. Discussing strategies from peer evaluations is effective PD.	18 (16.4%)	28 (25.5%)	35 (31.8%)	15 (13.6%)	12 (10.9%)	2 (1.8%)
3. Weekly PD is more helpful than short one-time workshops.	9 (8.2%)	27 (24.5%)	40 (36.4%)	21 (19.1%)	7 (6.4%)	5 (4.5%)
4. Examining and reflecting upon student data has improved my teaching.	14 (12.7%)	43 (39.1%)	36 (32.7%)	9 (8.2%)	8 (7.3%)	0 (0.0%)
5. Active participation in PD is more effective than passive learning.	43 (39.1%)	37 (33.6%)	22 (20.0%)	7 (6.4%)	1 (.9%)	0 (0.0%)
6. PD with support is more impactful on changing my classroom practices.	47 (42.7%)	46 (41.8%)	16 (14.5%)	1 (.9%)	0 (0.0%)	0 (0.0%)
7. PD with follow-up within a week help implement new strategies more effectively.	34 (30.9%)	46 (41.8%)	23 (20.9%)	6 (5.5%)	1 (.9%)	0 (0.0%)

Note. N = 109 to 110.

The data from the professional development composite score questions indicate that 103 (93.6%) of Grades 3–5 teachers and 523 (92.9%) of the whole group sample had some level of agreement regarding the importance of individualized professional development ability to increase their capacity as classroom teachers. The data also indicate that 76 (69.7%) of Grades 3–5 teachers and 366 (65.1%) of the whole group sample had some level of agreement that weekly professional development opportunities were substantially more helpful at building their capacity in the classroom than were short one-time workshops. Similarly, 109 (99.1%) of Grades 3–5 teachers and 545 (96.8%) of the whole group sample had some level of agreement that professional development that was followed up with support was considerably more beneficial in changing their classroom practices. Finally, the data indicate that 103 (93.6%) of Grades 3–5 teachers and 514 (91.3%) of the whole group sample had some level of agreement that professional development that included follow-up within one week, helped them implement the strategy or ideas in the classrooms more effectively. The final composite score question for teachers with Grades 3–5 teaching assignments in presented in Table 24.

Table 24

Performance-Based Compensation Ratings for Teachers With Grades 3–5 Teaching Assignments

Question	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
1. Performance-based compensation has substantially increased my effectiveness.	3 (2.7%)	5 (4.5%)	23 (20.9%)	14 (12.7%)	28 (25.5%)	37 (33.6%)
2. Performance-based compensation has increased student achievement.	2 (1.8%)	3 (2.7%)	16 (14.5%)	14 (12.7%)	33 (33.0%)	42 (38.2%)
3. Attitudes of teachers have improved due to performance-based compensation.	1 (.9%)	1 (.9%)	16 (14.5%)	10 (9.1%)	27 (24.5%)	55 (55.0%)
4. PD attendance has increased due to performance-based compensation.	2 (1.8%)	7 (6.4%)	12 (10.9%)	13 (11.8%)	38 (34.4%)	38 (34.4%)
5. Collaboration has increased due to performance-based compensation.	2 (1.8%)	1 (.9%)	13 (11.8%)	17 (15.5%)	36 (32.7%)	41 (37.3%)
6. Performance-based compensation motivates teachers.	3 (2.7%)	1 (.9%)	19 (17.3%)	11 (10.0%)	22 (20.0%)	54 (49.1%)
7. Performance-based compensation is motivating teachers to stay in teaching longer.	1 (.9%)	1 (.9%)	11 (10.0%)	14 (12.7%)	26 (23.6%)	57 (51.8%)

Note. N = 109 to 110.

When reviewing the questions which composed the compensation-based performance composite scores, the data indicate that 79 (71.8%) of Grades 3–5 teachers and 427 (75.8%) of the whole sample had some level of disagreement regarding performance-based compensation substantially increasing their effectiveness as a classroom teacher. Similarly, the data indicate that 89 (80.9%) of Grades 3–5 teachers and 468 (83.1%) of the whole sample had some level of disagreement that performance-based compensation had increased student achievement in their classrooms. The data also show that only 21 (19.1%) of Grades 3–5 teachers and 93 (16.5%) of the whole sample showed some level of agreement that performance-based compensation caused them to attend more professional development opportunities. The results also indicated that 87 (79.1%) of Grades 3–5 teachers and 446 (80.1%) of the whole sample had some level of disagreement that performance-based compensation was an extremely important component in motivating teachers to work hard. Data also show 97 (88.2%) of Grades 3–5 teachers and 494 (87.7%) of the whole sample had some level of disagreement that performance-based compensation was a motivation to stay in teaching longer. Table 25 presents data for Grades 6–8 teachers, beginning with results from the questions which composed the collaborative feedback composite score.

Table 25

Collaborative Feedback Ratings for Teachers With Grades 6–8 Teaching Assignments

Question	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
1. Collaborating with other professionals about instructional strategies is important.	38 (29.9%)	55 (44.3%)	24 (18.9%)	3 (2.4%)	7 (5.5%)	0 (0.0%)
2. Using info obtained through classroom visit.	11 (8.7%)	44 (34.6%)	40 (31.5%)	12 (9.4%)	17 (13.4%)	3 (2.4%)
3. Ideas from Admin make classroom more effective.	8 (6.3%)	25 (19.7%)	46 (36.2%)	23 (18.1%)	20 (15.7%)	5 (3.9%)
4. Capacity increased due to educational discussions w/colleagues.	43 (33.9%)	61 (48.0%)	17 (13.4%)	2 (1.6%)	3 (2.4%)	1 (.8%)
5. Collaborating with colleagues about instructional strategies.	33 (26.0%)	61 (48.0%)	24 (18.9%)	6 (4.7%)	3 (2.4%)	0 (0.0%)
6. Evaluating student work with colleagues is valuable.	14 (11.0%)	42 (33.1%)	41 (32.3%)	13 (10.2%)	12 (9.4%)	4 (3.1%)

Note. $N = 127$.

When reviewing the collaborative feedback data from the survey for Grades 6–8 teachers, the results indicate 117 (92.1%) had some level of agreement that collaborating with other teaching professionals about instructional strategies had substantially increased student achievement in their classrooms, as did 528 (93.8%) of the whole sample. The data also

indicated that 121 (95.3%) of Grades 6–8 teachers and 527 (93.6%) of the whole sample had some level of agreement regarding their capacity as classroom teachers increasing significantly due to educational discussions with colleagues. Grades 6–8 teachers also had some level of agreement 97 (77.0%) as did 454 (80.9%) of the whole sample regarding the evaluation of student work with other teaching professionals being an extremely valuable process. The results from the pedagogy portion of the survey for Grades 6–8 teachers are provided in Table 26.

Table 26

Pedagogy Ratings for Teachers With Grades 6–8 Teaching Assignments

Question	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
1. Discussing proper use of standards and objectives in lesson are important.	12 (9.4%)	35 (27.6%)	51 (40.2%)	11 (8.7%)	14 (11.0%)	4 (3.1%)
2. Discussing effective problem and thinking activities is important.	39 (30.7%)	62 (48.8%)	20 (15.7%)	2 (1.6%)	4 (3.1%)	0 (0.0%)
3. Understanding questioning techniques is important in becoming better teacher.	35 (27.6%)	63 (49.6%)	24 (18.9%)	4 (3.1%)	0 (0.0%)	1 (.8%)
4. Learning student behavior management techniques can increase my effectiveness.	56 (44.1%)	44 (34.6%)	20 (15.7%)	4 (3.1%)	3 (2.4%)	0 (0.0%)
5. Discussing effective grouping strategies can increase achievement.	23 (18.1%)	51 (40.2%)	43 (33.9%)	7 (5.5%)	3 (2.4%)	0 (0.0%)
6. Motivating students can increase student achievement.	53 (41.7%)	49 (38.6%)	20 (15.7%)	4 (3.1%)	1 (.8%)	0 (0.0%)
7. Effective feedback to students can increase my teaching effectiveness.	30 (23.6%)	65 (51.2%)	30 (23.6%)	0 (0.0%)	2 (1.6%)	0 (0.0%)

Note. $N = 127$.

