

FOURTH- THROUGH EIGHTH-GRADE EDUCATOR PERCEPTIONS OF THE NORTH
CAROLINA TEACHER PERFORMANCE BONUS

by

Tiffany S. Clapsaddle

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

Liberty University

2022

FOURTH THROUGH EIGHTH GRADE EDUCATOR PERCEPTIONS OF THE NORTH
CAROLINA TEACHER PERFORMANCE BONUS

By Tiffany S. Clapsaddle

A Dissertation Presented in Partial Fulfillment

Of the Requirements for Degree

Doctor of Education

Liberty University, Lynchburg, VA

2022

APPROVED BY:

Linda L. Holcomb, Ed.D., Committee Chair

Scott B. Watson, Ph.D., Committee Member

ABSTRACT

The purpose of this causal-comparative and correlational research study was to determine if differences exist in educators' perceptions of the North Carolina Teacher Performance Bonus and assess any relationships between educators' perceptions and their Education Value-Added Assessment System (EVAAS) score using a 28 question Likert-item survey. To recruit and retain highly effective educators, it is essential for politicians and school administrators to assess and understand educators' perceptions of any pay-for-performance program. Data were gathered using the Teacher Performance Pay Attitudinal Survey (TPPAS), from 174 fourth-eighth grade educators in the seven far western North Carolina school districts. An ANOVA with three eligibility groups (a) no bonus, (b) one bonus, and (c) two bonuses was calculated with no statistically significant differences found in mean scores of educators' perceptions of the North Carolina Teacher Performance Bonus. A Pearson product-moment correlation coefficient was calculated with a positive association found between an educator's perception score and EVAAS growth score. Finally, teacher perceptions of the performance bonus were compiled and reported with regard to demographic categories as they related to the knowledge and understanding and teacher efficacy of the current North Carolina Teacher Performance Bonus. Recommendations for future research include developing an understandable performance pay program with a feasible goal linked to teacher effort that is fairly measured and distributed.

Keywords: performance pay, EVAAS, expectancy theory, equity theory, goal-setting theory

Dedication

First and foremost, this dissertation is dedicated to our Heavenly Father. I am blessed beyond measure and more than I deserve. His steadfast love and graciousness have helped me to persevere. “For with God nothing shall be impossible” (King James Version, 2021, Luke 1:37). Next, I dedicate this dissertation to my husband, Justin, who has always provided his love, support, and encouragement throughout this process. I hope he understands he is fiercely loved and cherished. Finally, I dedicate this dissertation to my three children – Bryce, Aubrey, and Garrett. They are unique, wonderful, and each a treasure to my heart. I desire any influence I have over them will be positive, honorable, and trustworthy.

Acknowledgements

I would like to acknowledge all those who have played a role in my academic accomplishments. First, I am thankful my parents instilled in me the importance of doing any work in a focused and deliberate way. Next, I owe a debt of gratitude to all the dedicated educators from kindergarten through graduate school who helped to mold me into the student I am today and inspired my love of learning. If not for the support and guidance of Dr. Jeana Conley, I am unsure whether this dissertation would have come to fruition. I appreciate and acknowledge the staff of Liberty University, specifically my committee members, each of whom has provided patient advice and guidance throughout the research process. Finally, I would be nothing without the support of my husband and children. They have been my guiding compass, my inspiration to stand tall and strong, and my comfort when I falter.

Table of Contents

ABSTRACT	3
Dedication	4
Acknowledgements	5
List of Tables	12
List of Figures	14
List of Abbreviations	15
CHAPTER ONE: INTRODUCTION.....	16
Overview.....	16
Background.....	16
Problem Statement	21
Purpose Statement.....	22
Significance of the Study	25
Research Questions.....	26
Definitions.....	27
CHAPTER TWO: LITERATURE REVIEW.....	28
Overview.....	28
Conceptual Framework.....	28
Expectancy Theory	29
Equity Theory	31
Goal-Setting Theory.....	32
Integrating Expectancy, Equity, and Goal-Setting Theories	33
Related Literature.....	35

Call for Educational Reform.....	35
Performance Pay Programs in an Educational Setting	36
Non-Student Achievement Teacher Compensation Programs	38
Student Achievement Teacher Compensation Programs.....	41
Positive Results.....	41
Mixed Results	43
Prior North Carolina Performance Pay Programs.....	45
ABC’s of Public Education – School Based.....	45
Race to the Top Act of 2011 – School and Individual Based.....	46
Intended Results and Unintended Consequences	47
North Carolina Alternative Performance Pay Programs.....	48
Salary Schedule/Level and Bonuses	48
Current North Carolina Teacher Performance Bonus Program	49
Measuring Teacher Effectiveness.....	50
Education Value-Added Assessment System (EVAAS) score.....	50
Research Findings on the Effects of Educator Perceptions of Performance Pay	
Programs	50
Teacher Attitudes	51
Negative Attitudes	51
Mixed Attitudes	51
Teacher Motivation.....	53
Teacher Performance	55
Teacher Expectancy	55

Research Findings on the Effects of Educator Perceptions on Student Achievement.....	56
Individual Performance Pay Programs	56
Group Performance Pay Programs.....	57
Summary	58
CHAPTER THREE: METHODS	60
Overview	60
Design	60
Research Questions.....	61
Null Hypotheses.....	62
Participants and Setting.....	62
Population Overview	63
Population Demographics.....	64
Instrumentation	66
Procedures.....	68
Data Analysis	70
CHAPTER FOUR: FINDINGS	72
Overview.....	72
Research Questions.....	72
Null Hypotheses.....	73
Sample Demographics	73
Sample Demographics Overview	73
Sample Demographics by Eligibility Status	76
Descriptive Statistics.....	80

Results.....	85
Null Hypothesis #1	85
Data Screening.....	85
Assumption Tests.....	86
Data Analysis for Null Hypothesis #1	87
Null Hypothesis #2	88
Data Screening.....	88
Assumption Tests.....	89
Data Analysis for Null Hypothesis #2	91
Descriptive Analysis for Research Question #3	92
Knowledge and Understanding.....	92
Teacher Efficacy	94
Summary.....	98
CHAPTER FIVE: CONCLUSIONS	99
Overview.....	99
Discussion.....	99
Research Question #1	99
Results.....	100
Similar Studies	100
Other Studies.....	102
Conceptual Framework.....	105
Research Question #2	107
Results.....	107

	10
Similar Studies	107
Other Studies.....	108
Conceptual Framework.....	111
Research Question #3	112
Results.....	112
Similar Studies	113
Other Studies.....	114
Years of Experience	114
Gender.....	115
Level of Educational Attainment	116
Title 1 School Status	117
Receipt of Prior Performance Pay.....	118
Analysis of Comments	118
Implications.....	124
Limitations	125
Population and Sample	126
Quantitative Research Design.....	126
COVID-19 Pandemic, Maturation, and Participant Bias	127
Recommendations for Future Research	129
REFERENCES	131
APPENDICES	150
Appendix A: Institutional Review Board Approval	150
Appendix B: School District Permission Request Form.....	151

Appendix C: School District 1 Consent Form	153
Appendix D: School District 2 Consent Form	154
Appendix E: School District 3 Consent Form	155
Appendix F: School District 4 Consent Form.....	156
Appendix G: School District 5 Consent Form.....	157
Appendix H: School District 6 Consent Form.....	158
Appendix I: School District 7 Consent Form	169
Appendix J: Participant Information Letter and Consent to Participate	160
Appendix K: Reminder Letter to Participants	162
Appendix L: Participant Consent Form	163
Appendix M: Permission Request to Use Survey Instrument	166
Appendix N: Consent to Use Survey Instrument.....	167
Appendix O: Teacher Performance Pay Attitudinal Survey.....	168

List of Tables

Table 1: Population – School District Composition	64
Table 2: Population – Teacher Experience and Effectiveness	66
Table 3: Participant Sample – Years of Experience	74
Table 4: Participant Sample – Gender	74
Table 5: Participant Sample – Level of Educational Attainment	75
Table 6: Participant Sample – Title 1 School Status.....	75
Table 7: Participant Sample – Receipt of Prior Performance Pay Award	76
Table 8: Teacher Assignment – Eligibility Status	78
Table 9: Years of Experience – Eligibility Status.....	78
Table 10: Gender – Eligibility Status.....	79
Table 11: Level of Educational Attainment – Eligibility Status.....	79
Table 12: Title 1 School Status – Eligibility Status	80
Table 13: Receipt of Prior Performance Award – Eligibility Status	80
Table 14: Overall Educators’ Perception Scores and Education Value-Added Assessment System Score	82
Table 15: Overall Educators’ Perception Survey Scores by Eligibility Status.....	82
Table 16: Descriptive Statistics by Survey Question and Eligibility Status.....	83
Table 17: Eligibility Status and Educators’ Perceptions Scores.....	87
Table 18: Levene’s F Test of Equality of Equal Variances Scores	87
Table 19: Welch’s Tests of Equality of Means.....	88
Table 20: Pearson’s Product-Moment Correlation	92
Table 21: Knowledge and Understanding by Years of Experience	93

Table 22: Knowledge and Understanding by Gender.....	93
Table 23: Knowledge and Understanding by Title 1 School Status	94
Table 24: Knowledge and Understanding by Receipt of Prior Performance Pay.....	94
Table 25: Teacher Efficacy by Years of Experience	95
Table 26: Teacher Efficacy by Gender	95
Table 27: Teacher Efficacy by Level of Educational Attainment	96
Table 28: Teacher Efficacy by Title 1 School Status	97
Table 29: Teacher Efficacy by Receipt of Prior Performance Pay.....	97
Table 30: Survey Responses by Question Number and Receipt of Prior Performance Pay.....	106
Table 31: Comment Frequency Distribution	119
Table 32: Perceived Fairness by Gender	120
Table 33: Perceived Fairness by Receipt of Prior Performance Pay	120
Table 34: Category Valence Frequency Distribution	123

List of Figures

Figure 1. Overall Educators' Perception Score by Eligibility Status.....	86
Figure 2. Scatterplot of 2018–19 Education Value-Added Assessment System Score by Overall Educator Perception Score	89
Figure 3. Histogram of Overall Educators' Perceptions Score.....	90
Figure 4. Histogram of 2018-19 Education Value-Added Assessment System Score.....	91

List of Abbreviations

Accountability, Basics, and Control (ABCs)

Analysis of Variance (ANOVA)

Advanced Placement (AP)

Career Technical Exploration (CTE)

End of Grade (EOG)

International Baccalaureate (IB)

Merit Award Program (MAP)

National Board Certified Teacher (NBCT)

North Carolina Association of Educators (NCAE)

North Carolina Final Exam (NCFE)

North Carolina Department of Public Instruction (NCDPI)

No Child Left Behind Act of 2001 (NCLB)

Race to the Top (RttT)

Statistical Analysis System – Education Value-Added Assessment System (SAS EVAAS)

Special Teachers Are Rewarded (STAR)

Teacher Incentive Fund (TIF)

Teacher Performance Pay Attitudinal Survey (TPPAS)

CHAPTER ONE: INTRODUCTION

Overview

In two reports, namely *2016–2017 State of the Teaching Profession in North Carolina: Report to the North Carolina General Assembly* and *Third Grade Read to Achieve Teacher Bonus Program: Report to the North Carolina General Assembly*, the North Carolina Department of Public Instruction (2018a, 2018b) announced that no conclusive evidence could be found that the North Carolina Teacher Bonus Program had a positive effect on teachers' instructional quality or impacted teacher retention rates among school districts. There are very few published studies regarding teacher perceptions of the current North Carolina Teacher Performance Bonus Plan and whether these perceptions have any impact on teacher performance. The purpose of this study was to examine any differences in educator perceptions of the current bonus plan and determine whether any predictive relationship existed between these perceptions and the educators' instructional performance. The background of teacher compensation plans is discussed along with the purpose, problem statement, and significance of the study. Chapter One concludes with the introduction of the research questions as well as definitions germane to the study.

Background

Because more money is allocated to teacher salaries than to any other educational expense, teacher compensation plans are very prominent in almost every educational financial debate and give rise to frequent calls for teacher compensation policy reform (Baker & Gordon, 2014; Jones, 2013; Jones & Hartney, 2017; Cornman, Zhou, Howell, & Young, 2018). The most recent data available shows during the 2014–15 school year, U.S. public schools spent \$239 billion on salaries and wages for instructional personnel and an additional \$95 billion on employee benefits (Cornman et al., 2018). These expenditures account for 58% of the total

amount in K–12 public schools and 89% of instructional monies allocated (Cornman et al., 2018). Thus, teacher salaries can have significant consequences for how school districts and administrators staff their schools and are critical to the productivity of every K–12 public school system (Podgursky & Springer, 2011; Springer & Taylor, 2016).

Beginning in the 1800s and continuing to the present day, teacher compensation has evolved in light of changing social, economic, and educational needs (Protsik, 1995; Springer & Gardner, 2018). Over time there have been three major shifts in teacher compensation – paying teachers room and board, a grade-based salary schedule, and a single salary schedule (Baker & Gordon, 2014). All of these methods have now merged into the most recent reform attempt known as merit or performance based bonus pay programs (Vigdor, 2008).

In the early days of the one-room schoolhouse, the school was designed to meet the needs of the surrounding community (Protsik, 1995). One teacher provided basic academic skills, a moral education, and was primarily compensated with room and board (Protsik, 1995; Springer & Gardner, 2018). This pay system encouraged the teacher to maintain positive relations with community members and a high moral character as reflected throughout the community (Springer & Gardner, 2018). As the US moved into the 20th century, teacher preparation became more rigorous and required higher levels of education as schools began to echo the changing bureaucracy and industrial revolution (Protsik, 1995; Springer & Gardner, 2018). During this time, a grade-based salary system was established aligned with the economic components of the larger communities and school districts. The new salary system rewarded secondary more than elementary teachers based on the amount of education required for the positions (Protsik, 1995). Additionally, women and minorities also received lower pay than non-minority men did, in accordance with the societal biases of the period (Protsik, 1995).

The single salary pay schedule emerged from a greater demand for advanced teacher skills later in the 20th century (Brodsky, DeCesare, & Kramer-Wine, 2010). The pay scale also addressed the undisguised discrimination against teachers of certain grade levels, gender, and races (Podgursky & Springer, 2007b). This pay scale is still in use today in the majority of school districts across the US (Podgursky & Springer, 2011). However, teachers are still paid differing amounts based on years of experience and educational level as well as receiving other salary supplements for extracurricular activities such as coaching a sport or advising a club (Podgursky & Springer, 2007b, 2011). Proponents of the single salary pay structure, which is completely based on education level and years of experience, argue its effectiveness based upon the objective nature of the schedule (Liang & Akiba, 2015; Rothstein, 2015). There is little to no room for subjectivity or biased opinions since pay can accurately and consistently be assessed (Conroy & Gupta, 2016). Critics of the salary based system contend there are few, if any, methods to reward individual efforts (Meng & Wu, 2015). Many schools are understaffed in subjects such as mathematics and science because these content area teachers can earn higher wages in nonteaching occupations (Meng, & Wu, 2015).

Currently, there are many forms of alternative bonus pay structures from pay differentials based on subject area, grade, or geographic location of the school to increased salaries for increased responsibilities such as heading departments or mentoring other teachers (Loeb, (Amrein-Beardsley, Polasky, & Holloway-Libell, 2016; Miller & Strunk, 2009). The alternative pay structure garnering the most interest across the US is that of rewarding teachers based on student growth outcomes (Liu, Xu, & Stronge, 2017; National Education Association [NEA] Department of Teacher Quality, 2011). This form of output-based bonus compensation has proven highly controversial when proposed or implemented (Baker, 2014; Brodsky, DeCesare, & Kramer-Wine, 2010). Advocates of a performance pay plan state that rewarding teacher

effectiveness encourages all teachers to seek continuous improvement in their instructional practices (Baker, 2014; Balch & Springer, 2015; Hendricks, 2014). Given the ever-changing composition of student bodies with unique challenges such as varying income levels, family structures, and racial/ethnic backgrounds, it is imperative for school districts to recruit and retain high quality teachers (Adnot, Dee, Katz, & Wyckoff, 2017).

North Carolina's Teacher Performance Bonus Plan, which was implemented during the 2016 legislative session, included bonuses for some specialized high school teachers and third grade reading teachers but most recently has been expanded to include elementary and middle school mathematics and some language arts teachers (S. 257-N.C. Gen. Ass., 2018). These bonuses ranging from \$2,300 to \$6,400 are granted to public school teachers for their students' exceptional growth as evidenced by end-of-grade (EOG) exams (S. 257-N.C. Gen. Ass., 2018). However, science, social studies, and some language arts teachers, whose students have met the same growth assessment criteria, are not eligible for the rewards (S. 257-N.C. Gen. Ass., 2018). North Carolina is certainly not the only state experimenting with connecting a bonus pay plan to student outcomes, and North Carolina's plan shares many characteristics with other plans across the nation (Balch & Springer, 2015; Brehm, Imberman, & Lovenheim, 2017; Swain, Rodriguez, & Springer, 2019). However, educators continue to have concerns regarding the monetary amount awarded, the basis for evaluation, and who is eligible as well as exactly what inspires or persuades teachers to improve their educational practices (Balch & Springer, 2015; Brehm et al., 2017; Swain et al., 2019). Research shows successful bonus pay plans must establish and ensure teacher motivation, clear and specific goals, and equitable distribution of rewards (Purvis, Zagenczyk, & McCray, 2015; Rice, Malen, Jackson, & Hoyer, 2016; Munroe, 2017).

Three prominent theories explaining teacher motivation were used as the conceptual framework for this study. First, Flake et al. (2015) assert that expectancy theory explains why

individuals are motivated by perceived efforts or inputs being rewarded by certain outputs or rewards. When viewed from an educational perspective, expectancy theory is linked to a teacher's perceptions of the extent to which their individual efforts will influence student growth or achievement associated with the financial reward (Purvis et al., 2015). When applied to education, goal-setting theory addresses teachers' motivation to respond to extrinsic rewards embedded in financial incentives (Rice et al., 2016). Finally, fairness, a key tenet of equity theory, is the idea of equal opportunity in consideration of all teachers for merit pay regardless of grade level, subject area, or school demographics (Munroe, 2017).

