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The Perceived Association of Merit Pay and Teacher Qualities in Two Middle Schools in a Southeastern State

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The Perceived Association of Merit Pay and Teacher Qualities in Two Middle Schools in
a Southeastern State

By
John Daniel Balls

A Dissertation Submitted to the
Gardner-Webb University School of Education
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Education

Gardner-Webb University
2013

Approval Page

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Abstract

The Perceived Association of Merit Pay and Teacher Qualities in Two Middle Schools in a Southeastern State. Balls, John Daniel, 2013, Dissertation, Gardner-Webb University, Databases/Internet/Media Selection/Merit Pay/Teacher Qualities

This dissertation determined the perceived association of merit pay and teacher qualities in the sample schools. The research focused on the association of merit pay and levels of teacher qualities and if a relationship exists between teacher performance-based compensation and teacher qualities/performance.

The indications and suggestions of this research were based on the data collected from surveys and interviews of teachers in the two sample schools on performance pay plans. This component of the study identified any perceived association of merit pay and teacher qualities. This information was corroborated with research collected on studies done on school systems that have adopted merit pay plans. Information was obtained from multi-question surveys from middle school teachers, open-ended questions, and interviews.

The results of this research indicated that there was a perceived association of merit pay and teacher qualities in these two sample middle schools. This association may lead to increased teacher efficacy and, ultimately, increased student achievement.

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Chapter 1: Introduction and Problem Statement

Now more than ever before, there is a growing interest in pay-for-performance systems (Ripley, 2010). This stems from an increasing recognition that some teachers are far more effective than others in raising student achievement and that teachers, like other workers, want to be rewarded for their efforts (Ripley, 2010). The first merit pay plan was introduced in 1908 in Newton, Massachusetts, but the 1980s represented the first time the nation called for teacher improvement through monetary incentives (Gratz, 2009). It has been referred to as pay for performance or just performance-based pay (Center for Teaching Quality [CTQ], 2007). This study will use these terms interchangeably. A number of school districts across the United States have experimented with performance-based pay with mixed results according to CTQ (2007). For decades, teachers have been paid based on their level of professional education and years of service (CTQ). There was little to no differentiation in pay for a teacher who consistently created a learning environment where students thrived academically (CTQ). Now some states and districts are moving to pay teachers based, in part, on the learning gains of their students, their acquisition of specific knowledge and skills other than traditional credentials and credits, or their willingness to take on added responsibilities or hard-to-fill assignments (Gratz, 2009). This move is motivated by the desire to improve student achievement and close the achievement gap among demographic groups of students (Gratz, 2009).

Merit pay for educators gained notable attention in 1983 with the release of the influential treatise, *A Nation at Risk*, followed by then-president Ronald Reagan's declaration that teachers should be paid on the basis of their merit and competence not their education levels or the number of years they have taught (Springer, 2009). In that

same year, a 21-member congressional task force focused on education and the pursuit of excellence, chaired by Representative Carl Perkins, publicly supported and encouraged experimentation with performance-based pay plans (Springer, 2009).

Purpose of Study

The study's purpose was to determine the perceived association of merit pay and teacher qualities in the sample schools. The research focused on the association of merit pay and levels of teacher qualities and if a relationship exists between teacher performance-based compensation and teacher performance.

Current Studies

The CTQ, headquartered in North Carolina, has researched performance pay for teachers and has stated that the U.S. public schools need a more nuanced approach to professional compensation, that is, an approach that acknowledges teaching quality as our best guarantee of student achievement (2007). James Stronge (2007) developed a framework for six broad teacher qualities that are directly linked to teacher effectiveness. The framework was based on research on teacher effectiveness where several hundred elementary and middle school teachers across the U.S. were studied. The research consisted of teacher and administrator surveys, focus groups, and student achievement. Student achievement was measured in terms of academic growth and overall proficiency. The study concluded that there were six qualities of effective teachers. These qualities include a number of indicators. The first quality is a set of prerequisites for effective teaching, including a teacher's educational background, professional preparation, verbal ability, content knowledge, educational coursework, and teacher certification. The second quality is teacher dispositions with a focus on teacher nonacademic interactions with students and their professional attitudes and beliefs. The next quality in Stronge's

framework is classroom management with the emphasis on establishing a classroom environment that is conducive to teaching and learning. The fourth quality is planning for instruction, including the practices of maximizing instructional time and communicating student expectations. The fifth quality is implementing instruction, including the practice of using instructional strategies according to student needs, challenging students to think critically, using questioning techniques, and supporting student engagement. Finally, the sixth quality is assessing student progress through homework and ongoing formative and summative assessments. This also included providing meaningful and timely feedback and applying the findings of student learning outcomes to improve instruction. Stronge identified outside his framework teacher attributes that included a willingness to collaborate on a regular basis, a commitment to reflection, and a self-imposed responsibility for the performance of each of the students in their classes and the overall performance of the school in building a learning culture.

In a study performed by the University of Tennessee's Value-Added Research and Assessment Center and published in the *Journal of Personnel Evaluation in Education* in 1997, differences in teacher efficacy were found to be the dominant factor affecting student academic achievement (Wright, Horn, & Sanders, 1997).

In addition to the focus of much of the research on student achievement with respect to the impact of incentive-based pay, there is the companion issue of the current level of teacher compensation (American Federation of Teachers [AFT], 2007). According to the AFT, average teacher pay in 2004 was \$51,009. That is contrasted with average pay for a software engineer of \$85,660, an architect of \$73,650, and an accountant of \$63,180. Between 2004 and 2007 for every real \$1 increase in average teacher pay, professional, scientific, and technical pay rose \$1.76 (AFT, 2007).

In response to lower pay, some school districts implemented bonus plans which were modest in the amount relative to the total teacher compensation to attempt to reward those teachers whose students excelled academically (Hess, 2004). Again, while some improvement was realized, the results were mixed. Most bonus plans paid up to approximately 10% of the base salary of the employee. For example, if a teacher's salary was \$50,000, the bonus would be \$5,000, for a total compensation of \$55,000. In 1994, 5.5% of traditional public school districts reported using pay incentives such as cash bonuses, salary increases, or additional salary steps to reward excellent teaching. Hess also stated that only five states in 1994 offered retention bonuses to keep teachers in high-need schools.

According to the Public Agenda (2004) study conducted in 2003 and published in 2004, the majority of teachers support differential pay (Public Agenda). The 2003 Public Agenda Survey of teachers found that 70% supported giving extra pay to teachers in struggling neighborhoods with low performing schools, 67% supported it for teachers who consistently work harder than other teachers, and 62% supported it for teachers who consistently receive outstanding evaluations from their principals. School districts frequently provide stipends for coaching or teaching English as a second language, yet they fail to reward those teachers who mentor colleagues, critique lesson plans, or otherwise work to make the school successful (Hess, 2004). The Public Agenda surveyed 1,345 public school teachers nationwide in the spring of 2003 about their views on unions and merit pay, as well as a number of other salient and contemporary topics (Public Agenda). The Public Agenda study also conducted focus groups to gain a greater understanding of the survey results. A more recent survey by Education Sector conducted in 2008 found that 80% of teachers "strongly" or "somewhat" favored

providing financial incentives to teachers who work in tough neighborhoods with low performing schools (Luebchow, 2008). This is an increase from the 70% of teachers in the 2003 Public Agenda survey (Luebchow, 2008). According to Luebchow (2008), differentiated pay is gaining popularity among education reformers and policymakers. Luebchow stated that the survey also found that 44% of the teachers favored financial incentives when it was based on improved reading levels, teacher evaluations, and classroom tests.

As stated previously, now more than ever before, there is a growing interest in pay-for-performance systems (Ripley, 2010). The reward is not only the additional monies but also the recognition that comes with the additional monies (Ripley, 2010). Ripley (2010) found in his studies, which included teacher surveys and conducting interviews, that bonus money is viewed as a barometer by the employees for measuring how well they performed, i.e., their overall effectiveness versus their colleagues and the entire school.

As a result of the desire to increase student achievement and being mindful of the studies on merit pay and with the support of U.S. Department of Education, at least 28 states have introduced legislation over the past 4 years focusing on implementing a compensation system based on student achievement and evaluations (Weldon, 2011). Single salary schedule has already been replaced in some states by performance pay plans (Weldon, 2011). Weldon (2011) noted that the disturbing issue of teacher turnover and pay levels is sparking interest in alternative compensation plans. According to Weldon, nearly 50% of all teachers leave the profession within 5 years. He cited the CTQ 2011 report that stated the time has come to differentiate among levels of effort and performance in teacher compensation.

Hess (2004) contended that if performance-based plans are sensible, it will send a key message about the organization's values, beliefs, and priorities. By adopting a more flexible system of rewarding teachers, it becomes part of the national dialogue and effort to move schools toward an accountability and competition model (Hess).

The U.S. Department of Education is weighing in on this drive toward greater accountability through its Race to the Top initiative (Duncan, 2009). This competition is pressing school districts throughout the country to raise academic standards and to, in part, evaluate teachers based on how much their students have learned (Duncan, 2009). While care must be taken on how the teacher evaluation instrument is constructed, it is an imperative in instituting school reform (Duncan, 2009).

Educational Challenges

Failure of American students to compete successfully on international tests, coupled with high dropout rates and significant achievement gaps among demographic groups, are the key challenges that frame the crisis in education in the United States (Organization for Economic Co-operation and Development [OECD], 2003). This failure contributes in a major way to too many students lacking the necessary 21st Century skills to compete in a globally-based and knowledge-based economy (OECD, 2003). The corollary to this phenomenon is the inability of American businesses to fill their skilled positions with students graduating from American schools (OECD, 2003). This has implications for the United States with respect to its ability to compete successfully globally (OECD, 2003). This sense of an impending crisis in education can be traced back to 1983 with the publishing of the document *A Nation at Risk* (National Commission on Excellence in Education, 1983). The Commission's findings paint a bleak picture of our educational institutions in terms of the quality of education. It speaks

of the rising tide of mediocrity and its implications on future generations (National Commission on Excellence in Education, 1983).

The National Academy of Sciences' (2007) Trends in International Mathematics and Science Study (TIMSS) concluded that the majority of the students in American schools are not performing at world class levels (Hershberg, 1997). The TIMSS study is based on the results of the performance of fourth- and eighth-grade students worldwide on a common assessment in science and math. TIMSS data were collected in 1995, 1999, 2003, and 2007. In 2011, more than 60 countries, including the United States, participated in TIMSS. In excess of 20,000 students in more than 1,000 schools across the United States have taken the assessment each year it has been offered (National Center for Education Statistics, 2011). Outside the United States, more than 500,000 students around the world have participated in the assessment (National Center for Education Statistics, 2011). A comparison and trend analysis (country to total) is performed on the results (National Center for Education Statistics, 2011). There has been slight improvement in scores for the U.S. over the last 10 years according to the National Center for Education Statistics (2011).

Another indicator of student performance is the high school graduation rate. The high school graduation rate in the United States, which hovers around the 70% to 75% range, lags significantly behind many of the industrialized countries such as Japan at 93%, according to the OECD (2003). For those high school graduates who choose to enter the workforce, nearly half are deficient in basic knowledge and applied skills according to a recent survey of some 400 employers (Partnership for 21st Century Skills, 2006). The evidence continues to mount that the challenges are growing daily and the product of our secondary education is not meeting the needs of our society nor is it ready

to tackle the global challenges of the 21st Century (Partnership for 21st Century Skills, 2006). Said another way, collectively, educators, elected officials, the business community, and parents/guardians are failing to produce a 21st Century educated young citizen (Partnership for 21st Century Skills, 2006).

A research study by Raj Chetty and John N. Friedman of Harvard and Jonah E. Rockoff of Columbia University tracking 2.5 million students over 20 years found that elementary and middle school teachers who aided students in raising their standardized test scores seemed to have a broad and lasting positive effect on those students' lives beyond academics (Lowrey, 2012). The study chronicled a number of benefits derived by those students such as greater college matriculation, higher adult earnings, and lower teenage pregnancy rates (Lowrey, 2012). According to Robert H. Meyer, director of the Value-Added Center at the University of Wisconsin-Madison which studies teacher measurement but was not involved in the Chetty et al. study, posited that test scores help people get more education and that more education has an earnings effect (Lowrey, 2012). He stated that the study skips the stages and shows that differences in teachers translate into differences in earnings (Lowrey, 2012). Eric Hanushek, a senior fellow at the Hoover Institution at Stanford University and longtime researcher of education policy, stated that what this research study and other such work show is that it is probably more important than people think (Lowrey, 2012). Hanushek further stated that the variations or differences between really good and really bad teachers have lifelong impacts on children (Lowrey, 2012). This conclusion was based on tracking students from elementary school through adulthood (Lowrey, 2012). The study is the most significant work to date on value-added ratings, which measured the impact individual teachers have on student test scores (Lowrey, 2012). By controlling for numerous factors

such as students' background, the economists, Chetty, Friedman, and Rockoff, "found that the value-added scores consistently identified some teachers as better than others" (Lowrey, 2012, p. 2). The economists, after categorizing teachers based on their students' test scores as excellent, average, and poor, "then set out to look at their students over the long term, analyzing information on earnings, college matriculation, the age they had children, and where they ended up living" (Lowrey, 2012, p. 2).

Professor Friedman, a co-author of the study, stated that if you leave a low value-added teacher in your school for 10 years rather than replacing him/her with an average teacher, you are hypothetically talking about \$2.5 million in lost income (Lowrey, 2012). The authors argue that school districts should use value-added measures in evaluations and remove the lowest performers despite the potential disruption and uncertainty involved (Lowrey, 2012). Furthermore, the researchers found that the value-added scores consistently identified some teachers as better than others based on student academic outcomes, even if individual teachers' value-added scores varied from year to year (Lowrey, 2012). The authors implied that teacher qualities are an integral part of the value-added calculation. Teacher qualities such as teacher collaboration, reflection, and high expectations for themselves and their students are a few of the ones frequently referred to in the various studies (Lowrey, 2012). Many other researchers and school administrators say that even if imperfect, well calculated value-added scores are an important part of evaluating teachers (Lowrey, 2012).

There have been a plethora of reform initiatives targeted at increasing student achievement over the years (Gratz, 2009). Many of these initiatives have focused on curriculum and teaching strategies (Gratz, 2009). A recent McKinsey & Company (2007) study of the 25 highest performing school systems in the world concluded that the

experiences of these top school systems suggest that three things matter: finding the right people to become teachers, molding them into efficacious instructors, and ensuring that the district/school is capable and ready to deliver the most effective instruction for every child (McKinsey & Company).

McKinsey & Company (2007) proffered the position that securing the right people to become teachers was essential to student achievement. Using a methodical approach in hiring teachers which includes an extensive interview process and one where the candidate can demonstrate proficiency and efficacy was critical (McKinsey & Company). The process might include teaching a class or two as a form of demonstration. For McKinsey & Company's second key observation, productive professional development along with teacher mentors and honest assessments of performance are key ingredients in the molding process. Finally, McKinsey & Company stated that the district/school creates an environment which is conducive to student learning and achievement. There are many components that will contribute to establishing that climate of learning, including adequacy of budgets (McKinsey & Company).

McKinsey & Company's (2007) findings and assertions are not surprising. It is often cited that the teacher has the greatest impact on student achievement (Stronge, Gareis, & Little, 2006). That is, teacher quality is a major contributor to student academic growth and achievement (OECD, 2003). Everything from teacher preparation programs to professional development has been studied and scrutinized spawning many reform initiatives addressing identified inadequacies (OECD, 2003). Proponents of performance pay believe schools that are in crisis often support direct links between student results (test scores) and teacher compensation (Gratz, 2009).

With more than 20 states currently involved in or having proposed or legislated performance pay plans, these initiatives are based on the following assumptions:

- Schools are in a crisis as shown by declining test scores and inferior performance relative to other countries on international tests as noted earlier in this chapter.
- A close causal connection exists between public school effectiveness and the U.S. economy. The country's economic success and confidence are in jeopardy because of the crisis in the schools.
- A close causal connection also exists between student success in school and their economic well-being following school. Student economic success is in jeopardy because of the crisis in the schools.
- Economic success for individual students and for the country is a primary purpose for education.
- Test scores represent student achievement and teacher performance with sufficient accuracy to serve as the basis for public policy decisions.
- The need for more teachers and more qualified teachers is increasing because of retirement, the number of teachers who leave in the first few years, the increasing demands of the job, and the low qualifications of some who choose to enter the profession.
- Teachers will do better if sufficiently motivated. (Gratz, 2009, p. 27)

Gratz (2009) stated that these assumptions, "while flawed, still serve as the logic base for performance pay" (p. 27). Gratz's assumptions provided an indication that there is a linkage between student success in school and their future success, as well as a linkage between student success in school and teacher effectiveness.