The pedagogy questions results indicated that 121 (95.3%) of Grades 6–8 teachers had some level of agreement that discussing how to effectively use thinking and problem solving in the classroom was extremely important, as did 543 (96.6%) of the whole sample. The data also indicated that 56 (44.1%) of Grades 6–8 teachers and 227 (40.3%) of the whole sample strongly agreed that learning techniques about managing student behavior increased their effectiveness as classroom teachers. Grades 6–8 teachers also had 122 (96.1%) some level of agreement that learning how to effectively motivate students can substantially increase the achievement of students in their classes, as did 552 (98.0%) of the whole sample. Table 27 provides Grades 6–8 teachers' data for the questions associated with the professional development composite score.

Table 27

Professional Development Ratings for Teachers With Grades 6–8 Teaching Assignments

Question	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
1. Individualized PD is important in increasing my capacity.	42 (33.1%)	47 (37.0%)	28 (22.0%)	5 (3.9%)	1 (.8%)	4 (3.1%)
2. Discussing strategies from peer evaluations is effective PD.	20 (15.7%)	39 (30.7%)	43 (33.9%)	12 (9.4%)	7 (5.5%)	6 (4.7%)
3. Weekly PD is more helpful than short one-time workshops.	13 (10.2%)	27 (21.3%)	41 (32.3%)	25 (19.7%)	13 (10.2%)	8 (6.3%)
4. Examining and reflecting upon student data has improved my teaching.	13 (10.2%)	33 (26.0%)	42 (33.1%)	15 (11.8%)	19 (15.0%)	5 (3.9%)
5. Active participation in PD is more effective than passive learning.	38 (29.9%)	52 (40.9%)	23 (18.1%)	10 (7.9%)	2 (1.6%)	2 (1.6%)
6. PD with support is more impactful on changing my classroom practices.	44 (34.6%)	54 (42.5%)	23 (18.1%)	4 (3.1%)	1 (.8%)	1 (.8%)
7. PD with follow-up within a week help implement new strategies more effectively.	25 (19.7%)	56 (44.1%)	35 (27.6%)	6 (4.7%)	4 (3.1%)	1 (.8%)

Note. $N = 127$.

When reviewing the questions that composed the professional development composite score, the data indicate that 117 (92.1%) of Grades 6–8 teachers and 523 (92.9%) of the whole sample had some level of agreement of the importance of individualized professional development in building their capacity as a teacher. The data also indicate that 81 (63.8%) of Grades 6–8 teachers and 366 (65.1%) of the whole sample had some level of agreement that weekly professional development opportunities were substantially more helpful in building their capacity compared to short one-time workshops. Grades 6–8 teachers' data indicate that 121 (95.3%) of teachers had some level of agreement that professional development which is followed up with support was considerably more beneficial in changing their classroom habits, as did 545 (96.8%) of the whole sample. The final question composing the professional development composite score indicated that 116 (91.3%) of Grades 6–8 teachers and 514 (91.3%) of the whole sample had some level of agreement that professional development that included follow-up within one week helped them implement the strategy or idea much more effectively. Table 28 provides data from the performance-based compensation composite score questions.

Table 28

Performance-Based Compensation Ratings for Teachers With Grades 6–8 Teaching Assignments

Question	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
1. Performance-based compensation has substantially increased my effectiveness.	4 (3.1%)	10 (7.9%)	18 (14.2%)	13 (10.2%)	28 (22.0%)	54 (42.5%)
2. Performance-based compensation has increased student achievement.	1 (.8%)	3 (2.4%)	16 (12.6%)	20 (15.7%)	27 (21.3%)	60 (47.2%)
3. Attitudes of teachers have improved due to performance-based compensation.	1 (.8%)	5 (3.95)	13 (10.2%)	13 (10.2%)	31 (24.4%)	64 (50.4%)
4. PD attendance has increased due to performance based-compensation.	2 (1.6%)	5 (3.9%)	9 (7.1%)	18 (14.2%)	41 (32.3%)	52 (40.9%)
5. Collaboration has increased due to performance-based compensation.	2 (1.6%)	3 (2.4%)	9 (7.1%)	18 (14.2%)	41 (32.3%)	54 (42.5%)
6. Performance-based compensation motivates teachers.	2 (1.6%)	5 (3.9%)	12 (9.4%)	18 (14.2%)	28 (22.0%)	62 (48.8%)
7. Performance-based compensation is motivating teachers to stay in teaching longer.	2 (1.6%)	1 (.8%)	8 (6.3%)	17 (13.4%)	30 (23.6%)	69 (54.3%)

Note. $N = 127$.

The survey results from the questions which composed the performance-based compensation composite score indicated that 95 (74.8%) of Grades 6–8 teachers and 427 (76.8%) of the whole sample had some level of disagreement regarding the statement that performance-based compensation has substantially increased my effectiveness as classroom teachers. Similarly, the data also indicated that 107 (84.3%) of Grades 6–8 teachers and 468 (83.1%) of the whole sample had some level of disagreement that performance-based compensation has increased student achievement in their classroom. When asked if they chose to attend more professional development due to performance-based compensation, 112 (87.4%) of Grades 6–8 teachers and 470 (83.5%) of the whole sample responded with some level of disagreement. The data indicated that 62 (48.8%) of Grades 6–8 teachers and 286 (50.8%) 0f the whole sample strongly disagreed that performance-based compensation was extremely important in making them work harder. Similarly, the data indicated that 116 (91.3%) of Grades 6–8 teachers and 494 (88.1%) of the whole sample had some level of agreement regarding performance-based compensation being a motivator to stay in education longer. Table 29 below begins the presentation of data for Grades 9–12 teachers.

Table 29

Collaborative Feedback Ratings for Teachers With Grades 9–12 Teaching Assignments

Question	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
1. Collaborating with other professionals about instructional strategies is important.	60 (24.9%)	95 (39.4%)	75 (31.1%)	4 (1.7%)	5 (2.1%)	2 (.8%)
2. Using info obtained through classroom visit.	20 (8.3%)	79 (32.8%)	89 (36.9%)	28 (11.6%)	18 (7.5%)	5 (2.1%)
3. Ideas from Admin make classroom more effective.	8 (3.3%)	33 (13.7%)	110 (45.6%)	49 (20.3%)	32 (13.3%)	9 (3.7%)
4. Capacity increased due to educational discussions w/colleagues.	75 (31.1%)	104 (43.2%)	50 (20.7%)	9 (3.7%)	3 (1.2%)	0 (0.0%)
5. Collaborating with colleagues about instructional strategies.	48 (19.9%)	99 (41.1%)	81 (33.6%)	6 (2.5%)	7 (2.9%)	0 (0.0%)
6. Evaluating student work with colleagues is valuable.	27 (11.2%)	73 (30.3%)	91 (37.8%)	29 (12.0%)	18 (7.5%)	2 (.8%)

Note. N = 239 to 241.

When reviewing results from the collaborative feedback composite score questions for Grades 9–12 teachers, the data indicated that 230 (95.4%) of Grades 9–12 teachers and 528 (93.8%) of the whole sample had some level of agreement that collaborating with other teaching professionals about instructional strategies had substantially increased student achievement in

their classrooms. Similarly, the data indicated that 229 (95.0%) of Grades 9–12 teachers and 523 (92.9%) of the whole sample had some level of agreement that their capacity as classroom teachers has significantly increased due to education discussions with colleagues. Grades 9–12 teachers (224, 94.6%) also had some level of agreement that collaborating with other teaching professionals about instructional strategies has substantially increased student achievement in their classroom, as did 523 (92.9%) of the whole sample. Table 30 provides results for questions that compose the pedagogy composite score.