Regardless of the underlying inspiration – expectancy, goal-setting, or equity, research indicates teacher motivation, job satisfaction, and student learning outcomes are reciprocal (Cowan & Goldhaber, 2018; Dee & Wyckoff, 2015; Liu et al., 2017). Liu et al. (2017) attribute this reciprocity to an increased educator self-efficacy encompassing efficacy for student engagement, instructional strategies, and classroom management. Kobussen, Kalagnanam, and Vaidyanathan (2014) contend job satisfaction is a multidimensional construct with an individual's salary ranked among the top three factors. Moreover, job satisfaction increases when a performance pay plan is perceived to be equitable across peer groups and target incentives are similar (Kobussen et al., 2014; Mintrop, Ordenes, Coghlan, Pyror, & Madero, 2018). Dee and Wyckoff (2015) assert performance pay plans improve teacher effectiveness, leading to increased student learning through the voluntary attrition of low-performing teachers. Finally, Cowan and Goldhaber (2018) state teacher quality to be among the top school-based influences on student learning.

Teachers are the compelling force within school systems, and their efforts are both significant and worthwhile to society (Rothstein, 2015). High-quality teachers are undeniably one of the most definitive resources school districts have for improving and increasing student

achievement (Desimone, Hochberg, & McMaken, 2016; Skourdoumbis, 2014). Unfortunately, nationwide teacher shortages have made the goal of recruiting and retaining talented and effective classroom teachers a daunting task for school districts (Brevetti, 2014). With the increased rigor of national standards and school-based accountability sweeping our nation's public schools, many state policymakers and school district administrators are seeking alternative compensation pay schedules such as a performance pay plan based on students' academic achievement (Jones & Hartney, 2017). The dilemma then becomes one of how to define student and teacher performance along with which teachers are eligible for the additional bonus pay (Arnstine & McDowell, 1993; Dee & Wyckoff, 2015; Loeb, Miller, & Strunk, 2009).

Problem Statement

The primary goal of every educator, parent, and community stakeholder should be to ensure each child receives a quality education. Research shows that teachers are the most important factor in predicting student success (Skourdoumbis, 2014). In the past, lawmakers have developed teacher recruitment and retention initiatives such as school performance bonuses (Lauen & Kozlowski, 2013; Vigdor, 2008) and differential pay programs (Lauen & Kozlowski, 2014; Liang & Akiba, 2015) aimed at attracting highly qualified and effective educators. This form of merit-based pay is not an uncommon practice in a school setting or a non-school sector and is intended to inspire and persuade employees to increase productivity and effectiveness (Liu et al., 2017). However, pay for performance in public schools is a controversial topic and has often been noted to detrimentally affect the learning environment and school culture, especially when linked to student achievement and teacher evaluation (Gius, 2014; Hendricks, 2014; Jacob & Springer, 2008; Munroe, 2017). Prior studies suggest that more research with regard to the amount of the reward, the issue of fair practice, and the accuracy of performance measures is

needed before implementing educator incentive pay plans (Jones & Hartney, 2017; Munroe, 2017; Rice, Malen, Jackson, & Hoyer, 2015; Springer & Taylor, 2016). Research shows many states and school districts across the US are assigning teacher effectiveness value-added scores using the Statistical Analysis System – Education Value-Added Assessment System (SAS EVAAS) score model (Rovai, Baker, & Ponton, 2014; Vosters, Guarino, & Wooldridge, 2018). Controversy then arises when these quantitative value-added scores are used to determine which teachers qualify for the educator incentive pay plan (Vosters et al., 2018).

Most recently, North Carolina teachers have been compensated with a teacher performance bonus based on their EVAAS growth measure (SB. 299-SL2018-5 N.C. Gen. Ass., 2018). As North Carolina school leaders and state policymakers continue to search for ways to improve student performance, they must be able to identify and understand current teacher perceptions of the North Carolina Teacher Performance Bonus Program (2018). While it is essential for politicians to understand educators' attitudes and concerns, it is also imperative school administrators identify and understand any relationships between the educators' attitudes toward the performance bonus program and their corresponding EVAAS score. Any identifiable relationships would assist school leaders as they make critical staffing decisions affecting student learning. The problem is more specific quantitative research is needed to gauge what is necessary to garner teacher support of this alternate compensation system and identify any relationships between a teacher's attitude toward performance pay and corresponding EVAAS growth score.

Purpose Statement

The purpose of this study was threefold. First, the study was conducted to determine whether differences and/or relationships existed in the attitudes and perceptions of fourth-through eighth grade educators regarding the current North Carolina Teacher Performance

Bonus. Next, the study determined the strength and direction of any linear association between an educator's perception score regarding the North Carolina Teacher Performance Bonus and the educator's EVAAS growth score. Finally, educators' perceptions of the North Carolina Teacher Performance Bonus were compiled and reported regarding teacher efficacy, individual performance, and implementation. The study incorporated a causal-comparative and correlational research design (Rovai et al., 2014; Warner, 2013). Due to the personal nature of this study, teacher interviews and focus groups would not have provided the honesty needed and may have added the potential for the bias and inconsistencies an anonymous survey would allow. Additionally, the closed-ended questions contained in the survey allowed for proportions of the target participants' attitudes and perceptions to be calculated and assessed at a statistically significant level (Rovai et al., 2014). Thus, descriptive statistics were computed and reported (Table 16) regarding educators' perceptions as scored by an anonymous 28-question Likert-item survey (Adkins, 2004). An analysis of variance (ANOVA) was calculated to test for differences using the independent variable, teacher eligibility, with three groups and the dependent variable, educators' perceptions (Warner, 2013). The three groups for the independent variable were (a) teachers not eligible for any bonus, (b) teachers eligible for one bonus, and (c) teachers eligible for two bonuses. Fourth- through eighth-grade mathematics teachers and fourth through fifth grade reading teachers were eligible for the North Carolina Teacher Performance Bonus. Fourth-through eighth-grade science and social studies teachers and sixth through eighth grade reading teachers were not eligible. More specifically, a fourth- through eighth-grade teacher who only taught science or social studies or a sixth- through eighth-grade teacher who only taught reading was not eligible for any bonus. A fourth or fifth grade teacher who taught either mathematics or reading and science or social studies or a sixth- through eighth-grade mathematics teacher was

eligible for one bonus. Finally, a fourth or fifth grade teacher who taught both mathematics and reading was eligible for two bonuses. The dependent variable, educators' perceptions, was generally defined as the overall perceptions about and attitudes toward the North Carolina Teacher Performance Bonus. Furthermore, educator perceptions were divided and reported as (a) knowledge and understanding; (b) individual efficacy; (c) impact on individual performance – motivation; (d) impact on individual performance – negative impact; (e) implementation – appropriateness, fairness, and goal alignment; and (f) amount and proportion of performance bonus.

Next, a Pearson product-moment correlation coefficient was computed to determine the strength and direction of any linear association between an educator's perception score regarding the North Carolina Teacher Performance Bonus and their corresponding EVAAS growth score as calculated by the North Carolina Department of Public Instruction (NCDPI) and the SAS Institute (Rovai et al., 2014; Warner, 2013). Each educator's EVAAS growth score was linked to that educator's overall perception score regarding the North Carolina Teacher Performance Bonus by the last five digits of their 10-digit employee identification number generated by the North Carolina Department of Public Instruction. The last five digits of the 10-digit employee identification number were provided to each school district's EVAAS coordinator so they could provide the respective teacher's EVAAS growth score to the researcher while maintaining confidentiality.

Finally, based on demographic categories, educators' perceptions were reported as percentages with regards to the knowledge and understanding and teacher efficacy of the North Carolina Teacher Performance Bonus (Tables 21–29).

Participants were drawn from a purposive convenience sample of fourth- through eighth-grade educators in the seven far western North Carolina counties. More specifically, the sample itself consisted of approximately 150 fourth- through eighth-grade educators who teach English, mathematics, science, or social studies. The sample was representative of the target population in terms of current teaching assignment, years of experience, gender, personal level of educational attainment, school socio-economic status, and receipt of a prior performance plan award. This information was collected through the 28 question Likert-item survey instrument.

Significance of the Study

Many research studies have not only been devoted to determining what motivates teachers to remain in the education profession but have also examined whether a monetary reward influences this decision (Baker, 2014; Rice et al., 2015; Springer & Taylor, 2016). Is it fair to reward teachers for student performance? Should administrators make staffing decisions based on student growth measures while so much that affects student growth is beyond teachers' control? The answers to these questions and more were all integral parts of this study and the future of performance pay plans within the K–12 public education school system.

The results of this study prove beneficial to many organizations and individuals including federal and state policymakers as well as to local district and school administrators. Gaining insight into factors affecting teachers' perceptions of a performance plan and what motivates teachers benefit and guide future alternative compensation policies. Additionally, the results also provide school administrators with an understanding of teacher retention issues and better equip them to appropriately staff their individual school positions.

Because the single salary pay schedule is the dominant form of pay among K–12 public schools, much of the research regarding merit pay has been conducted in the business sector (Conroy & Gupta, 2016; Frey, Homberg, & Osterloh, 2013; Guis, 2013). Additionally, much of

the research involving performance pay in the educational sector is based on teacher evaluations and not student achievement (Amrein-Beardsley, Polasky, & Holloway-Libell, 2016; Rice et al., 2015). If future merit pay plans, including the one analyzed in this study, become the norm across K–12 public schools, educational stakeholders must understand all aspects, including both positive and unintended consequences (Balch & Springer, 2015; Berk, 2016; Brehm et al., 2017; Guis, 2014). These gaps in the literature were addressed by analyzing teachers' perceptions of a performance pay plan that is in its fourth year of implementation and how these perceptions could potentially predict future teacher effectiveness and student achievement.

Research Question(s)

The following research questions guided this research:

RQ1: Are there differences in educators' perceptions of the North Carolina Teacher Performance Bonus Plan among fourth- through eighth-grade educators eligible for no bonus, one bonus, or two bonuses?

RQ2: Is there a relationship between an educators' perception score of the North Carolina Teacher Performance Bonus and the educators' EVAAS growth score?

RQ3: What are fourth- through eighth-grade educators' perceptions of the North Carolina Teacher Performance Bonus Plan in regards to (a) subject taught, (b) years of experience, (c) gender, (d) personal level of educational attainment, (e) Title 1 school, and (f) receipt of performance pay?

Definitions

The following key terms are used throughout this study and are defined based upon the purpose of the study.

1. *Equity Theory* – Individuals are motivated by fairness or the idea that similar inputs receive similar outcomes or are equitable (Horne, Foley, & Flora, 2014)
2. *EVAAS* – Education Value-Added Assessment System (EVAAS) score; an analytic system used to measure teacher effectiveness and predict a students' growth over time for multiple subjects for multiple grades across a minimum of three years (Vosters et al., 2018)
3. *Expectancy Theory* – An individual's motivation is an outcome of how much the individual wants a reward, the likelihood the effort will lead to the expected outcome, and the belief the effort will lead to the reward (Flake et al., 2015)
4. *Goal Setting Theory* – Effects of setting goals on subsequent performance as defined by the measure of importance the goal has to the individual and self-efficacy (Dishon-Berkovits, 2014)
5. *Performance Pay* – An alternative pay plan that compensates teachers based on value-added measures or student achievement and growth data; may be used interchangeably with merit pay (Podgursky & Springer, 2007a)

CHAPTER TWO: LITERATURE REVIEW

Overview

This literature review begins by defining expectancy, equity, and goal-setting theories in the context of the conceptual framework and related to teacher perceptions of pay for performance programs (Mintrop, Ordenes, Coghlan, Pryor, & Madero, 2018). The historical context and call for educational reform in the US is depicted (Baker & Gordon, 2014) and pay for performance programs in school and non-school sectors from other states and countries are detailed. Prior North Carolina performance pay school- and individual-based programs are thoroughly explained including the intended results and unintended consequences of each. Next, the current North Carolina Teacher Performance Bonus Program (2017) is defined (N.C. Gen. Ass., 2018). Teacher evaluation models created to measure and improve teacher effectiveness are outlined. Finally, previous research findings about the effects on perceptions of performance pay programs as related to educator attitudes, motivations, performance, and student achievement are chronicled.

Conceptual Framework

The success of educator incentive programs relies on the assumption that financial rewards for teachers will motivate them to choose certain teaching positions, put more effort into their teaching, and engage in professional development (Yuan et al., 2013). The impact of financial incentives on teacher behaviors such as instructional practices, level of effort, job decisions, and working conditions such as job stress and collegiality has been the focus of much research (Flake, Barron, Hulleman, McCoach, & Welsh, 2015; Rice et al., 2015; Yuan et al., 2013). This study applied the major components of Vroom's expectancy theory, Adam's equity theory, and Locke's goal-setting theory, and directly related them to the motivational aspects,

facets of rewards versus outputs, and focus of setting challenging objectives of performance-based pay in an educational setting (Adams, 1963; Locke & Latham, 2006; Vroom, 1995).

Expectancy Theory

Vroom's expectancy theory examines the relationship between one's internal needs and the resulting effort expended to meet these needs (Vroom, 1995). It is the belief that if one works harder, the outcome will be better (Vroom, 1995). However, the outcome can be affected by having the right tools (e.g., resources, skills, and necessary supports) to complete the task (Field, 2015; Kobussen, Kalagnanam, & Vaidyanathan, 2014; Rice et al., 2015). Purvis, Zagenczyk, and McCray (2015) describe expectancy theory as a process theory of motivation and the motivation behind answering the question "What is in it for me?"

According to Rice et al. (2015) expectancy theory models motivation as a function of three factors (a) valence, (b) expectancy, and (c) instrumentality. Valence is the importance an individual places upon the expected outcome or degree of the personal allurements of the rewards that follow either the group outcome or an individual's performance (Purvis et al., 2015; Rice et al., 2015; Yuan et al., 2013). The second component, expectancy, is the belief an increased effort will lead to increased performance or the measure of the probability that such efforts will achieve the intended outcomes (Purvis et al., 2015; Yuan et al., 2013). Finally, instrumentality is the assumption that if an individual performs well, a valued outcome will occur (Rice et al., 2015; Yuan et al., 2013). For an individual to actively participate in a performance pay plan, the stakeholder would have to view the organization's climate as positive and support motivation with high levels of valence, expectancy, and instrumentality (Purvis et al., 2015; Vroom, 1995).

The combination of these three factors contribute understanding to an individual's participation in pursuing the group or individual outcome whether by active participation, token

participation, or counter-implementation (Vroom, 1995). In the context for this study, teachers who actively participate believe increased efforts result in increased student achievement, leading to a monetary reward that teachers value. Token participation involves an individual simply going through the motions in order to appease superiors while exerting very little effort and may occur three ways (Purvis et al., 2015). First, one may have a low level of expectancy with high levels of instrumentality and valence. This form of participation could be that of a teacher who supports a bonus pay plan but does not feel capable of achieving increased student growth. Purvis et al. (2015) characterizes a second form of token participation as one with a low level of instrumentality and high levels of expectancy and valence. This describes a teacher who assumes that the additional monetary bonus will not be awarded. The last form of token participation, a low level of valence and high levels of instrumentality and expectancy, results from a teacher not valuing the monetary bonus as a result of increased efforts (Purvis et al., 2015).

Finally, counter-implementation is defined as sabotaging or actively opposing any initiatives if the outcome is undesirable to the individual (Purvis et al., 2015). One example could be a teacher undermining any successful efforts because the teacher does not feel the reward is large enough or worth the effort. This type of participation could be exhibited by a teacher who is ineligible for the bonus pay and thus works against other teachers. Thus, Purvis et al. (2015) summarizes the three factors as an individual either having a strong positive motivation (active participation), a neutral motivation (token participation), or a strong negative motivation (counter-implementation) to pursue the targeted outcome.

Equity Theory

Adams' (1963) equity theory is based on a fair balance of hard work or skills against salary or recognition. Equity theory is further explained as an employee's input or effort equaling his or her reward or output (Mintrop et al., 2018). Conroy and Gupta (2016) define this as teachers comparing their own performance, level of effort, and years of experience to their own pay or salary. When employees feel the ratio of the input and output are equally relevant to others, they are satisfied (Conroy & Gupta, 2016; Mintrop et al., 2018). If an individual perceives his or her own input/output ratio is disparagingly compared to that of another individual, he or she is more likely to balance the equity by either reducing his or her own effort or leaving the organization (Schmidt, 2015). Equity theory provides a framework to organize a work situation that is equitable, consistent, and free of self-interest (Conroy & Gupta, 2016).

In an educational context, research shows there are many factors affecting the equity, or fairness, of teacher performance pay and should not be viewed through the lens of higher pay for higher performing teachers (Liu, Zhao, & Xie, 2016; Meng & Wu, 2015). On the contrary, Tirivayi, van den Brink, and Groot (2014) posit monetary incentives may recruit and retain more effective teachers, whereas lower-performing teachers would either improve their instructional practices or leave the profession entirely, leading to a more advanced workforce. Horne et al. (2014) argue equity theory is a better way to examine merit pay than expectancy theory is but that equity theory also has limitations of what teachers deem as fair, such as deciding how the pay is allotted and implemented. An additional limitation is teachers of low performing students being needlessly punished for achievement or growth they are unable to control (Horne et al., 2014). With regard to the traditional teaching salary structure, a proponent of equity theory would argue it to be unbalanced since a beginning teacher would receive less pay than a veteran

teacher while still giving the same effort and attention to their instructional practices (Horne et al., 2014; Podgursky & Springer, 2011). Similarly, or an Advanced Placement (AP) teacher would be paid equally to another teacher on the same salary scale but would not receive additional pay for the assumed increased work load of planning and grading associated with an AP course (Horne et al., 2014).

Goal-Setting Theory

Goal-setting theory states the act of defining a challenging goal contributes to better performance (Mintrop et al., 2018; Rice et al., 2015). In the 1960s, Edwin Locke defined goal-setting theory as the theory that setting specific and challenging goals along with appropriate feedback contribute to better task performance (Locke & Latham, 2006). In practice, providing a specific high-performance goal leads to a better performance outcome than setting no goal or vague goals (Dishon-Berkovits, 2014; Tirivayi et al., 2014). However, two factors affect the success of attaining any goal (a) the importance of the goal to the individual, and (b) self-efficacy (Dishon-Berkovits, 2014; Ford, Van Sickle, Clark, Fazio-Brunson, & Schween, 2017; Frey et al., 2013; Rice et al., 2015). Moreover, Tirivayi et al. (2014) asserts that how the incentive to achieve the goal is determined and communicated to stakeholders is crucial to the influence on accomplishing the goal. Rice et al. (2015) distinguish program fairness and goal attainability as two mediating elements of goal-setting theory.