In light of the crisis in education as stipulated above and the central role teachers possess with respect to student academic growth and achievement, this study focused on teacher qualities and the impact of merit pay on teacher qualities that may lead to teacher efficacy. The theoretical framework for this study begins with the assumption that the teacher is central to student academic growth and achievement (Stronge et al., 2006). The purpose of the study was to determine the perceived association of merit pay and teacher qualities in the sample schools. The research focused on the association of merit pay and the level of teacher qualities and if a relationship exists between teacher performance-based compensation and teacher performance.

Teacher Qualities

Based on the findings from the literature review, this study focused on four teacher qualities: collaboration; positive attitude toward planning, implementation and assessment; reflection; and creating a climate, a culture conducive to maximizing one's overall effectiveness. The research design included surveying teachers who were currently on a merit pay plan and conducting interviews of teachers. The theoretical framework for this study began with the assumption that the teacher is central to student academic growth and achievement (Stronge et al., 2006). The research questions focused on ascertaining the perceived association of merit pay and teacher qualities.

Research Questions

The following research questions were posed:

1. What is the perceived association of merit pay and teacher collaboration?
2. What is the perceived association of merit pay and teacher practices with respect to planning, implementing, and assessing instruction?
3. What is the perceived association of merit pay and teacher reflection?

4. How has merit pay affected the overall learning culture?

There were a few limitations to this research study. The researcher collected data from two school districts in the southeastern region. Even though the study was augmented by previous research from other school districts, the conclusions cannot be generalized. The study may be further enhanced at a later point in time by including more school districts with a broader geographic profile. The study may have even more significance if the schools had been on merit pay for longer periods of time than a few years (Gratz, 2009).

Research has established that there is a direct link between teacher qualities and teacher efficacy and desirable student performance (Good & Brophy, 1997). Good and Brophy (1997) have identified a number of teacher qualities that exhibit a positive relationship between teacher qualities and teacher efficacy and ultimately, student performance. Collinson (1996) queried outstanding teachers to identify characteristics of effective teachers. The teacher responses were categorized into three main knowledge dimensions. These dimensions were professional, interpersonal, and intrapersonal. Professional knowledge consisted of a disposition toward continuous learning, curiosity, creativity, flexibility, and pride in their effort (Collinson). The interpersonal knowledge consisted of a disposition toward reflection, respect for self, collaboration, and courage (Collinson). In the category of intrapersonal knowledge, the disposition was toward care, compassion, and respect for others (Collinson). Additionally, according to The National Council for Accreditation of Teacher Education (NCATE), a national organization that confers professional accreditation to schools, colleges, and universities, professional dispositions are integral to their standards (Hallam, 2009). The National Network for the Study of Educator Dispositions (NNSSED) stated that there is research that dates back

more than 50 years that shows there are dispositions and teacher qualities that have a positive effect on student success (Hallam, 2009).

In summary, given the current state of education in the United States and the resulting consequences of an ill-prepared population to meet the challenges of a dynamic, global economy, identifying the key lever to change the direction of the curve is imperative. Based on the research noted above, the teacher has been identified as the major contributor in student academic growth and achievement (Stronge et al., 2006). Teacher qualities are a major determinant in teacher efficacy (Gratz, 2009). By impacting teacher qualities (elevating to an accomplished level), the distinct prospect of increasing student academic growth and achievement is real (Gratz, 2009). The level of teacher compensation and the need for increased student performance creates a perfect storm for differentiated pay plans (Weldon, 2011). The study was not without limitations given the complexity and scope. These are addressed in Chapter 5.

Chapter 2: Literature Review

The purpose of this study was to examine the perceived association of merit pay and teacher qualities. This chapter presents a review of literature related to the association of merit pay, also referred to performance-based pay or pay-for-performance plans and teacher qualities. The researcher reviewed the many studies in this chapter that were conducted addressing the association of merit pay and teacher qualities.

This study focused on identifying any association of enhanced or elevated teacher qualities as a result of the existence of a merit pay/performance-based compensation plan. With identification and definition of specific teacher qualities (e.g., reflection, planning, and collaboration) a thematic analysis was performed.

As noted in Chapter 1, the theoretical framework for this study began with the assumption that the teacher is central to student academic growth and achievement (Stronge et al., 2006). According to a study performed by the University of Tennessee's Value-Added Research and Assessment Center and published in the *Journal of Personnel Evaluation in Education* in 1997, differences in teacher efficacy were found to be the dominant factor affecting student academic achievement (Wright et al., 1997). Statistical analyses were performed based on a subset of data from the 1994 and 1995 Tennessee Comprehensive Assessment Program (TCAP) scores. TCAP tests are given each spring to all students in Tennessee in Grades 2-8, measuring academic achievement. The study focused on students in Grades 3-5 across five subject areas: math, reading, language, social studies, and science (Wright et al., 1997). The analyses reported in the study were based on student academic gain as defined by the student's scale score current year minus that same scale score in the prior year (Wright et al., 1997). There were 30 separate

analyses performed and each of the 15 subject-grade combinations were analyzed separately (Wright et al., 1997). There were two sets of school systems involved in the study. One set consisted of 30 east Tennessee school systems and the other consisted of 24 middle Tennessee school systems (Wright et al., 1997). The study's authors concluded that teachers have far more to do with the academic progress than does the method used for assignment of children to teachers. The contention that high academic gains are more likely to be produced in highly homogeneous classrooms is not supported by the findings of the authors' research (Wright et al., 1997). Wright et al. postulated that neither is the corollary that teachers with highly heterogeneous classrooms should not be expected to make those gains.

Goldhaber (2009) stipulated that research shows that teachers are responsive to monetary incentives. Goldhaber cited several studies to support the stipulation including one from The Center for the Future of Teaching and Learning. In that study, *The Status of the Teaching Profession*, which was published in 1999, teachers (current and former) in California were surveyed after a simplified bonus program was implemented (Goldhaber). The bonus program rewarded teachers for accepting assignments in high poverty schools and for serving as mentors (Goldhaber). Bonuses were also paid for critical subject areas such as science and math (Goldhaber). The overwhelming majority of the teachers, according to the study conclusions, stated that incentive pay was a major factor in the teachers' decision-making processes (Goldhaber).

Merit Pay Plan Studies

There have been a number of educational organizations that have studied merit pay plans. The Community Training & Assistance Center (CTAC) has been involved in system-wide improvement initiatives focused primarily, but not exclusively, on large,

urban school districts (Gratz, 2009). CTAC was contracted in 1999 by the Denver Public Schools and the Denver Classroom Teachers Association to provide technical assistance in their pay-for-performance pilot program and to study its impact and results (Gratz, 2009). Subsequently, CTAC has worked with Charlotte-Mecklenburg Schools and Duval County in Florida on similar studies related to performance pay plans. One of CTAC's guiding principles is that performance pay should be a component of a reform initiative (Gratz, 2009). Changes in compensation can be an important and critical component of a school system's overall improvement strategy and can serve, as in Denver, as a catalyst for change (Gratz, 2009). The study's research has been primarily based on the National Institute for Effectiveness in Teaching's work on the topic of merit pay and its impact on teachers and student outcomes (NIET, 2005). NIET (2005) developed the Teacher Advancement Program (TAP) in 1999 to attract, develop, motivate, and retain high quality teachers. According to recent records, NIET, through TAP, has worked with 5,000 schools since its inception (Gratz, 2009). TAP is a performance-based compensation plan which provides bonuses to teachers based on the results of their evaluations and the success of students in the classroom (Gratz, 2009).

Teachers are compensated differently based on the increased demands of the positions they hold, how well they perform those positions, the quality of their instructional performance, and by the students' academic growth (Gratz, 2009). Salary is determined by more than simply years of teaching experience and training credits (Gratz, 2009). All teachers in the unit (district, school) are eligible for financial awards based on these factors (NIET, 2005).

Buddin, McCaffrey, Kirby, and Xia (2007) have studied the implementation of performance pay plan in Florida. Florida has enacted a plan to reward teachers based on

their classroom performance, as measured on standardized student achievement tests and principal evaluations (Buddin et al.). This merit pay initiative is designed to provide a financial incentive for teachers to improve student outcomes, to encourage the retention of proficient teachers, and to attract highly skilled individuals to the teaching profession (Buddin et al.). The design and implementation of merit pay faces several key challenges. First, student outcomes are difficult to define and measure (Buddin et al.). Second, the contributions of individual teachers to student outcomes are difficult to disentangle from student background and prior achievement (Buddin et al.). The analysis shows serious deficiencies in several measures of teacher performance (Buddin et al.). Policymakers should be wary of adapting any measure without careful analysis of its properties and a plan to monitor how it is performing (Buddin et al.). The key issue is whether the incentive and sorting effects of an admittedly imperfect merit pay system can improve the quality of the teacher workforce (Buddin et al.).

Alternative Theories

There are alternative theories on the impact of merit pay on teacher performance. According to National Center on Performance Incentives (NCPI) at Vanderbilt University, rewarding teachers with bonus pay, in the absence of any other support programs, does not raise student test scores (Moran, 2010). The NCPI study published in 2010 tested the most basic and fundamental question related to performance incentives; that is, ascertaining whether bonus pay alone improves student outcomes (Moran, 2010). Matthew Springer, assistant professor at Peabody College at Vanderbilt University stated that the findings were that bonus pay did not improve student outcomes by itself (Moran, 2010); that is, there are a number of other factors such as teacher dispositions, professional development, collaboration, reflection, and teacher planning that enter into

improving student outcomes (Moran, 2010). Springer's assertion was based on research performed by the Project on Incentives in Teaching (POINT) (Moran, 2010).

The POINT experiment was conducted over a 3 school-year period from 2007 through 2009 (Moran, 2010). The target population was mathematics teachers in Grades 5-8 in Metropolitan Nashville Public Schools (Moran, 2010). Approximately 300 teachers, nearly 70% of all middle school math teachers in Nashville's public schools, volunteered to participate (Moran, 2010).

The POINT experiment, supported by Vanderbilt University and RAND, assigned 50% of the 300 teachers to a treatment group in which they were eligible for bonuses of up to \$15,000 per year on the basis of their students' test score gains on the Tennessee Comprehensive Assessment Program (TCAP) (Moran, 2010). The other 50% of the teachers were assigned to a control group not eligible for these bonuses (Moran, 2010). Teachers were evaluated based on an historical performance benchmark as opposed to relative comparison to their fellow teachers (Moran, 2010). It was noted that teacher attrition occurred during the experimental period (Moran, 2010). Almost 50% of the teachers who initially volunteered remained through the entire 3-year period (Moran, 2010). While the researchers concluded there was no overall effect on student achievement across the entire treatment group, they did find a significant benefit for fifth graders in year 2 and year 3 of the experiment (Moran, 2010). The conclusion of the researchers was that fifth graders taught by teachers who earned bonuses did, in fact, show substantial gains in test scores (Moran, 2010). The report's authors stress that more research is needed to determine whether different approaches that link teacher performance to pay or additional training could help boost student achievement (Moran, 2010).

The 3-year study (2007-2009) of Grades 5-8 in the Nashville public school system found math students whose teachers were eligible for bonuses averaging around \$10,000 and up to \$15,000 did not outperform students of ineligible teachers in a control group (Moran, 2010). In surveys about the program, most teachers said they were already effective without the incentive of additional pay. The majority said they did not change the way they taught to improve their odds of earning a bonus (Connell, 2010). However, the Nashville math teachers expressed moderately favorable views toward performance pay in general (Moran, 2010).

The RAND Corporation, partner in the POINT study, highlighted in their analysis of the results that teachers favored merit pay in principle for becoming a better teacher. It further stipulated, based on study results, that teachers supported a merit system which rewarded teachers in teams or to combine incentives with coaching and/or professional development (RAND Education, 2010).

Value-Added Approach

According to Stronge et al. (2006), many of the evolving merit pay models utilize a value-added approach, assessing student gains or growth over a period of time rather than an absolute student score in a given year. The value-added approach takes into consideration other factors such as student growth as noted above, teacher collaboration, professional development, and self-reflection. Furthermore, Odden (2000) listed as an advantage of performance-based pay models the monitoring of student progress and the support from experts, including colleagues in the form of collaboration and reflection, in promoting student achievement, student academic growth, and creating a learning culture. Sanders and Horn (1998), in an article in the *Journal of Personnel Evaluation in Education*, concluded from the findings of the Tennessee Value-Added Assessment

System (TVAAS) database that performance-based pay models promote collaborative efforts in meeting individual and school goals. TVAAS is the official database for Tennessee's Department of Education and it measures student academic growth from year to year.

Stronge et al. (2006) identified three assumptions in responding to the questions (1) what do we desire to accomplish in a compensation system, and (2) what are the characteristics of a compensation system that will deliver on the desired result. The three assumptions are that teacher quality leads to student learning, money matters, and compensation is not an end game; rather, it is integral to attracting, developing, and retaining effective teachers (Stronge et al., 2006, p. 104). It is a long-term, continuous proposition. These assumptions were derived from research conducted by Stronge and chronicled in his book *Qualities of Effective Teachers* published in 2002 (Stronge et al., 2006). This research was corroborated by the study conducted by Sanders and Horn and published in 1998 (Stronge et al., 2006).

Hill, Kapitula, and Umland (2011) argued for the need for more extensive research in this area given the widespread use of value-added scores for measuring teacher performance as well as serving as a component in some merit pay compensation plans.

Compensation Reform

It is noted that performance pay in any industry presumes a common and understandable definition of performance as well as how to measure it and an agreement among the parties involved on these definitions (Gratz, 2009). The researcher took precautions to ensure the definitions used in studies were consistent wherever possible.

In August 2009, during the pilot phase of implementing a performance-based compensation plan in the Austin Independent School District (AISD) in Austin, Texas,

the National Center on Performance Incentives conducted a study entitled *An Interim Evaluation of Teacher and Principal Experiences* (Burns, Gardner, & Meeuwsen, 2009). The study highlighted several factors with respect to performance-based pay and provided findings and offered recommendations. The study was guided by three project questions: (1) what are the AISD teacher attitudes toward pay for performance in general, (2) what are AISD teacher attitudes toward the strategic compensation plan components, and (3) what are teacher and principal perceptions of the implementation of AISD strategic compensation plan (Burns et al., 2009).

The study was based on multiple collection efforts including teacher surveys and interviews with both principals and teachers (Burns et al., 2009). Analyses of these data revealed the following key findings: (1) teachers were most supportive of market-based measures such as hard-to-staff schools. They also supported strongly outcome-based measures, particularly those based on student growth; (2) teachers supported pay for performance; (3) teachers felt that the performance pay plan will help with teacher recruitment of better qualified personnel and aid in retention as well; (4) teachers indicated through surveys and interviews that performance pay served to improve collaboration and reflection; and (5) teachers responded that with a performance pay plan, teacher preparation improved (Burns et al., 2009, pp. 1-2).

The study identified three key factors driving compensation reform initiatives (Burns et al., 2009). They were improving existing pay structures to reward effective practice, improving teacher quality, and improving student achievement. The study recognized that pay-for-performance plans are attracting a significant amount of attention as evidenced by the development of several programs across the country (Burns et al., 2009). Furthermore, the study found that high school teachers were more supportive of

pay for performance than elementary teachers (Burns et al., 2009). Also, it found that males were more supportive of performance-based plans than females (Burns et al., 2009). Teachers were supportive of the mentoring and the professional development components. Teachers overwhelmingly support a stipend (bonus) tied to student learning objectives (SLOs). According to one teacher, it helped her and her department target the objectives that addressed the greatest need in order to improve student performance across the board (Burns et al., 2009). Goldhaber, DeArmond, and DeBurgomaster (2007) found that secondary school teachers were more supportive of merit pay and subject area bonuses than primary school teachers. The study findings suggest that compensation reform should begin with the most popular approach which is extra pay for difficult working conditions (Goldhaber et al., 2007).

There are a variety of models that have been implemented or are in the process of being implemented. Some are strictly bonus-based systems, while others include a reduced base salary with a large incentive component (Stronge et al., 2006). According to Odden, Kellor, Heneman, and Milanowski (1999), evaluations of existing performance-based compensation plans indicate that teachers and administrators view both student learning and bonuses as positive outcomes of programs and do not see them in conflict with one another. They believe the theories of motivation acknowledge both extrinsic and intrinsic rewards as forms of extrinsic motivation because both provide desired consequences (Odden et al.). Pink (2009) described a Type I behavior which is aligned with intrinsic motivation. Intrinsic motivation comes from within. It is self-directed. Pink further postulated that Type I behavior depends on three nourishing ingredients: autonomy, mastery, and purpose. Type I behavior is self-sustaining, and it engenders the quest for excellence (Pink). Type I behavior is that inherent drive, a

renewable resource providing the energy to always do your best (Pink).

Perceived Advantages of a Merit Pay Approach

Kelley, Heneman, and Milanowski (2000) identified seven key advantages of performance-based pay models: (1) focuses on outcomes and accountability, (2) promotes monitoring of student progress, (3) focuses on improving student achievement and high expectations, (4) support from experts in the field of teacher compensation, (5) promotes a collaborative effort toward goals, (6) recognizes the additive effect of years of education, and (7) allows for recognition of outstanding teachers. Kelley et al. referred to any of these advantages as creating a school culture of learning with high expectations for teachers and students alike.