Table 30

Pedagogy Ratings for Teachers With Grades 9–12 Teaching Assignments

Question	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
1. Discussing proper use of standards and objectives in lesson are important.	15 (6.2%)	57 (23.7%)	89 (36.9%)	37 (15.4%)	31 (12.9%)	11 (4.6%)
2. Discussing effective problem and thinking activities is important.	78 (32.4%)	100 (41.5%)	54 (22.4%)	5 (2.1%)	4 (1.7%)	0 (0.0%)
3. Understanding questioning techniques is important in becoming better teacher.	65 (27.0%)	122 (50.6%)	47 (19.5%)	4 (1.7%)	3 (1.2%)	0 (0.0%)
4. Learning student behavior management techniques can increase my effectiveness.	69 (28.6%)	119 (49.4%)	47 (19.5%)	5 (2.1%)	1 (.4%)	0 (0.0%)
5. Discussing effective grouping strategies can increase achievement.	29 (12.0%)	96 (39.8%)	85 (35.3%)	22 (9.1%)	8 (3.3%)	1 (.4%)
6. Motivating students can increase student achievement.	98 (40.7%)	93 (38.65)	46 (19.1%)	3 (1.2%)	1 (.4%)	0 (0.0%)
7. Effective feedback to students can increase my teaching effectiveness.	61 (25.3%)	127 (52.7%)	45 (18.7%)	6 (2.5%)	2 (.8%)	0 (0.0%)

Note. $N = 241$

The results from the pedagogy composite indicated that Grades 9–12 teachers (232, 96.3%) had some level of agreement that discussing how to effectively use thinking and problem-solving activities in the classroom was extremely important, as did 543 (96.6%) of the whole sample. The data indicated that 69 (28.6%) of Grade 9–12 teachers strongly agreed that learning techniques about managing student behavior can greatly increase their effectiveness as teachers compared to 227 (40.3%) of the whole sample. The final question that composed the pedagogy composite score indicated that 237 (98.3%) of Grades 9–12 teachers and 552 (98.0%) of the whole sample had some level of agreement that learning how to effectively motivate students substantially increased student achievement in their classes. Professional development ratings for Grades 9–12 teachers are presented in Table 31.

Table 31

Professional Development Ratings for Teachers With Grades 9–12 Teaching Assignments

Question	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
1. Individualized PD is important in increasing my capacity.	78 (32.4%)	98 (40.7%)	48 (19.9%)	10 (4.1%)	7 (2.9%)	0 (0.0%)
2. Discussing strategies from peer evaluations is effective PD.	20 (10.0%)	91 (37.8%)	83 (34.4%)	27 (11.2%)	11 (4.6%)	4 (1.7%)
3. Weekly PD is more helpful than short one-time workshops.	20 (8.3%)	54 (22.4%)	72 (29.9%)	59 (24.5%)	27 (11.2%)	9 (3.7%)
4. Examining and reflecting upon student data has improved my teaching.	17 (7.1%)	65 (27.0%)	85 (35.3%)	34 (14.1%)	27 (11.2%)	13 (5.4%)
5. Active participation in PD is more effective than passive learning.	72 (29.9%)	65 (31.5%)	71 (29.5%)	17 (7.1%)	4 (1.7%)	1 (.4%)
6. PD with support is more impactful on changing my classroom practices.	73 (30.3%)	111 (46.1%)	48 (19.9%)	8 (3.3%)	1 (.4%)	0 (0.0%)
7. PD with follow-up within a week help implement new strategies more effectively.	34 (14.1%)	103 (42.7%)	77 (32.0%)	18 (7.5%)	6 (2.5%)	3 (1.2%)

Note. $N = 241$.

The results from the profession development composite score questions indicated that 224 (92.9%) of Grades 9–12 teachers had some level of agreement that individualized professional development was very important in increasing their capacity as a teacher, as did 523 (92.9%) of the whole sample. The data also indicated that 146 (60.6%) of Grades 9–12 teachers and 366 (65.1%) of the whole sample had some level of agreement that weekly professional development opportunities were substantially more helpful in building their capacity in the classroom than were short one-time workshops. Similarly, 232 (96.3%) Grades 9–12 teachers and 545 (96.8%) of the whole sample had some level of agreement regarding professional development followed up with support being more beneficial in changing their classroom practices. The final question which composed the professional development composite score indicated that 214 (88.8%) Grades 9–12 teachers and 514 (91.3%) of the whole sample had some level of agreement that professional development with follow-up within one week helped them implement the idea or strategy more effectively. The final composite score questions for Grades 9–12 teachers are presented in Table 32.

Table 32

Performance-Based Compensation Ratings for Teachers With Grades 9–12 Teaching Assignments

Question	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
1. Performance-based compensation has substantially increased my effectiveness.	10 (4.1%)	15 (6.2%)	28 (11.6%)	39 (16.2%)	43 (17.8%)	106 (44.0%)

Table 32 (continued)

Question	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
2. Performance-based compensation has increased student achievement.	3 (1.2%)	13 (5.4%)	23 (9.5%)	32 (13.3%)	58 (24.1%)	112 (46.5%)
3. Attitudes of teachers have improved due to performance-based compensation.	3 (1.2%)	8 (3.3%)	24 (10.0%)	35 (14.5%)	52 (21.6%)	119 (49.4%)
4. PD attendance has increased due to performance-based compensation.	7 (2.9%)	14 (5.8%)	19 (7.9%)	26 (10.8%)	60 (24.9%)	115 (47.7%)
5. Collaboration has increased due to performance-based compensation.	4 (1.7%)	11 (4.6%)	23 (9.5%)	27 (11.2%)	72 (29.9%)	104 43.2%)
6. Performance-based compensation motivates teachers.	8 (3.3%)	9 (3.7%)	29 (12.0%)	20 (8.3%)	44 (18.3%)	130 (53.9%)
7. Performance-based compensation is motivating teachers to stay in teaching longer.	2 (.8%)	8 (3.3%)	21 (8.7%)	34 (14.1%)	46 (19.1%)	129 (53.5%)

Note. N = 240 to 241.

The questions that composed the final composite score of the study indicated 188 (78%) of Graded 9–12 teachers had some level of disagreement that performance-based compensation substantially increased their effectiveness as classroom teachers, as did 427 (75.8%) of the whole

sample. Similarly, the data indicated that 202 (83.8%) Grade 9–12 teachers and 468 (83.1%) of the whole group had some level of disagreement that performance-based education had increased student achievement in their classroom. The data also indicated that 115 (47.7%) Grade 9–12 teachers and 230 (40.9%) of the whole sample had strong disagreement that they chose to attend more professional development due to performance-based compensation. When reviewing the data regarding performance-based compensation motivating teachers to work hard, the data indicated that 194 (80.8%) Grades 9–12 teachers and 456 (80.1%) of the whole sample had some level of disagreement regarding this statement. The final question which composed the compensation-based composite score indicated that 129 (53.5%) Grades 9–12 teachers and 293 (52%) of the whole sample strongly disagreed that performance-based compensation was a motivating factor to stay in teaching longer.

Inferential Statistics

Research Question 1

The first null hypothesis tested whether there were significant differences among the different experience levels on the collaborative feedback composite score. This null hypothesis utilized a one-way ANOVA; there were more than two levels within the independent variable. To ensure the inferential findings presented in this study were reliable, the assumptions of a one-way ANOVA were examined prior to sharing the inferential findings.

The assumption of independence was met, as there was no dependent variable score that fell into more than one group. There were no outliers present within the dependent variable scores as all data points fell within 1.5 standard deviations of the edge of the boxplots. The assumption of normality was met, as the results of the Shapiro-Wilk test was non-significant, $p > .05$. Finally, the assumption of homogeneity of variance was met, as the Levene's test of

equality was non-significant, $F(3, 559) = 1.33$, $p = .264$. Although this assumption was met, a post hoc test that assumed equal variances was utilized.

The results of the one-way ANOVA indicated there were significant differences among the experience levels on the collaborative feedback composite score. This was concluded with the significance level being less than the alpha level, $F(3, 559) = 9.74$, $p < .001$. To determine where the significant difference laid, the Tukey HSD post hoc comparisons were examined.