The motivation behind goal-setting theory may be extrinsic, intrinsic, or a combination of the two (Locke & Latham, 2006). In an educational setting, an extrinsic motivator may be a monetary reward or public recognition (Kelley et al., 2002). Mintrop et al. (2018) noted many teachers consider bonus money as recognition and validation of their hard work and achievements. Extrinsic motivators, such as monetary incentives, may also have negative effects

on teacher behavior such as encouraging teachers to teach to the test, exclude lower-performing students from testing, and cheating such as changing test answers or giving students the correct answers (Jacob & Levitt, 2003; Tirivayi et al, 2014). An intrinsic motivator may be improved student performance or the job satisfaction of meeting a goal (Kelley et al., 2002). Teachers are encouraged and experience positive emotions when earning a monetary reward (Mintrop et al., 2018). Whereas, it is assumed many teachers choose the profession because of high intrinsic motivation, monetary incentives may adversely affect a teacher's intrinsic motivation by undermining their self-determination, self-esteem, and self-efficacy, which ultimately leads to a sense of powerlessness and demotivation (Tirivayi et al, 2014).

Integrating Expectancy, Equity, and Goal-Setting Theories

Performance pay programs attempt to motivate teachers with monetary rewards and the integration of the three theories - expectancy, equity, and goal-setting emphasize the motivational aspect of the monetary incentive (Yuan et al., 2013). A teacher's job satisfaction is a multi-dimensional construct that pertains to many factors including (a) summative evaluations, (b) salary and/or bonuses, (c) supervisors, (d) colleagues, (e) teacher working conditions and climate, and (f) the job itself (Conroy & Gupta, 2016; Kobussen et al., 2014). Behavior results from conscious choices to maximize pleasure or intended results (Mintrop et al., 2018). A crucial aspect of the expectancy theory is that it relies on perceptions (Rice et al., 2015). These perceptions of or associations with the expected outcomes are not related to self-motivated rewards (Rice et al., 2015). The personal satisfaction with performance evaluations and pay depends on the value the individual places on the reward (Kobussen et al., 2014). Expectancy theory is further complemented by goal-setting theory by outlining the prescribed conditions a teacher's efforts will be influenced thus attaining the goal (Kelley et al., 2002; Yuan et al., 2013).

Rice et al. (2015) contend that to be successful, a performance pay program must (a) offer pertinent and sufficiently large rewards; (b) demonstrate attainability with connections to the effort and reward; and (c) conclude in measurable goals with perceived fairness, thus increasing the motivational potential of the financial incentive. Thus, a performance pay program must be credible (Frey et al., 2015). A performance pay plan should establish challenging goals that instill motivation and encourage stakeholder support (Dishon-Berkovits, 2014). Additionally, a performance pay plan should maintain the perceived fairness sought by educators (Rice et al., 2015; Tirivayi et al., 2014; Yuan et al., 2013).

Any compensation policy begins with the assumption that a monetary reward contributes to a significant effect on an employee's behavior (Frey et al., 2013). However, while research also reveals teachers are interested in financial rewards (Rice et al., 2015), other evidence suggests they are less receptive to financial incentives as a result of a service-before-self attitude (Frey et al., 2013; Rice et al., 2015). Neito (2013, p. 91) refers to this idea of selfless dedication, stating, "Teachers enter the profession for any number of reasons, but neither fame nor money nor the promise of lavish working conditions is at the top of the list." Research has shown when teachers perceive the reward as attainable (e.g., a feasible goal), linked to individual effort (e.g., harder work results in better rewards), and fair in terms of reward distribution (e.g., equivalent input/output ratios) the motivational capability of the financial incentive increases (Chiang, Wellington, Hallgren, Speroni, Herrmann, Glazerman, & Constantine, 2015; Dishon-Berkovits, 2014; Flake et al., 2015; Frey et al., 2013; Kobussen et al., 2014; Mintrop et al., 2018; Rice et al., 2015).

Related Literature

The overwhelming majority of public school teachers are paid on a single salary schedule (Gius, 2013). However, many school districts across the US are experimenting with performance pay compensation plans (Dee & Wyckoff, 2015). This section begins with a brief historical review of teacher compensation reform followed by descriptions of other performance pay programs across the nation. North Carolina's prior performance pay programs are explained alongside the current program. Finally, research findings on educator perceptions of performance-based pay programs and the effects of these programs on student achievement are presented.

Call for Educational Reform

From focusing on the 3 R's - reading, writing, and arithmetic in a small one-room building to sprawling school campuses in which student interests drive curriculum decisions, the educational system in the US has undergone many changes and reforms since the 1800s (Springer & Gardner, 2018). Not only does the physical makeup of the schools look extremely different, but teacher demographics have also changed. Teachers are no longer predominantly young White women who stay in the position until they marry (Springer & Gardner, 2018).

The evolution of school facilities and increased teacher diversity have not been the only revisions to education. Teacher compensation is reflected in the many changes from the early years of education. Teachers in the 1800s were compensated based on a room and board model in which a teacher moved from home to home of their students on a weekly basis (Springer & Gardner, 2018). The student's family was entrusted to supervise the teacher and ensure she had the proper moral character required to be a good role model (Springer & Gardner, 2018). As the number of schools grew to form school districts, teaching standards also became more

stringent. With these more rigorous standards, a grade-based teacher compensation model emerged. This model was reflective of the level of skills needed to educate students. Teachers in elementary schools were viewed as not needing the same level of skills as those in high schools. Thus, as students progressed through elementary to middle to high school, their teachers' salaries increased. At the turn of the 20th century, the majority of educator pay models moved into a single salary schedule. In this compensation model, a teacher's salary was based on two criteria: highest degree held and years of teaching experience.

The No Child Left Behind Act of 2001 (NCLB) was a pay for performance program established by the federal government that passed down federal standards to state and local governments. The NCLB forced school districts, Local Education Authorities (LEA), to be held accountable for student performance. With this new accountability, states and local governments have struggled to find a way to hold schools responsible for student achievement.

Performance Pay Programs in an Educational Setting

There are many forms of teacher compensation programs beyond the single salary schedule. Career ladders, sometimes referred to as knowledge or skills-based pay, create different levels or categories rewarding teachers with increased salaries based on increased credentialing or assuming additional school responsibilities (Baker, 2014). Completing an advanced degree, pursuing dual certifications, or achieving National Board for Professional Teaching Standards (NBPTS) certification are all examples of knowledge or skills-based pay (Balch & Springer, 2015; Cowan & Goldhaber, 2018; Rice, 2015). Difficult-to-staff bonuses have also been awarded to teachers willing to teach subjects such as mathematics, science, and special education (Adnot et al., 2017). Another type of difficult-to-staff bonus is incentives, recruitment and retention bonuses, offered to teachers willing to teach in schools that

traditionally serve a large population of socioeconomically disadvantaged, minority, or low-performing students (Adnot et al., 2017; Baker, 2014; Grissom & Strunk, 2012).

Federal incentive programs have methodically altered how the majority of public school teachers in the US are annually evaluated and, in some cases, alternately compensated (Amrein-Beardsley, Polasky & Holloway-Libell, 2016). Through the use of student achievement data that measures growth via value-added models (VAMs) or growth models (student growth percentiles, SGP), the amount of “value” that a teacher “adds” or “detracts” from a student’s growth on a standardized assessment over the course of the school year is measured (NEA Department of Teacher Quality, 2011; NCDPI, 2018; North Carolina General Assembly, 2018).

In 2007, the Teacher Incentive Fund (TIF) appropriated \$99 million per annum to school districts across the US (Jacob & Springer, 2008). The money was awarded on a competitive basis to fund the advancement of principal and teacher performance pay plan programs (Jacob & Springer, 2008; Koppich, 2010; Podgursky & Springer, 2007a, 2007b). These federal grants were awarded to many school districts across the nation including schools in Alaska, Illinois, Colorado, North Carolina, South Carolina, Texas, California, Tennessee, and Pennsylvania (Jacob & Springer, 2008; Podgursky & Springer, 2007a, 2007b). The nature of the programs ranged from teacher and principal value added measures to taking on additional duties and obtaining additional certifications (Podgursky & Springer, 2007a, 2007b). While the TIF did not have the support of the NEA or the American Federation of Teachers in 2008 (Koppich, 2010; Podgursky & Springer, 2007a), it still remains a federally funded grant program (U. S. Department of Education, 2018). Appropriated by the U.S. Congress, TIF grant funding reached nearly \$500 million from 2006 to 2011 with President Obama allocating an additional \$200 million in 2009 to the American Recovery and Reinvestment Act for the development and

implementation of teacher performance incentive plans (Springer & Taylor 2016). Fourteen new grants were awarded during the 2017 fiscal year (U. S. Department of Education, 2018). The program then expanded to include the Teacher and School Leader Incentive Program (TSL) which allocated approximately \$88 million to grantees for opportunities to increase teacher effectiveness and student achievement (U. S. Department of Education, 2018). Since the program's inception over 2,000 schools in 36 states and Washington, D. C. have benefited from the teacher incentives. The following section highlights several states' performance pay initiatives based on types of teacher compensation programs.

Non-Student Achievement Teacher Compensation Programs

In the 2011-12 school year, Missouri did not have a state-wide policy for rewarding teachers, which gave school districts the power and flexibility to administer various performance pay programs funded through TIF grants (Liang & Akiba, 2015a). Hoping to contribute to the growing body of research on the implementation of differing performance pay programs, Liang and Akiba (2015a) studied 125 midsize to large school districts in Missouri in an effort to not only identify the percentage of school districts in Missouri that offered incentive pay programs but also to understand the characteristics of these programs. The study (Liang & Akiba, 2015a) found that 68% of the school districts offered no incentive program, 17% one program, 11% two programs, and 4% three or more programs. Characteristics of these incentive pay programs included additional pay for National Board certification, performing additional duties such as mentoring new teachers, obtaining advanced degrees for existing teachers, and bonuses to teachers new to the district for teaching assignments in subject areas with teacher shortages and difficult-to-staff schools (Liang & Akiba, 2015a). Liang and Akiba's (2015a) study also found that small and economically disadvantaged school districts are less likely to provide incentives

for National Board certification or offer additional performance pay programs, which could be a concern for recruiting and retaining effective quality teachers in small rural districts.

In a further study, Liang and Akiba, (2015b) examined statewide longitudinal survey data from the 2009-10 middle school mathematics teachers in Missouri to determine any relationship between the teachers' performance-related pay and improvements in their practice of constructivist instruction instead of solely relying on student achievement on a standardized test. This study found a positive association between performance-related pay and improvement of a teacher's practice of constructivist instruction, possibly indicating the priority should be on teaching practices rather than student achievement data when determining monetary incentives (Liang & Akiba, 2015b).

Similar to Tennessee's program to retain and recruit highly effective teachers to high-need schools, Washington State began awarding salary incentives of \$3,500 per year to any National Board certified teacher (NBCT) in 2000 and subsequently raised the incentive to \$5,000 in 2007 (Cowan & Goldhaber, 2018). Lawmakers in Washington then amplified these efforts with the introduction of the Challenging Schools Bonus (CSB) which awarded an additional \$5,000 to NBCTs in high poverty schools (Cowan & Goldhaber, 2018). With this new incentive, the number of NBCTs almost doubled and annual state spending on NBCT bonuses increased from \$10 million to \$45 million by 2014 (Cowan & Goldhaber, 2018). While the program was very successful in increasing teacher certifications and credentialing, Cowan and Goldhaber (2018) deemed the program did not lead to appreciable gains in student achievement.

Denver Public Schools' Professional Compensation System for Teachers (ProComp), adopted in 2004 was a collaborative effort between the Denver Classroom Teachers Association and the Denver Public Schools (Goldhaber & Walch, 2012; Podgursky & Springer, 2007b).

According to Podgursky and Springer (2007), funding for the ProComp system was bolstered by a November 2005 ballot action of an additional \$25 million in taxes by Denver voters and a \$22.67 million five-year Teacher Incentive Fund (TIF) award from the US Department of Education (USDoE) and has become one of the most widely known teacher performance pay plan programs. The ProComp approach enabled teachers to earn variable pay supplements through four components including (a) knowledge and skills, (b) professional evaluation, (c) market incentives, and (d) student growth (Goldhaber & Walch, 2012; Koppich, 2010; Podgursky & Springer, 2007b). The largest monetary award came from the knowledge and skills element in the form of a 9% salary index bonus for NBPTS certification (Podgursky & Springer, 2007b). Receiving an excellent professional evaluation provided a 3% salary index bonus (Podgursky & Springer, 2007b). Market incentives were defined as incentives to those teachers for teaching in difficult-to-serve schools such as alternative schools or schools with a high free and reduced-price lunch student population and difficult-to-staff teaching assignments such as those with high turnover and vacancy (Goldhaber & Walch, 2012). Teachers serving in one of those schools or areas were eligible for a 6.4% bonus per school and teaching assignment (Goldhaber & Walch, 2012). While this plan also included a student growth component, composed of teacher and school-wide growth standards, it was three times less than the monetary award for achieving NBPTS certification (Podgursky & Springer, 2007b). In a study of the Denver Public Schools' ProComp plan, Goldhaber and Walch (2012) documented significant learning gains for students of teachers enrolled in the program particularly in middle school mathematics and high school reading. Conversely, while results were not significant in middle school reading, they were negative along with those for high school mathematics (Goldhaber &

Walch, 2012). Goldhaber and Walch (2012) noted a possible spillover effect to teachers not enrolled in the program from the ProComp implementation.

Student Achievement Teacher Compensation Programs

Performance related pay systems attached to increased student achievement vary not only in the individual components but also in their results. The following sections detail various programs across the US and the noted inconsistent results.

Positive Results. During the 2012–13 school year the Tennessee Department of Education (TDOE) in coalition with the Tennessee’s Governor’s Office offered one-year retention bonuses (\$5,000) to any Level 5 teacher (Springer et al., 2016; Swain et al., 2019). A Level 5 teacher was defined as receiving a teacher evaluation of 425 or greater and taught in one of the eighty-three priority schools (Swain et al., 2019). Priority schools were the bottom 5% of schools based on a composite proficiency of assessment scores (Springer et al., 2016; Swain et al., 2019). Upon completing a study of this relatively short incentive program, Springer et al. (2016) concluded that in terms of recruiting and retaining highly effective teachers in high-need schools, the effect of the retention bonus was small but considerably significant and allowed optimism regarding the potential of these bonuses. Moreover, in a study designed to assess the effectiveness of this program on student gains, Swain et al. (2019) showed larger test score gains, especially on state reading exams.

With the introduction of the Merit Award Program (MAP) in 2007, the Florida State Legislature replaced the previous performance pay program, Special Teachers Are Rewarded (STAR), with a \$147.5 million appropriation to provide bonuses of at least 5% but no more than 10% of the average district salary for teachers (Jacob & Springer, 2008; Podgursky & Springer, 2007b). While 40% of the funding was dedicated to improving professional practices based on

principal evaluations, the remaining 60% was awarded based solely on student performance (Podgursky & Springer, 2007b). When conducting a voluntary online survey of teachers in the School District of Hillsborough County in Florida regarding teacher attitudes' toward the MAP and STAR performance pay programs, Jacob and Springer (2008) found only moderate support for performance pay with the majority of teachers inclined to be most favorable towards individual teacher performance rather than school or grade-level performance. While Jacob and Springer (2008) did not address a link between performance pay and student achievement, additional findings included a significant association between teacher support for any performance pay plan and teacher experience, principal leadership, and teacher self-efficacy.

In 2008 Texas began another state-funded program, District Awards for Teacher Excellence (DATE) after the Texas Legislature opted not to reauthorize the Governor's Educator Excellence Award Program (GEEAP) and reallocated a portion of those funds to further expand the DATE program, increasing funding to approximately \$197 million annually (Springer, Lewis, Podgursky, Ehlert, Taylor, Lopez, Ghoshdastidar, & Peng, 2010). This new voluntary program encompassed 203 school districts representing approximately 16% of all public school districts in Texas and contrasted with prior performance plans in that significant teacher involvement in the development of the plan and matching funds from the school district were required (Springer et al., 2010). However, in subsequent years, the local matching funds requirement was dissolved, and participation increased (Springer et al., 2010). The majority of DATE plans included teacher incentives based on their students' performance on state-standardized assessments instead of school-wide student performance (Springer et al., 2010). Challenges to the success of each school district's plan design included fair measures of educator performance and adequate personnel and data systems to implement the plan (Springer et al.,

2010). Overall, Springer et al. (2010) noted teachers had a positive experience citing an increase in student achievement and a decrease in teacher turnover in those schools offering larger monetary awards.

Mixed Results. The GEEAP, which was one of the single largest teacher performance pay plans of its time, was created in 2006 by then Texas Governor Rick Perry (Podgursky & Springer, 2007b). Consisting of three elements (a) the Governor's Educator Excellence Grant (GEEG), (b) the Texas Educator Excellence Grants (TEEG), and (c) a district level grant, the GEEAP provided approximately \$330 million annually to high-performing, high-poverty public schools in Texas (Podgursky & Springer, 2007b; Springer & Taylor, 2016). These three major initiatives included school-based awards ranging from \$40,000 to \$290,000 per year based on student enrollment with 75% of the award going directly to full-time classroom teachers based on objective measures of student performance and the remaining 25% distributed to all school personnel (Podgursky & Springer, 2007b; Springer & Taylor, 2016). This remaining 25% was based on both student performance and on teacher effectiveness as it pertained to student achievement such as professional development, teacher mentoring and induction programs, stipends for participation in after-school programs, signing bonuses for teachers in difficult-to-staff subjects, and/or programs to recruit and retain effective teachers (Podgursky & Springer, 2007b; Springer & Taylor, 2016). In a later study of the GEEG incentive program about designing incentives for public school teachers, Springer and Taylor (2016) found reasonably strong evidence the monetary awards affiliated with the program were associated with increased teacher turnover for those not receiving awards and a largely reduced rate of turnover for those teachers who received awards.

Nashville, Tennessee's Project on Incentives in Teaching (POINT) program was conducted in the Metropolitan Nashville Public School (MNPS) from 2006 to 2009 and rewarded individual middle school mathematics teachers on their value-added scores calculated using the students' year-to-year growth average on the statewide mathematics assessment (Yuan et al., 2013). Teachers with value-added scores that reached the 80th, 85th, and 95th percentile from the prior school year received bonuses of \$5,000, \$10,000, or \$15,000 respectively (Yuan et al., 2013). In the program's initial year, 283 teachers participated, while 148 teachers participated in the program's final year with an expected attrition rate equal to historical rates of turnover among middle school mathematics teachers due to teachers either leaving the district or moving to a different grade level or subject (Yuan et al., 2013). According to a study conducted by Yuan et al. (2013) while the average annual monetary bonus dispersed was between \$9,623 and \$11,370, approximately one-half of the participating incentive eligible teachers reported making few to no changes to their instructional practices, especially those instructional practices significantly associated with student learning outcomes.