Stronge et al. (2006) identified in their study four advantages of a merit pay compensation model: focuses on outcomes, focuses on accountability, promotes monitoring of student progress, and focuses on improving student achievement and support from experts in the field of teacher compensation.

Perceived Disadvantages of a Merit Pay Approach

Sanders and Horn (1998) identified six disadvantages based on their studies: (1) determining fair assessments, (2) test stress, (3) linking teacher effort to student performance, (4) haves and have nots (equitable resources), (5) quotas, and (6) cumbersome assessment system. On fair assessments, Sanders and Horn found that finding an assessment or assessments that represent an accurate evaluation of a teacher's performance and their effectiveness was not a simple process. It was, in fact, complicated and too often very subjective. Test stress for teachers and students was mentioned frequently in their research which consisted of surveys and interviews of teachers and students. The issue of adequacy of resources at the school and district level

was identified as factor which surfaced throughout their study as a negative impediment to performance-based pay models (Sanders & Horn). Tying all the factors together to account for each one creates the need for a complex, comprehensive system and cumbersome system according to Sanders and Horn.

Linkage to Teacher Effectiveness

Performance-based pay models generate excitement and motivation to do your best, at least temporarily if not for a longer term (Kelley et al., 2000). Embracing high expectations, dedication to self-reflection, and eagerly engaging in collaborative activities are teacher qualities that have been affected by performance-based pay models (Kelley et al., 2000). Performance-based pay models are predicated on the notion that the mission, goals, and major focus across school programs should be geared to improving student achievement (Stronge et al., 2006). Their research identified as an advantage of a merit pay model the linking of teacher qualities to teacher effectiveness and a culture of learning in the school (Stronge et al., 2006). According to Stronge et al. (2006), teacher compensation should be linked to meeting the goal of student achievement as well as increasing teacher efficacy and the overall learning culture.

Performance-based pay models have at their core that teacher quality is primarily demonstrated through teacher efficacy and student achievement (Stronge et al., 2006). Stronge et al. (2006) research links teacher qualities to teacher effectiveness. The research to support the linkage consisted of teacher and administrator surveys, interviews, and observations as well as collecting and analyzing, through the use of statistical measures such as a correlation analysis, student outcomes in the form of student academic growth and overall student proficiency over a 3-year period (Stronge et al.).

Teacher efficacy encompasses many factors such as teacher preparation and

implementation of effective instructional delivery, high expectations, content knowledge, self-reflection, and the ability to relate to and inspire students to achieve (Stronge et al., 2006). Incentive compensation plans serve as a stimulus for teachers in their pursuit of continuous improvement driving toward self-efficacy (Stronge et al., 2006). Stronge et al. (2006) indicated that based on research there is a linkage between a positive attitude toward reflection, collaboration, creating high expectations for teachers as well as students, and teacher efficacy.

Teacher qualities play a vital role in teacher efficacy (Hallam, 2009). Hallam (2009) studied student success, as defined by positive student outcomes, and the role of the teacher. Collaboration along with several other key teacher qualities is critical to increasing and sustaining teacher effectiveness (Hallam). In the article, Hallam referenced the work of Mark Wasicsko, director of the National Network for the Study of Educator Dispositions. According to Wasicsko, effective teacher qualities can be organized into four measurable domains (Hallam). The four domains cited are the most effective teachers perceive themselves as effective, they believe that all students can learn, they have a broad frame of reference and see a larger purpose for what they do, and they look at the people element (Hallam, p. 27).

Incentivizing teachers through pay-for-performance plans impact both teacher qualities and their attitudes, thereby impacting teacher efficacy (Stronge et al., 2006). Stronge et al. (2006) pointed out that the individual evaluation or merit pay plans are based on a fundamental assumption that good teaching can be defined, observed, and measured objectively. Research and development efforts are quickly moving toward defining the elements that comprise solid teaching (Stronge et al.). This offers the opportunity to more objectively evaluate and pay based on teacher effectiveness (Stronge

et al.).

Varied Approaches

Many of the emerging performance-based pay plans use a value-added approach, assessing student academic growth over a specified period of time rather than criterion-based performance, thereby addressing the concerns with respect to the influence of individual teachers as opposed to collective influence over time (Stronge et al., 2006). The value-added approach is multi-faceted. The comprehensive aspect of the value-added approach lends itself to defining specific criteria and measures, many of which are objective in nature (Odden, 2000). Recommendations for performance-based pay plans include objectives to be achieved, how they will be measured, weightings, and the amount of monies attached to each (Odden, 2000). The value-added methodology was pioneered by William Sanders in his work on the Education Value-Added Assessment System (EVAAS) using statistical methodology to enable a multi-variable analysis of student scale scores (Stronge, 2010). Today, EVAAS is used in many school districts in the U.S. to examine the effectiveness of school systems, schools, and, ultimately, teachers in measuring students' academic gains (Stronge, 2010).

The Douglas County Public Schools (DCPS) in Colorado has been identified as an example of a successful implementation of a comprehensive compensation plan (Stronge et al., 2006). DCPS teachers who have received positive evaluations over a specified period of time are eligible for the designation of master teacher (Stronge et al., 2006). This is based on evidence of student academic growth and achievement, and evidence of quality in leadership, recognition, collaboration, setting high expectations, self-reflection, creativity, and innovation. The master teacher designation lasts for 5 years and is tied to a bonus plan (Stronge et al., 2006). DCPS incorporated performance-

based pay into their comprehensive compensation plan and based it on achievement of specified goals for student academic achievement and student academic growth. The bonuses were available to groups of teachers on a voluntary basis rather than individual teachers (Stronge et al., 2006). Additionally, the DCPS compensation plan incorporated individual evaluation pay as a component of base salary with options for salary increases linked to evaluation (Stronge et al., 2006). Teachers are rated as proficient or unsatisfactory (Stronge et al., 2006). The proficient teachers receive an annual salary increase while unsatisfactory teachers do not (Stronge et al., 2006). Teachers may apply for a higher designation than master teacher. That higher level is termed the Outstanding Teacher Program which consists of the submission and review of an Outstanding Teacher Portfolio. The portfolio includes artifacts from classroom practice and the teacher's reflection on three evaluation categories: assessment and instruction, content and pedagogy, and collaboration and partnership. Additionally, the teacher is obliged to submit artifacts on reflections as they relate to client surveys and philosophies of education (Stronge et al., 2006).

The Denver Public Schools (DPS), in Denver Colorado, have developed a compensation plan centered around individual evaluation pay coupled with other key components linked to teacher efficacy (Joint Task Force on Teacher Compensation, 2004). DPS, after reviewing and analyzing data from a 4-year pilot program (1999-2003) on pay for performance, also referred to as a merit-based pay plan, developed and instituted a more comprehensive pay plan/model that provides for additional compensation for teachers based on student academic growth, periodic evaluations, developing and demonstrating knowledge and skills, and overall market demands (Joint Task Force on Teacher Compensation, 2004). The Denver pay-for-performance plan

focuses on the teacher level for student achievement and student academic growth. Teachers work with their administrator to identify two student growth objectives that are linked to a formative assessment, establishing a baseline for the students and summative assessments for determining student growth (Joint Task Force on Teacher Compensation, 2004). This differs with some of the other plans such as Tennessee and Douglas County in that the DPS plan is not tied to state assessment results. The DPS plan was supported by the DPS leadership and approved by the Denver Classroom Teachers Association membership (Stronge et al., 2006). In 2005, Denver voters approved a \$25 million allotment to pay for the new performance-based compensation plan. DPS pointed to a national public opinion poll in November 2004 where more than 70% of the general public supported the need to change the way teachers were paid. The general public in this same national poll did not favor increasing teacher salaries across the board by a 60% to 40% margin. Respondents favored increased pay for teachers in hard to fill subject areas, teachers who demonstrated gains in student academic performance, and teachers who work in high-poverty schools (Keller, 2005).

The state of Florida has implemented a performance-based compensation plan (Florida Department of Education, 2005). Florida has provided the local districts the flexibility in implementing the plan (Florida Department of Education, 2005). Bonus monies are allocated to the school districts based on student enrollment (Florida Department of Education, 2005). The local school districts use school staff and advisory councils at the district or school level to allocate these funds (Florida Department of Education, 2005). The state-wide program, School Recognition Program, authorizes the release of these funds based on achievement of the state-determined “A” level of performance or through improvement of at least one performance grade (Florida

Department of Education, 2005). The local school district and/or the local schools within the district allocate bonuses based on student academic growth, student achievement, evidence of teacher collaboration, evidence of teacher reflection, evidence of establishing high expectations, attendance, and use of professional development (Florida Department of Education, 2005).

A charter school in Los Angeles, Vaughn Next Century Learning Center, has implemented a performance-based compensation plan (Vaughn Next Century Learning Center, 2012). The school developed a set of teaching standards around specific subject areas, lesson planning, teacher qualities, and classroom management (Vaughn Next Century Learning Center, 2012). Vaughn utilized a base pay model with additional compensation for graduate degrees coupled with bonuses based on the performance review (Vaughn Next Century Learning Center, 2012). The performance review includes goals tied to student academic growth, student attendance, discipline, parental involvement, collaboration, planning, and extra duties. Teachers rate their own performance using established rubrics, and they are observed by their peers (trained reviewers) and instructional coordinators at least three times per year (Stronge et al., 2006). Vaughn administrators weigh heavily any and all feedback, monitor progress, furnish mentors for less experienced teachers, and provide individualized staff development based on teacher performance reviews (Stronge et al., 2006).

The Houston Independent School District, in Houston, Texas, has implemented its ASPIRE Awards Model. The purpose of the ASPIRE Awards Model is designed to reward teachers for their efforts in improving the academic growth of all of their students (Research and Accountability, 2007). The ASPIRE Awards model employs a value-added methodology that provides teachers with the necessary information to facilitate

student progress and the means of assessing the effectiveness at the student, classroom, and school-wide levels. The ASPIRE Awards Model is dedicated to achieving five specific goals (Research and Accountability, 2007). These goals are to promote retention of highly effective teachers; provide incentive for highly qualified teachers to work at economically disadvantaged schools; advance efforts to ensure stability at high academically performing schools; encourage collaboration and cooperation between teachers, especially new teachers with highly qualified teachers; and finally, recognize and reward exceptional student academic progress at the school and classroom levels (Research and Accountability, 2007). The ASPIRE Awards Model is based on five key tenets (Research and Accountability, 2007, p. 1): performance pay drives academic performance, good teaching occurs in all schools, teamwork is valuable, performance pay does not replace a competitive salary, and performance pay plans are dynamic and evolve over time (Research and Accountability, 2007, p. 1). The tenets were identified based on a combination of secondary research from a variety of sources and the anecdotal evidence such as simple observations and conversations with educators across the Houston Independent School District (Research and Accountability, 2007).

There are three critical elements of the ASPIRE Awards Model: (1) Strand I (Value-added School-wide Improvement) would pay all instructional and non-instructional staff based on student improvement at the school level. A value-added school-wide composite gain score will be calculated across all grades and all subjects; (2) Strand II (Value-added Core Teacher Performance) would pay individual teachers based on value-added student progress by academic subject; and (3) Strand III (School Improvement and Achievement) rewards all instructional staff at the school level based on how well the school has improved when compared with other schools with similar

demographics around the state (Research and Accountability, 2007). Another component of this strand rewards all instructional staff at schools that achieve or maintain state accountability ratings of Exemplary or Recognized (Research and Accountability, 2007). The Jefferson County Kentucky School Board announced an unprecedented action, choosing to reform four failing schools by implementing a form of merit pay for teachers at those schools (WLKY.com, 2012). Entitled the transformation model, the focus will be on rewarding teachers based on the performance of their students. Each school will draft a plan for evaluating and rewarding teachers based on student academic growth and overall achievement. They will be rated from exemplary to ineffective. Good to exemplary teachers will receive incentives while low-performing teachers could be removed (WLKY.com, 2012). It represents the first time the local school board has not chosen to re-staff teachers at failing schools in Jefferson County. The school board is committed to the approach of transforming from within and has embraced the belief that monetary incentives for those teachers who are effective is the best way to effect change (WLKY.com, 2012).

In Pittsburgh, Pennsylvania, the school district has created the Promise Readiness Corps which is one element of a new and innovative approach to overhauling the way the district hires, trains, evaluates, pays, and dismisses teachers (Journal Sentinel, 2010). The performance-based pay plan for incoming teachers whose students learn/achieve, on average, at 1.3 times their grade level can earn up to \$100,000 a year within 7 years of being hired (Journal Sentinel, 2010). A few of the highlights of the Pittsburgh plan begin with basing teacher pay on multiple measures such as student test scores, a school's overall success meeting yearly benchmarks for educational progress set by the federal government, and teacher performance evaluations containing objectives on teacher

collaboration, setting high expectations, and evidence of self-reflection (Journal Sentinel, 2010, p. 5). Student assessment results will support the attainment of the objectives. Another highlight of the plan is a stronger teacher evaluation system, which deploys teams of teachers and administrators in daylong visits to schools within the district every 2 weeks to analyze teacher performance. The plan also stipulates that new teachers participate in the performance pay system, though it remains voluntary for veteran teachers at this point in time (Journal Sentinel, 2010). The plan includes a two-tiered pay system consisting of a base salary and, if qualified, a bonus payment (Journal Sentinel, 2010). Finally, teachers can earn additional pay by assuming various leadership roles within the schools, such as serving on the Promise Readiness Corps, teacher leadership cabinets that meet weekly to craft school policy, school improvement team committee chairperson, lead teacher, or mentor (Journal Sentinel, 2010).

These reforms are collectively part of its Empowering Effective Teachers plan that the school district has submitted to the Gates Foundation (Journal Sentinel, 2010). It was awarded a \$40 million grant for which the district was obligated to secure matching funds from other sources (Journal Sentinel, 2010). The plan was a collaborative effort between the school district and its teacher union. It was incorporated into the latest labor contract (Journal Sentinel, 2010). It will enable the district to implement a comprehensive set of school reforms including an innovative approach to performance-based pay (Journal Sentinel, 2010).

The Fort Worth Independent School District in Texas has been awarded \$43 million from the federal Teacher Incentive Fund (TIF) to expand its rewards and incentive program. It provides teachers an opportunity to earn rewards/bonuses for working in teams to accelerate student academic growth. The teams can be across grade

levels and subjects or, in some cases, for every teacher in the school. The teachers are evaluated on their individual professional objectives such as collaboration, planning, and setting high standards and on the performance against those objectives along with the overall performance of the school with respect to student academic growth (Journal Sentinel, 2010). The TIF, a U.S. Department of Education initiative, was developed as a companion support program to No Child Left Behind (Gratz, 2009). TIF's focus is on rewarding teachers and schools for closing the achievement gap and providing monetary incentives for the most effective teachers who choose to teach in low-income schools (Gratz, 2009). TIF funds are awarded based on improving student achievement by increasing teacher and principal effectiveness; reforming compensation systems such that teachers and principals are rewarded for increases in student achievement; increasing the number of effective teachers teaching poor, minority, and disadvantaged students in hard-to-staff subjects; and creating a sustainable performance-based compensation system (Gratz, 2009, p. 238). TAP has received TIF funds (Gratz, 2009). There are a number of states that are receiving TIF monies, and the states have devised their own formulas based on the U.S. Department of Education criteria noted above. According to Gratz (2009), an area that deserves close scrutiny is a project that involves working with certain individual schools within the school district and not involving the entire district (Gratz). The concern is that any positive impact will not be sustainable (Gratz). School change through a program like TIF is unlikely to be sustained unless it is accompanied by complementary change at the district level (Gratz).

Some school districts across the country are either taking a wait and see approach or are wading into performance-based pay plans by taking incremental steps (Journal Sentinel, 2010). In Baltimore Public Schools, the district signed off on a contract that

restructures teachers' base pay system (Journal Sentinel, 2010). In lieu of automatic annual increases, teachers will receive raises based on the results of their evaluations and professional development they undertake (Journal Sentinel, 2010). Evidence of their learning and their willingness to share/collaborate with other teachers will be a component of their evaluation (Journal Sentinel, 2010). Graduate credits are deemphasized and superior evaluations aid teachers in advancing quicker up the salary scale (Journal Sentinel, 2010).