This post hoc test indicated that the levels of agreement were significantly higher for the respondents with 0–5 years when compared to 6–10 year respondents, $p = .043$. The 95% confidence indicated the expected difference on the collaborative feedback score between these two groups ranges from .01 to .58. The 0–5 year experience respondents were also significantly higher than the 11–15 year experience respondents, $p = .037$. The 95% confidence indicated the expected difference on the collaborative feedback score between these two groups ranges from .01 to .57. Additionally, there was also significant difference among the 0–5 year experience respondents on the collaborative feedback composite score when compared to the 16 or more year respondents, $p < .001$. The 95% confidence indicated the expected difference on the collaborative feedback score between these two groups ranges from .25 to .72. Ultimately, the respondents with 0–5 years of experience had significantly higher levels of agreement regarding the importance of collaborative feedback than the other three experience groups. All other comparisons were non-significant. The null hypothesis was rejected.

Research Question 2

The second null hypothesis tested whether there were significant differences among the different grade levels on the collaborative feedback composite score. This null hypothesis utilized a one-way ANOVA; there were more than two levels within the independent variable.

To ensure the inferential findings presented in this study were reliable, the assumptions of a one-way ANOVA were examined prior to sharing the inferential findings.

The assumption of independence was met, as there were no dependent variable scores that fell into more than one group. There were no outliers present within the dependent variable scores as all data points fell within 1.5 standard deviations of the edge of the boxplots. The assumption of normality was met, as the results of the Shapiro-Wilk test was non-significant, $p > .05$. Finally, the assumption of homogeneity of variance was violated, as the Levene's test of equality was significant, $F(3, 559) = 3.32$, $p = .020$. Although this assumption was violated, a post hoc test that does not assume equal variances was utilized, such as a Games-Howell.

The results of the one-way ANOVA indicated there were no significant differences among the grade levels on the collaborative feedback composite score. This was concluded with the significance level being greater than the alpha level, $F(3, 559) = 1.45$, $p = 226$. Because there were no significant differences indicated by the results of the one-way ANOVA, there was no need to present the findings of the post hoc comparisons. This null hypothesis was retained.

Research Question 3

The third null hypothesis tested whether there were significant differences among the different experience levels on the pedagogy composite score. Once again this null hypothesis utilized a one-way ANOVA; there were more than two levels within the independent variable. This ensured the inferential findings were reliable.

The assumption of independence was met, as there was no dependent variable score that fell into more than one group. There were no outliers present within the dependent variable scores as all data points fell within 1.5 standard deviations of the edge of the boxplots. The assumption of normality was met, as the results of the Shapiro-Wilk test was non-significant, $p >$

.05. Finally, the assumption of homogeneity of variance was met, as the Levene's test of equality was non-significant, $F(3, 559) = 1.41$, $p = .236$. Although this assumption was met, a post hoc test that assumes equal variances was utilized.

The results of the one-way ANOVA indicated there were significant differences among the experience levels on the pedagogy composite score. This was concluded with the significance level being less than the alpha level, $F(3, 559) = 4.94$, $p < .002$. To determine where the significant difference laid, the Tukey HSD post hoc comparisons were examined.

This post hoc test indicated that the levels of agreement were significantly higher for the respondents with 0–5 years experience when compared to respondents with 6–10 years experience, $p = .035$. The 95% confidence indicated the expected difference on the pedagogy composite score between these two groups ranged from .01 to .48. The 0–5 years experience respondents were also significantly higher than those respondents with 16 or more years experience, $p = .001$. The 95% confidence indicated the expected difference on the pedagogy composite score between these two groups ranged from .09 to .47. In summary, the respondents with 0–5 years of experience had significantly higher levels of agreement regarding the importance of pedagogy than respondents with 6–10 years experience and 16 or more years experience. The other comparison with the 11–15 were non-significant. As a result of the findings, the null hypothesis was rejected.

Research Question 4

The fourth null hypothesis tested whether there were significant differences among the different grade levels taught on the pedagogy composite score. Once again this null hypothesis utilized a one-way ANOVA; there were more than two levels within the independent variable. This ensured the inferential findings were reliable.

The assumption of independence was met, as there was no dependent variable score that fell into more than one group. There were no outliers present within the dependent variable scores as all data points fell within 1.5 standard deviations of the edge of the boxplots. The assumption of normality was met, as the results of the Shapiro-Wilk test was non-significant, $p > .05$. Finally, the assumption of homogeneity of variance was met, as the Levene's test of equality was non-significant, $F(3, 559) = 1.36$, $p = .254$. Although this assumption was met, a post hoc test that assumed equal variances was used.

The results of the one-way ANOVA indicated there were significant differences among different grade levels taught on the pedagogy composite score. This was concluded with the significance level being less than the alpha level, $F(3, 559) = 5.92$, $p < .001$. To determine where the significant difference laid, the Tukey HSD post hoc comparisons were examined.

This post hoc test indicated that the levels of agreement were significantly higher for the respondents with K–2 making up the greatest percentage of their teaching assignments when compared to respondents teaching Grades 9–12 as majority of current teaching assignment, $p = .006$. The 95% confidence indicated the expected difference on the pedagogy composite score between these two groups ranged from .06 to .46. The other significant higher levels of agreement were teachers of Grades 3–5 as the greatest percentage of their teaching assignment compared to teachers of Grades 9–12, $p =. 004$. The 95% confidence indicated the expected difference on the pedagogy composite score between these two groups ranged from .06 to .43. In summary, the respondents of K–2 teachers indicated the greatest percentage of their teaching assignment had significantly higher levels of agreement regarding the importance of pedagogy than teachers of Grades 9–12. In addition, teachers of Grades 3–5 also had significantly higher

levels of agreement than teachers of Grades 9–12. All other comparisons were non-significant. As a result of the findings, the null hypothesis was rejected.

Research Question 5

The fifth null hypothesis tested whether there were significant differences among the different experience levels on the embedded professional development composite score. This null hypothesis utilized a one-way ANOVA; there were more than two levels within the independent variable. Once again, to ensure the inferential findings presented in this study were reliable, the assumptions of a one-way ANOVA were examined prior to sharing the inferential findings.

The assumption of independence was met, as there were no dependent variable scores that fell into more than one group. There were no outliers present within the dependent variable scores as all data points fell within 1.5 standard deviations of the edge of the boxplots. The assumption of normality was met, as the results of the Shapiro-Wilk test was non-significant, $p > .05$. Finally, the assumption of homogeneity of variance was met, as the Levene's test of equality was $F(3, 559) = 1.77$, $p = .152$.

The results of the one-way ANOVA indicated there were not significant differences among the years of experience on the embedded professional development composite score. This was concluded with the significance level being greater than the alpha level, $F(3, 559) = 2.24$, $p = .082$. Although there were no significant differences indicated by the results of the one-way ANOVA, there was no need to present the findings of the post hoc comparisons. This null hypothesis was retained.

Research Question 6

The sixth null hypothesis tested whether there were significant differences among the different grade levels taught on the embedded professional development composite score. Once again this null hypothesis utilized a one-way ANOVA as there were more than two levels within the independent variable. This ensured the inferential findings were reliable.

The assumption of independence was met, as there was no dependent variable score that fell into more than one group. There were no outliers present within the dependent variable scores as all data points fell within 1.5 standard deviations of the edge of the boxplots. The assumption of normality was met, as the results of the Shapiro-Wilk test was non-significant, $p > .05$. Finally, the assumption of homogeneity of variance was met, as the Levene's test of equality was non-significant, $F(3, 559) = .98$, $p = .401$. Although this assumption was met, a post hoc test that assumed equal variances was used.

The results of the one-way ANOVA indicated there were significant differences among different grade levels taught on the embedded professional development composite score. This was concluded with the significance level being less than the alpha level, $F(3, 559) = 4.12$, $p < .007$. To determine where the significant difference laid, the Tukey HSD post hoc comparisons were examined.