Through the use of an alternative achievement test (e.g., Northwest Evaluation Association's (NWEA) Measures of Academic Progress for Primary Grades (MAP)), along with the state criterion-referenced, standards based test developed by the Pearson Corporation, state lawmakers in Arizona attempted to create more value-added ineligible teachers, K–2 teachers, to obtain a more fairly and inclusively eligible merit pay program (Amrein-Beardsley et al., 2016). Using the NWEA MAP along with the state assessment, Amrein-Beardsley et al. (2016) found that growth is very difficult to measure and primarily depends on the type of test used as well as the growth model used to calculate test results over time. Additionally, the researchers advised

against this form of value-added measure until a more common assessment and accountability system could be implemented (Amrein-Beardsley, 2016).

In 2007–08, the New York City Department of Education along with the United Federation of Teachers introduced a voluntary program, the Schoolwide Performance Bonus Program (SBPB), that provided financial monetary rewards to teachers, support staff, and counselors in high-needs elementary, middle, K-8, and high schools based on district progress reports of student performance on standardized tests (Marsh & McCaffrey, 2012; Podgursky & Springer, 2011; Springer et al., 2012). The SBPB was geared to reward groups of educators rather than individuals, \$3,000 per full-time staff member, based on the premise of motivating educators on school performance while enhancing collaboration (Marsh & McCaffrey, 2012; Podgursky & Springer, 2011; Springer et al., 2012; Yuan et al., 2013). However, after several studies showed the program did not improve school or student outcomes after two years of implementation, New York City abolished the program in July 2011 (Fryer, 2011; Goodman & Turner, 2011; Podgursky & Springer, 2011).

Prior North Carolina Performance Pay Programs

The following sections highlight North Carolina’s first attempt at a performance pay plan beginning in 1996 as well as subsequent revisions to the programs. The results of these programs conclude the section.

ABC’s of Public Education – School Based

In 1996, North Carolina implemented a statewide bonus system called, ABCs (Accountability, Basics, and Control) of Public Education in which financial incentives were awarded to teachers in schools where students met or surpassed test score achievement targets in mathematics and reading (Vigdor, 2008). Created by the NCDPI (2006) in conjunction with

North Carolina lawmakers, the ABCs program was comprised of two tiers (a) teachers in schools that show “exemplary” growth in student test scores receive \$1,500, and (b) teachers in schools with “expected” growth receive a \$750 bonus. The ABCs program defined the subject areas of mathematics and reading in grades 3–8 as well as specific courses in high school as those to be measured (NCDPI, 2006).

The method for setting the school specific targets for test score growth was a very contentious issue and the specific formula for calculating those targets was revised over time (Vigdor, 2008). In 2003–04, the North Carolina legislative session examined and identified several key ways to improve the program (NCDPI, 2006). Unfortunately, errors were found in the formula used to evaluate a school’s test score gains. As the standardized tests were revised, the formula did not translate to reflect these revisions, and awards were given to schools in which the gains were found only in a small group of students within the school. The 2005–06 school year began with a revised formula used to identify a school’s student test score growth.

Race to the Top Act of 2011– School and Individual Based

North Carolina’s Race to the Top (RttT) program identified several performance based incentives designed to increase educator effectiveness and retain effective educators (Lauen & Kozlowski, 2013, 2014; Vigdor, 2008). Similar to the ABC’s program implemented in 1996, RttT awarded a \$1,500 bonus to all certified staff in schools that achieved high growth but also added a \$500 individual-level incentive to teachers of tested subjects whose classrooms exceeded expected growth, regardless of school-wide performance (Brevetti, 2014; Lauen & Kozlowski, 2013, 2014; Liang & Akiba, 2015).

Intended Results and Unintended Consequences

Teachers initially expressed support of the programs, and the North Carolina Association of Educators (NCAE) advocated not only maintaining but even expanding the bonuses. In every year of the program, the majority of North Carolina's public schools qualified for the teacher bonus. Vigdor (2008) found the bonus program had a positive impact on students' scores on the high-stakes standardized test used to determine the school's bonus.

Vigdor's (2008) analysis of the ABCs program along with research completed by Lauen and Kozlowski (2013, 2014) on the RttT Act (2011) found no evidence that either program had any impact on low-stakes test scores or any evidence of a narrowing of the achievement gap between African-American and Caucasian students. Moreover, the achievement gap between minority subgroups combined with those students receiving free or reduced-price lunch and all other students actually increased during the life of the bonus award programs (Lauen & Kozlowski, 2013, 2014; Vigdor, 2008). Another unintended consequence was the migration of teachers away from difficult-to-staff and low-performing schools with at-risk students (Vigdor, 2008). Teachers took positions at schools in more advantaged school districts at a lower salary (Vigdor, 2008). However, Lauen and Kozlowski (2014) noted that, in general, teachers not only reported that they were unaware of the performance incentive but that the additional financial incentive would not have changed their teaching practice.

Additionally, Mintrop et al. (2018) and Frey et al. (2013) describe pay-for-performance incentives as a double-edged sword. By eliminating intrinsic motivators or service commitments (e.g., compassion, civic duty, self-sacrifice, and socially and personally meaningful work) through the use of extrinsic motivators (e.g., fear of sanctions or expectations of financial incentives) employees may become demoralized with themselves, their colleagues, and

education as a whole (Frey et al., 2013; King et al., 2015; Mintrop et al., 2018). Mintrop (2018) also noted that after receiving individual bonuses, teachers found themselves retreating into silence so as not to offend those teachers who did not receive a financial reward. Moreover, teachers who did not receive a bonus felt inept with a decreased perception of themselves as competent educators (Mintrop et al., 2018).

North Carolina Alternative Pay Programs

North Carolina's current salary schedule and bonuses are defined in the first section. The current North Carolina Teacher Performance Bonus Program is thoroughly detailed in the final section.

Salary Schedule/Level and Bonuses

According to the North Carolina General Assembly (2018), North Carolina teachers are paid based on a salary schedule with beginning teachers holding a bachelor's degree starting at \$35,000 with increased increments of pay every five years. Teachers with 25 years' experience and above are awarded an additional \$385 bonus each year (N.C. Gen. Ass., 2018). Teachers holding a master's degree or above are allocated an additional 10% of their salary, and teachers holding NBPTS certification are given an additional 12% of their salary (N.C. Gen. Ass., 2018). Additionally, AP and International Baccalaureate (IB) teachers are eligible to receive \$50 (Section 8.8) for each student scoring a 3 or better on the AP exam or a 4 four or better on the IB exam. Career and Technical Education (CTE) teachers of certain courses may also receive either \$25 or \$50 for students gaining industry credentials or certifications (N.C. Gen. Ass., 2017).

Current North Carolina Teacher Performance Bonus Program

North Carolina Session Law 2017–57 authorized individualized bonuses based on teachers’ value-added measures for grades 3–8 mathematics and reading teachers (N.C. Gen. Ass., 2018). Specifically, the following three categories of teachers are eligible for these bonuses (a) Third Grade Teacher Reading Bonus – Read to Achieve (Section 8.8C), (b) Fourth and Fifth Grade Teacher Reading Bonus (Section 8.8D), and (c) Fourth- through Eighth-Grade Teacher Math Bonus (Section 8.8E, N.C. Gen. Ass., 2018). The Fourth and Fifth Grade Teacher Reading Bonus and the Fourth- through Eighth-Grade Teacher Math Bonus were both added to the program to be implemented in the 2017–2018 school year (N.C. Gen. Ass., 2018). Eligible fourth- through eighth-grade teachers were entitled to the funding based on their individual Education Value-Added Assessment System (EVAAS) score for the respective reading and/or mathematics scores. Funds were allotted as bonuses to the top 25% of teachers in each school district according to the EVAAS score. Teachers who qualified for the bonus could receive the following monetary incentives (a) \$2,150 for an EVAAS score in the top 25% of teachers in North Carolina for fourth to fifth-grade reading or fourth to eighth-grade mathematics from the previous school year and/or (b) \$2,150 for an EVAAS student growth index score in the top 25% of teachers in their respective LEA for fourth and fifth-grade reading or fourth to eighth-grade mathematics from the previous school year (N.C. Gen. Ass., 2018). A teacher may receive a maximum of two bonuses in each section of the law in any given year. Thus, a fourth grade English Language Arts, ELA, teacher who is in the top 25% of teachers in his or her LEA and in North Carolina would receive \$4,300, and a fourth or fifth-grade ELA and mathematics teacher who is in the top 25% of his or her LEA only is also eligible for two bonuses equaling \$4,300.

Measuring Teacher Effectiveness

Teacher evaluations are comprised of many components from summative assessments of classroom performance to formative feedback that may result in improved teaching and learning (Mintrop, Ordenes, Coghlan, Pryor, & Madero, 2018). While administrator evaluations conducted through classroom observations still remain the most prevalent form used to evaluate educators on a daily basis, many school districts are also assigning teachers a value-added score to measure teacher effectiveness based on their students' achievement growth in the four core subjects of reading/ELA, mathematics, science, and social studies (Springer et al., 2012).

Education Value-Added Assessment System

The EVAAS score is calculated by comparing a student's current year test score with that of how the student was expected to score on the test had the student been taught by an average performing teacher in the same subject and grade level (North Carolina General Assembly, 2018; Springer et al., 2012). Many issues surround the idea of using a standards-based, criterion referenced assessment to assign an educator effectiveness score to educators (Amrein-Beardsley et al., 2016; Berk, 2016; Hendricks, 2014). These research based issues of concern include but are not limited to (a) the reliability and consistency of measuring teacher effectiveness over time, (b) the validity to appropriately address what is defined as an effective teacher, (c) inherent biases based on student assignments to teachers, and (d) the fairness of putting all teachers in the same category regardless of subjects taught (Moran, 2017; Podgursky & Springer, 2007a; Rothstein, 2015; Winters & Cowen, 2013).

Research Findings of the Effects on Educator Perceptions of Performance Pay Programs

The following sections highlight the mixed results research on the effects on educator perceptions of performance pay programs.

Teacher Attitudes

A teacher's attitude can have a significant impact in the workplace (Jeon & Wells, 2018). Zee and Koomen (2016) indicate a teacher's positive attitude may foster higher levels of job satisfaction, increased self-efficacy, and lower levels of stress and burnout. Negative attitudes can breed an unwillingness to work collaboratively, reduced quality of work product, and a lackluster performance resulting in a toxic work environment (Woestman & Wasonga, 2015). While a few studies (Liu et al., 2016; Baker, 2014) have found negative attitudes towards a teacher performance pay plan, the majority of research (Guis, 2014; Goldhaber et al., 2011; Jacob & Springer, 2008) shows mixed results.

Negative Attitudes. Liu et al. (2016) conducted a mixed methods investigation of Chinese teachers' attitudes toward performance pay in which the effects of such policies on collaboration, motivation, and job stress were studied. Liu et al. (2016) found minimal support for teacher performance pay citing the top two negative indicators as increased stress and the size of the bonus. An examination of New Jersey music teachers regarding merit pay found more than 50% of the 619 teachers surveyed were mildly to strongly against school-wide bonuses based upon school performance (Baker, 2014).

Mixed Attitudes. In a block-randomized controlled design of nine urban middle schools in the Round Rock Independent School District of Texas, Springer et al. (2012) studied 159 teams of teachers teaching the core subjects – mathematics, reading, science, and social studies from 2008 to 2010. The researchers' intent was to determine any affects a team bonus, based on a value-added measure of student performance on a combination of the Texas Assessment of Knowledge and Skills (TAKS) tests and district benchmark assessments, had on teachers' attitudes toward the monetary reward and teaching or their teaching practices and any differences

in the attitudes or instructional practices of those teachers who earned the bonus and those who did not (Springer et al., 2012). Two surveys were administered each year to the bonus intervention and control groups to address teachers' attitudes, perceptions, and instructional practices relating to the school environment (Springer et al., 2012). While no significant differences were found between the two groups in terms of teacher behavior, Springer et al. (2012) noted possible explanations such as 54% of the bonus intervention teachers not fully understanding the criteria for earning a bonus, 78% of the bonus intervention teachers noting they would not change their instructional practices in order to win the bonus possibly implying the monetary reward was insufficient; and 59% of the teachers in both groups not feeling that the method used to award the bonus was fair.

Using data from the Schools and Staffing Survey (SASS) from 1990, 2004, and 2007, Guis (2014) found no distinction in job satisfaction among teachers who earn merit pay compared to teachers who do not. When analyzing teacher attitudes by demographics along with characteristics such as trust and level of respect, Goldhaber et al. (2011) concluded merit pay should be implemented with some combination of subject-area pay, combat pay, or other incentives. Of the 3,121 classroom teachers surveyed, female teachers, more experienced teachers, and teachers active in a teachers' union were less supportive of performance-based pay, while high school teachers and teachers in schools with higher numbers of students eligible for free and reduced-price lunch were more supportive of performance-based pay (Golhaber et al., 2011). Additionally, trust among colleagues and administration was found to have mixed results regarding teacher attitudes (Golhaber et al., 2011; Lauen & Kozlowski, 2014). Teachers were less supportive of any performance pay plan when a higher sense of trust and respect between colleagues was evident (Golhaber et al., 2011). Conversely, additional studies show teachers

with a higher sense of trust in and respect for their administrator were found to be more supportive of a merit pay program (Golhaber et al., 2011; Jacob & Springer, 2008). Jacob and Springer (2008) found similar results when examining Florida's Special Teachers are Rewarded (STAR) program and Merit Award Program (MAP) articulating that 56% of the teachers in 199 traditional and magnet schools in the Florida School District of Hillsborough (SDHC) believed an incentive pay plan would hinder the school's collaborative culture.

Teacher Motivation

Exactly what motivates teachers? Motivation comes in many forms, both intrinsic and extrinsic, and research has produced mixed results with respect to motivating teachers (Tirivayi et al., 2014; Yuan et al., 2013). In their research findings, Marsh and McCaffrey (2012) disclosed the New York City Schoolwide Performance Bonus Program (SBPB) did not affect teacher-reported attitudes, perceptions, or behaviors. The researchers noted the SBPB was not a strong motivational tool because of the lack of understanding, expectancy, valence, buy-in, or perceived fairness (Marsh & McCaffrey, 2012). A research study of 700 Chinese teachers in the provinces of Guangdong and Shaanxi conducted by Meng and Wu (2017) characterized the effectiveness of a merit pay policy depends on the relationship between the employee's public service motivation (PSM) and the perceived policy effectiveness. Meng and Wu (2017) concluded that individuals with a low level of merit pay policy expectation may have a higher level of public service motivation implying that job satisfaction and motivation do not depend on monetary rewards. Similarly, Luaen and Kozlowski (2013, 2014) found that teachers were adamant the performance pay programs in North Carolina in no way influenced their teaching and in many ways could "ultimately damage collegiality and collaboration efforts in their school-efforts which, they believed, were instrumental for student growth and learning" (p. 30, 2014).

In a study to determine the attitudes and perceptions regarding a performance pay plan in a Southwest Florida school district, Adkins (2004) found statistically significant differences in motivational items among groups with varying levels of experience. Survey respondents with 20 or fewer years of experience reported statistically significant higher levels of agreement ($p < .01$) than respondents with 21 or more years of experience (Adkins, 2004). Adkins (2004) also found significant differences ($p < .01$) with administrative respondents reporting higher levels of agreement than instructional respondents regarding the motivational impact of performance pay. Jones (2013) examined data from the Schools and Staffing Survey (SASS) and found evidence that Florida teachers participating in an individual performance pay plan increased work hours by almost 25%.

Many teachers are motivated to earn more but also fear students underperforming resulting in dismissal threats (Dee & Wyckoff, 2015). In a study of the District of Columbia Public Schools complex performance pay plan, Dee and Wyckoff (2015) found the threat of dismissal linked to multiple measures of teacher performance to increase the voluntary attrition of low-performing teachers by more than 50% while also increasing the attainment of high performing teachers who remained with an effect size of 0.24. Yuan et al. (2013) evaluated three different performance pay programs (a) Project on Incentives in Teaching (POINT) in Nashville public schools, (b) Pilot Project on Team Incentives (PPTI) in Texas's Round Rock Independent School District, and (c) School-Wide Performance Bonus Program (SPBP) in New York City Public Schools and found no evidence of increased motivation or a change in instructional practices. Similar results were found in Lauen and Kozlowski's (2013) study of North Carolina's teacher performance incentives with one teacher stating the program was "not going to change

anything about the way I teach... We don't teach to get extra money. It's not why we do it" (p. 16).

Teacher Performance

Adkins (2004) noted more than 80% of the 492 instructional participants stated a general disagreement that the performance pay plan incentivized them to increase their efforts or alter their instructional practices. Dee and Wyckoff (2015) presented evidence that a performance assessment plan with large enough incentives purposely increased teacher performance whether by ineffective teachers being dismissed or presumed behavioral responses to incentives.

Using data from the SASS, Jones (2013) found evidence that Florida teachers participating in an individual performance pay plan increased work hours by almost 25% and teacher turnover increased. Jones (2013) also discovered evidence nationwide, with the exception of Florida, female teachers responded to performance pay plans by working 12% fewer hours per week and decreased participation in unpaid activities. Male teachers and new teachers reacted positively to performance pay incentives (Jones, 2013). Using a statewide survey of middle school mathematics teachers in Missouri, Liang and Akiba (2015) found a positive association between the improvement of instructional practices and a performance pay program yet found no association between the same incentive program and student achievement.

Teacher Expectancy

Yuan et al.'s (2013) examination of the three different pay for performance programs showed that while teachers were confident in their instructional practices, they doubted that increased efforts would lead to higher student achievement and over 50% of the teachers did not feel they would be awarded a bonus. Moreover, the amount of the rewards was too small for teachers to be interested in the bonus, and an increase in job level stress was reported by teachers

in all three programs (Yuan et al., 2013). Jacob and Springer (2008) found similar results as Goldhaber et al. (2011) citing teachers who were found to have a higher sense of self-efficacy and an affirmative view of their administrator were also more supportive of performance pay.

Research Findings on the Effects of Performance Pay Programs on Student Achievement

Research shows mixed results regarding whether performance pay programs affect student achievement (Balch, & Springer, 2015; Barrera-Osorio & Raju, 2017; Gius, 2013; Hendricks, 2014; Rothstein, 2015; Shifrer, Turley, & Heard, 2017; Yuan et al., 2013). Added to this mystery are the multitude of performance pay programs from across the US including individual and group performance pay programs (Tirivayi et al., 2014). The following sections outline current research findings about individual and group performance pay programs based on student achievement.

Individual Performance Pay Programs

Several research studies on the SPBP conducted from 2007 to 2011 in New York City found this schoolwide performance pay program did not improve the schools or student outcomes (Goodman & Turner; 2011; Marsh & McCaffrey, 2012). Goodman and Turner (2011) cited evidence that group bonuses might actually weaken collaborative efforts and the structure of the pay scheme is important. Marsh and McCaffrey (2012) along with Fryer (2013) added to the research stating no improvement to student achievement was seen at any grade level.