Good and Brophy (1997) have identified a number of teacher qualities that show a positive relationship between teacher qualities and teacher efficacy and, ultimately, student performance. Collinson (1996) queried outstanding teachers to identify characteristics of effective teachers. The teacher responses were categorized into three main knowledge dimensions: professional, interpersonal, and intrapersonal (Collinson). Professional knowledge consisted of a disposition toward continuous learning, curiosity, creativity, flexibility, and pride in their effort (Collinson). The interpersonal knowledge consisted of a disposition toward reflection, respect for self, collaboration and courage (Collinson). In the category of intrapersonal knowledge, the disposition was toward care, compassion, and respect for others (Collinson). William Sanders developed a widely used statistical approach, formerly referred to as TVAAS, for determining the effectiveness of school districts, schools, and teachers based on student academic growth over time (Wright et al., 1997). An integral element of TVAAS is a comprehensive, longitudinally merged database linking student outcomes to the schools and districts in which they are enrolled and to the teachers to whom they are assigned as the students transition from grade to grade (Wright et al., 1997). This was the forerunner of Education Value-Added Assessment System (EVAAS). Research conducted using data from TVAAS database

showed that ethnicity, class size, poverty, and student diversity are poor predictors of student academic growth (Wright et al., 1997). These studies concluded that the effectiveness of the teacher is the major determinant of student academic progress (Wright et al., 1997). Wright et al. (1997) identified, through extensive observations of teachers in several schools across the United States, that key teacher qualities lead to teacher effectiveness. The qualities noted were proper planning, rigorous assessment, a penchant for collaboration and soul searching in the spirit of continuous improvement (Wright et al.).

Barber and Mourshed (2007) stated that the available evidence suggests that the main driver of the variation in student learning at school is the quality of the teachers (p. 12). Studies that take into account all of the available evidence of teacher effectiveness suggest that students placed with high-performing teachers will progress three times as fast as those placed with a low-performing teachers (Barber & Mourshed).

Cohen, Raudenbush, and Ball (2003) concluded, based on a number of studies they have done, that effective teachers have the following qualities: plan carefully, use appropriate materials, communicate goals to students, collaborate regularly, maintain a brisk pace, assess student work regularly, reflect on their performance, and make adjustments accordingly. Teachers use classroom time in an efficient manner, i.e., maximize time on task; expect that all students can learn; and take the responsibility to make that happen (Cohen et al.).

Incentivizing teachers through pay-for-performance plans impact teacher qualities thereby impacting teacher efficacy (Stronge et al., 2006). Incentive compensation plans serve as a stimulus for teachers in their pursuit of continuous improvement driving toward self-efficacy (Stronge et al., 2006). Stronge et al. (2006) pointed out that that the

individual evaluation or merit pay plans are based on a fundamental assumption that good teaching can be defined, observed, and measured objectively. Goldhaber (2002) found that only approximately 3% of the contribution teachers make to student achievement is associated with teacher experience, educational level, and certification status. The remaining 97% of teacher effect on student learning is associated with intangible aspects of teacher quality, notably teacher attributes, dispositions, and attitudes (Goldhaber). Rivkin, Hanushek, and Kain (2005) found in their Texas study that there was a connection between teacher effectiveness and student achievement and that a substantial amount of the overall achievement gain variation occurred between teachers. The study focused on Grades 5, 6, and 7 between two cohorts of students for all public elementary schools in Texas in the 1994 and 1995 school years (Rivkin et al.). State test scores in reading and math were compared with respect to student achievement gains (Rivkin). A correlation analysis was performed along with a regression analysis (Rivkin et al.). Additionally, a comparison of the effect of teacher experience, education, and class size to student achievement gains was performed (Rivkin et al.). The study findings were that the existence of substantial variation in teacher quality cannot be explained by the observable teacher characteristics noted above (Rivkin et al.). Rivkin et al. developed a comprehensive model based on their analysis of student learning that provided the framework for the estimation of the variance of teacher quality.

The model focused on the determinants of the rate of learning over a specific time period (Rivkin et al.). The model was essentially a version of a value-added approach controlling for variations in initial conditions when observing how schools influence performance during a given period of time (Rivkin et al.). Rivkin et al. concluded that teachers have a powerful effect on reading and mathematics achievement. With these

findings, they suggested in their study that linking teacher pay and teacher performance could be an effective approach to improving teacher quality (Rivkin et al.).

Chapter 3: Methodology

The purpose of this study was to examine the perceived association of merit pay and teacher qualities. This chapter presents a review of the methodology employed to examine the linkage. Two middle schools in a southeastern state represented the sample.

The theoretical framework for this study began with the assumption that the teacher is central to student academic growth and achievement (Stronge et al., 2006). Research has established that there is a direct linkage between teacher qualities and teacher efficacy as well as desirable student performance (Good & Brophy, 1997).

Research Population

The research methodology employed consisted of analyzing studies pertaining to teacher merit pay. The primary research generated a series of questions for the researcher which led to further research. Surveys and interviews were the primary sources of data. These sources were supplemented by articles and publications on the topic related to findings by other researchers.

The researcher conducted surveys and interviews with teachers in two schools that implemented a pay-for-performance plan. The results of the data collected were summarized and analyzed in an effort to ascertain whether there was an association between merit pay and teacher qualities such that the teacher is more efficacious. The analysis included the creation of a frequency distribution table to show the percentages of common occurrences with respect to the association of merit pay and teaching qualities based on perceptions. This analysis identified recurring themes, thereby establishing trends. The researcher conducted a Chi-Square analysis to demonstrate validity in responses. This information showed that the responses to the survey demonstrated a goodness of fit. The Chi-Square analysis indicated that the responses likely would be

similar if multiple surveys were to be given to the same population conducted at a .05 level of probability providing a degree of assurance or level of significance. Chi-Square analysis addressed whether the answers received from the survey matched up with the expected distribution.

Research Design

The methodology chosen for this research was a mixed-methods approach. According to Creswell (2003), mixed-methods approaches involve pulling together qualitative and quantitative data collection and analysis in a single research study.

In order to complete this study, the researcher, after reviewing literature from various sources as identified in Chapter 2, developed a 5-point Likert scale survey instrument to collect salient data with respect to the impact of merit pay on teacher qualities. When responding to a Likert questionnaire item, respondents specify their level of agreement or disagreement on a symmetric agree-disagree scale for a series of statements. Thus, the range captures the intensity of their feelings for a given item (Burns & Burns, 2008). The researcher sought and received a subject matter expert's opinion on the validity of the questions as it relates to being linked to the study's research questions (Appendix A). The results of the survey served as the basis of the prompts for the interview instrument.

The study drew conclusions from the data with respect to the association of merit pay and teacher qualities for this particular sample. The qualities are collaboration, planning, implementation, assessment, and reflection. The researcher identified study limitations that may impact the validity of the study and its findings, such as population size, teacher experience levels, and other factors which could have influenced teacher qualities and student academic growth and achievement. While the purpose of the study

was to determine if there was a perceived association of merit pay and teacher qualities as articulated in the research questions, there might be other factors that also influence teacher qualities. These other factors will be identified through a frequency distribution, defined, and discussed in Chapters 4 and 5.

The researcher gained permission and surveyed teachers and conducted interviews in schools that have implemented TAP. TAP has a merit pay component along with a teacher support structure and an assessment dimension. The request for permission and permission document can be found in Appendices B and C, respectively. The survey queried teachers on the change (prior to and subsequent to the implementation of TAP) in their dispositions, teaching qualities, how it impacted their teaching, and what the resulting impact on their students was. The survey instrument contained 24 questions on the impact of merit pay on school-wide climate such as morale and its role in transforming school culture (Appendix D). The survey asked teachers to rank order their motivational drivers. The survey used a 5-point Likert scale—strongly agree, agree, neutral, disagree, strongly disagree—supplemented by an opportunity for the respondents to include comments in order to capture as precisely as possible the intensity of the change in teacher qualities. Surveys were analyzed, and through frequency of occurrence, common perceptions were developed. The researcher looked for common themes as related to the association of merit pay and teacher qualities. From these interviews, the researcher established common occurrences and created narratives leading to a thematic analysis. Areas for elaboration for clarification were noted and/or areas that appeared to be conflicting responses were incorporated into the interview instrument. The interviews provided the researcher an opportunity to follow-up on the data collected in the survey process and to gain a deeper understanding of the responses. The researcher

used technique of triangulation to validate the data. According to Creswell (2003), triangulation is a means for seeking convergence across qualitative and quantitative methods. Triangulation of data is a technique used in research design where data, collected through multiple sources, are validated (Creswell, 2003). Interviews also served to validate conclusions from the survey findings as components of triangulation. Teachers were selected randomly within population groups (i.e., grade level and subjects taught) for the interview process by the researcher. A copy of the interview instrument can be found in Appendix E. The survey was conducted electronically and all teachers were encouraged to complete the survey in each of the two schools. In the survey, there are two ranking questions. One of the ranking questions asked the respondent to prioritize the drivers of their motivation to be the best and most effective teacher that she or he can be. The other ranking question asked the respondent to prioritize the following elements with respect to importance to them: planning, collaboration, school learning culture, reflection, implementation, and school morale. Every question in the survey provided the respondent an opportunity to comment by submitting their comments in the comments box on the survey.

The schools are located in different school districts. The interviews were conducted in person at the site of each of the schools. The interview instrument contained 15 questions which were based on the survey and the survey results. The interview instrument contained mostly open-ended questions with one ranking question. The survey and interview instruments were formulated based on the following research questions:

1. What is the perceived association of merit pay and teacher collaboration?
2. What is the perceived association of merit pay and teacher practices with

respect to planning, implementing, and assessing instruction?

3. What is the perceived association of merit pay and teacher reflection?

4. How has merit pay affected the overall learning culture?

Using thematic analysis, the researcher determined the priority of perceived themes relative to teacher qualities and teacher efficacy. The researcher used a statistical data analysis software package, Statistical Product and Services System, to provide descriptive statistics and analysis. Using all sources of data (surveys and interviews), the researcher used the triangulation technique for any common occurrences of data as a means to determine if there was an association between merit pay and teacher qualities as well as differences between each of the two middle schools studied. Triangulation of the themes with each item in the survey provided a measure of consensus as well.

Specific demographic information was asked of the respondents which led to further analysis in this study. The demographic information requested included (1) years of teaching experience, (2) grade level taught, (3) education level, and (4) gender. After disaggregation of data, additional analysis was performed in the areas of the identified subgroups. These subgroups included years of teaching experience, gender, education levels, and grade level taught.

The researcher also compared and contrasted survey and interview responses using statistical techniques from the two subject schools noting similarities and differences. The analysis aided in prioritizing the results based on their significance. These findings are incorporated into Chapter 4 and are the basis for the recommendations found in Chapter 5. Unanticipated findings were reported for use in developing recommendations as potential candidates for future studies.

In order to support validity, the study included multiple measurement strategies.

The strategies included surveys and individual interviews which contained open-ended and ranking questions. Using data, surveys, and interviews, the researcher portrayed through graphic representation (tables) any and all common occurrences of the data. The researcher reported any common themes concerning consistency or inconsistency found in the survey and interview data deemed critical in the area of assessing the association of merit pay and teacher qualities.

The researcher identified limitations or constraints that may affect the validity of the research methodology and the dissertation's conclusions. The researcher identified the study's shortcomings and suggestions for strengthening future inquiry using a similar research design and approach.

In summary, the researcher collected data using surveys and individual interviews of teachers. The survey and interview instruments contained ranking questions. The survey, using a 5-point scale, included a comment section to capture respondents' sentiments and perhaps the intensity level. The interview instrument also contained open-ended questions. The survey data were summarized using thematic analysis and analyzed using a variety of statistical techniques and tools such as frequency distribution and Chi-Square analysis to test validity. The researcher used the triangulation technique for all common occurrences of the data as perceived by the sample population as a way to determine whether there was an association between teacher qualities and merit pay. The data were displayed using tables. Finally, the researcher identified study limitations and constraints that may affect the study's research methodology and, thus, its conclusions. Any shortcomings were identified for the purposes of strengthening future inquiry using a similar design.

Chapter 4: Findings

Introduction

The purpose of this study was to examine the perceived association of merit pay and teacher qualities in two middle schools in a southeastern state. It was expected that this study would highlight the perceived association of merit pay and teacher qualities as identified by the research questions that were enumerated in Chapter 2.

As noted in Chapter 3, the methodology chosen for this research was a mixed-methods approach. It employed the use of both surveys and interviews. The survey was administered to all teachers in the two middle schools. After conducting the surveys, the researcher developed an interview instrument. The survey consisted of questions focused on examining the perceptions of the teachers regarding the association of merit pay and teacher qualities. A modified random selection process was utilized ensuring representation from all grade levels. Furthermore, the researcher incorporated a question in the interview instrument providing the interviewee an opportunity to offer comments that were not addressed in the survey or the interview instrument that were germane to the researcher's topic. By using a mixed-methods approach it allowed the researcher to answer the research questions fully by utilizing both qualitative and quantitative data. In this study, the researcher formulated four research questions as the basis for the research. Specifically, the research questions were:

1. What is the perceived association of merit pay and teacher collaboration?
2. What is the perceived association of merit pay and teacher practices with respect to planning, implementing, and assessing instruction?
3. What is the perceived association of merit pay and teacher reflection?
4. How has merit pay affected the overall learning culture?

All four of the research questions that were developed were addressed through the use of a survey. The survey was comprised of 24 questions and offered respondents the opportunity to provide specific examples and/or elaborate further to support their answer choice. The first three questions of the survey identified the years of experience, grade level, and education level of the respondent. Questions 4, 7, 23, and 24 focused on answering Research Question 1. Questions 14, 17, 18, 19, and 24 addressed Research Question 2. Questions 5, 6, 9, 10, 11, 12, 20, 23, and 24 addressed Research Questions 3 and 4.

Additionally, the researcher was able to further answer the research questions by using qualitative data from the interviews. Using this information provided the researcher with a way to triangulate the data and results from the surveys.

Description of the Setting and Participants

The two middle schools, Grades 6-8, were in different school districts in South Carolina. One school had approximately 24 teachers, while the other had 40 teachers. In one of the middle schools (School Green), the participation rate was 100% with respect to completing the survey. In the other middle school (School Blue), the participation rate was 65%. With respect to the interviews, 71% of the teachers in School Green were interviewed and 48% of School Blue teachers were interviewed. With the difference in total teacher population in the two schools a like number from both schools were interviewed and surveyed.

Both schools had been on a merit pay compensation plan for at least 2 years. The merit pay compensation plans were identical in structure and the plans for implementation and ongoing management and support were similar. The demographic profiles were also similar in terms of gender, years of experience, and education levels as

noted in Tables 1-4 below. The participants in the study were all certified, full-time faculty members.

Table 1

Gender Distribution by Middle School

School	Male		Female		Total N
	N	Percent	N	Percent	
Green	10	41.6	14	58.4	24
Blue	10	42.5	16	57.5	26

Table 1 identifies the breakout by gender for both schools, School Green and School Blue. As noted, the composition by gender is similar.

Table 2

Years of Experience by Middle School

Experience	Green		Blue	
	N	Percent	N	Percent
Less Than One Year of Teaching	0	0.0	1	3.9
1-5 Years of Teaching	2	9.1	3	11.5
6-10 Years of Teaching	3	13.6	4	15.4
11-15 Years of Teaching	9	40.9	7	26.9
16-20 Years of Teaching	2	9.1	0	0.0
20+ Years of Teaching	6	27.3	11	42.3

Table 2 identifies the breakout by years of experience for both schools. Both schools have a significant percentage of teachers with 11 or more years of experience. School Green has 77.3% of its teachers with 11 or more years of experience and School Blue has 69.2% of its teachers with 11 or more years of experience.

Table 3

Grade Level Distribution by Middle School

Grade Level	Green		Blue	
	N	Percent	N	Percent
6th Grade	7	33.3	6	23.1
7th Grade	6	28.6	13	50.0
8th Grade	8	38.1	7	26.9

Table 3 identifies the teacher profile by grade level for both schools. As noted, School Blue had more teachers as well as a higher percentage of their teachers assigned to seventh grade and fewer assigned to eighth grade in both numbers and percentage relative to School Green.

Table 4

Education Level Distribution by Middle School

Education Levels	Green		Blue	
	N	Percent	N	Percent
Bachelor's Degree	3	13.6	6	23.1
Bachelor's; Pursuing Graduate Degree	1	4.6	3	11.5
Master's Degree	15	68.2	17	65.4
Master's; Pursuing Doctorate Degree	3	13.6	0	0.0
Doctorate Degree	0	0.0	0	0.0

Table 4 depicts the teacher breakout by education levels. Both schools have a similar profile here as well. The preponderance of teachers in both schools possessed a master's degree.

Survey Data

Upon permission to conduct this research by the two middle schools, a survey was developed and administered to all full-time teachers in each of the two schools. In School Green, the survey return rate was 100%. In School Blue, the survey return rate was 65%. The teachers were given 2 weeks to complete the survey. After 2 weeks and one reminder communicated to the principal at the participating schools, there were 50 surveys returned for a combined return rate of 78%. On the survey, respondents were asked to provide some demographic information referred to earlier, such as years of experience, grade level, and education level. This information was used to determine if teachers' perceptions relative to the research questions were different based on different grade levels, years of experience, or education levels. The return rate by grade level for both schools was consistent with the percentage of teachers in each grade level.