This post hoc test indicated that the levels of agreement were significantly higher for the respondents with K–2 teachers making up the greatest percentage of their teaching assignments when compared to teachers of Grades 9–12 as majority of current teaching assignment, $p = .037$. The 95% confidence indicated the expected difference on the pedagogy composite score between these two groups ranged from .01 to .47. The other significant higher levels of agreement were teachers of Grades 3–5 as the greatest percentage of their teaching assignments compared to

Grades 9–12, p =. 038. The 95% confidence indicated the expected difference on the embedded professional development composite score between these two groups ranged from .01 to .43. In summary, the respondents from teachers of Grades K–2 as the greatest percentage of their teaching assignment had significantly higher levels of agreement regarding the importance of embedded professional development than teachers of Grades 9–12. In addition, teachers from Grades 3–5 also had significantly higher levels of agreement than teachers from Grades 9–12. All other comparisons were non-significant. As a result of the findings, the null hypothesis was rejected.

Research Question 7

The seventh null hypothesis tested whether there were significant differences among the years experience on the performance based composite score. This null hypothesis utilized a one-way ANOVA as there were more than two levels within the independent variable. To ensure the inferential findings presented in this study were reliable, the assumptions of a one-way ANOVA were examined prior to sharing the inferential findings.

The assumption of independence was met, as there were no dependent variable scores that fell into more than one group. There were no outliers present within the dependent variable scores as all data points fell within 1.5 standard deviations of the edge of the boxplots. The assumption of normality was met, as the results of the Shapiro-Wilk test were non-significant, $p > .05$. Finally, the assumption of homogeneity of variance was violated, as the Levene's test of equality was significant, $F(3, 559) = 5.97$, $p = .001$. Although this assumption was violated, a post hoc test that did not assume equal variances was utilized, such as a Games-Howell.

The results of the one-way ANOVA indicated there were significant differences among years of experience on the performance-based compensation composite score. This was

concluded with the significance level being less than the alpha level, $F(3, 559) = 10.21$, $p < .001$. To determine where the significant difference laid, the Games-Howell results were examined.

This Games-Howell test results indicated that the levels of agreement were significantly higher for the importance of performance based pay for respondents with 0–5 years experience when compared to respondents with 11–15 years of experience, as majority of current teaching assignment, $p = .001$. The 95% confidence indicated the expected difference on the pedagogy composite score between these two groups ranged from .23 to 1.11. Teachers with 0–5 years experience also had significantly higher levels of agreement than those teachers with 16 or more years experience, $p = .001$ grade. The 95% confidence indicated the expected difference on the performance-based compensation composite score between these two groups ranged from .30 to .1.10. In summary, the respondents with 0–5 years experience had significantly higher levels of agreement regarding the importance of performance-based pay embedded professional development than teachers with 11–15 and 16 or more years experience. All other comparisons were non-significant. As a result of the findings, the null hypothesis was rejected.

Research Question 8

The eighth and final null hypothesis tested whether there were significant differences among the different grade levels on the performance-based compensation composite score. This null hypothesis utilized a one-way ANOVA as there were more than two levels within the independent variable. To ensure the inferential findings presented in this study were reliable, the assumptions of a one-way ANOVA were examined prior to sharing the inferential findings.

The assumption of independence was met, as there were no dependent variable scores that fell into more than one group. There were no outliers present within the dependent variable scores as all data points fell within 1.5 standard deviations of the edge of the boxplots. The

assumption of normality was met, as the results of the Shapiro-Wilk test was non-significant, $p > .05$. Finally, the assumption of homogeneity of variance was violated, as the Levene's test of equality was met, $F(3, 559) = .576$, $p = .631$.

The results of the one-way ANOVA indicated there were not significant differences among the grade levels taught on the performance-based compensation composite score. This was concluded with the significance level being greater than the alpha level, $F(3, 559) = .89$, $p = .442$. There were no significant differences indicated by the results of the one-way ANOVA, therefore, there was no need to present the findings of the post hoc comparisons. This null hypothesis was retained.

Summary

This chapter analyzed teacher perceptions of the main components in building teacher capacity and student achievement of the current evaluation systems in the state of Indiana. Research Questions 1 and 2 focused on teacher perceptions of collaborative feedback based on years experience and grade-level teaching assignment. The inferential testing done via one-way ANOVA testing indicated that teachers with 0–5 years experience had statistically significant higher level of agreement than the other groups regarding the importance of collaborative feedback in building teacher capacity and increasing student growth. Inferential testing on Research Question 2 showed no statistically significant differences regarding collaborative feedback and grade-level teaching assignment, which ended in failing to reject the null hypothesis.

Research Questions 3 and 4 focused on teacher perceptions of pedagogy in increasing teacher capacity and student achievement based on years experience and grade-level teaching assignment. The inferential testing done via one-way ANOVA testing indicated that teachers

with 0–5 years experience had statistically significant higher level of agreement than the other groups regarding the importance of pedagogy in building teacher capacity and increasing student growth. Inferential testing on Research Question 3 showed statistically significant differences regarding pedagogy and grade-level teaching assignment. The results of the one-way ANOVA indicated teachers with 0–5 years experience had statistically significant higher level of agreement than teachers with 6–10 and 16 or more years experience. In Research Question 3, the one-way ANOVA results indicated that in the area of pedagogy, teachers with 9–12 years experience had statistically significant lower levels of agreement than teachers of Grades K–2 and Grades 3–5 teachers.

Research Questions 5 and 6 focused on teacher perceptions of professional development and its impact on building their capacity and increasing student growth. The inferential testing using the one-way ANOVA indicated no statistically significant difference in perceptions based on years experience. This resulted in failing to reject the null hypothesis. In Research Question 6, the data indicate statistically significant lower levels of importance placed on professional development by teachers of Grades 9–12 when compared to teachers of Grades K–2 and teachers of Grades 3–5.

The final two research questions focused on teacher perceptions of the importance of performance-based pay on building their capacity and increasing student growth. Once again, the one-way ANOVA was used for the inferential testing. In Research Question 7, the data indicate that teachers with 11–15 and 16 or more years experience had statistically significant less agreement than teachers of Grades K–2 and Grades 3–5, of the importance of performance-based pay. In Research Question 8, the inferential testing using the one-way ANOVA indicated no statistically significant difference in perceptions of the importance of performance based on

grade-level assignments. This resulted in failure to reject the null hypothesis. In Chapter 5, the final of this detailed study, more information is presented regarding these findings, along with implications, and opportunities for further research.

CHAPTER 5

FINDINGS, IMPLICATIONS, AND FUTURE RESEARCH

This quantitative study was undertaken to analyze the perceptions of Indiana public K–12 teachers in understanding which components of the current teacher evaluation systems are most beneficial in building teacher capacity and increasing student achievement in their classrooms. The data were analyzed then disaggregated by years of experience and their grade-level teaching assignment to identify trends that could be used by districts to guide their decision-making process. This information may be beneficial to teachers, building leaders, and district administrators as they work to design and implement new processes for evaluation of teachers in their districts or alter current systems already in place. These study findings may also help district leaders determine the amount of time and resources districts should allocate to each of the critical components, including measuring student achievement, rating teacher proficiency based on a detailed instructional rubric generated from multiple classroom observations, and attending embedded professional development when planning the new teacher evaluation system for local school districts. It may also help school district leaders eliminate or reduce the amount of time allocated for processes that are perceived by teachers as ineffective in the survey findings. Most importantly, district staff may use the findings to improve processes that may directly increase student achievement on local assessments and state assessments.

This chapter has been divided into four major sections. The first section discusses the findings of the study via analyzing the results of the quantitative study. The second section presents the implications of the findings. The third section discusses the limitations of the study, and the final section of this chapter discusses the possibilities for future or further research possibilities associated with the four major components of the teacher evaluation system and student achievement.

Discussion of Findings

Research Question 1

The first null hypothesis tested whether there were significant differences among the different experience levels on the collaborative feedback composite score. The results of the one-way ANOVA indicated there were significant differences among the experience levels on the collaborative feedback composite score. This was concluded with the significance level being less than the alpha level, $F(3, 559) = 9.74$, $p < .001$. To determine where the significant difference laid, Tukey HSD post hoc comparisons were examined.