Springer, Ballou, Hamilton, Le, Lockwood, McCaffrey, Pepper, and Stecher (2010) completed an experimental study of 297 middle school mathematics teachers, grades 5–8, from 2006 to 2009 and found no significant effects on mathematics assessment scores. Conversely, Tirivayi et al. (2014) summarized the results of various other individual teacher incentive programs reporting positive effects on mathematics and reading test scores based on a sample of

elementary school in Arkansas from 2005 to 2007 as well as an increase in mathematics test scores but no significant effects on reading test scores from an experimental study of 129 elementary schools in Tennessee from 1985 to 1989. In a review of Austin Independent School District's pay-for-performance program, Balch and Springer (2015) reported students attending schools participating in the program during the first year experienced significantly larger test score gains compared to those schools not participating. While no additional gains were found in the second year of implementation, no evidence was found that students lost any of the previous academic gains (Balch & Springer, 2015).

Group Performance Pay Programs

Lauen and Kozlowski (2013, 2014) used quantitative data from the NCDPI and qualitative data from teacher interviews and surveys to study North Carolina's RttT initiative, which included a \$1,500 per-teacher school-wide bonus (2013) and an additional \$500 individual-level incentive the following year (2014) created to incentivize the instructional efforts of teachers in North Carolina's poorest-performing schools based on student growth. The comparative descriptive analyses (Lauen & Kozlowski, 2013, 2014) were guided by research questions designed to define the characteristics of bonus-eligible and bonus-winning schools, determine any improvements in students' outcomes over time, examine educator attitudes and perceptions of the program, and study the effects the incentive programs had on teachers' instructional practices, particularly the addition of the individual tested classroom incentive. Beginning with the 2011–12 school year, 118 K–12 public schools were designated as the lowest-performing schools and eligible for the bonus. Of these, 23 schools earned the school-wide bonus for growth while in the 2012–13 school year, 106 schools were eligible with 35 earning the school-wide bonus for growth (Lauen & Kozlowski, 2013).

With regards to the Springer et al. (2012) experimental study of group or team incentives on nine urban middle schools from 2008 to 2010, no effect of the incentive on student outcomes was found in any of the four core subject areas (Tirivayi et al., 2014). Fryer's (2013) experimental study on school-wide incentives in 233 of New York City's urban elementary, middle, and high schools from 2007 to 2010 also showed no significant effects on test scores with diminished student achievement in the larger schools. Confusion regarding the incentive scheme and how the performance report card was calculated was offered as a potential explanation for the contradictory results as compared to similar studies (Fryer, 2013). Goodman and Turner (2011) also conducted a similar experimental study on New York City urban elementary schools from 2007 to 2009 with comparable results to the Fryer (2013) study with no significant effects on test scores. This result was attributed to free riding negating the effect of group incentives even though teachers understood the incentive plan (Goodman & Turner, 2011).

Summary

The success of any performance pay plan assumes that a monetary reward is directly related to an employee's motivation. Vroom (1995), Adams (1963), and Locke (2006) each contemplated the deeper significance of motivation based on their respective theories – expectancy, equity, and goal-setting. Vroom's (1995) expectancy theory defines work place motivation on the premises of the reward being valued, effort producing results, and success being attainable. Adams (1963) contends that workplace motivation is directly correlated to the employee's perception of the equity, fairness, and justice of the task. Finally, Locke (2006) asserts the motivation for achieving a high performance goal is determined by setting specific, measurable, realistic, and timely action steps. Regardless of the motivation or theory behind

completing a task, each theorist posits an employee's values, beliefs, and perceptions of a task permeate the process (Adams, 1963; Locke, 2006; Vroom, 1995).

Research on the attitudes and perceptions of any teacher performance pay plan show both positive and mixed results (Adkins, 2004; Podgursky & Springer, 2007b; Yuan et al., 2013). Teacher recruitment and retention bonuses awarded to highly effective teachers (Swain et al., 2019) were regarded as favorable and produced an increase in state reading scores. Positive support was also garnered for performance pay plans based solely on student performance citing increased student achievement and strong associations between teacher support for the plans and teacher experience and self-efficacy (Jacob & Springer, 2008; Springer et al., 2010). The overwhelming majority of the research has shown mixed results for any performance pay plan (Amrein-Beardsley et al., 2016; Podgursky & Springer, 2007b, 2011; Springer & Taylor, 2016; Yuan et al., 2013). Although teachers were found to be supportive of an incentive plan, many reported making few to no changes to their instructional practices associated with student learning or there was no significant improvement to student outcomes (Marsh & McCaffrey, 2012; Springer & Taylor, 2016; Yuan et al., 2013). No known study has documented purely negative results. However, the research literature (Chiang et al., 2015; Podgursky & Springer, 2007b) reflects a performance pay plan incentivizes those who prefer or prosper within such a plan. Finally, no definitive research was found regarding a relationship between a teacher's perceptions of an incentive plan and their corresponding teacher effectiveness or value added measure.

CHAPTER THREE: METHODS

Overview

The study incorporated a causal-comparative and correlational research design. This chapter explains the data collection, procedures, and data analysis used in the study.

Design

The research study was a combination of causal-comparative and correlational methodologies. First, a causal-comparative design was used to determine if any differences existed between the dependent variable, fourth- through eighth-grade educators' perceptions of the North Carolina Teacher Performance Bonus Plan, and the independent variable of teacher eligibility. The latter consisted of three groups: (a) teachers not eligible for a bonus, (b) teachers eligible for one bonus, and (c) teachers eligible for two bonuses. An educator who only taught science or social studies was not eligible for a bonus. Educators who taught mathematics in the fourth through eighth grades or reading in the fourth or fifth grade were eligible for one bonus. Finally, if the educator taught both mathematics and reading in the fourth or fifth grades, they were eligible for two bonuses. The dependent variable, educators' perceptions, was more specifically defined as those perceptions of the North Carolina Teacher Performance Bonus Plan with regard to (a) individual efficacy and goal attainment, (b) individual impact on performance, (c) implementation of process, and (d) value and equality of reward. Warner (2013) describes a causal-comparative and ex post facto research study as one that examines the differences between naturally occurring variations in the independent and dependent variables. This study determined any differences between the perceptions of the three groups of educators who were not randomly assigned but rather were grouped based on the particular characteristic of eligibility for the North Carolina Teacher Performance Bonus Plan.

A correlational research design was used to determine and evaluate any quantitative relationship between an educator's perception score regarding the North Carolina Teacher Performance Bonus Plan and that educator's EVAAS growth score. If a relationship existed between the variables, it was examined to determine its direction and magnitude. According to Warner (2013), a quantitative correlational research study involves the collection and examination of numerical data to describe and interpret relationships. Data were gathered from the Teacher Performance Pay Attitudinal Survey (TPPAS), a 28-question survey using five Likert scale rankings from Strongly Agree to Strongly Disagree (Adkins, 2014). Rovai et al. (2014) state a nonexperimental correlational research methodology is used to determine if any relationship exists between two or more quantitative variables in order to understand and assess any relationship without any attempt to influence it. In terms of this study, neither variable was manipulated or controlled.

Research Questions

The research focused on educators' attitudes and perceptions of the implementation of the current North Carolina Teacher Performance Bonus. The research questions drew upon the theoretical framework of equity, expectancy, and goal-setting theories. The research questions in the study were as follows:

RQ1: Are there differences in educators' perceptions of the North Carolina Teacher Performance Bonus Plan among fourth- through eighth-grade educators eligible for no bonus, one bonus, or two bonuses?

RQ2: Is there a relationship between an educators' perception score of the North Carolina Teacher Performance Bonus and the educators' EVAAS growth score?

RQ3: What are fourth- through eighth-grade educators' perceptions of the North Carolina Teacher Performance Bonus Plan in regards to (a) subject taught, (b) years of experience, (c) gender, (d) personal level of educational attainment, (e) Title 1 school, and (f) receipt of performance pay?

Null Hypotheses

The null hypotheses for this study were the following:

H₀₁: There are no statistically significant differences in educators' perceptions of the North Carolina Teacher Performance Bonus Plan among fourth- through eighth-grade educators eligible for no bonus, one bonus, or two bonuses as shown by the Teacher Performance Pay Attitudinal Survey.

H₀₂: There is no statistically significant relationship between an *educators' perception* of the North Carolina Teacher Performance Bonus and the educators' *EVAAS growth score* as shown by the Teacher Performance Pay Attitudinal Survey.

Participants and Setting

The study was conducted beginning in fall 2020, and participants were drawn from a purposive convenience sample of fourth- through eighth-grade educators located in the western region of North Carolina. Sample participants from this non-probability sample were fourth- through eighth-grade teachers in the far western counties of North Carolina during the 2018–19 school year. The districts are herein identified as School Districts 1, 2, 3, 4, 5, 6, and 7. More specifically, the sample itself consisted of fourth- through eighth-grade educators who taught English, mathematics, science, or social studies. The sample was representative of the target population in terms of teaching assignment, years of experience, gender, personal level of educational attainment, school's socio-economic status, and prior eligibility award status, which

information was collected through the survey instrument. Because of the potential bias of underrepresentation of the three eligibility subgroups, a random sample of those participants who fully completed the survey was not used for the study (Warner, 2013). Instead, the results from all participants who fully completed the survey were included in the data analysis.

Population Overview

The seven far western counties of North Carolina were chosen for several reasons. These counties and the population therein represented a population of educators often overlooked by their state government and representatives. School systems across the state of North Carolina are very different geographically, culturally, and socio-economically. Research has often been conducted in larger urban areas and smaller rural areas are often overlooked (Chiang et al., 2015). Although educators in these areas follow the same guidelines and policies as others, they are often met with many challenges when fulfilling their job requirements. The counties are located in the Appalachian Mountains, several of the counties border Tennessee, Georgia, and South Carolina; and they are all approximately five hours away from the state capitol. Thus, not only are these school districts geographically isolated within their own state, but it is very difficult for these educators to travel to any professional development or legislative sessions in which their voices can be heard.

Although the school systems in these seven counties are geographically isolated, they represent a varied mixture of communities ranging from a K–8 elementary/middle school with a student population of less than 200 students to a K–5 elementary school with over 600 students (NCDPI, 2019). In three counties, the school system was the largest employer. Additionally, several counties had over 20% of the population living below the poverty level.

Population Demographics

According to the NCDPI (2019), School Districts 1 through 7 had between three and fifteen schools in each district during the 2018–19 school year (Table 1). The smallest school district had 1,118 students and 91 teachers during the 2018–19 school year while the largest school district had 7,142 students and 486 teachers (Table 1). School Districts 1, 5, 6, and 7 had more than twice the number of schools as the remaining three school districts (Table 1) with School Districts 1 and 7 (Table 1) having more than three times the number of schools in School Districts 2 and 3 (NCDPI, 2019). Every elementary school in the proposed study was designated as a Title 1 school and received federal funding based on the high percentages of low-income students (Cornman et al., 2018).

Table 1

Population - School District Composition

School District	Number of Schools	Number of Students	Number of Full-Time Licensed Teachers
1	13	3,150	261
2	3	1,275	98
3	3	1,118	91
4	4	7,142	486
5	11	4,432	312
6	9	3,621	250
7	15	1,950	137

Beginning in the 2018–19 school year, the North Carolina Department of Public Education School Report Card began to report a teacher’s years of experience as follows: (a) beginning teacher: 0–3 years of experience, (b) experienced teacher: 4+ years of experience, and (c) provisional teacher: a teacher with a four-year degree but not holding a North Carolina teacher certification (NCDPI, 2019). As shown in Table 2, the majority of the teacher population across the seven far western school districts was comprised of experienced teachers (NCDPI,

2019). No school district had more than 15% of teachers with three or fewer years of experience (Table 2).

Additionally, Table 2 shows teacher effectiveness ratings for the 2018–19 school year as measured by the North Carolina Educator Evaluation System (NCDPI, 2019). Teachers were assigned an overall effectiveness classification based on five observational standards (a) leadership, (b) respectful environment for a diverse population of students, (c) knowledge of content, (d) instructional practices, and (e) reflective educator (NCDPI, 2019). Each of these standards was rated from “not demonstrated” to “distinguished” for each teacher (NCDPI, 2019). Educators were deemed to “Need Improvement” if they demonstrated a less than proficient rating on any one of the five standards or “Effective” if they were rated at least proficient on all five observational standards (NCDPI, 2019). Finally, a “Highly Effective” teacher earned a rating of accomplished or distinguished on all five of the observational standards (NCDPI, 2019). In each of the seven school districts, the majority of teachers received an “Effective” evaluation (NCDPI, 2019).

Table 2*Population – Teacher Experience and Effectiveness*

School District	Years of Experience		Teacher Effectiveness		
	Beginning Teachers 0–3 Years	Experienced Teachers 4+ Years	Needs Improvement	Effective	Highly Effective
1	9.8%	89.4%	15.6%	55.8%	28.6%
2	6.6%	93.4%	13.4%	43.9%	42.7%
3	10.9%	89.1%	13.4%	43.9%	42.7%
4	12.5%	87.5%	11.8%	58.8%	29.5%
5	8.3%	91.7%	11.5%	51.9%	36.6%
6	14.5%	85.3%	10.2%	66.1%	23.6%
7	13.8%	86.2%	15.7%	56.0%	28.4%

Note. Years of experience may not equal 100%. Teachers without a teaching certificate, provisional teachers, were not counted in the totals.

Instrumentation

Constructed by Adkins (2004), the survey instrument was the Teacher Performance Pay Attitudinal Survey, TPPAS (Appendix O), which has also been used and cited in other research studies regarding teachers' perceptions of motivation and compensation of performance pay programs (Forand, 2012; Marsh, 2014; Russ, 2015; Soupir-Fremstad, 2013). The researcher obtained written permission from the author, Gregory K. Adkins, before utilizing the survey (Appendices M–N).

Adkins (2004) developed the survey instrument questions using the theoretical and research framework of expectancy, equity, and goal-setting theory to increase validity. Content validity was ensured by engaging a panel of experts to validate whether the content and questions of the survey were appropriate and followed the theories and research framework (Adkins, 2004). Additionally, an estimate of instrument reliability was obtained using Cronbach's coefficient *alpha*. The survey was divided into six scales with the score of reliability

for, “(a) knowledge and understanding - Questions 7–8, $\alpha=.813$, (b) individual efficacy - Questions 9–13, $\alpha=.735$, (c) impact of individual performance-motivation Questions 15–19, $\alpha=.890$, (d) impact on individual performance – negative impact Questions 20–22, $\alpha=.888$, (e) teacher performance pay implementation – appropriateness Questions 23–24, $\alpha=.804$, and (f) teacher performance pay implementation – fairness Questions 25–26, $\alpha=.769$ ” (Adkins, 2004, p. 111).

The survey (Appendix O) contained 28 questions as well as allowed participants to add additional comments about the North Carolina Teacher Performance Bonus (2018) and took no more than 15 minutes to complete. The first six questions were used to collect demographic information on the educators and their schools using nominal and ordinal variables. The remaining questions (7–28) were measured on five Likert scale rankings from Strongly Agree to Strongly Disagree and focused on six previously mentioned components (a) knowledge and understanding; (b) individual teacher efficacy; (c) impact of individual performance – motivation; (d) impact of individual performance – negative outcomes; (e) teacher performance pay implementation – appropriateness, fairness, and goal alignment; and (f) amount and proportion of performance bonus (Adkins, 2004). Responses will be as follows (a) Strongly Agree = 5, (b) Agree = 4, (c) Neutral = 3, (d) Disagree = 2, and (f) Strongly Disagree = 1. The response data were presented as percentages for each item to demonstrate the level of agreement. Strongly Agree/Agree responses indicated a general agreement with the item and Strongly Disagree/Disagree indicated a general disagreement with the item. Neutral responses indicated no opinion on the item.

Survey scores from the TPPAS ranged from a low score of 22 to a high score of 110 on questions 7 through –28. The lowest score of 22 indicated a participant had no comprehension of

the current plan, was unmotivated by additional pay, believed the current plan is unfair, and had no expectation of additional pay for meeting student achievement goals. The highest score of 110 indicated a participant fully comprehended the current plan, felt their teaching abilities significantly affected their ability to receive performance pay, was motivated by a performance bonus, was not affected by an increased workload or stress, and felt additional compensation should be rewarded for meeting student achievement goals.

Procedures

Before beginning the study, the researcher obtained permission (Appendix A) from the Liberty University Institutional Review Board (IRB). A permission letter (Appendix B) was personally given to each superintendent of the seven school districts during a meeting to explain the purpose of the study and obtain permission (Appendices C–I) to administer the questionnaire to the fourth- through eighth-grade educators in their respective school districts. The researcher also requested permission to work with each district's EVAAS coordinator to collect the fourth-through eighth-grade educators' EVAAS growth score. The EVAAS score is a value-added measure of a student's academic growth based on state tests assigned to represent a teacher's effectiveness in the classroom (Rovai et al., 2014; Vosters et al., 2018). According to the SAS Institute Inc. (2021), the EVAAS model is used to predict a student's score on a given assessment based on any prior assessment data along with the expectation the student will make at least an average amount of one year's growth in the tested subject. An educator's EVAAS growth score is then determined by comparing the amount of growth achieved by the educator's students to the average amount of growth in the tested subject (Vosters et al., 2018). To protect the anonymity of participant responses and their confidential EVAAS growth score, the researcher requested each participant use the last five digits of their unique 10-digit state

identification code when completing the survey and to identify the school system in which they work. The researcher provided each school district's EVAAS coordinator with a spreadsheet including the last five digits of each participant's 10-digit state identification code. The school district's EVAAS coordinator subsequently provided the researcher with the EVAAS growth score corresponding to these five-digit identification numbers.

Obtaining permission from the school districts and conducting the research was managed in the following order:

1. Obtained permission to conduct research from the Liberty University Institutional Review Board (Appendix A)
2. Requested and obtained permission from each school district's superintendent to conduct research (Appendices B–I)
3. Requested and obtained permission to use the survey instrument, Teacher Performance Pay Attitudinal Survey (Appendices L–M)
4. Constructed the online version of the survey instrument using online survey tool, Survey Monkey (Appendix N)
5. Requested each school district send the initial participant email requesting consent to participate (Appendix J). The email contained the survey link.
6. Participants completed the survey using only the last five digits of their unique 10-digit employee identification number and the name of the school district in which they taught.
7. One week after the initial participant email, a reminder email was sent to participants (Appendix K) along with the survey link.
8. Survey remained live for two weeks.
9. Survey was extended for an additional two weeks to increase participation.