The survey utilized the following responses: strongly agree, agree, neutral, disagree, and strongly disagree. In order for the response to be considered positive, the respondent had to either strongly agree or agree with the statement in the survey for that question. Likewise, in order for the response to be considered negative, the respondent had to either strongly disagree or disagree with the statement in the survey for that question. The interviews provided the researcher the opportunity to inquire about the selection of neutral on the survey. The researcher concluded from the interview responses that most of the respondents selected neutral when they were unsure of how they felt. They were neither positive nor negative on the statement. The survey provided the respondents the opportunity to provide specific examples or further elaborate on their response. The specific responses, again optional, that were provided added additional qualitative data that is discussed later.

Results and Explanation

The use of the surveys and individual interviews served as a basis to answer the research questions that framed this study. The researcher begins analysis of the results with Research Question 1. This is followed by an analysis of results for Research Questions 2-4.

Research Question 1

What is the perceived association of merit pay and teacher collaboration?

Survey questions 4 and 7 asked the respondents about their perception of the association of merit pay and teacher collaboration. Survey questions 23 and 24 asked the respondents to rank collaboration according to its importance and as a driver of motivation. Tables 5-11 report the descriptive statistics for the survey questions noted above responding to Research Question 1.

Table 5

Participant Response to Perceived Association of Merit Pay and Positive Attitude toward Teacher Collaboration

Both Middle Schools	N	Percent	% Positive	% Negative
Strongly Agree	6	12.0		
Agree	18	36.0	48	
Neutral	12	24.0		
Disagree	12	24.0		
Strongly Disagree	2	4.0		28

Table 5 identifies not only the number of respondents of both schools and the associated percentage of respondents but also the combined positive responses and combined negative responses. In an almost 2 to 1 ratio, respondents had a positive

perception of the association of merit pay and a positive attitude toward collaboration.

Study data indicated that collaboration had been emphasized and encouraged before merit pay and that merit pay sharpened their focus according to interviewees.

Table 6

Participant Response to Perceived Association of Merit Pay and Increased Teacher Collaboration

Both Middle Schools	N	Percent	% Positive	% Negative
Strongly Agree	5	10.0	46	
Agree	18	36.0		
Neutral	14	28.0		
Disagree	11	22.0		
Strongly Disagree	2	4.0		26

Table 6 identifies the number of respondents of both schools and the associated percentages of respondents to the statement of perceived association of merit pay and increased teacher collaboration. By 20 percentage points, teachers had a positive perception that there was an association of merit pay and increased teacher collaboration. This represents a 1.8 to 1 ratio positive to negative responses. Stronge et al. (2006) found in their research a relationship between professional development and collaboration and teacher efficacy. This is consistent with Burns et al.'s (2009) findings that teachers indicated through surveys that merit pay served to improve collaboration and reflection.

Table 7

Participant Response to Perceived Association of Merit Pay and Positive Attitude toward Teacher Collaboration by Middle School

Middle School	Green		Blue	
	N	Percent	N	Percent
Strongly Agree	4	16.7	2	7.7
Agree	9	37.5	9	34.6
Neutral	4	16.7	8	30.8
Disagree	6	25.0	6	23.1
Strongly Disagree	1	4.1	1	3.8

Table 7 identifies the number of respondents by school and the respective percentages to the statement of perceived association of merit pay and a positive attitude toward teacher collaboration. School Green respondents had a combined positive response of 54.2% and a combined negative response of 29.1% or a 1.9 to 1 ratio of positive to negative responses. School Blue had a combined positive response of 42.3% and a combined negative response of 26.9% or 1.6 to 1 ratio of positive to negative responses.

Table 8

Participant Response to Perceived Association of Merit Pay and Increased Teacher Collaboration by Middle School

Middle School	Green		Blue	
	N	Percent	N	Percent
Strongly Agree	3	12.5	2	7.7
Agree	14	58.3	4	15.4
Neutral	4	16.7	10	38.4
Disagree	3	12.5	8	30.8
Strongly Disagree	0	0.0	2	7.7

Table 8 depicts the number of respondents by school and the associated percentages to the statement of perceived association of merit pay and increased teacher collaboration. School Green respondents had a combined positive response of 70.8% and a combined negative response of 12.5%. School Blue had a combined positive response of 23.1% and a combined negative response of 38.5%. Study data indicated that School Blue's time for collaboration was quite limited due to a teacher shortage and the corresponding impact on class schedules. This was a consistent theme in the interviews.

Table 9

Participant Response to Perceived Association of Merit Pay and Increased Teacher Collaboration of Both Middle Schools

Education Level	Strongly Agree/Agree		Strongly Disagree/Disagree	
	N	Percent	N	Percent
Bachelor's	4	11.8	3	8.8
Bachelor's; Pursuing Master's	2	5.9	1	2.9
Master's Degree	13	38.3	8	23.5
Master's; Pursuing Doctorate	3	8.8	0	0.0
Doctorate	0	0.0	0	0.0

Table 9 depicts the number of respondents of both schools by education level and the associated percentages to the statement of perceived association of merit pay and increased teacher collaboration. In comparing the positive responses to the negative responses, those holding a master's degree had the greatest difference. There was a 47.1% to a 23.5% relationship which translates to a 2 to 1 ratio positive to negative response to the statement that there is an association of merit pay and increased teacher collaboration. The interview data suggested that graduate schools attended placed emphasis on collaboration and those with graduate degrees were the ones who were in school more recently.

Table 10

Participant Response to Motivation Drivers-Opportunity to Collaborate

Both Middle Schools	N	Percent	Total Point Value*
Most Important	7	15.2	160
Second Most Important	7	15.2	
Third Most Important	6	13.0	
Fourth Most Important	14	30.5	
Fifth Most Important	5	10.9	
Sixth Most Important	7	15.2	

Note. *Weightings: 1st=6 points, 2nd=5 pts, 3rd=4 pts, 4th=3 pts, 5th=2 pts, 6th=1pt.

Table 10 identifies how respondents ranked collaboration relative to professional development, student performance, TAP, opportunity for bonus money, and school culture. Approximately one-third of the respondents ranked the opportunity to collaborate as either their first or second choice. The 160 points rank the opportunity to collaborate fourth out of six. The interview data substantiated the survey results on this ranking. Interviewees indicated that the opportunity to collaborate was an integral part of their culture and felt it was taken for granted and may have skewed the response to this question.

Table 11

Participant Response to Importance-Collaboration

Both Middle Schools	N	Percent	Total Point Value*
Most Important	2	4.2	152
Second Most Important	10	20.8	
Third Most Important	11	22.9	
Fourth Most Important	6	12.5	
Fifth Most Important	9	18.8	
Sixth Most Important	10	20.8	

Note. *Weightings: 1st=6 points, 2nd=5 pts, 3rd=4 pts, 4th=3 pts, 5th=2 pts, 6th=1pt.

Table 11 depicts how respondents ranked the importance of collaboration when compared to other factors such as planning, reflection, implementation, and school learning culture. Approximately half of all respondents ranked collaboration either first, second, or third. The importance of collaboration based on the point value of 152 ranked fourth out of six. This is consistent with the Table 10. As noted above, the interview information provided the researcher an understanding as to why collaboration was not ranked higher.

Research Question 2

What is the perceived association of merit pay and teacher practices with respect to planning, implementing, and assessing instruction? Questions 14, 17, 18, and 19 of the survey asked questions about teacher planning, implementing, and assessing instruction. Additionally, survey question 24 asked the respondents to rank teacher planning, implementing, and assessing instruction according to its importance. Tables 12-19 report the descriptive statistics for the survey questions noted above.

Table 12

Participant Response to Perceived Association of Merit Pay and Positive Attitude toward Teacher Planning

Both Middle Schools	N	Percent	% Positive	% Negative
Strongly Agree	7	14.0	44.0	
Agree	15	30.0		
Neutral	10	20.0		
Disagree	12	24.0		
Strongly Disagree	6	12.0		36.0

Table 12 depicts the number of respondents of both schools and the associated percentages of respondents to the statement of perceived association of merit pay and a positive attitude toward planning. As noted in the table, there is an 8 percentage point differential favoring a positive association of merit pay and a teacher's positive attitude toward planning. The information from the interviews corroborated the results in Table 12. Additionally, eight of the respondents indicated in the comments section of the survey instrument that merit pay served as a catalyst for them to be more diligent in their approach to planning. Goldhaber (2009) found that the first impact of monetary incentives is in the area of teacher preparation and planning. Effective preparation, including planning, serves as a cornerstone in increasing teacher efficacy (Goldhaber).

Table 13

Participant Response to Perceived Association of Merit Pay and Positive Attitude toward Teacher Planning by Middle School

Middle School	Green		Blue	
	N	Percent	N	Percent
Strongly Agree	4	16.7	3	11.6
Agree	7	29.2	8	30.8
Neutral	5	20.8	5	19.2
Disagree	7	29.2	5	19.2
Strongly Disagree	1	4.1	5	19.2

Table 13 identifies the breakout of participants' responses by school. School Green results showed a higher percentage of positive responses to the statement than School Blue. The interview data indicated that School Blue respondents felt burdened with paperwork associated with lesson planning which was characterized by a number of the interviewees as excessive. School Blue respondents, during the interview as well as in the comments section of the survey, expressed a need to improve and understood the value of planning. School Green respondents also identified during the interviews the increased burden placed on them associated with lesson planning; however, it was not as intense, and there were fewer teachers than School Blue expressing that concern.

Table 14

Participant Response to Importance-Planning

Both Middle Schools	N	Percent	Total Point Value*
Most Important	14	29.1	204
Second Most Important	11	22.9	
Third Most Important	9	18.8	
Fourth Most Important	6	12.5	
Fifth Most Important	3	6.3	
Sixth Most Important	5	10.4	

Note. *Weightings: 1st=6 points, 2nd=5 pts, 3rd=4 pts, 4th=3 pts, 5th=2 pts, 6th=1pt.

Table 14 depicts how respondents ranked the importance of planning when compared to other factors such as collaboration, reflection, implementation, and school learning culture. More than half of all respondents ranked planning either first or second. The importance of planning based on the point value of 204 ranked first out of six. This is consistent with the information received during the interview process and with the findings of Gratz (2009) who found that teachers who embraced planning were more likely to be effective. Stronge et al. (2006) concluded that planning served as the foundation for increasing teacher efficacy.

Table 15

Participant Response to Perceived Association of Merit Pay and Positive Attitude toward Teacher Implementation

Both Middle Schools	N	Percent	% Positive	% Negative
Strongly Agree	4	8.0	46.0	28.0
Agree	19	38.0		
Neutral	13	26.0		
Disagree	11	22.0		
Strongly Disagree	3	6.0		

The information in Table 15 combines the responses from both middle schools and indicates that the respondents were more positive (46%) than negative (28%) by an 18 percentage point margin or a 1.6 to 1 ratio favoring the positive responses. The interview information was consistent with the results outlined in this table. Goldhaber (2009) found in his studies that effective planning and implementation serves as a cornerstone in increasing teacher efficacy.

Table 16

Participant Response to Perceived Association of Merit Pay and Positive Attitude toward Teacher Implementation by Middle School

Middle School	Green		Blue	
	N	Percent	N	Percent
Strongly Agree	3	12.6	1	3.9
Agree	9	37.5	10	38.5
Neutral	6	25.0	7	26.9
Disagree	5	20.8	6	23.1
Strongly Disagree	1	4.1	2	7.6

Table 16 provides a breakout of Table 15 data by middle school. School Green

respondents either agreed or strongly agreed to the statement that there is a perceived association of merit pay and a positive attitude toward teacher implementation practices by a 2 to 1 ratio. School Blue respondents also were more positive in their response to the statement. In School Blue, it was a 1.4 to 1 ratio. The interview information again was consistent with the results outlined in Table 15. One of the teachers in School Green stated that it was all about execution. “You can have the best plan but it comes down to execution. It is how you implement your plan that makes the ultimate difference” (Anonymous, personal communication, 2012). Hallam (2009) stated that implementation is the culmination of many factors coming together in one setting from preparation and planning to teacher dispositions and qualities. According to Gordon, Kane, and Staiger (2006), planning and implementation are instrumental to overall teacher effectiveness and student outcomes.

Table 17

Participant Response to Importance-Implementation

Both Middle Schools	N	Percent	Total Point Value*
Most Important	4	8.7	151
Second Most Important	6	13.0	
Third Most Important	9	19.6	
Fourth Most Important	12	26.1	
Fifth Most Important	10	21.7	
Sixth Most Important	5	10.9	

Note. *Weightings: 1st=6 points, 2nd=5 pts, 3rd=4 pts, 4th=3 pts, 5th=2 pts, 6th=1pt.

Table 17 depicts how respondents ranked the importance of implementation when compared to other factors such as collaboration, reflection, planning, and school learning culture. Approximately one-fifth of all respondents ranked implementation either first or

second. The importance of implementation based on the point value of 151 ranked fifth out of six. This was consistent with the information received during the interview process. The sentiments expressed during the interview process were that implementation is critical; however, it is so scripted with the introduction of merit pay and the added observations associated with its implementation. One teacher stated that “the creativity in executing your lesson plan has gone by the wayside” (Anonymous, personal communication, 2012). The attitude toward implementation, according to another teacher, “has taken a hit with the introduction of merit pay but is still very positive” (Anonymous, personal communication, 2012).

Table 18

Participant Response to Perceived Association of Merit Pay and Positive Attitude toward Student Assessment

Both Middle Schools	N	Percent	% Positive	% Negative
Strongly Agree	6	12.0	40	28
Agree	14	28.0		
Neutral	16	32.0		
Disagree	11	22.0		
Strongly Disagree	3	6.0		

Table 18 depicts the number of respondents of both schools and the associated percentages of respondents to the statement of perceived association of merit pay and a positive attitude toward student assessment. As noted in the table, there is a 12 percentage point differential, 1.4 to 1 ratio, favoring a positive association of merit pay and teachers’ positive attitudes toward student assessment. The information from the interviews corroborated the results in Table 18. Stronge et al. (2006) viewed student

assessment in the context of a merit pay compensation system as an evolving proposition that needs to be handled with care. As documented in Chapter 2, many existing merit pay plans are linked to student assessment, and this places a premium on both formative and summative student assessments (Stronge et al., 2006).

Table 19

Participant Response to Perceived Association of Merit Pay and Positive Attitude toward Student Assessment by Middle School

Middle School	Green		Blue	
	N	Percent	N	Percent
Strongly Agree	4	16.7	2	7.7
Agree	6	25.0	8	30.8
Neutral	9	37.5	7	26.9
Disagree	4	16.7	7	26.9
Strongly Disagree	1	4.1	2	7.7

Table 19 provides a breakout of Table 18 data by middle school. School Green respondents either agreed or strongly agreed to the statement that there was a perceived association of merit pay and a positive attitude toward teacher implementation practices by a little better than a 2 to 1 ratio. School Blue respondents also were more positive in their response to the statement. In School Blue it was a 1.1 to 1 ratio. The interview information again was consistent with the results outlined in Table 15. It bears repeating here that the neutral choice, since it is significantly higher than all the other percentages for School Green in this table, is an artifact of respondents who were not sure how they felt. This was information derived from the interview process. The researcher queried interviewees on a number of occasions during the interview on how neutral should be interpreted. This particular result was used as an example.

One teacher from School Blue stated in the interview with respect to the association of merit pay and positive attitude toward student assessment that there needs to be a balanced approach to testing. “It seems like we are adding more and more tests on the students each year for the purpose of measuring the teachers. I want to have a positive attitude toward assessment and have always had one but it is harder to do with so many tests and it is more stressful on the teachers” (Anonymous, personal communication, 2012). Another teacher from School Green stated that “we need a more varied approach to measuring student achievement other than standardized tests. Many of our teachers employ other ways to assess student learning such as project-based assessments” (Anonymous, personal communication, 2012).

Research Question 3

What is the perceived association of merit pay and teacher reflection?

Questions 5 and 24 of the survey asked questions about teacher reflective practice. Survey question 24 asked the respondents to rank teacher reflective practice according to its importance. The survey was supplemented by a series of questions in the interview instrument. Tables 20-23 report the descriptive statistics for the survey questions noted above responding to Research Question 3.

Table 20

Participant Response to Perceived Association of Merit Pay and Positive Attitude toward Teacher Reflective Practice

Both Middle Schools	N	Percent	% Positive	% Negative
Strongly Agree	5	10.0	54.0	
Agree	22	44.0		
Neutral	12	24.0		
Disagree	10	20.0		
Strongly Disagree	1	2.0		22.0

Table 20 provides the participant perception of the association of merit pay and a positive attitude toward teacher reflective practice. In a greater than a 2.5 to 1 ratio, respondents either strongly agreed or agreed that they had a perception that there was an association of merit pay and a positive attitude toward teacher reflective practice. The information from the individual interviews confirmed this finding. One teacher commented that prior to merit pay, reflective practice was something done occasionally. “I now keep a journal and add to it daily. The focus on continuous improvement and the role reflective practice plays in that has been taken to a higher level” (Anonymous, personal communication, 2012). Another teacher indicated that there now is a process in place to share their reflections. “We did not do this before the merit pay plan and I believe the monetary incentive moved us to make it part of daily practice” (Anonymous, personal communication, 2012). One teacher stated that she now “makes notes on her lesson plan daily as a way of reflecting on what worked and what needs to be improved” (Anonymous, personal communication, 2012). Hess (2004) has found that effective teacher reflection is instrumental in the continuous improvement process which leads to

teacher efficacy and student academic success.