This post hoc test indicated that the levels of agreement were significantly higher for the respondents with 0–5 years when compared to 6–10 year respondents, $p = .043$. The 0–5 year experience respondents were also significantly higher than the 11–15 year experience respondents, $p = .037$. Additionally, there was also significant difference among the 0–5 year experience respondents on the collaborative feedback composite score when compared to the 16 or more year respondents, $p < .001$. Ultimately, the respondents with 0–5 years of experience had significantly higher levels of agreement regarding the importance of collaborative feedback than the other three experience groups. All other comparisons were non-significant. As a result of the findings the null hypothesis was rejected.

In summary, the survey data indicate that teachers with 0–5 years of experience had significantly higher agreement than the other experience levels. These data would indicate that teachers with 0–5 years of experience perceived collaborative feedback to be more important to building their capacity and increasing student achievement in their classrooms than did all other experience levels. Research (e.g., Ingersoll & Strong, 2011) indicated that young teachers are overwhelmed, undertrained, and ill-prepared for the stresses that a classroom can install on a daily basis. These data from the survey would indicate that teachers with 0–5 years of experience perceived collaborative feedback as a tool to help in building their capacity and making them a more effective classroom teacher.

Research Question 2

The second null hypothesis tested whether there were significant differences among the different grade levels on the collaborative feedback composite score. The results of the one-way ANOVA indicated there were no significant differences among the grade levels on the collaborative feedback composite score. This was concluded with the significance level being greater than the alpha level, $F(3, 559) = 1.45$, $p = 226$. Because there were no significant differences indicated by the results of the one-way ANOVA, there was no need to present the findings of the post hoc comparisons. As a result of the statistical findings, the null hypothesis was retained because there were no significant differences in the perceptions of public K–12 teachers based on their grade-level teaching assignment, regarding the importance of collaborative feedback in building their capacity as a teacher and increasing student achievement in their classroom.

Research Question 3

The third null hypothesis tested whether there were significant differences among the different experience levels on the pedagogy composite score. Once again this null hypothesis utilized a one-way ANOVA; there were more than two levels within the independent variable.

The results of the one-way ANOVA indicated there were significant differences among the experience levels on the pedagogy composite score. This was concluded with the significance level being less than the alpha level, $F(3, 559) = 4.94$, $p < .002$. To determine where the significant difference laid, Tukey HSD post hoc comparisons were examined.

This post hoc test indicated that the levels of agreement were significantly higher for the respondents with 0–5 years of experience when compared to respondents with 6–10 years of experience, $p = .035$. The 0–5 years of experience respondents were also significantly higher than those respondents with 16 or more years of experience, $p = .001$. As a result of the findings, the null hypothesis was rejected.

In summary, the respondents with 0–5 years of experience had significantly higher levels of agreement regarding the importance of pedagogy than respondents with 6–10 years of experience and teachers with 16 or more years of experience. The other comparison with the 11–15 years experience was non-significant. Although I did not find any research directly related to teacher experience level and the importance of pedagogy, there was research that indicated that teacher confidence was a key in the classroom and was related to maturity and experience (Anhorn, 2008), which could relate to younger teachers perceiving more value in the focus on pedagogy in building their capacity and student achievement in the classroom. Young teachers with 0–5 years of experience may use the reliance of the pedagogy platform as a tool to build confidence, where older teachers may not.

Research Question 4

The fourth null hypothesis tested whether there were significant differences among the different grade levels taught on the pedagogy composite score. The results of the one-way ANOVA indicated there were significant differences among different grade levels taught on the pedagogy composite score. This was concluded with the significance level being less than the alpha level, $F(3, 559) = 5.92$, $p < .001$. To determine where the significant difference laid, Tukey HSD post hoc comparisons were examined.

This post hoc test indicated that the levels of agreement were significantly higher for the respondents teaching Grades K–2 making up the greatest percentage of their teaching assignments when compared to respondents teaching Grades 9–12 as majority of current teaching assignment, $p = .006$. The other significant higher levels of agreement were teachers of Grades 3–5 as the greatest percentage of their teaching assignment compared to teachers of Grades 9–12, $p =. 004$. As a result of the findings, the null hypothesis was rejected.

In summary, the respondents of K–2 teachers indicated the greatest percentage of their teaching assignment had significantly higher levels of agreement regarding the importance of pedagogy than teachers of Grades 9–12. In addition, teachers of Grades 3–5 also had significantly higher levels of agreement than teachers of Grades 9–12. All other comparisons were non-significant. These results once again support the findings of Anhorn (2001) that confidence in the classroom may be the reason that Grade 9–12 teachers perceived pedagogy as less important. The typical high school teacher often has a major, minor, or training in their area of their teaching assignment and may cause them to perceive pedagogy as less important in building their capacity and student achievement.

Research Question 5

The fifth null hypothesis tested whether there were significant differences among the different experience levels on the embedded professional development composite score. The results of the one-way ANOVA indicated there were not significant differences among the years of experience on the embedded professional development composite score. This was concluded with the significance level being greater than the alpha level, $F(3, 559) = 2.24$, $p = .082$. Since there were no significant differences indicated by the results of the one-way ANOVA, there was no need to present the findings of the post hoc comparisons. As a result of the statistical findings the null hypothesis was retained.

In summary, the descriptive data indicate that 523 (92.9%) of the teachers who participated had some level of agreement regarding individualized professional development being a very important component in increasing their capacity. These results agreed with previous research findings (e.g., Guskey, 1994) regarding teacher perceptions of the importance of individualized professional development in building their capacity. The inferential data, although, indicate there were no significant differences in the perceptions of public K–12 teachers based on their years of experience, regarding the importance of embedded professional development in building their capacity as a teacher and increasing student achievement in their classroom, which was the reason for retaining the null hypothesis.

Research Question 6

The sixth null hypothesis tested whether there were significant differences among the different grade levels taught on the embedded professional development composite score. The results of the one-way ANOVA indicated there were significant differences among different grade levels taught on the embedded professional development composite score. This was

concluded with the significance level being less than the alpha level, $F(3, 559) = 4.12$, $p < .007$. To determine where the significant difference laid, Tukey HSD post hoc comparisons were examined.

This post hoc test indicated that the levels of agreement were significantly higher for the respondents with K–2 teachers making up the greatest percentage of their teaching assignments when compared to teachers of Grades 9–12 as majority of current teaching assignment, $p = .037$. The other significant higher levels of agreement were teachers of Grades 3–5 as the greatest percentage of their teaching assignments compared to Grades 9–12, $p =. 038$. As a result of these statistical findings, the null hypothesis was rejected.

In summary, the respondents from teachers with Grades K–2 and 3–5 as their main teaching assignments had significantly higher levels of agreement regarding the importance of embedded professional development than teachers of Grades 9–12. Although no direct research regarding teacher perceptions regarding professional development disaggregated by grade level teaching assignment could be found, I did uncover an interesting study that may attribute to high school teachers placing less important on the need for professional development to build their capacity. A 2009 study by Anderson, Bartholomew, and Moeed found that

> secondary pre-service teachers identified experiments they had tried out and resources given to them as most useful aspects of their ITE. This may reflect a greater confidence with their existing subject matter knowledge, that means they can focus more on beginning to develop pedagogical content knowledge. (p. 8)

Although much of today's professional development focuses on pedagogical teaching strategies, this finding may suggest Grade 9–12 teachers spend more time on their own developing their pedagogical skills and do not perceive the need for further professional development, as opposed

to K–2 or Grade 3–5 teachers. Although these teachers focus their free time on developing subject based knowledge so they can teach lesson effectively, they may not have time to invest in their own development of pedagogical knowledge, as opposed to the Grade 9–12 teachers, who typically already have a strong subject content knowledge due to the type of degree or workplace experience often required for licensure at the secondary level.

Research Question 7

The seventh null hypothesis tested whether there were significant differences among the years of experience on the performance based compensation composite score. The results of the one-way ANOVA indicated there were significant differences among years of experience on the performance-based compensation composite score. This was concluded with the significance level being less than the alpha level, $F(3, 559) = 10.21$, $p < .001$. To determine where the significant difference laid, Games-Howell results were examined.