10. Obtained each participant's EVAAS growth score from each school district's EVAAS coordinator using the last five digits of their identification number.
11. Inputted all data into the Statistical Package for Social Sciences (SPSS).
12. Performed an analysis of variance for Research Question 1.
13. Calculated an overall educators' perception score using survey responses.
14. Calculated the Pearson product-moment correlation coefficient for Research Question 2.
15. Reported and compared percentages as determined for Research Question 3.
16. Compiled and analyzed any comments regarding the six sections of the survey.

The initial participant email (Appendix J) outlined the purpose of the study, time needed to complete the survey, and thanks for participation in advance. The email also indicated that participation was completely voluntary and confidential. The only identifying information used was the last five digits of the participant's unique 10-digit identification number and the name of their school district. Each participant's 10-digit identification number was only available to the participant and the school district's EVAAS coordinator maintaining confidentiality. The link to the survey was distributed in the initial participant email.

Data Analysis

Warner (2013) recommends an ANOVA to compare the mean scores of a dependent variable on three or more independent groups. Thus, an ANOVA was calculated using the continuous dependent variable, educator perceptions, and the independent variable, teacher eligibility, with its three groups (a) teachers not eligible for a bonus, (b) teachers eligible for one bonus, and (c) teachers eligible for two bonuses (Warner, 2013). Additionally, a Pearson Product-Moment correlation was used to assess any relationship between the two continuous variables (Warner, 2013). For this research study, any correlation was used to establish the

strength and direction between the values of the two variables: EVAAS growth score and educators' perceptions (Warner, 2013).

CHAPTER FOUR: FINDINGS

Overview

This research study was conducted to determine overall educator perceptions of the North Carolina Teacher Performance Bonus and any relationship these perceptions may have with the educator's EVAAS growth score. Educator perceptions of the performance bonus were measured using the Teacher Performance Pay Attitudinal Survey, TPPAS (Adkins, 2014). Participants included 174 fourth- through eighth-grade teachers in the seven far western school districts of North Carolina. This chapter is divided into four sections. The first two sections reiterate the research questions and null hypotheses for this study. Descriptive statistics are provided in the third section. The final section presents the results and analysis of data as related to the null hypotheses.

Research Questions

The research questions for this study are the following:

RQ1: Are there differences in educators' perceptions of the North Carolina Teacher Performance Bonus Plan among fourth- through eighth-grade educators eligible for no bonus, one bonus, or two bonuses?

RQ2: Is there a relationship between an educators' perception score of the North Carolina Teacher Performance Bonus and the educators' EVAAS growth score?

RQ3: What are fourth- through eighth-grade educators' perceptions of the North Carolina Teacher Performance Bonus Plan in regards to (a) subject taught, (b) years of experience, (c) gender, (d) personal level of educational attainment, (e) Title 1 school, and (f) receipt of performance pay?

Null Hypotheses

The null hypotheses for this study are as follows:

H₀₁: There are no statistically significant differences in educators' perceptions of the North Carolina Teacher Performance Bonus Plan among fourth- through eighth-grade educators eligible for no bonus, one bonus, or two bonuses as shown by the Teacher Performance Pay Attitudinal Survey.

H₀₂: There is no statistically significant relationship between an educators' perception of the North Carolina Teacher Performance Bonus and the educators' EVAAS growth score as shown by the Teacher Performance Pay Attitudinal Survey.

Sample Demographics

The survey instrument was administered to 174 fourth- through eighth-grade teachers in the seven far western school districts in North Carolina. All survey responses, as shown in Tables 3 through 7, were downloaded into a Microsoft Excel file and transposed for importing into the Statistical Packager for the Social Sciences (SPSS). Demographic variables obtained from Questions 2 through 6 on the TPPAS were measured on a nominal scale and reported as percentages using descriptive statistics in a table format. The resulting data are presented in order to note how the participants as a whole responded.

Sample Demographics Overview

Tables 3 through 7 provide demographic information about the participants and include (a) years of experience as a professional educator, (b) gender, (c) personal level of educational attainment, (d) socio-economic status of the school - Title 1 designation, and (e) receipt of prior performance award. Only 7.5% of the participants had been teaching less than three years and 30.4% of the teachers had three to ten years of experience (Table 3). More than half of the

participants, 62.1%, had 11 to 20 years' teaching experience (Table 3). No participants had more than 20 years of teaching experience (Table 3).

Table 3

Participant Sample - Years of Experience

Number of Years	Number	Percentage
Less than 3 years	13	7.5%
3 to 10 years	53	30.4%
11 to 20 years	108	62.1%
21 or more years	0	0%
Total	174	100%

The majority of the participants (86.8%) were female, mirroring the most recent percentages provided by the National Center for Education Statistics (2020) with 89% female teachers in public elementary schools (Table 4). Twenty-three male participants (13.2%) completed the survey (Table 4).

Table 4

Participant Sample - Gender

Gender	Number	Percentage
Female	151	86.8%
Male	23	13.2%
Total	174	100%

The percentage of participants with a post baccalaureate degree was 41.4% compared to the national average of 55% (National Center for Education Statistics, 2020). One hundred and two teachers (58.6%) held a baccalaureate degree and 65 teachers (37.4%) also held a masters' degree (Table 5). Table 5 shows a very small percentage of teachers held an educational specialist degree (2.9%) or a doctoral degree (1.1%).

Table 5*Participant Sample - Level of Educational Attainment*

Highest Degree	Number	Percentage
Baccalaureate	102	58.6%
Master's	65	37.4%
Specialist	5	2.9%
Doctorate	2	1.1%
Total	174	100%

An overwhelming majority of the participants (84.5%) taught in a Title 1 school, which is commensurate with the socio-economic characteristics of the seven school districts (Table 6).

One hundred forty-seven participants (84.5%) worked in a Title 1 school, and 27 participants (15.5%) taught in a school that did not have Title 1 school status (Table 6).

Table 6*Participant Sample - Title 1 School Status*

Title 1 School	Number	Percentage
Yes	147	84.5%
No	27	15.5%
Total	174	100%

Approximately, one-third (30.5%) of the participants had received performance pay in the past (Table 7). One hundred twenty-one teachers (69.5%) had not received prior performance pay (Table 7). To be eligible for performance pay, the teacher had to teach ELA in grades 4 or 5 and/or mathematics in any grade from fourth- through eighth-grade (NCDPI, 2020a).

Additionally, the teacher must have an EVAAS score in the top 25% of their respective school district or the state for the subject taught (NCDPI, 2020a).

Table 7*Participant Sample - Receipt of Prior Performance Pay Award*

Receipt of Performance Pay	Number	Percentage
Yes	53	30.5%
No	121	69.5%
Total	174	100%

Sample Demographics by Eligibility Status

The number of fourth- through eighth-grade educators within the seven counties was approximately 400. This study aimed for a minimum sample size of approximately 150 participants with a minimum of 30 per group to ensure at least a 90% chance of judging the medium effect to be statistically significant (Warner, 2013). According to Gall, Gall, and Borg (2007), when conducting an analysis of variance with three groups, the minimum sample size needed to adequately ensure at least a 70% chance of judging the effect to be statistically significant is 126 participants with a power level of .70 with an estimated eta squared effect size of .05 at alpha = .05. The study consisted of 174 participants.

Because similar research had not been found regarding the North Carolina Performance Pay Plan with the three groups of educator eligibility, Warner (2013) suggests using a small effect size of $\eta^2 = .20$ and a power of .80 to determine the minimum required n per group of 14. Additionally, when computing a test of relationships, a minimum sample size of 28 is desired for an alpha of .05 with a power of .80 and a medium effect size (Warner, 2013). The sample consisted of 73 teachers not eligible for a bonus within the seven school districts (see Table 8) because they taught ELA in either sixth, seventh, or eighth grade or taught science or social studies only. There were 71 teachers eligible for one bonus, and 30 teachers were eligible for both performance pay bonuses (see Table 8). Tables 8 through 13 provide the demographic

information based on the three levels of teacher eligibility and include (a) current teacher assignment, (b) years of teaching experience, (c) gender, (c) level of educational attainment, (d) the school's Title 1 designation or socio-economic status, and (e) receipt of a prior performance award under the current performance pay plan.

Table 8 shows the breakdown of subjects taught for all participants who completed the survey by eligibility for the teacher performance bonus. Fourth- through eighth-grade mathematics teachers and fourth through fifth grade reading teachers are eligible for one North Carolina Teacher Performance Bonus (NCDPI, 2020a). Fourth- through eighth-grade science and social studies teachers and sixth through eighth grade reading teachers are not eligible (NCDPI, 2020a). More specifically, a fourth- through eighth-grade teacher who only teaches science or social studies or a sixth- through eighth-grade teacher who only teaches reading is not eligible for any bonus (NCDPI, 2020a). A fourth through fifth grade teacher who teaches either mathematics or reading and science or social studies or a sixth- through eighth-grade mathematics teacher is eligible for one bonus (NCDPI, 2020a). Finally, a fourth or fifth grade teacher who teaches both mathematics and reading is eligible for two bonuses (NCDPI, 2020a). Approximately half of the teachers who completed the survey only teach one subject (a) ELA – 22, (b) mathematics – 29, (c) science – 22, and (d) social studies – 16 (Table 8). Many of the other teachers taught two subjects, which is common in many small school districts across the state because of funding issues such as those who taught ELA and social studies – 22 or mathematics and science – 14 (Table 8). Additionally, teachers in elementary classrooms are sometimes asked to teach all four core subjects in a self-contained classroom as is shown in those participants, 29, who taught ELA, mathematics, science, and social studies (Table 8).

Table 8*Teacher Assignment - Eligibility Status*

Subject Taught	Level of Eligibility			Total
	No Bonus	1 Bonus	2 Bonuses	
ELA Only	22	9	0	31
Mathematics Only	0	28	0	28
Science Only	22	0	0	22
Social Studies Only	16	0	0	16
ELA & Social Studies	10	13	0	23
ELA & Science	0	1	0	1
Mathematics & Science	0	14	0	14
Mathematics & Social Studies	0	1	0	1
Science & Social Studies	3	1	0	4
ELA, Mathematics, & Science	0	1	1	2
ELA, Science, & Social Studies	0	1	0	1
ELA, Mathematics, Science, & Social Studies	0	2	29	31
Total	73	71	30	174

Approximately, 62% of all survey participants had between 11 and 20 years of experience (Table 9). The majority of these participants were either eligible for no bonus or one bonus, 40 and 47, respectively (Table 9). No teachers with 21 or more years of experience completed the survey (Table 9).

Table 9*Years of Experience - Eligibility Status*

Years of Experience	Level of Eligibility			Total
	No Bonus	1 Bonus	2 Bonuses	
Less than 3	12	1	0	13
3 to 10	21	23	9	53
11 to 20	40	47	21	108
21 or more	0	0	0	0
Total	73	71	30	174

The overwhelming majority of participants were female, 151 teachers (Table 10). Of the female teachers, 57 were not eligible for a bonus and 65 were eligible for one bonus (Table 10). Twenty-three male teachers participated with sixteen not eligible for a bonus, six male participants eligible for one bonus, and only one male teacher eligible for two bonuses (Table 10).

Table 10

Gender - Eligibility Status

Gender	Level of Eligibility			Total
	No Bonus	1 Bonus	2 Bonuses	
Female	57	65	29	151
Male	16	6	1	23
Total	73	71	30	174

Of the 73 survey participants not eligible for a bonus, 40 held a baccalaureate degree, 32 a master's degree, and 1 a doctoral degree (Table 11). The majority of teachers eligible for one bonus (43) had obtained their baccalaureate degree and 23 teachers had also obtained their master's degree (Table 11). Nineteen survey participants eligible for two bonuses had a baccalaureate degree, ten a Master's degree, and only one an educational specialist degree (Table 11).

Table 11

Level of Educational Attainment - Eligibility Status

Degree Attained	Level of Eligibility			Total
	No Bonus	1 Bonus	2 Bonuses	
Baccalaureate	40	43	19	102
Master's	32	23	10	65
Specialist	0	4	1	5
Doctorate	1	1	0	2
Total	73	71	30	174

One hundred forty-seven teachers were employed in a Title 1 school (Table 12). Of those 147 survey participants, 55 were eligible for no bonus, 62 were eligible for one bonus, and 30 were eligible for two bonuses (Table 12). Of the 27 participants not employed in a Title 1 school, 18 teachers were not eligible for a bonus, and 9 teachers were eligible for one bonus (Table 12).

Table 12

Title 1 School - Eligibility Status

School Title 1 Status	Level of Eligibility			Total
	No Bonus	1 Bonus	2 Bonuses	
Yes	55	62	30	147
No	18	9	0	27
Total	73	71	30	174

Table 13 reports the number of participants who had received a prior performance award. The majority of survey participants (121) had not received a performance award. Of those teachers who were eligible for one bonus, 29 had received a bonus and 42 had not received a bonus.

Table 13

Receipt of Prior Performance Award - Eligibility Status

Prior Performance Award	Level of Eligibility			Total
	No Bonus	1 Bonus	2 Bonuses	
Yes	6	29	18	53
No	67	42	12	121
Total	73	71	30	174

Descriptive Statistics

The study initially had 174 participants. However, nine of these participants did not fully complete the survey. Thus, the descriptive statistics and corresponding analysis of data for each of the research questions are based on 165 participants with 67 participants eligible for no bonus,

69 participants for one bonus, and 29 participants for two bonuses (Tables 14 &15). Participants were not eligible for a bonus if they only taught science or social studies in fourth through eighth grades or ELA in sixth through eighth grades. Those who taught mathematics in the fourth through eighth grades or reading in the fourth or fifth grade were eligible for one bonus. Educators who taught both mathematics and reading in the fourth or fifth grade were eligible for two bonuses. Participants completed the TPPAS consisting of 28 survey questions focusing on educator perceptions of the current North Carolina Teacher Performance Bonus.

The survey responses identified any differences in fourth through eighth grade educators' perceptions of the North Carolina Teacher Performance Bonus. The first six questions of the survey are demographic questions and were not included as part of the overall educators' perception score. Participants completed the remaining 22 questions using a Likert scale rating from 1 to 5, indicating "Strongly Disagree" to "Strongly Agree". The overall educators' perceptions score consisted of a minimum score of 22 points up to a maximum score of 110 points with a mean of 42.82 and standard deviation of 10.29 (Table 14). Additionally, participants were asked to provide their EVAAS score. This score quantifies an educator's effectiveness using student testing data with a score ranging from -10 to 10 (Vosters et al., 2018). A score from -1 to 1 is indicative of a teacher whose students are progressing commensurate with the state growth standard average (Rovai et al., 2014). An educator EVAAS score above 2 suggests that teacher's students are performing substantially above the state growth average while a score of -2 is typical of students with less than average growth (Rovai et al., 2014). Of the 165 participants who fully completed the survey, the researcher was able to identify and match 108 EVAAS growth scores to an overall educators' perceptions score with the assistance

of the school district's EVAAS coordinator. Table 14 shows the mean EVAAS score as 0.74 with a standard deviation of 2.62.

Table 14

Overall Educators' Perception Scores and Education Value-Added Assessment System Score

Variable	Mean	Standard Deviation	N
Overall Educators' Perceptions Score	42.82	10.29	165
EVAAS Score	0.74	2.62	108

Table 15 shows the three groups of teachers based on eligibility status had very similar overall educators' perceptions mean scores: (a) no bonus ($M = 41.79$, $SD = 8.31$), (b) one bonus ($M = 43.91$, $SD = 11.51$), and (c) two bonuses ($M = 42.62$, $SD = 10.29$).

Table 15

Overall Educators' Perception Survey Scores by Eligibility Status

Dependent Variable	Eligibility Status	Mean	Standard Deviation	N
Overall Educators' Perceptions Score	No Bonus	41.79	8.31	67
	One Bonus	43.91	11.51	69
	Two Bonuses	42.62	10.29	29

Table 16 provides the mean and standard deviation by individual survey question and eligibility status as well as a total. Each question is based on a Likert scale rating from 1 (Strongly Disagree) to 5 (Strongly Agree). Question 27 asked each survey participant to rate the amount of the performance pay by dollar amount. A score of 1 indicated no dollar amount should be awarded while a score of 5 indicated the amount should be more than \$2,000. Question 28 asked each participant to rate the amount of the performance pay reward by base salary percentage. The salary percentages ranged from 0%, for a score of 1 to more than 10%, for a rating of 5 on the survey.

The majority of participants (Table 16) agreed or strongly agreed their individual performance had a significant influence on student achievement: (a) no bonus ($M = 3.9$, $SD = 0.9$), (b) one bonus ($M = 4.1$, $SD = 0.8$), and (c) two bonuses ($M = 4.2$, $SD = 1.1$). However, the survey scores indicate lower levels of agreement and higher levels of variability within each eligibility status (Table 16) when teachers were asked if their individual performance had a significant influence on receiving performance pay (a) no bonus ($M = 2.8$, $SD = 1.3$), (b) one bonus ($M = 3.1$, $SD = 1.4$), and (c) two bonuses ($M = 3.1$, $SD = 1.4$). Additionally, lower levels of agreement were stated across all eligibility levels (Table 16) regarding altering instructional practices as a result of performance pay (a) no bonus ($M = 2.1$, $SD = 0.8$), (b) one bonus ($M = 2.3$, $SD = 1.2$), and (c) two bonuses ($M = 2.5$, $SD = 1.2$) and modifying assessment methods as a result of performance pay (a) no bonus ($M = 2.1$, $SD = 0.8$), (b) one bonus ($M = 2.4$, $SD = 1.2$), and (c) two bonuses ($M = 2.5$, $SD = 1.2$).