Table 21

Participant Response to Perceived Association of Merit Pay and Positive Attitude toward Teacher Reflective Practice by Middle School

Middle School	Green		Blue	
	N	Percent	N	Percent
Strongly Agree	2	8.4	3	11.5
Agree	11	45.9	11	42.3
Neutral	5	20.8	7	26.9
Disagree	5	20.8	5	19.2
Strongly Disagree	1	4.1	0	0.0

The information on Table 21 provides a breakout of the results from Table 20 relative to the respondents' perceived association of merit pay and a positive attitude toward teacher reflective practice. School Green respondents had a combined positive response of 54.3% and a combined negative response of 24.9%, which computes to a 2.2 to 1 ratio favoring a positive response. School Blue had a combined positive response of 53.8% and a combined negative response of 19.2%, which computes to a 2.8 to 1 ratio. This question was one of only a few questions where School Blue had a higher positive response than School Green. The interview information provided some reasons that may have contributed to this finding. In analyzing the information from the interviews, School Blue interviewees indicated that reflective practice and the process of sharing reflections among teachers has been a staple for many years at the school. As one teacher stated "doing something you enjoy and have been doing all along and getting a financial reward for it made it even nicer" (Anonymous, personal communication, 2012).

Table 22

Participant Response to Perceived Association of Merit Pay and Positive Attitude toward Teacher Reflective Practice of Both Middle Schools

Education Level	Strongly Agree/Agree		Strongly Disagree/Disagree	
	N	Percent	N	Percent
Bachelor's	8	22.2	1	2.8
Bachelor's; Pursuing Master's	2	5.6	1	2.8
Master's Degree	14	38.9	8	22.2
Master's; Pursuing Doctorate	2	5.6	0	0.0
Doctorate	0	0.0	0	0.0

Table 22 depicts the number of respondents of both schools by education level and the associated percentages to the statement of perceived association of merit pay and a positive attitude toward teacher reflective practice. In comparing the positive responses to the negative responses, those holding a bachelor's degree had the greatest difference. There was a 27.8% to a 5.6% relationship, which translates to an approximate 5 to 1 ratio positive to negative response to the statement that there is an association of merit pay and positive attitude toward teacher reflective practice. Mindful of these results, the researcher during the individual interview process probed for understanding. While the information offered was inconclusive, the interviewees indicated that many graduate education programs emphasize the value of reflection and therefore the teachers possessing graduate degrees already had a positive attitude toward reflective practice and merit pay did not influence their perception. One teacher with a bachelor's degree indicated that he at times reflected on his daily lessons; however when there was a monetary incentive, it refocused his efforts.

Table 23

Participant Response to Importance-Reflection

Both Middle Schools	N	Percent	Total Point Value*
Most Important	2	4.2	133
Second Most Important	5	10.4	
Third Most Important	9	18.7	
Fourth Most Important	8	16.7	
Fifth Most Important	12	25.0	
Sixth Most Important	12	25.0	

Note. *Weightings: 1st=6 points, 2nd=5 pts, 3rd=4 pts, 4th=3 pts, 5th=2 pts, 6th^h=1pt.

Table 23 depicts how respondents ranked the importance of reflective practice when compared to other factors such as collaboration, implementation, planning, and school learning culture. Approximately one-third of all respondents ranked reflective practice either first, second, or third. The importance of reflective practice as perceived by the respondents relative to the other noted practices based on the point value of 133 ranked last out of six. This was consistent with the information received during the interview process. The sentiments expressed during the interview process were that reflective practice was important; however, the other practices were more “translate-able” to increasing student output. One teacher stated that “all the practices identified in the question were critical to a teacher’s success but reflection was harder to translate into increased student achievement” (Anonymous, personal communication, 2012). Another teacher stated that “we often take reflective practice for granted since it has become second nature for many of us” (Anonymous, personal communication, 2012).

Research Question 4

How has merit pay affected the overall learning culture? Survey questions 6,

9, 10, 11, and 12 asked the respondents about their perception of the association of merit pay and the overall learning culture at the school. Survey questions 23 and 24 asked the respondents to rank school learning culture according to its importance and as a driver of motivation. Tables 24-28 report the descriptive statistics for the survey questions noted above responding to Research Question 4.

Table 24

Participant Responses to Perceived Association of Merit Pay and Positive Impact on School Learning Culture

Both Middle Schools	N	Percent	% Positive	% Negative
Strongly Agree	6	12.0		
Agree	14	28.0	40.0	
Neutral	19	38.0		
Disagree	9	18.0		
Strongly Disagree	2	4.0		22.0

The information in Table 24 combines the response from each middle school and indicates that the respondents were more positive (40%) than negative (22%) by an 18 percentage point margin which translates into a 1.8 to 1 ratio. The interview information was consistent with the results outlined in this table. Stronge et al. (2006) found that creating a culture of learning was the key to sustainability of high performance both at the teacher level and the school level.

Table 25

Participant Response to Perceived Association of Merit Pay and Positive Impact on School Learning Culture by Middle School

Middle School	Green		Blue	
	N	Percent	N	Percent
Strongly Agree	4	16.7	2	7.7
Agree	7	29.2	7	26.9
Neutral	9	37.4	10	38.5
Disagree	4	16.7	5	19.2
Strongly Disagree	0	0.0	2	7.7

Table 25 provides a breakout of Table 24 data by middle school. School Green respondents either agreed or strongly agreed to the statement that there is a perceived association of merit pay and a positive impact on school learning culture by a little better than a 2.7 to 1 ratio. School Blue respondents also were more positive in their response to the statement. In School Blue, it was a 1.3 to 1 ratio. The interview information again was consistent with the results outlined in Table 25. It bears repeating here that the neutral choice, since it is significantly higher than all the other percentages for School Green in this table, is an artifact of respondents not sure how they felt according to the information provided in the interview process. A teacher during the interview from School Green stated that while their school's learning culture was improving, the merit pay plan accelerated it as the focus increased on student achievement. "We are working smarter and together and sharing what is working for us" (Anonymous, personal communication, 2012). A teacher from School Blue indicated that "the bonus money got us excited and motivated to do better. The ego took off" (Anonymous, personal communication, 2012). A second teacher from School Blue stated that "everybody now

talks about student achievement and school results and what we need to do to improve scores. Even students now ask how the class is doing” (Anonymous, personal communication, 2012).

Table 26

Participant Response to Perceived Association of Merit Pay and Creating an Environment to Always Do Your Best

Both Middle Schools	N	Percent	% Positive	% Negative
Strongly Agree	5	10.0	46.0	
Agree	18	36.0		
Neutral	12	24.0		
Disagree	12	24.0		
Strongly Disagree	3	6.0		30.0

Table 26 depicts the number of respondents of both schools and the associated percentages of respondents to the statement of perceived association of merit pay and creating an environment to always do your best. As noted in the table, there is a 16 percentage point differential favoring a positive association of merit pay and creating an environment to always do your best. This translates into a 1.5 to 1 ratio positive response to negative response. The information from the interviews corroborated the results in Table 26. As stated by Stronge et al. (2006), incentive compensation plans serve as a stimulus for teachers in their pursuit of continuous improvement driving toward self-efficacy. As noted in Chapter 2, Goldhaber (2009) reinforced the conclusion of Stronge et al. when he stated that studies show teachers want to do their best and that teachers are responsive to monetary incentives.

Table 27

Participant Response to Perceived Association of Merit Pay and Creating an Environment to Always Do Your Best by Middle School

Middle School	Green		Blue	
	N	Percent	N	Percent
Strongly Agree	3	12.5	2	7.8
Agree	9	37.5	9	34.6
Neutral	7	29.2	5	19.2
Disagree	5	20.8	7	26.9
Strongly Disagree	0	0.0	3	11.5

Table 27 provides a breakout of Table 26 data by middle school. School Green respondents either agreed or strongly agreed to the statement that there is a perceived association of merit pay and a positive attitude toward teacher implementation practices by a 2.4 to 1 ratio. School Blue respondents also were more positive in their response to the statement. In School Blue, it was a 1.1 to 1 ratio. The interview information again was consistent with the results outlined in Table 15 as it relates to the response received from each school. A teacher at School Green indicated in the interview that “I always want to do my best and I feel I’m working better and harder. I want the bonus for me and for all the teachers and I don’t want to let them down” (Anonymous, personal communication, 2012). A teacher from School Blue stated that “the bonus money has affected me. It is a form of recognition and teachers like to be recognized and rewarded” (Anonymous, personal communication, 2012).

Table 28

Participant Response to Importance-School Learning Culture

Both Middle Schools	N	Percent	Total Point Value*
Most Important	14	29.2	197
Second Most Important	9	18.7	
Third Most Important	6	12.5	
Fourth Most Important	8	16.7	
Fifth Most Important	9	18.7	
Sixth Most Important	2	4.2	

Note. *Weightings: 1st=6 points, 2nd=5 pts, 3rd=4 pts, 4th=3 pts, 5th=2 pts, 6th=1pt.

Table 28 depicts how respondents ranked the importance of school learning culture when compared to other factors such as collaboration, reflection, planning, and implementation. Approximately half of all respondents ranked school learning culture either first or second. The importance of school learning culture based on the point value of 197 ranked second out of six. This again was consistent with the information received during the interview process. The sentiments expressed during the interview process were that school learning culture was a foundational quality and that without it schools were not going to be able to meet or exceed their objectives on a sustained basis. During an interview, one teacher offered the perspective that “the key to school success is to be able to meet your objectives on an individual and school level year after year” (Anonymous, personal communication, 2012). As noted in Chapter 2, Kelley et al. (2000) identified learning environment as a key advantage of a performance-based compensation model. As stated previously, Stronge et al. (2006) found that creating a culture of learning was the key to sustainability of high performance both at the teacher level and the school level.

Structure and Themes from the Interviews

The researcher interviewed 36 teachers who comprised approximately 56% of all the teachers in both schools. The interviews were approximately 30 minutes in length. Teachers were randomly selected; however, the researcher adjusted the random selection to ensure that there was representation from all grade levels for purposes of this study. After reviewing and analyzing the information from the interviews, the researcher developed a frequency distribution on the themes mentioned during the interviews. Table 29 captures the themes and how often these themes were mentioned during the entire interview process.

Table 29

Frequency of Themes from Interviews from Both Schools

Themes	N	Percent
Planning	30	10.5
School Culture	27	9.4
Financial Rewards	26	9.0
Increased Focus	25	8.7
Collaboration	24	8.3
Implementation	23	8.0
Reflection	22	7.6
Morale	16	5.6
Motivation	15	5.2
Student Assessment	13	4.5
Stress	13	4.5
Student Achievement	11	3.8
Leadership	11	3.8
Goal Setting	9	3.1
“Can Do” Attitude	8	2.8
Teacher Evaluations	7	2.4
Pride	5	1.7
Teacher Recruitment	3	1.1

As noted in Table 29, planning, school culture, financial rewards, increased focus, collaboration, implementation, and reflection account for more than 60% of the themes most often mentioned during the interview process. The specific comments from the interviewees were as important to this study as the themes mentioned during the interviews. Some were noted earlier in this chapter. However, there were other comments which further elaborated on the above themes. One teacher focused on the importance of effective leadership and the impact it has on school culture. She mentioned administrators as well as master teachers, mentor teachers, and grade leaders. Another teacher focused on the increased level of stress that has accompanied the introduction of a merit pay plan. “Stress has always been present but it has increased and it can be harmful if not released. The administration can help us on that” (Anonymous, personal communication, 2012). Another teacher mentioned how merit pay has aided the school in recruiting both experienced and new teachers. She stated that “there is a waiting list now whereas it was difficult to attract teachers previous to a merit pay system” (Anonymous, personal communication, 2012). Three teachers addressed the morale in their school. “Even though student achievement has increased and the achievement gap has been nearly closed the teacher morale has taken a hit” (Anonymous, personal communication, 2012). These three teachers felt the “pendulum has swung too far in terms of the demands outside the classroom specifically the need for documentation and the number of meetings.” As one of the teachers mentioned, “it is the massive overhead associated with the merit plan that induces the stress and affects the overall morale of the faculty” (Anonymous, personal communication, 2012). These findings are consistent with the studies conducted by Stronge et al. (2006) which identified collaboration, reflection, planning, and implementation as key qualities in an effective

teacher. Stronge (2007) concluded that professional development should focus on these determining qualities which provide the greatest return in terms of teacher effectiveness.

Table 30

Participant Responses to Importance-School Morale

Both Middle Schools	N	Percent	Total Point Value*
Most Important	14	29.2	196
Second Most Important	11	22.9	
Third Most Important	7	14.5	
Fourth Most Important	5	10.4	
Fifth Most Important	3	6.3	
Sixth Most Important	8	16.7	

Note. *Weightings: 1st=6 points, 2nd=5 pts, 3rd=4 pts, 4th=3 pts, 5th=2 pts, 6th^h=1pt.

Table 30 corroborates the information received in the interview process that morale can and, in some cases, has been negatively affected in at least one of the two schools studied. Over half of the respondents from both middle schools indicated that morale was either most important to them or second most important to them. The total point value of 196 ranks morale third as noted in Table 31. Comments captured in the interview process regarding the increased stress levels in both schools contributed to these results.

Table 31

Ranking of Qualities and Environmental Factors According to Importance to Respondent by Both Middle Schools

Qualities/Environmental Factors	Total Points	Rank
Planning	204	1
School Learning Culture	197	2
School Morale	196	3
Collaboration	152	4
Implementation	151	5
Reflection	133	6

Table 31 represents the composite view from both schools of the participants ranking of qualities and environmental factors listed in the survey according to their perceived importance. This ranking is consistent with the participants' responses offered during the individual interviews.

Goodness of Fit

A Chi-Square goodness of fit test was calculated comparing a frequency of occurrence of each value of a die. It was hypothesized that each value would occur an equal number of times. Tables 32, 33, and 34 provide the results of the Chi-Square tests for each middle school and the composite of both middle schools.

Table 32

Chi-Square Analysis on Questions 4, 5, 6, 7, 9, 10, 11, 12, 14, 17, 18, and 19 for School Green

Survey Question	Chi-Square Value	df	Asym. Sig
Q4: PFP & Attitude Toward Collaboration	7.250	4	.123
Q5: PFP & Attitude Toward Reflection	12.667	4	.013
Q6: PFP & Teacher Efficacy	8.917	4	.063
Q7: PFP & Increase in Collaboration	14.333	4	.002
Q9: PFP & Learning Culture	3.000	3	.392
Q10: PFP & Students Attitude Toward Learning	4.333	3	.228
Q11: PFP & Culture of Doing Your Best	3.333	3	.343
Q12: PFP & Implementing Change	34.913	3	.000
Q14: PFP & Implementation Quality	5.583	4	.233
Q17: PFP & Attitude Toward Planning	5.167	4	.271
Q18: PFP & Attitude Toward Implementation	7.667	4	.105
Q19: PFP & Attitude Toward Assessment	7.250	4	.123

The information in Table 32 represents the Chi-Square test results for School Green associated with the survey questions. Of the 12 questions, three (questions 5, 7, and 12) were determined to be significant. That is, the data varied from the expected value for those questions. Nine of the questions had Chi-Square values that indicated they were not significant and therefore the data are consistent with the expected values.

Table 33

Chi-Square Analysis on Questions 4, 5, 6, 7, 9, 10, 11, 12, 14, 17, 18, and 19 for School Blue

Survey Question	Chi-Square Value	df	Asym. Sig
Q4: PFP & Attitude Toward Collaboration	9.769	4	.044
Q5: PFP & Attitude Toward Reflection	5.385	3	.146
Q6: PFP & Teacher Efficacy	9.000	4	.061
Q7: PFP & Increase in Collaboration	10.154	4	.038
Q9: PFP & Learning Culture	9.000	4	.061
Q10: PFP & Students Attitude Toward Learning	12.846	4	.012
Q11: PFP & Culture of Doing Your Best	6.308	4	.177
Q12: PFP & Implementing Change	14.400	4	.006
Q14: PFP & Implementation Quality	10.923	4	.027
Q17: PFP & Attitude Toward Planning	2.462	4	.652
Q18: PFP & Attitude Toward Implementation	10.538	4	.032
Q19: PFP & Attitude Toward Assessment	6.692	4	.153

The information in Table 32 represents the Chi-Square test results for School Blue associated with the survey questions. Of the 12 questions, six (questions 4, 7, 10, 12, 14, and 18) were determined to be significant. For these questions, the data varied from the expected values. The remaining questions had Chi-Square values that indicated they were not significant and therefore the data did not vary from expected values.