The Games-Howell test results indicated that the levels of agreement were significantly higher for the importance of compensation-based pay for respondents with 0–5 years of experience when compared to respondents with 11–15 years of experience, as majority of current teaching assignment, $p = .001$. Teachers with 0–5 years of experience also had significantly higher levels of agreement than those teachers with 16 or more years of experience, $p = .001$ grade. As a result of the statistical findings, the null hypothesis was rejected.

Although 456 (81.1%) of all survey respondents had some level of disagreement regarding the ability of performance-based compensation to motivate teachers to work harder, respondents with 0–5 years of experience had significantly higher levels of agreement regarding the importance of performance-based pay embedded professional development than did teachers with 11–15 and 16 or more years of experience. Although no direct research could be found

regarding the reason for teacher perceptions, the study findings may be a result of beginning teachers having markedly smaller salaries than more experienced teachers, which may cause them to desire performance-based pay as a way to supplement their income.

Research Question 8

The eighth and final null hypothesis tested whether there were significant differences among the different grade levels on the performance-based compensation composite score. The results of the one-way ANOVA indicated there were not significant differences among the grade levels taught on the performance-based compensation composite score. This was concluded with the significance level being greater than the alpha level, $F(3, 559) = .89$, $p = .442$. There were no significant differences indicated by the results of the one-way ANOVA; therefore, there was no need to present the findings of the post hoc comparisons. As a result of the statistical findings the null hypothesis was retained because the data indicate there were no significant differences in the perceptions of public K–12 teachers based on their grade-level teaching assignment, regarding the importance of performance-based compensation in building their capacity as a teacher and increasing student achievement in their classroom.

Implications

Implications from the findings are presented in this section. The study presented several findings on four major components that may be considered when district administrators, principals, and teachers look to adjust a current or develop a new teacher evaluation program that is in the best interest of the district, teachers, and student achievement.

Collaborative Feedback

The descriptive data were adamant in reference in regard to the impact of collaboration on building teacher capacity and student achievement. The district administrators and principals

may want to consider allowing extensive time for collaboration between teachers regarding instructional strategies as 528 (93.8%) respondents had some level of agreement on these conversations increasing student achievement in their classroom. District administrators and principals may also want to consider providing designated time in their schedules to have basic educational discussions with their colleagues as 527 (93.6%) respondents had some level of agreement of their importance in building their classroom teaching capacity. Based on the disaggregated data, teachers with 0–5 years of experience had significantly higher agreement than all other age groups regarding the overall importance of collaborative feedback to building their capacity and increasing student achievement. As a result of these findings, district administrators and principals may want to consider having specialized opportunities for "newer" teachers where they can share experiences and information, or may consider providing newer teachers with a well-screened mentor teacher. A previous study by DeCesare and McClelland (2017) indicated that "at the end of the first year math achievement was significantly higher among students taught by teachers in the program group than among students taught by teachers in the business-as-usual group" (p. 6). This mentoring or opportunity to collaboratively collaborate with a positive mentor teacher will provide the opportunity for young teachers to share ideas with the veteran more experienced teacher, which may increase the new teacher's capacity and ultimately increase student achievement.

Pedagogy

When reviewing the descriptive data, it was apparent that teachers perceived that having opportunities to learn and discuss pedagogical techniques and strategies were imperative in building their capacity and increasing student achievement. For example, 552 (98.0%) respondents had some level of agreement that learning how to effectively motivate students can

substantially increase the achievement of students in their classroom. Similarly, 547 (97.2%) had some level of agreement that learning how to provide effective feedback to students can considerably increase the effectiveness of their teaching. Finally, 548 (97.3%) teachers indicated some level of agreement regarding the ability to increase their effectiveness as classroom teachers by learning techniques about managing student behaviors. These finding would support previous research by Vescio, Ross, and Adams (2008), who found the increased usage of differentiated pedagogical strategies occurred when teachers were exposed to professional development, which built their capacity as a classroom teacher. As with any occupation the ability to collaborate or have positive engaging educational discussions regarding a particular topic will most likely have a positive impact on the learning and capacity of the individual. Research (e.g., Norton, Richardson, Hartley, Newstead, & Mayes, 2005) also suggested that gaining experience does not equate to becoming a more effective teacher. They suggested that teacher effectiveness most likely is the result of training in pedagogical skills that are learned then implemented into the classroom. When studying the inferential data teachers with 0–5 years of experience had statistically significant higher levels of agreement regarding the importance of pedagogy in building their capacity than teachers with 6–10 or 16 or more years of experience.

Based on these findings from the pedagogical survey questions and further research, district and building administrators may want to find opportunities to dedicate for focused professional development on practical teaching strategies that can be used in the classroom. The research would indicate that teachers may be more successful when they have a larger number of instructional strategies to use in the classrooms. Having a multitude of strategies or techniques to use will most likely give the educators more methods to reach and address the numerous

learning styles which are possessed by their students, and may lead to increased student achievement.

Embedded Professional Development

The data indicate that a majority of teachers (545, 96.8%), had some level of agreement regarding professional development followed up with support being more beneficial in changing their classroom practices. Adding an additional level of support after the training provides the extra support for any issues that might occur during implementation. Rust and Dalin (1995) summarized that the most important component of the professional development process is the follow up as it ensures implementation. District and building administrators have often struggled with the implementation process once teachers have attended the professional development. As these stakeholders revise or develop their new professional development processes, they should consider ensuring that a follow component is a part of the next plan. Not only will the follow-up provide accountability but may also contribute to a culture of collaborative feedback as was discussed previously in Chapter 5. In addition, Cogan (1975) determined,

> A teacher trying to develop new competencies generally needs the continuing in class support of specifically trained colleagues in order to be successful. . . . Without it the major and minor failures a teacher almost always experiences in attempts to change established behavior will press him back into familiar safer models of teaching. (p. 11)

Another factor that may be considered by district and building administrators when organizing professional development components of their teacher evaluation system, are the results of the study presented early in Chapter 5, which indicated that Grade 9–12 teachers rated the professional development component much less important in building their capacity and increasing student achievement than did K–2 and Grade 3–5 teachers. Although no direct

research could be found, Anderson et al. (2009) discussed the idea that due to their increased subject matter knowledge, Grade 9–12 teachers typically will spend extra time on developing their instruction skills and will perceive professional development as less important than a K–2 or Grade 3–5 teacher who may be developing both their subject matter and instructional knowledge at the same time. In this situation, district and building administrators may want to consider how best to gain interest in professional development from the Grade 9–12 classroom teachers. The Boston Consulting Group (2014) conducted research and found that in order to gain the most interest in PD, teachers want it "delivered by someone who understands my experience, relevant, interactive, and sustained of time" (p. 4). By ensuring these components are included, districts may increase the likelihood of teachers gaining valuable learning from the professional development opportunities provided.

Performance-Based Compensation

A majority of teachers in this study were not convinced performance-based compensation was an important component of the teacher evaluation systems, which built their capacity or increased student achievement. The data indicate that 427 (75.8%) of teachers surveyed had some level of disagreement regarding the statement that performance-based compensation increased their effectiveness as classroom teachers. There were even more teachers (468, 83.1%) who had some level of disagreement regarding performance-based compensation's ability to increase student achievement. As a result of these findings, district and building administrators may want to think carefully about not making this component a major piece of their teacher evaluation systems. District leaders may find it more effective to use this money to increase base salaries that may increase teacher retention and help in the competitive world of starting teacher salaries. Some districts may struggle to fund the performance-based compensation all together.

> In Cincinnati, teachers we interviewed about that district's proposed performance pay program were concerned not only about whether performance evaluation would be too subjective, but also about whether the district, with a recent history of financial difficulties and dependence on regular public referenda for increased financial support, could afford the performance pay program. (Milanowski, 2006, p. 4)

As indicated previously in Chapter 5, the inferential statistics provided another finding that may be important for district leaders and administrators to consider when considering the importance placed on performance-based compensation in their own districts. These findings indicated that teachers with 11–15 or 16 or more years of experience rated performance-based compensation considerably less important than did teachers with 0–5 or 6–10 years of experience. Beginning and younger teachers are typically the hardest to retain and are typically the lowest on the pay schedule, which may be a reason why they favor performance-based compensation and the additional compensation it may provide. Ingersoll (2004) found that over one-fourth of the teachers leave after the first year with almost 50% leaving before five years. Ingersoll also found that teachers in areas of high poverty and urban areas have an even more likely chance of quitting.