Table 16

Descriptive Statistics by Survey Question and Eligibility Status

Survey Question		Eligibility Status			Total
		No Bonus	One Bonus	Two Bonuses	
7. Clearly understand the process for awarding teacher performance pay	Mean	2.3	2.9	2.5	2.6
	St. Dev.	1.0	1.4	1.3	1.3
8. Clearly understand the process for calculating the amount of performance pay	Mean	2.0	2.5	2.0	2.2
	St. Dev.	0.9	1.4	1.0	1.2
9. Individual performance significant influence on student achievement	Mean	3.9	4.1	4.2	4.0
	St. Dev.	0.9	0.8	1.1	0.9
10. Individual performance significant influence on receiving performance pay	Mean	2.8	3.1	3.1	3.0
	St. Dev.	1.3	1.4	1.4	1.3
11. Adequate resources to support efforts to obtain performance pay	Mean	3.1	3.3	3.3	3.2
	St. Dev.	1.2	1.1	0.9	1.1

Survey Question		Eligibility Status			Total
		No Bonus	One Bonus	Two Bonuses	
12. Adequate administrative assistance to support efforts to obtain performance pay	Mean	3.7	3.6	3.3	3.6
	St. Dev.	1.1	1.0	0.9	1.0
13. Equal opportunity to receive performance pay	Mean	2.4	2.9	2.5	2.6
	St. Dev.	1.2	1.3	1.3	1.3
14. Student body composition greater impact on receiving performance pay than individual teacher effort	Mean	3.6	3.6	4.0	3.7
	St. Dev.	1.0	1.2	0.9	1.1
15. Performance pay is an incentive to work harder to improve student achievement	Mean	2.8	2.9	2.7	2.8
	St. Dev.	1.2	1.3	1.3	1.2
16. Performance pay encourages participation in staff development	Mean	2.8	2.7	2.6	2.7
	St. Dev.	1.2	1.2	1.2	1.2
17. Increasing the size of performance pay would increase motivation to Improve student achievement	Mean	3.2	2.9	2.6	3.0
	St. Dev.	1.2	1.3	1.3	1.3
18. Altered instructional practices as a result of implementation of performance pay	Mean	2.1	2.3	2.5	2.2
	St. Dev.	0.8	1.2	1.2	1.0
19. Modified assessment methods as a result of implementation of performance pay	Mean	2.1	2.4	2.5	2.3
	St. Dev.	0.8	1.2	1.2	1.1
20. Workload has increased as a result of implementation of performance pay	Mean	2.5	2.5	2.5	2.5
	St. Dev.	0.9	1.1	1.0	1.0
21. Experienced increased stress as a result of implementation of performance pay	Mean	2.8	2.8	2.8	2.8
	St. Dev.	1.1	1.2	1.2	1.2
22. Work longer hours as a result of implementation of performance pay	Mean	2.6	2.6	2.6	2.6
	St. Dev.	1.0	1.2	1.0	1.1
23. Additional compensation for outstanding Individual performance	Mean	3.6	3.4	3.1	3.5
	St. Dev.	1.2	1.2	1.1	1.2
24. Additional compensation for meeting student achievement goals	Mean	3.5	3.4	3.1	3.4
	St. Dev.	1.2	1.2	1.1	1.2
25. Performance pay plan fairly distributed	Mean	2.2	2.3	2.3	2.3
	St. Dev.	1.0	1.1	1.1	1.0
26. Performance pay plan aligned with school goals to reward performance	Mean	2.5	2.6	2.7	2.6
	St. Dev.	0.9	1.1	1.1	1.0
27. Amount of the performance pay by dollar amount	Mean	3.7	3.7	3.1	3.6
	St. Dev.	1.6	1.6	1.7	1.6
28. Amount of the performance pay by salary percentage	Mean	3.2	3.4	2.8	3.2
	St. Dev.	1.5	1.7	1.5	1.6

Results

The following sections detail the results of the study. Information is provided for each null hypothesis including the corresponding statistical test and data analysis. A more detailed analysis regarding each survey question follows by the demographic variables (a) years of experience, (b) gender, (c) level of educational attainment, (d) Title 1 school status, and (e) receipt of prior performance pay. Finally, an analysis of survey comments is provided.

Null Hypothesis #1

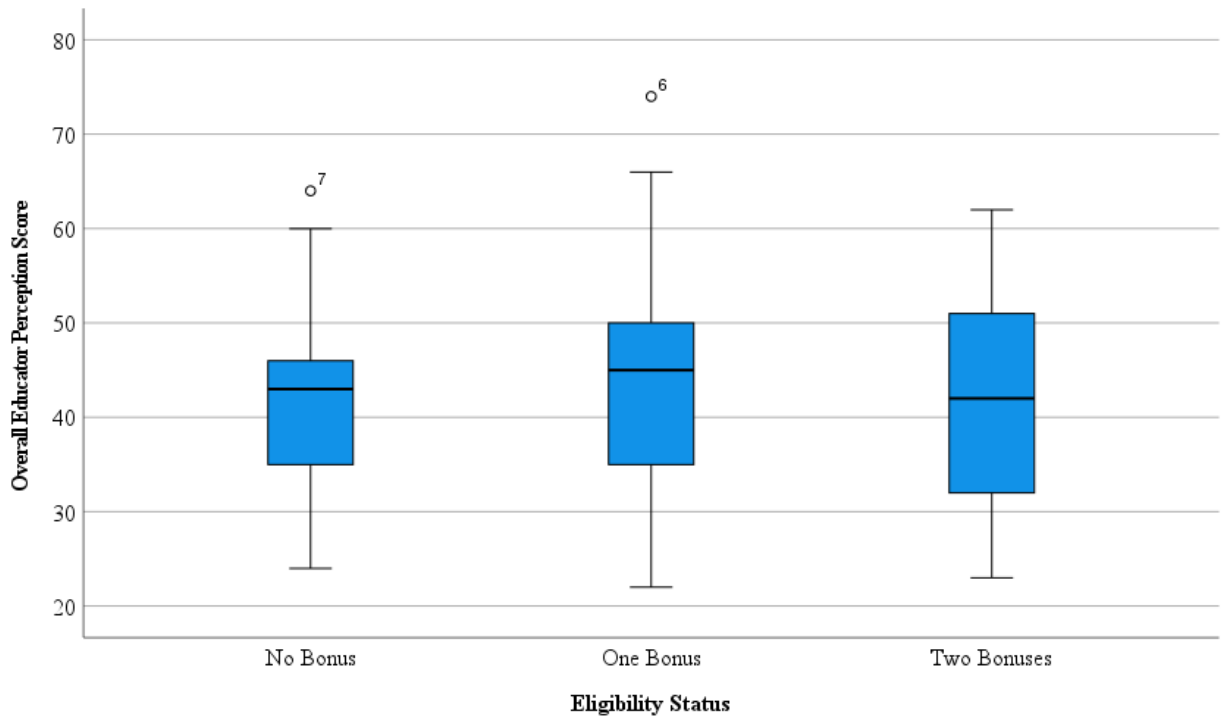
Null hypothesis #1 states, “There are no statistically significant differences in educators’ perceptions of the North Carolina Teacher Performance Bonus Plan among fourth- through eighth-grade educators eligible for no bonus, one bonus, or two bonuses as shown by the Teacher Performance Pay Attitudinal Survey.” A one-way ANOVA was used to test this hypothesis. According to Gall et al. (2007), a one-way ANOVA is used to determine any statistical differences between the means of three or more independent groups.

Data Screening

Data screening was conducted on the variables. The data were scanned for inconsistencies. A visual inspection of the boxplot (Figure 1) for univariate outliers in each group of the independent variable, eligibility status and, for the dependent variable educators’ perceptions was conducted. Figure 1 shows the presence of outliers found in the group of teachers who received no bonus (case 7) and one bonus (case 6). The one-way ANOVA was run with and without the outliers in the data set with no statistically significant change to the results. Thus, in order to protect the integrity of the data, the outliers remained in the data set (Warner, 2013).

Figure 1

Overall Educators' Perception Score by Eligibility Status



Assumption Tests

Assumptions were addressed for the one-way ANOVA. Of the three tests of normality conducted (Table 17), none showed a deviation from normality in any eligibility group. A Shapiro-Wilk test showed no departure from normality in the educators' perceptions score (a) no bonus, $W(67) = 0.98, p = .53$; (b) one bonus, $W(69) = 0.99, p = .55$; and (c) two bonuses, $W(29) = 0.95, p = .21$ (Table 17).

Table 17*Eligibility Status and Educators' Perceptions Scores*

	Eligibility Status	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Overall	No Bonus	.104	67	.070	.984	67	.527
Perception Score	One Bonus	.057	69	.200*	.985	69	.553
	Two Bonuses	.121	29	.200*	.952	29	.208

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

The assumption of homogeneity of variances was violated, as assessed by Levene's test (Table 18) for equality of variances ($p = .012$). Because the assumption of homogeneity of variances was violated, Warner (2013) suggests, interpreting the results of the Welch's ANOVA.

Table 18*Levene's F Test of Equality of Equal Variances Scores*

	Levene Statistic	df1	df2	Sig.
Overall Educator Perception Score	10.117	2	162	.012

Data Analysis for Null Hypothesis #1

A one-way ANOVA was conducted to determine if there were any statistically significant differences in educators' perceptions of the North Carolina Teacher Performance Bonus Plan among fourth- through eighth-grade educators eligible for no bonus, one bonus, or two bonuses as shown by the TPPAS. There were no statistically significant differences in the overall educators' perceptions score between the different eligibility groups, Welch's $F(2, 72.126) = 0.756, p = .473$ (Table 19). Thus, no post hoc testing was conducted. Based on this statistical analysis, the researcher failed to reject the null hypothesis and concluded there were no statistically significant differences in educators' perception score regarding the North Carolina

Teacher Performance Bonus Plan among fourth- through eighth-grade educators eligible for no bonus, one bonus, or two bonuses as shown by the TPPAS.

Table 19

Welch's Tests of Equality of Means

	Welch Statistic	df1	df2	Sig.
Overall Educator Perception Score	0.756	2	72.126	.473

Null Hypothesis #2

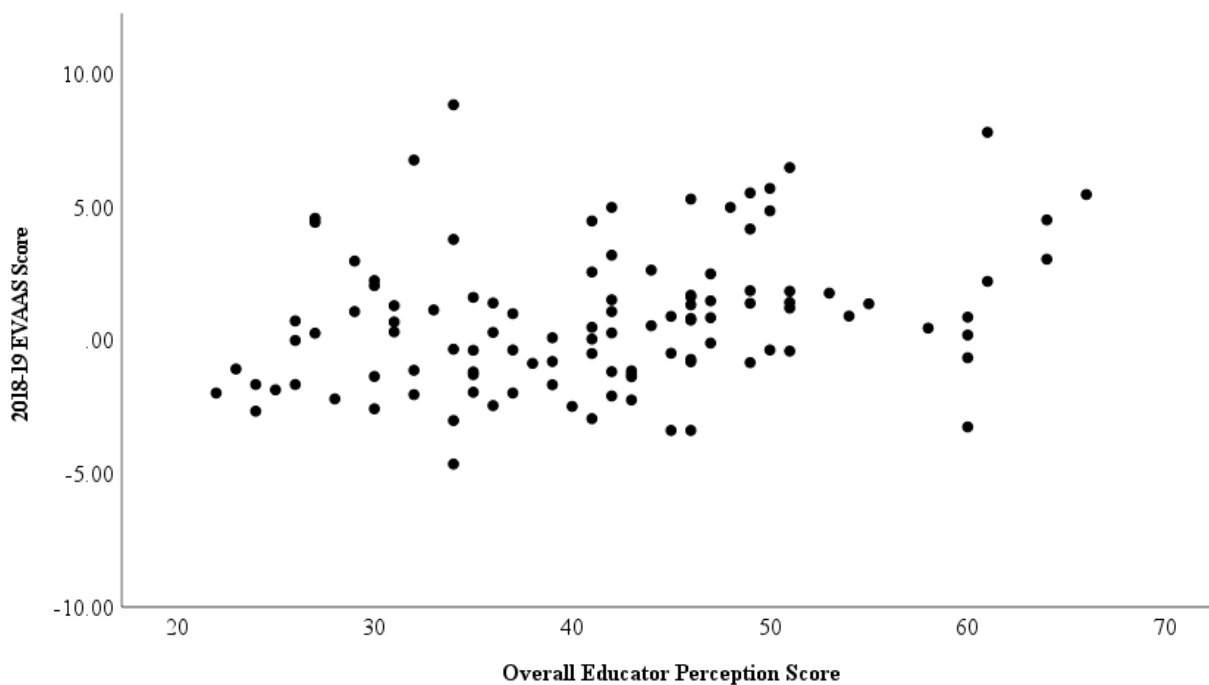
Null hypothesis #2 states, “There is no statistically significant relationship between an educators’ perception of the North Carolina Teacher Performance Bonus and the educators’ EVAAS growth score as shown by the Teacher Performance Pay Attitudinal Survey. A product - moment correlation coefficient was computed. According to Gall et al. (2007), a product - moment correlation is calculated to determine the measure of the strength and direction of association between two continuous quantitative variables.

Data Screening

Data screening was conducted on the variables. The data were scanned for inconsistencies. Figure 2 shows a scatterplot of the educators’ perceptions score against an educator’s EVAAS growth score with no extreme bivariate outliers. Both independent and dependent variables are continuous variables and are paired with each other (Warner, 2013).

Figure 2

Scatterplot of 2018–19 Education Value-Added Assessment System Score by Overall Educator Perception Score



Assumption Tests

To assess linearity a scatterplot of educators' perceptions score against an educator's EVAAS growth score was plotted. A visual inspection of this plot suggests a positive, linear relationship and a moderate association between the two variables (Figure 2). While the histograms for both variables do not show perfect normal distributions shapes (Figures 3–4), the bivariate distribution is not extremely different from bivariate normal (Warner, 2013).

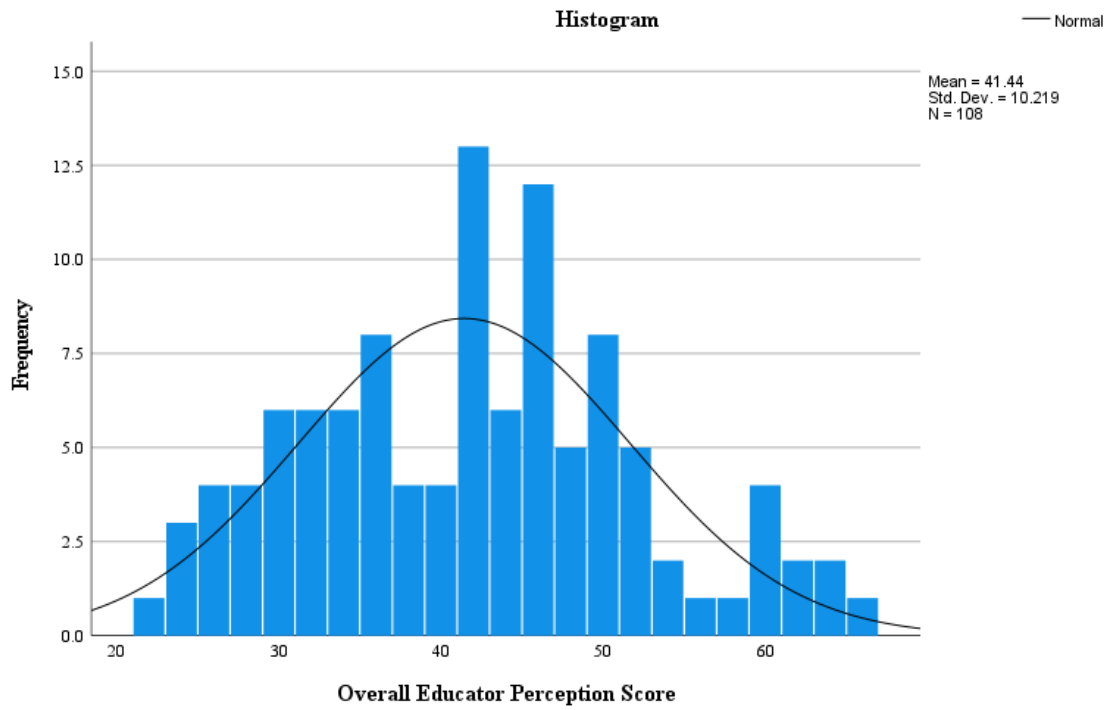
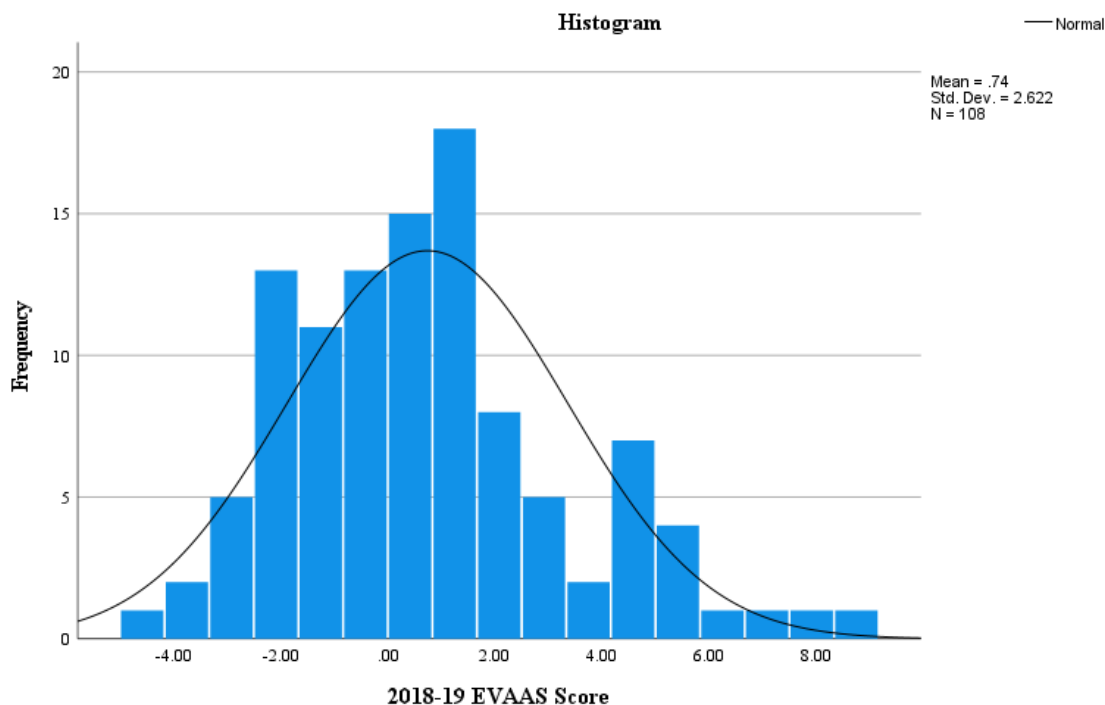
Figure 3*Histogram of Overall Educators' Perception Score*

Figure 4

Histogram of 2018–19 Education Value-Added Assessment System Score by Overall Educator Perception Score



Data Analysis for Null Hypothesis #2

A Product-Moment Correlation was run to determine if there was a statistically significant relationship between an educator's perceptions score regarding the North Carolina Teacher Performance Bonus and the educator's EVAAS growth score as shown by the TPPAS. There was a statistically significant positive correlation between an educators' perceptions score regarding the North Carolina Teacher Performance Bonus and the educators' EVAAS growth score, $r(108) = .288, p < .01$ (Table 20). The educator's EVAAS growth score explained 8% of the educator's perception score regarding the North Carolina Teacher Performance Bonus. Thus, the researcher rejected the null hypothesis and determined there was a statistically significant

relationship between an educator’s perception of the North Carolina Teacher Performance Bonus and the educator’s EVAAS growth score as shown by the TPPAS.