Table 34

Chi-Square Analysis on Questions 4, 5, 6, 7, 9, 10, 11, 12, 14, 17, 18, and 19 for Both Middle Schools

Survey Question	Chi-Square Value	df	Asym. Sig Value
Q4: PFP & Attitude Toward Collaboration	15.200	4	.004
Q5: PFP & Attitude Toward Reflection	25.400	4	.000
Q6: PFP & Teacher Efficacy	17.600	4	.001
Q7: PFP & Increase in Collaboration	17.154	4	.002
Q9: PFP & Learning Culture	17.800	4	.001
Q10: PFP & Students Attitude Toward Learning	13.600	4	.009
Q11: PFP & Culture of Doing Your Best	14.600	4	.006
Q12: PFP & Implementing Change	55.125	4	.000
Q14: PFP & Implementation Quality	14.000	4	.007
Q17: PFP & Attitude Toward Planning	5.400	4	.249
Q18: PFP & Attitude Toward Implementation	17.600	4	.001
Q19: PFP & Attitude Toward Assessment	11.800	4	.019

Table 34 provides a composite view of the goodness of fit with respect to both middle schools. When combined, the results indicate that all the questions with the lone exception of question 17 were determined to be significant. That is, the data varied from the expected values for these questions. For question 17, the Chi-Square test results indicated that it was not significant and therefore the data did not vary from expected values.

Summary

At the outset of this research, it was intended that this study would determine if there was a perceived association of merit pay and teacher qualities in two middle schools in a southeastern state. The indications and suggestions of this research are based on data collected and analyzed by the researcher. Data was collected using a survey and

augmented with follow-up interviews. To determine the findings and the implications of those findings, various statistical analyses were performed using the Statistical Product and Service Solution, commonly referred to as SPSS, software. The researcher provided participants the opportunity to elaborate on the survey information they provided through the individual interviews. Participants were randomly selected and only adjusted to ensure representation from all grade levels. The survey questions focused on the themes resident in the researcher's research questions. All four of the research questions that were developed were addressed through the use of a survey. Additionally, there were questions that provided the participant the opportunity to rank order teacher qualities and environmental factors. The survey was comprised of 24 questions and offered respondents the opportunity to provide specific examples and/or elaborate further to support their answer choice. The first three questions of the survey identified the years of experience, grade level, and education level of the respondent. Questions 4, 7, 23, and 24 focused on answering Research Question 1. Questions 14, 17, 18, 19, and 24 addressed Research Question 2. Questions 5, 6, 9, 10, 11, 12, 20, 23, and 24 addressed Research Questions 3 and 4.

The interview instrument contained an open-ended question that provided participants the opportunity to not only elaborate on the questions asked but to complement their responses with perceptions not specifically mentioned in the survey or the interview instrument. The researcher determined through the survey which questions needed further clarification or more elaboration. Through this review of the survey responses, the researcher constructed the interview instrument. The instrument also contained questions which served to validate responses found in the survey.

Specific demographic information was collected in both the survey and the

interview. The information collected was years of experience, gender, grade level, and education level. After data disaggregation, additional analysis was performed to determine if there were variances by demographic group.

Subsequent to collecting all the data from the interview process, the researcher developed a frequency distribution table to show the percentages of common occurrences of the themes mentioned. This provided the researcher any recurring themes expressed by the interviewees.

Additionally, the researcher was able to further answer the research questions by using qualitative data from the interviews. This information provided the researcher the ability to triangulate the data from the surveys.

Tables 1-4 captured the demographic profiles of the survey participants. Tables 5-11 addressed Research Question 1. Tables 12-19 supported Research Question 2. Tables 20-23 provided the analysis for Research Question 3. Tables 24-28 supported Research Question 4. Table 29 provided the frequency distribution of the themes that were proffered during the individual interviews. Tables 30 and 31 represent responses to the ranking Questions 23 and 24 in the survey. Finally, Tables 32 and 33 provide the goodness of fit Chi-Square test results by middle school. Table 34 depicts the composite view of both middle schools pursuant to the goodness of fit Chi-Square test results.

Chapter 5: Summary, Conclusions, and Recommendations

Summary

The purpose of this study was to examine the perceived association of merit pay and teacher qualities in two middle schools in a southeastern state. This chapter summarizes the study findings, draws conclusions from those findings, and sets forth recommendations.

The theoretical framework for this study began with the assumption that the teacher is central to student academic growth and achievement (Stronge et al., 2006). James Stronge (2007) developed a framework for six broad teacher qualities that are directly linked to teacher effectiveness. The framework was based on research on teacher effectiveness where several hundred elementary and middle school teachers across the United States were studied. Stronge identified teacher attributes outside his framework that included willingness to collaborate on a regular basis, a commitment to reflection, a self-imposed responsibility for the performance of each of the students in their classes, and the overall performance of the school. Furthermore, Cohen et al. (2003) concluded, based on a number of studies they have done, that effective teachers have the following qualities: plan carefully, use appropriate materials, communicate goals to students, collaborate regularly, maintain a brisk pace, assess student work regularly, and reflect on their performance and make adjustments accordingly. Teachers are the foundation of all education reform efforts and improving the quality of the teaching workforce is essential for their success (Chait, 2007). The researcher chose the areas of merit pay and its association with teacher efficacy, as defined by four key qualities based on studies noted in Chapter 2.

After identifying the purpose of the study, four research questions were developed

that guided this study.

1. What is the perceived association of merit pay and teacher collaboration?
2. What is the perceived association of merit pay and teacher practices with respect to planning, implementing, and assessing instruction?
3. What is the perceived association of merit pay and teacher reflection?
4. How has merit pay affected the overall learning culture?

The two middle schools that comprised this study were located in a southeastern state. Both schools had implemented a merit pay system approximately 2 years prior to this study.

In order to collect sufficient data to complete the study, the researcher chose to utilize the following data collection tools: a survey that offered the respondents the opportunity to rank order teacher qualities and environmental factors and an interview which consisted of both a structured and an open response section. The data from the surveys were analyzed to determine strengths and weaknesses in the data. The data from the interview were synthesized to determine themes present within the discussions. In order to incorporate all the data from the quantitative and qualitative data collection tools, the researcher decided to discuss the results and conclusions within the realm of individual research questions as noted in Chapter 4.

Conclusions

Good and Brophy (1997) found that there is a linkage between teacher qualities and teacher effectiveness. Goldhaber (2009) stipulated that research shows that teachers are responsive to monetary incentives. He cited several studies to support the stipulation including one from The Center for the Future of Teaching and Learning (Goldhaber). The overwhelming majority of the teachers, according to the study conclusions, stated

that incentive pay was a major factor in the teachers' decision-making processes (Goldhaber). Kelley et al. (2000) identified seven key advantages of performance-based pay models which were addressed in Chapter 2.

Research Question 1

What is the perceived association of merit pay and teacher collaboration?

The study data indicated that most teachers perceived an association of merit pay and a positive attitude toward teacher collaboration as shown in Tables 5 and 6. By a margin of 2 to 1 teachers had a positive perception that there was an association of merit pay and a positive attitude toward collaboration. As indicated in Table 6 teachers also perceived an association of merit pay and increased teacher collaboration. The data indicated that there was variability between the two middle schools. The positive response intensity was greater in School Green than School Blue. The interview provided insight into some explanation for this finding. In School Blue, the opportunity for collaboration, due to the daily class schedule and a recent teacher shortage, was very limited. While still a positive ratio for teachers in School Blue, the teachers still felt, as expressed during the interview, that more collaboration would be beneficial. The study data indicated that there was a perception that merit pay was responsible for an increase in intensity and frequency, thereby strengthening the communities of collaboration. According to Hallam (2009), effective collaboration plays a vital role in teacher efficacy and, ultimately, student academic growth and achievement. Good and Brophy (1997) found in their research that there is a linkage between teacher qualities and teacher effectiveness.

Research Question 2

What is the perceived association of merit pay and teacher practices with respect to planning, implementing, and assessing instruction? Teachers in both

schools perceived an association of merit pay and positive attitude toward planning, implementation, and assessment as shown in Tables 12-19. The interview data corroborated the survey data. As noted in Table 29, planning, implementation, and assessment represented in excess of 20% of the themes mentioned. Teachers in both middle schools felt, particularly in these three areas, that merit pay served as an incentive for them to work harder. One teacher, voicing the opinion of many of her colleagues, said that “performance pay made it worthwhile” even though the workload increased due to additional requirements as it related to lesson planning coupled with the added stress associated with additional observations (Anonymous, personal communication, 2012). Research indicates that teacher efficacy encompasses many factors such as teacher preparation and implementation of effective instructional delivery, high expectations, content knowledge, self-reflection and the ability to relate to and inspire students to achieve (Stronge et al., 2006). Teacher qualities play a vital role in teacher efficacy (Hallam, 2009). Planning and implementation in the form of instructional delivery along with several other key teacher qualities are critical to increasing and sustaining teacher effectiveness (Hallam, 2009).

Research Question 3

What is the perceived association of merit pay and teacher reflection?

Teachers in both schools perceived an association of merit pay and positive attitude toward reflective practice as shown in Tables 20-23. By a margin of 2 to 1, teachers were more positive than negative in responding to the questions relative to reflective practice. Reflective practice was ranked seventh out of eighteen in the frequency of themes from the interview data. Two interviewees in School Green and one in School Blue expressed the feeling that this teacher quality benefited the most from a performance-based

compensation plan. The School Blue interviewee stated that “merit pay brought with it the drive to spend more time reflecting. We learned how the technique of reflection can improve our performance and I doubt we would have taken the time without the added incentive for merit pay” (Anonymous, personal communication, 2012). The study results were consistent with the research performed by Stronge et al. (2006), who established in their study the linkage between a positive attitude toward reflection and increased teacher effectiveness. Teacher efficacy encompasses many factors such as teacher preparation and implementation of effective instructional delivery, high expectations, content knowledge, self-reflection, and the ability to relate to and inspire students to achieve (Stronge et al.). Hess (2004) has found that effective teacher reflection is instrumental in the continuous improvement process which leads to teacher efficacy and student academic success.

Research Question 4

How has merit pay affected the overall learning culture? The data shown in Tables 24-28 indicated the teachers’ perceptions that there is an association of merit pay and school learning culture. During the interviews, school learning culture was the second most frequently mentioned theme. One interviewee stated that she saw a gradual change soon after the performance-based plan was introduced. “The focus on student achievement intensified and we had to bring our best effort to the classroom every day. Merit pay got us really focused and energized, at least initially” (Anonymous, personal communication, 2012). Another interviewee expressed his concern that it will take more than a performance-based pay plan to sustain the momentum. It needs to be driven from the inside. “Any external reward is going to be a short-term motivator. However, it got us going and moving in the right direction” (Anonymous, personal communication,

2012). Stronge et al. (2006) found that creating a culture of learning was the key to sustainability of high performance both at the teacher level and the school level. Good and Brophy (1997) found that by focusing on building an environment of learning in the school setting it becomes contagious and is the key component in driving toward excellence.

Throughout this study, it was evident that merit pay was only one component in a multi-dimensional equation. According to Odden (2000), extrinsic motivators such as performance-based pay can focus energy and attention for a short period of time. It can provide the impetus to a longer term, sustainable approach where intrinsic motivators can take hold (Odden). Stronge et al. (2006) stated that performance-based pay can serve as a catalyst for increasing teacher effectiveness. Performance-based pay models have at their core that teacher quality is primarily demonstrated through teacher efficacy and, ultimately, student achievement (Stronge et al.). It creates a culture of a learning environment within the educational setting (Stronge et al.). Incentive compensation plans serve as a stimulus for teachers in their pursuit of continuous improvement driving toward self-efficacy (Stronge et al.). As noted in Chapter 2, Pink (2009) stated that sustaining behavioral change is the business of intrinsic motivators. Intrinsic motivators are self-directed. Pink referred to monetary reward pay plans as the carrot and stick approach to motivation. Pink described a Type I behavior that is aligned with intrinsic motivation. Intrinsic motivation comes from within. It is self-directed. He further postulates that Type I behavior depends on three nourishing ingredients: autonomy, mastery, and purpose (Pink). Type I behavior is self-sustaining and it engenders the quest for excellence (Pink). Type I behavior is that inherent drive, a renewable resource providing the energy to always do your best (Pink). The interview data corroborates the

notion that performance-based pay is only one factor in increasing teacher effectiveness. Some of the interviewees stated that the extra compensation was appreciated and it did serve to initially focus them on the increased objectives and demands of the job, but it would have happened eventually anyway. The interview data also contained references to merit pay and individual recognition. One interviewee stated that the performance-based pay system served as the school's de facto recognition program. "Teachers became more excited about the increased positive exposure as a result of the accompanying recognition than the extra money after a while" (Anonymous, personal communication, 2012).

Sanders and Horn (1998), as noted in Chapter 2, identified six disadvantages to merit-based pay plans. From determining fair assessments to inequities in resources, these disadvantages, unless addressed, will undermine a merit-based pay plan (Sanders & Horn).

Finally, as noted throughout this study, there are many variables at play in increasing teacher efficacy. The teacher qualities embedded in the research questions as documented in Chapter 2 are instrumental in developing teacher efficacy. As stated earlier, Good and Brophy (1997) found that there is a linkage between teacher qualities and teacher effectiveness. There are other variables or domains that impact teacher effectiveness such as professional development, school leadership, empowerment, dispositions, and professional experiences (Balls, Eury, & King, 2011).

Recommendations

It was apparent to the researcher as a result of comments offered in the survey as well as in the interviews that the implementation of the merit pay plan was less than optimal. The communication process was incomplete and not timely throughout the

implementation of the plan. One interviewee stated that “it took several months into the plan before we began to understand it” (Anonymous, personal communication, 2012).

The researcher recommends a detailed implementation plan shared well in advance, perhaps as much as 6 months prior to implementation. In addition to group meetings on the initiative, individual sessions should be planned. Also, for the non-core teachers such as art, physical education, and keyboarding where there is no standardized test, compensation should be at the school level only. All first-year teachers should be exempt from the merit pay plan in order to establish their *footing* in the profession. Finally, more and more timely professional development should be available, especially for those teachers who have identified areas for growth.

Recommendations for Future Research

This research studied the perceived association of merit pay and teacher qualities in two middle schools in a southeastern state. Through surveys and interviews which included open-response questions, the researcher was able to gain an idea about teachers’ perceptions related to the association of merit pay and teacher qualities. All teachers in each of the two middle schools had an opportunity to complete the survey. Interviewees were randomly chosen, modified only to ensure representation from all three grade levels. The following recommendations may assist future researchers if they decide to continue exploring this topic:

1. Expand the study sample to include elementary and high schools. Also increase the number of schools in the study.
2. Expand the study to include states other than South Carolina where merit-based compensation systems have been implemented.
3. Expand the study to include the association of merit pay, teacher qualities, and

student achievement.

4. Expand the study to include private schools.

All of these recommendations outlined above could serve as multiple replications of this study.

Limitations

The researcher conducted interviews approximately 6 weeks after the survey was taken due to scheduling conflicts. This lapse of time may have affected some of the responses. The researcher had planned to follow up the survey with the interview within a 2-week span. Also, at one of the middle schools, the interviews were conducted during the last week of that school year. Even though all interviews were in a private setting, there were a host of outside distractions during that time on campus for the interviews. This may have affected the teachers' responses even though the researcher felt he had their undivided attention during that 30-minute period. In two of the interviews, the teachers were interrupted by a student entering the classroom seeking assistance. This served as a momentary distraction at a minimum. This may have affected these two teachers' responses. Finally, in one of the schools, there was a recent shortage of teachers which added to the load of the faculty and constrained, at least temporarily, available time for collaboration, professional development, etc.