These findings and further research may be important for district leaders and building administrators to consider as they consider how to compensate teachers through performance-based pay options or other forms that may end up being more beneficial to their teaching staff from a career earnings standpoint.

Recommendations for Future Research

Recommendations for further research should be focused on advancing and learning further reasons behind the findings of this quantitative study. Several statistical findings of this

study found teachers with 0–5 years of experience to have significantly stronger feelings regarding the importance of collaborative feedback, pedagogy, professional development, and performance-based compensation on their ability to build their capacity and increase student achievement than do teachers with other experience levels. With the difficulty in retaining teachers in today's educational setting, these finding could be very beneficial to study in more detail, as it may allow district and building leaders to better prepare and support newer teachers as they enter the teaching profession, and determine if a differentiated evaluation system may be more impactful. Additional research on private school teachers may also be important. The findings of this study focused specifically on Indiana public school teachers; data from private schools may reveal results that support or refute the findings of this study and provide further data that could help districts evaluate and support their young teachers.

It may also be beneficial to perform a study which looks at more than just the four components of the teacher evaluation systems contained within this study. Teacher evaluation systems are typically large and complex processes. There may be other components that are important to implement in these systems to better evaluate and support teachers in building their capacity and increasing student achievement in their classroom.

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APPENDIX A: SURVEY INSTRUMENT: WITH EXPERTS REFERENCED

Collaborative Feedback (Likert Scale 1-6)

1. Collaborating with other teaching professionals about instructional strategies has substantially increased student achievement in my classroom. (Brookefield, 1995)
2. I consistently use information obtained through a classroom visit to improve my instruction. (Payne and Ruparelia, 2014)
3. Ideas received from administrators make my classroom substantially more effective. (Bell and Mladenovic, 2008)
4. My capacity as a classroom teacher has substantially increased due to educational discussions with colleagues. (Dufour, 2007)
5. Collaborating with other teaching professionals about classroom assessments has dramatically built my capacity as a classroom teacher. (Eri, 2014)
6. Evaluating and analyzing student work with other teaching professionals has been an extremely valuable process. (Knight, 2011)

Pedagogy

7. Discussions about standards and objectives and how they are properly used in a lesson is very important to increasing my capacity as a classroom teacher. (NIET, 2016)
8. Discussing how to effectively use thinking and problem-solving activities in the classroom is extremely important. (NIET, 2016)
9. Understanding effective questioning techniques and strategies will substantially help me become a better classroom teacher.
10. Learning techniques about managing student behavior can greatly increase my effectiveness as a classroom teacher.
11. Discussions about the effective grouping of students can substantially help the achievement of students in my classroom.
12. Learning how to effectively motivate students can significantly increase the achievement of students in my class.
13. Learning how to effectively provide feedback to students can increase considerably the effectiveness of my teaching.

Professional Development

14. Individualized professional development is a very important component in increasing my capacity as a teacher. (Maharaj, 2014)
15. Discussing teaching strategies obtained from peer's observation of your classroom is considered effective professional development. (Bayar, 2014)

16. Weekly professional development opportunities are substantially more helpful in building my capacity in the classroom than short one-time workshops. (Bayar, 2014)
17. Examining and reflecting on student data has substantially improved my teaching techniques.
18. Actively participating in professional development has much more effective than sitting and listening to a presentation. (Stewart, 2014)
19. Professional development that is followed up with support is considerably more beneficial in changing my classroom practices. (Maharaj, 2014)
20. Professional development that includes follow– up within a week helps me implement the strategy or ideas in my classroom much more effectively. (Stewart, 2014)

Performance-Based Compensation

21. Performance-based compensation substantially increased my effectiveness as a classroom teacher. (Knowledge Center, 2016)
22. Performance-based compensation has increased student achievement in my classroom. (Moran, 2010)
23. The attitude of teachers in my building improved due to performance-based compensation.
24. I choose attend more professional development opportunities due to performance-based compensation. (Stewart, 2014)
25. My collaboration with other teachers has notably increased due to performance-based compensation.
26. Performance-based compensation is an extremely important component in motivating teachers to work hard.
27. Performance-based compensation is a considerable motivation to stay in the teaching profession longer. (Knowledge center)

Demographics

28. Are you currently a classroom teacher in a public school in the state of Indiana?
    a. Yes
    b. No

29. How many years of experience do you possess as a classroom teacher?
    a. 0-5
    b. 6-10
    c. 11-15
    d. 16 or more

30. What grade level makes up the greatest percentage of your current teaching assignment?
    a. K-2
    b. 3-5
    c. 6-8
    d. 9-12

APPENDIX B: SURVEY INSTRUMENT WITHOUT EXPERTS REFERENCED

Collaborative Feedback (Likert Scale 1-6)

1. Collaborating with other teaching professionals about instructional strategies has substantially increased student achievement in my classroom.
2. I use information obtained through a classroom visit to improve my instruction.
3. Ideas received from administrators make my classroom substantially more effective.
4. My capacity as a classroom teacher has significantly increased due to educational discussions with colleagues.
5. Collaborating with other teaching professionals about classroom assessments has dramatically built my capacity as a classroom teacher.
6. Evaluating and analyzing student work with other teaching professionals has been an extremely valuable process.

Pedagogy

7. Discussions about standards and objectives and how they are properly used in a lesson is very important to increasing my capacity as a classroom teacher.
8. Discussing how to effectively use thinking and problem-solving activities in the classroom is extremely important.
9. Understanding effective questioning techniques and strategies will substantially help me become a better classroom teacher.
10. Learning techniques about managing student behavior can greatly increase my effectiveness as a classroom teacher.
11. Discussions about the effective grouping of students can substantially help the achievement of students in my classroom.
12. Learning how to effectively motivate students can substantially increase the achievement of students in my class.
13. Learning how to effectively provide feedback to students can increase considerably the effectiveness of my teaching.

Professional Development

14. Individualized professional development is a very important component in increasing my capacity as a teacher.
15. Discussing teaching strategies obtained from peer's observation of your classroom is considered effective professional development.
16. Weekly professional development opportunities are substantially more helpful in building my capacity in the classroom than short one-time workshops.

17. Examining and reflecting on student data has substantially improved my teaching techniques.
18. Actively participating in professional development is much more effective than sitting and listening to a presentation.
19. Professional development that is followed up with support is considerably more beneficial in changing my classroom practices.
20. Professional development that includes follow–up within a week helps me implement the strategy or ideas in my classroom much more effectively.

Performance Based Compensation

21. Performance-based compensation substantially increased my effectiveness as a classroom teacher.
22. Performance-based compensation has increased student achievement in my classroom.
23. The attitude of teachers in my building improved due to performance-based compensation.
24. I choose attend more professional development opportunities due to performance-based compensation.
25. My collaboration with other teachers has notably increased due to performance-based compensation.
26. Performance-based compensation is an extremely important component in motivating teachers to work hard.
27. Performance-based compensation is a considerable motivation to stay in the teaching profession longer.

Demographics

28. Are you currently a classroom teacher in a public school in the state of Indiana?
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29. How many years of experience do you possess as a classroom teacher?
    a. 0-5
    b. 6-10
    c. 11-15
    d. 16 or more

30. What grade level makes up the greatest percentage of your current teaching assignment?
    a. K-2
    b. 3-5
    c. 6-8
    d. 9-12

APPENDIX C: PUBLIC RECORDS REQUEST

Hello,

My name is Steven Bair and I am working on my dissertation at Indiana State University. As part of my research I am in need of a list of emails for Indiana's K-12 teachers. I appreciate your help with this effort.

Thank you!

Steve

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