References

- American Federation of Teachers. (2007). *Survey and analysis of teaching salary trends*. District of Columbia: American Federation of Teachers.
- Balls, J. D., Eury, A. D., King, J. C. (2011). *Rethink, rebuild, rebound: A framework for shared responsibility and accountability in education* (2d ed.). Boston, MA: Pearson.
- Barber, M., & Mourshed, M. (2007). *How the world's best-performing school systems come out on top*. London: McKinsey & Company. Retrieved from http://www.mckinsey.com/locations/ukireland/publications/pdf/Education_report.pdf
- Buddin, R., McCaffrey, D. F., Kirby, S. N., & Xia, N. (2007). *Merit pay for Florida teachers: Design and implementation issues*. Santa Monica, CA: RAND Education.
- Burns, A., & Burns, R. (2008). *Basic marketing research* (2d ed.). New Jersey: Pearson.
- Burns, S. F., Gardner, C. D., & Meeuwssen, J. (2009). *An interim evaluation of teacher and principal experiences during the pilot phase of AISD REACH*. Tennessee: National Center on Performance Incentives.
- Center for Teaching Quality. (2007). *The TeacherSolutions framework: How to pay teachers more and differently*. Cary, NC: Center for Teaching Quality.
- Chait, R. (2007). *Current state policies that reform teacher pay: An examination of pay-for performance programs in eight states*. Washington, D.C. Retrieved from <http://www.americanprogress.org/issues/2007/11/teacher>
- Cohen, D. K., Raudenbush, S. W., & Ball, D. L. (2003). Resources, instruction and research. *Educational Evaluation and Policy Analysis*, 25(2), 119-142.
- Collinson, V. (1996). *Becoming an exemplary teacher: Integrating professional, interpersonal, and intrapersonal knowledge*. (ERIC Document Reproduction Service No. ED 401 227)
- Connell, C. (2010). *Paying teachers for student performance doesn't raise test scores in Tennessee study*. New York, NY: The Hechinger Report, Teachers College, Columbia University.
- Creswell, J. W. (2003). *Research design: Qualitative, quantitative and mixed methods approaches* (2d ed.). Thousand Oaks, CA: Sage.

- Duncan, A. (2009, July). Partners in reform. Speech to the National Education Association. Retrieved June 4, 2012, from <http://www2.ed.gov/news/speeches/2009/07/07022009.html>
- Florida Department of Education. (2005). Florida school recognition program. Retrieved June 4, 2012, from <http://www.fldoe.org/faq/default.asp?Dept=177&ID=613#Q613>
- Goldhaber, D. (2002). The mystery of good teaching. *Education Next*, 2(1), 50-55. Retrieved May 15, 2012, from <http://educationnext.org/the-mystery-of-good-teaching/>
- Goldhaber, D. (2009). *Teacher pay reforms*. Seattle, WA: Center for American Progress, University of Washington.
- Goldhaber, D., DeArmond, M., & DeBurgomaster, S. (2007). *Teacher attitudes about compensation reform: Implications for reform implementation*. Seattle, WA: Center on Reinventing Public Education, University of Washington.
- Good, T., & Brophy, J. (1997). *Looking in classrooms* (7th ed.). New York: Longman.
- Gordon, R., Kane, T., & Staiger, D. (2006). *Identifying effective teachers using performance on the job*. Washington, D.C.: The Brookings Institution.
- Gratz, D. (2009). *The peril and promise of performance pay: Making education compensation work*. Lanham, MD: Rowman & Littlefield.
- Hallam, M. K. (2009). Why teacher dispositions are crucial aspect of student success. *The Language Educator*, January, 2009. Retrieved May 18, 2012, from <http://www.wrenchproject.com/linked/why%20teacher%20dispositions%20are%20a%20crucial%20aspect%20of%20student%20.pdf>
- Hershberg, T. (1997). The case for new standards in education. *Education Week*, December 10. Retrieved May 15, 2012, from <http://www.edweek.org/ew/articles/1997/12/10/16hersh.h17.html>
- Hess, F. (2004). Teacher quality, teacher pay. Hoover Institution, Stanford University, Policy Review 124. Retrieved May 15, 2012, from <http://www.hoover.org/publications/policy-review/article/8038>
- Hill, H. C., Kapitula, L., & Umland, K. (2011). A validity argument approach to evaluating teacher value-added scores. *American Educational Research Journal*, 48(3), 794-831.

- Joint Task Force on Teacher Compensation. (2004). Tentative agreement between School District 1 and Denver Classroom Teachers Association on professional compensation system for teachers. Retrieved June 4, 2012, from <http://denverprocomp.dpsk12.org/about>
- Journal Sentinel. (2010, November 21). School districts evaluate merits of merit pay. Retrieved June 1, 2012, from <http://www.jsonline.com/news/education/109571574.html>
- Keller, B. (2005, April). Poll finds support for changes in teacher pay. *Education Week*, 21(38), 5.
- Kelley, C., Heneman, H., & Milanowski, A. (2000). *School-based performance award programs, teacher motivation, and school performance: Findings from a study of three programs (CPRE research Report Series RR-44)*. Philadelphia, PA: University of Pennsylvania, Consortium for Policy Research in Education.
- Lowrey, A. (2012). *Big study links good teachers to lasting gain*. Retrieved May 1, 2012, from <http://www.nytimes.com/2012/01/06/education/big-study-links-good-teachers-to-lasting-gain.html>
- Luebchow, L. (2008, May). Teacher support for differentiated pay. Retrieved May 23, 2013, from www.newamerica.net/.../teacher-support-differentiated-pay-4053
- McKinsey & Company. (2007, September). *Report on how the world's best-performing school systems come out on top*. New York, NY: Author.
- Moran, M. (2010, September). *Report on teacher performance pay alone does not raise student test scores*. Nashville, TN: Vanderbilt University.
- National Academy of Sciences. (2007). *Trends in international math and science study (TIMSS)*. Washington, DC: Author.
- National Center for Education Statistics. (2011). *Trends in international mathematics and science study*. Washington, D.C.: U.S. Government Printing Office. Retrieved January 23, 2012, from <http://nces.ed.gov/timss/>
- National Commission on Excellence in Education. (1983, April). *A nation at risk: The imperative for educational reform*. Washington, D.C.: U.S. Government Printing Office.
- National Institute for Effectiveness in Teaching. (2005). *Teacher advancement program: The four elements of TAP*. Washington, D.C.: Author.
- Odden, A. (2000). *Emerging findings in teacher compensation*. Retrieved May 1, 2012, from <http://www.wcer.wisc.edu/cpre/tcomp/research/general/findings.asp>

- Odden, A., Kellor, E., Heneman, H., & Milanowski, A. (1999). *School-based performance award programs: Design and administration issues synthesized from eight programs*. Madison, WI: Center for Education Research.
- Organization for Economic Co-operation and Development (OECD). (2003). *Education at a Glance*. Paris, France: Author.
- Partnership for 21st Century Skills. (2006). *Are they really ready to work?* Washington, D.C.: Author.
- Pink, D. H. (2009). *Drive: The surprising truth about what motivates us*. New York, NY: Penguin Group.
- Public Agenda. (2004). *An assessment of survey data on attitudes about teaching, including the views of parents, administrators, teachers, and the general public*. New York: Author.
- RAND Education. (2010). *Does tying pay to an improvement in test scores result in higher test scores?* Retrieved December 6, 2012, from <http://www.rand.org/congress/newsletter/education/2010/11.html>
- Research and Accountability. (2007). *Houston Independent School District ASPIRE awards model: 2006-2007 school year*. Retrieved May 1, 2012, from http://www.houstonisd.org/ResearchAccountability/Home/Teacher%20performance%20Pay/Teacher%20Performance%20Pay/Board%20Items/ASPIRE_AWARDS_OVERVIEW.pdf
- Ripley, A. (2010, September 23). *Waiting for "superman": A call to action for our schools*. Retrieved April 25, 2012, from http://www.time.com/time/specials/packages/article/0,28804,2019663_2020590_2020592,00.html
- Rivkin, S. G., Hanushek, E. A., & Kain, J. F. (2005). Teachers, schools, and academic achievement. *Econometrica*, 73(2), 417-458.
- Sanders, W. L., & Horn, S. (1998). Research findings from the Tennessee Value-Added Assessment System (TVAAS) database: Implications for educational evaluation and research. *Journal of Personnel Evaluation in Education*, 12, 247-256.
- Springer, M. G. (2009). *Performance incentives: Their growing impact on American K-12 education*. Washington, D.C.: The Brookings Institution.
- Stronge, J. H. (2002). *Qualities of effective teachers*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Stronge, J. H. (2007). *Qualities of effective teachers* (2d ed.). Alexandria, VA: Association for Supervision and Curriculum Development.

- Stronge, J. H. (2010). *Effective teachers=student achievement: What the research says*. Larchmont, NY: Eye on Education.
- Stronge, J. H., Gareis, C. R., Little, C. A. (2006). *Teacher pay and teacher quality: Attracting, developing, and retaining the best teachers*. Thousand Oaks, CA: Corwin Press.
- Vaughn Next Century Learning Center. (2012). *Supporting literacy: Curriculum, technology, parents and experts*. Retrieved June 3, 2012, from http://policyweb.sri.com/cehs/publications/f5cslit_la_vaughn.pdf
- WLKY.com (2012, January 10). *Board approves merit pay at four schools*. Retrieved June 2, 2012, from <http://www.wlky.com/Board-Approves-Merit-Pay-At-Four-Schools/-/9366718/9785236/-/26fq53z/-/index.html>
- Weldon, T. (2011, November). *Does merit pay for teachers have merit? And cons of new models for teacher compensation*. Retrieved January 25, 2012, from Knowledge Center: The Council of State Governments website, <http://knowledgecenter.csg.org/drupal/content/capitol-research-does-merit-pay-teachers-have-merit-pros-cons-new-models-teacher-compensation.pdf>
- Wright, S. P., Horn, S. P., & Sanders, W. L. (1997). Teacher and classroom context effects on student achievement: Implications for teacher evaluation. *Journal of Personnel Evaluation in Education*, 11, 57-67.

Appendix A

Expert Opinion on Survey Questions

Correspondence received from Mr. Dennis Dotterer on April 22, 2012.

John,

I have read over the survey and your dissertation questions. I feel that the questions identified in the survey do lend themselves directly to the topic of your dissertation questions. Each question is directly aligned to support your research. My only issue with this survey is the set up of who will be taking it. TAP is more than a performance based compensation system. Because of all of the other tenants of TAP, the answers you will receive may be different than ones you would receive from a simple, strict PBC school.

If you like, we can discuss this further. I hope this helps,

Dennis

Dennis Dotterer

Executive Director, SC TAP System

South Carolina Department of Education

Appendix B

Request for Permission

Dear Middle School Principal:

I am a graduate student at Gardner-Webb University in their School of Education working on my doctorate. I am doing research for my dissertation on merit pay and the impact on teacher qualities. I am aware that your school has been on merit pay plan for a few years now. I am seeking schools that are on a performance-based plan to participate in my research.

The school's involvement will include the completion of a survey which will take up to 30 minutes of time and participating, for some, in an individual interview which I will conduct. The interview will take no longer than 30 minutes. I intend to complete this data collection phase by May 1st.

Participation on your part is strictly voluntary and can be withdrawn at any time. Also, the confidentiality and anonymity for your school and all the respondents will be preserved.

The only identifying information will be the demographic information collected on the survey and in the interview process. It will be limited to gender, years of experience, grade level and education level.

There are no specific benefits to you or your school other than my sincerely appreciation and gratitude for your time and your informed opinions.

Thank you for your consideration and hope to hear from you. If you have any questions or wish to discuss in more detail, please contact me on XXXXXXXXXX or via email on XXXXXXXXXXXXXXXXXXXX.

With appreciation,
John D. Balls
Doctoral Student
Gardner-Webb University

Appendix C
Permission Document

Consent to Survey/Interview Teachers from Principal

From: "Josie Kate Haupfear" <XXXXXXXXXXXXXXXXXXXX>
>> To: <XXXXXXXXXXXXXXXXXXXX>
>> Subject: =?utf-8?B?UmU6IFN1cnZleSBsaW5r==?>>
>>
>> John,
>>
>>
>> I have about 40 teachers and will send out one final plea tomorrow! Just
>> let me know which day you would like to do the interviews. It would probably be
>> better to do them sooner rather than later...
>>
>>
>> JK

From: Josie Kate Haupfear
To: John D. Balls
Subject: Re: Survey link

John,
I will be glad to help in any way that I can! I will let my teachers know about survey and provide them the link. Again, I will help in any way possible. You are welcome to interview any and all teachers as well.
Sincerely,
JK

From: Andrew Hooker
To: John Balls
Cc: Dr Allen Douglas Eury
Subject: Re: Visit on April 17 & GWU-SOE/CILD Summer Conference speaker

I informed my teachers that you will be surveying them and shared with them the survey link.
April 18 will be fine for the teacher interviews.

Andy

Appendix D
Survey Instrument

Survey

1. What is your gender?

- What is your gender? Female
 Male

2. Survey Information- Years of Experience

- Less than one
 1-5
 6-10
 11-15
 16-20
 20+

3. Survey Information-Grade Level

- 6th
 7th
 8th

4. Survey Information- Education Level

- Bachelor Degree
 Bachelor;pursuing graduate degree
 Masters
 Masters; pursuing doctorate
 Doctorate

5. The impact of performance-based pay has had a positive influence on your attitude toward collaboration.

- Strongly Agree
 Agree
 Neutral
 Disagree
 Strongly Disagree

Comments

6. The impact of performance-based pay has had a positive influence on your attitude toward the practice of reflection.

- Strongly Agree
 Agree
 Neutral
 Disagree
 Strongly Disagree

Comments

7. Performance-based pay has provided a climate conducive to maximizing your overall effectiveness as a teacher.

- Strongly Agree
 Agree
 Neutral
 Disagree
 Strongly Disagree

Comments

8. Performance-based pay has served to increase collaboration among the faculty.

Strongly Agree Agree Neutral Disagree Strongly Disagree

Comments

9. Performance-based pay has increased morale among the faculty.

Strongly Agree Agree Neutral Disagree Strongly Disagree

Comments

10. Performance-based pay has positively impacted the learning culture in the school.

Strongly Agree Agree Neutral Disagree Strongly Disagree

Comments

11. Performance-based pay has impacted students' attitude toward learning.

Strongly Agree Agree Neutral Disagree Strongly Disagree

Comments

12. Performance-based pay has created a culture of "always doing your best".

Strongly Agree Agree Neutral Disagree Strongly Disagree

Comments

13. Implementing change within your school was facilitated to some degree by performance-based pay.

Strongly Agree Agree Neutral Disagree Strongly Disagree

Comments

14. Faculty was treated fairly with the administration of performance-based pay.

Strongly Agree Agree Neutral Disagree Strongly Disagree

Comments

15. There was a good understanding of what performance-based pay was prior to implementation.

Strongly Agree Agree Neutral Disagree Strongly Disagree

Comments

16. The school benefited from the implementation of performance-based pay

Strongly Agree Agree Neutral Disagree Strongly Disagree

Comments

17. The district benefited from the implementation of performance-based pay at my school.

Strongly Agree Agree Neutral Disagree Strongly Disagree

Comments

18. The impact of performance-based pay has had a positive influence on your attitude toward planning.

Strongly Agree Agree Neutral Disagree Strongly Disagree

Comments

19. The impact of performance-based pay has had a positive influence on your attitude toward implementation.

Strongly Agree Agree Neutral Disagree Strongly Disagree

Comments

	1st	2nd	3rd	4th	5th	6th
Money						
School Culture	<input type="radio"/>					

25. Please rate in order of importance to you.

	1st	2nd	3rd	4th	5th	6th
Planning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Collaboration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
School Learning Culture	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reflection	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Implementation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
School Morale	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Appendix E
Interview Instrument

Perceived Association of Merit Pay and Teacher Qualities Interview Questions

Interviewee Information:

School:

Grade Level:

Years of Experience

Years at Current School:

Gender:

1. Do you believe merit pay/performance-based pay such as bonuses based on meeting or exceeding school-wide and personal objectives is a positive influence on a teacher's effectiveness? Why or why not?

2. Do you believe merit pay/performance-based pay can positively impact the learning culture at a school? Why or why not?

3. Have you experienced or observed an increase in teacher collaboration when performance-based pay was instituted at your school? If so, please explain.

4. Have you experienced or observed an increase in teacher planning when performance-based pay was instituted at your school? If so, please explain.

5. Have you experienced or observed an increase in teacher implementation when performance-based pay was instituted at your school? If so, please explain.

6. Have you experienced or observed an increase in teacher reflection when performance-based pay was instituted at your school? If so, please explain.

7. Have you experienced or observed an increase in teachers' attitude toward assessment when performance-based pay was instituted at your school? If so, please explain.

8. Have you experienced or observed an increase in teachers' attitude toward assessment when performance-based pay was instituted at your school? If so, please explain.

9. Do you think performance-based pay has impacted in any way students' attitude toward learning? Why or why not?

10. Has performance-based pay increased morale at your school? If so, please explain. If not, why not?

11. Were you initially motivated by the opportunity to earn more money? If so, has the motivation changed in any way? Please explain.

12. What role can performance-based pay play in teacher effectiveness and student academic growth?

13. What drawbacks do you see or have experienced in a performance-based pay plan? Please explain.

14. What benefits have you observed or experienced with a performance-based pay plan? Please explain.

15. Would you recommend a performance-based pay plan to other school districts? Is so, why? If not, why not?

16. Of the following, which would you rank as most important; school morale, reflection, collaboration, planning, or school culture?

17. How does/can performance-base pay affect ones' attitude? Please explain?

18. Did the recent decision to discontinue TAP, due to budgetary reasons, influence your responses to the survey questions or your responses today? Please explain.

19. Is there anything else regarding performance-based pay that we haven't covered that you would like to add to this discussion? If so, please explain.

Thank you!!!!