Table 20

Pearson’s Product-Moment Correlation

		2018–19 EVAAS Score	Overall Educator’s Perception Score
2018–19 EVAAS Score	Pearson Correlation	1	.288*
	Sig. (2-tailed)		.003
	N	108	108

*. Correlation is significant at the 0.01 level (2-tailed).

Descriptive Analysis for Research Question #3

Research question #3 sought to determine fourth- through eighth-grade educators' perceptions of the North Carolina Teacher Performance Bonus Plan obtained through the TPPAS. In particular, participant percentages were calculated for the following demographic categories (a) years of experience, (b) gender, (c) personal level of educational attainment, (d) Title 1 school, and (e) prior receipt of performance pay. The following sections highlight any compelling features gleaned from the survey responses including an analysis of participant comments.

Knowledge and Understanding

Regardless of the demographic category, an overwhelming majority of participants do not understand the process for awarding or calculating teacher performance pay (Tables 21–24). More than half of the participants across all years of experience and gender do not understand the process for awarding or calculating teacher performance pay (Tables 21–22). These percentages increase to a minimum of a 60% level of disagreement with respect to calculating teacher performance pay by Title 1 school status and receipt of prior performance pay.

Table 21*Knowledge and Understanding by Years of Experience*

Years of Experience	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
#7. Understand the process of awarding performance pay						
Less than 3 years (n = 13)	15.4%	38.5%	38.5%	7.7%	0.0%	100%
3 to 10 years (n = 53)	24.5%	32.1%	20.8%	17.0%	5.7%	100%
11 to 20 years (n = 108)	25.9%	26.9%	13.9%	25.0%	8.3%	100%
#8. Understand the process of calculating performance pay						
Less than 3 years (n = 13)	23.1%	38.5%	30.7%	7.7%	0.0%	100%
3 to 10 years (n = 53)	32.1%	37.7%	15.1%	9.4%	5.7%	100%
11 to 20 years (n = 108)	30.6%	37.0%	13.9%	12.0%	6.5%	100%

Note. No teachers with more than 20 years of experience completed the survey.

Table 22*Knowledge and Understanding by Gender*

Gender	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
#7. Understand the process of awarding performance pay						
Female (n = 151)	24.5%	30.5%	15.9%	22.5%	6.6%	100%
Male (n = 23)	26.1%	21.7%	30.4%	13.0%	8.7%	100%
#8. Understand the process of calculating performance pay						
Female (n = 151)	31.1%	38.4%	13.9%	9.9%	6.6%	100%
Male (n = 23)	26.1%	30.4%	26.1%	17.4%	0.0%	100%

Table 23*Knowledge and Understanding by Title I School Status*

Title 1 School	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
#8. Understand the process of calculating performance pay						
Yes (n = 147)	32.0%	36.7%	15.0%	12.2%	4.1%	100%
No (n = 27)	22.2%	40.7%	18.5%	3.7%	14.8%	100%

Table 24*Knowledge and Understanding by Receipt of Prior Performance Pay*

Receipt of Prior Performance Pay	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
#8. Understand the process of calculating performance pay						
Yes (n = 53)	17.0%	41.5%	9.4%	18.9%	13.2%	100%
No (n = 121)	36.4%	35.5%	18.2%	7.4%	2.5%	100%

Teacher Efficacy

An astounding majority (over three-fourths) of participants regardless of the demographic category agreed that their individual performance has a significant influence on student achievement (Tables 25–29). However, these percentages dropped below 50% in each demographic category with the exception of level of educational attainment when participants were asked if an individual's performance has a significant influence on earning performance pay (Tables 25–29).

Table 25*Teacher Efficacy by Years of Experience*

Years of Experience	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
#9. Individual performance significant influence on student achievement						
Less than 3 years (n = 13)	0.0%	15.4%	7.7%	46.2%	30.8%	100%
3 to 10 years (n = 53)	1.9%	5.7%	11.3%	56.6%	24.5%	100%
11 to 20 years (n = 107)	2.8%	5.6%	6.5%	52.3%	32.7%	100%
#10. Individual performance significant influence on earning performance pay						
Less than 3 years (n = 13)	0.0%	15.4%	30.8%	23.1%	30.8%	100%
3 to 10 years (n = 52)	21.2%	17.3%	21.2%	32.7%	7.7%	100%
11 to 20 years (n = 107)	19.6%	23.4%	14.0%	29.9%	13.1%	100%

Note. No teachers with more than 20 years of experience completed the survey.

Table 26*Teacher Efficacy by Gender*

Gender	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
#9. Individual performance significant influence on student achievement						
Female (n = 150)	2.7%	6.7%	6.7%	52.7%	31.3%	100%
Male (n = 23)	0.0%	4.3%	17.4%	56.5%	21.7%	100%
#10. Individual performance significant influence on earning performance pay						
Female (n = 149)	18.1%	20.1%	16.1%	32.2%	13.4%	100%
Male (n = 23)	21.7%	26.1%	26.1%	17.4%	8.7%	100%

Table 27*Teacher Efficacy by Level of Educational Attainment*

Level of Educational Attainment	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
#9. Individual performance significant influence on student achievement						
Baccalaureate (n = 101)	2.0%	5.0%	10.9%	51.5%	30.7%	100%
Masters (n = 65)	1.5%	9.2%	4.6%	56.9%	27.7%	100%
Educational Specialist (n = 5)	20.0%	0.0%	0.0%	40.0%	40.0%	100%
Doctorate (n = 2)	0.0%	0.0%	0.0%	50.0%	50.0%	100%
#10. Individual performance significant influence on earning performance pay						
Baccalaureate (n = 101)	18.8%	15.8%	22.8%	28.7%	13.9%	100%
Masters (n = 64)	17.2%	31.3%	9.4%	31.3%	10.9%	100%
Educational Specialist (n = 5)	20.0%	0.0%	20.0%	40.0%	20.0%	100%
Doctorate (n = 2)	50.0%	0.0%	0.0%	50.0%	0.0%	100%

Table 28*Teacher Efficacy by Title 1 School Status*

Title 1 School	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
#9. Individual performance significant influence on student achievement						
Yes (n = 146)	2.1%	6.8%	7.5%	54.1%	29.5%	100%
No (n = 27)	3.7%	3.7%	11.1%	48.1%	33.3%	100%
#10. Individual performance significant influence on earning performance pay						
Yes (n = 145)	17.9%	19.3%	17.2%	32.4%	13.1%	100%
No (n = 27)	22.2%	29.6%	18.5%	18.5%	11.1%	100%

Table 29*Teacher Efficacy by Receipt of Prior Performance Pay*

Receipt of Prior Performance Pay	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
#9. Individual performance significant influence on student achievement						
Yes (n = 52)	0.0%	7.7%	5.8%	50.0%	36.5%	100%
No (n = 121)	3.3%	5.8%	9.1%	54.5%	27.3%	100%
#10. Individual performance significant influence on earning performance pay						
Yes (n = 52)	5.8%	17.3%	13.5%	44.2%	19.2%	100%
No (n = 120)	24.2%	22.5%	19.2%	24.2%	10.0%	100%

Summary

Chapter Four highlighted the results of the statistical analysis completed by the researcher. Participants included 174 fourth- through eighth-grade educators in the seven far western school districts of North Carolina. Each participant completed the TPPAS regarding the current North Carolina Teacher Performance Bonus. The researcher conducted an ANOVA and found no statistically significant differences between educators' perceptions of the North Carolina Teacher Performance Bonus Plan among fourth- through eighth-grade educators eligible for no bonus, one bonus, or two bonuses. Additionally, a Pearson Product-Moment correlation was calculated and resulted in a statistically significant relationship between an educator's perception score regarding the North Carolina Teacher Performance Bonus and the educator's EVAAS growth score. Finally, overall percentages from the survey were presented based on demographic variables along with participant comments.

CHAPTER FIVE: CONCLUSIONS

Overview

This chapter highlights the results of this study regarding educators' perceptions of the North Carolina Teacher Performance Pay Plan. The following sections discuss the results as they relate to the three research questions and expectancy, equity, and goal-setting theories.

Additionally, implications, limitations, and recommendations for further research are discussed.

Discussion

The purpose of this study was to examine the perceptions of educators in the seven far western school districts in North Carolina regarding the current teacher performance pay plan and determine if any predictive relationship exists between these perceptions and the educators' EVAAS growth score. This study was threefold and incorporated a causal-comparative and correlational research design. The first goal of the study was to determine if differences and/or relationships existed in the attitudes and perceptions of fourth- through eighth-grade educators regarding the current North Carolina Teacher Performance Bonus. Next, this research study was conducted to determine the strength and direction of any linear association between an educator's perception score regarding the North Carolina Teacher Performance Bonus and that educator's EVAAS growth score. Finally, educators' perceptions of the North Carolina Teacher Performance Bonus were compiled and reported based on demographics regarding understanding, teacher efficacy, individual performance, and implementation.

Research Question #1

The first research question for this study was "Are there differences in educators' perceptions of the North Carolina Teacher Performance Bonus Pay Plan among fourth- through eighth-grade educators eligible for no bonus, one bonus, or two bonuses?"

Results

No statistically significant differences were found in the overall educators' perceptions score concerning the North Carolina Teacher Performance Bonus Plan among fourth- through eighth-grade educators eligible for no bonus, one bonus, or two bonuses as shown by the TPPAS, Welch's $F(2, 72.126) = 0.756, p = .473$ (Table 19).

Similar Studies

The single salary pay schedule is one of the most common forms of teacher compensation across the nation (Gius, 2013). However, varying performance pay compensation programs beyond the single salary schedule are being implemented in many public school districts in the US (Dee & Wyckoff, 2015). Numerous programs provide additional monetary rewards for knowledge or skills-based pay such as obtaining an advanced degree or pursuing additional certifications (Baker, 2014; Balch & Springer, 2015; Cowan & Goldhaber, 2018; Rice, 2015). Difficult-to-staff bonuses have been designated for teachers willing to teach subjects such as mathematics, science, and special education (Adnot et al., 2017). Recruitment and retention bonuses have also been granted for educators employed in schools serving socioeconomically disadvantaged, minority, or low performing students (Adnot et al., 2017; Baker, 2014; Grissom & Strunk, 2012).

Several variations of performance pay programs exist throughout the US, but many of these programs focus on retention and recruitment or on student achievement gains (Jacob & Springer, 2008; Springer et al., 2016; Swain et al., 2019). The Governor's Educator Excellence Grant (GEEG), which is comprised of 75% school-based bonuses and 25% teacher-based bonuses, included awards based on objective measures of student performance and teacher quality as they related to professional development, teacher mentoring, participation in after-

school programs, signing bonuses for difficult-to-staff subjects, and retention and recruitment bonuses (Podgursky & Springer, 2016). The Tennessee Governor's Office awarded retention bonuses to any teacher receiving a high evaluation score and teaching in a priority school, meaning a school in the bottom 5% based on assessment scores (Swain et al., 2019). Upon the establishment of the Merit Award Program (MAP) in 2007, the Florida State Legislature appropriated approximately \$147.5 million to be awarded to teachers as bonuses for improved instructional practices based on principal evaluations and student performance (Jacob & Springer, 2008; Podgursky & Springer, 2007b).

The District Awards for Teacher Excellence (DATE) program in Texas, which was initiated in 2008 and, appropriated approximately \$197 million annually included a majority of individual teacher incentives based on student achievement on state standardized assessments (Springer et al., 2010). However, the DATE program was met by challenges such as fair measures of teacher performance and the implementation of an adequate data program (Springer et al., 2010). Most similar to the current study, the Project on Incentives in Teaching (POINT) program conducted in Nashville, Tennessee awarded individual middle school mathematics teachers on their EVAAS score during the 2006 through 2009 school years (Yuan et al., 2013). Bonuses ranging from \$5,000 to \$15,000 were awarded to teachers reaching the 80th to 95th percentile of EVAAS rankings (Yuan et al., 2013).

North Carolina has implemented several statewide performance pay programs over the last 25 years. Created by the NCDPI in 1996, the ABCs of Public Education included monetary awards for obtaining test score achievement targets in mathematics and reading. The ABCs program awarded teachers \$1,500 for "exemplary" growth or \$750 for "expected" growth based on student achievement scores in mathematics for grades 3 through 8 and specific high school

courses (NCDPI, 2006). Initial teacher support was garnered for this program (Vigdor, 2008). Additionally, the NCAE supported maintaining this program and advocated for even larger monetary awards (Vigdor, 2008). Similar to the ABCs program, in 2011, North Carolina's RttT Act awarded \$1,500 performance bonuses, to all certified staff in schools that achieved high growth with an additional \$500 for individual teachers of tested subjects in which students also exceeded growth expectations regardless of school-wide performance (Brevetti, 2014, Liang & Akiba, 2015).

Other Studies

No research studies could be found regarding educators' perceptions of performance pay among three eligibility groups. However, several studies have been conducted regarding two groups, such as eligible and not eligible participants or a team/school bonus. Springer et al. (2012) studied 159 teams of middle school teachers teaching core subjects with regards to teachers' attitudes, perceptions, and instructional practices and a team bonus based on a value-added measure of student achievement. While the Springer et al. (2012) study focused on a team bonus, the researchers found no significant differences between the control group and the bonus intervention group echoing the results of the current study.

Springer et al. (2012) noted possible explanations including 54% of those receiving the bonus did not completely comprehend the criteria for receiving the monetary award. In comparison to the current study, of those participants receiving a performance bonus, 33.9% did not clearly understand the process of awarding performance pay, and 58.5% did not clearly understand the process for calculating the amount of performance pay (Table 24). Additionally, Springer et al. (2012) noted 78% of the bonus intervention group reported they would make no change in their instructional practices because of the bonus. Reporting on North Carolina's RttT

Act, Lauen and Kozlowski (2014) also noted that, overall, teachers were unaware of the monetary incentive and would not have changed their instructional practices despite the bonus.

Springer and Taylor (2016) cited strong evidence of increased teacher turnover for those who did not receive any monetary award along with a reduced rate of turnover for those teachers who received a monetary award. These findings mirror past North Carolina performance pay programs ABCs and RttT in terms of the unintended consequence of an escalated teacher turnover rate in difficult-to-staff and low-performing schools indicative of teachers at these schools being less likely to receive performance pay (Lauen & Kozlowski, 2013; Vigdor, 2008). Several studies show positive participation and experiences with schools offering large monetary awards with respect to student achievement using objective measures such as professional development, teacher mentoring programs, participation in after-school programs, and a decrease in teacher turnover (Podgursky & Springer, 2007b; Springer et al., 2010; Springer & Taylor, 2016).

Cowan and Goldhaber (2018) studied a similar program for awarding \$3,500 to 5,000 to NBCTs in Washington State that was considered very successful in recruiting and credentialing highly qualified teachers but did not result in gains in student achievement. The Florida State Legislature introduced the MAP which appropriated \$147.5 million to provide bonuses to teacher salaries with 40% dedicated to improving professional practices and 60% awarded based on student performance (Jacob & Springer, 2008; Podgursky & Springer, 2007b). While moderate support was found for the program with most participants more agreeable to individual teacher performance awards, a significant association was revealed between teacher support of performance pay and teacher experience, principal leadership, and teacher self-efficacy (Jacob & Springer, 2008).

Kelley et al.'s (2003) findings show 75% of teachers in Kentucky worked more hours as the result of performance pay implementation in addition to 87% experiencing an increased stress level. Job security and state intervention were noted as contributing to this increased stress level (Kelley et al., 2003). Additionally, Kelley et al. (2003) cited a general feeling of unfairness from teachers regarding performance pay bonuses based on student achievement and growth. Adkins (2004) reported 37% of teachers' workload had increased along with approximately half of the instructional participants reporting an increase in workload and stress.

The current study focused on educators' perceptions of performance pay within three eligibility groups: no bonus, one bonus, and two bonuses. No significant differences were found among the three eligibility groups. The only other research studies found regarding educators' perceptions of performance pay included two eligibility groups: those eligible and those not eligible (Adkins, 2004; Kelley et al., 2003; Lauen & Kozlowski, 2013; Lauen & Kozlowski, 2014; Springer et al., 2012; Springer & Taylor, 2016; Vigdor, 2008; Yuan et al., 2012). Several studies reported similarities to the current study stating teachers did not understand the method for awarding the bonus, were unaware of the bonus, or made no change to instructional practices due to the implementation of performance pay (Lauen & Kozlowski, 2014; Springer et al., 2012). Additionally, Adkins (2004), Kelley et al. (2003), and Yuan et al. (2013) all highlighted an increase in teacher workload and stress as a result of performance pay implementation similar to the current study's results. While the current study did not analyze other forms of teacher compensation, several studies showed promising results or positive associations for compensation plans dedicated to improving instructional practices, recruitment and credentialing of highly qualified teachers, or teacher experience (Cowan & Goldhaber, 2018; Jacob & Springer, 2008; Podgursky & Springer, 2007b; Springer et al., 2010; Springer & Taylor, 2016).

Conceptual Framework

Teachers are portrayed as public servants with qualities such as compassion, self-sacrifice, and a duty to perform socially and personally meaningful work (King et al., 2015; Shifrer et al., 2017). With this service commitment in mind, it has been postulated teachers are not motivated by a monetary incentive (Mintrop et al., 2018) and choose collegiality and collaboration over competition (Shifrer et al., 2017). Table 30 shows more than 60% of participants in this study who received prior performance pay believe that educators should be compensated for individual performance and meeting student achievement goals compared to approximately 50% of those participants who did not receive performance pay.

An educator's civic duty or intrinsic motivation along with the extrinsic motivation of a pay for performance program has been described as a double-edged sword (Frey et al., 2013; Mintrop et al., 2018). A financial award based on individual effort leading to student academic growth should boost teacher morale and incentivize increased productivity (Shifrer et al., 2017). However, under performance pay programs, teachers may also become discouraged not only with themselves but also with their colleagues if their increased efforts do not lead to the expected outcomes (Frey et al., 2013, King et al., 2015; Mintrop et al., 2018). Regardless of the receipt of prior performance pay, the results show participants in this study were not incentivized to work harder, nor did they alter their instructional methods or modify assignments as a result of performance pay (Table 30).

Table 30*Survey Responses by Question Number and Receipt of Prior Performance Pay*

Receipt of Prior Performance Pay	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
#15. Performance pay an incentive to work harder						
Yes (n = 53)	22.6%	17.0%	13.2%	30.2%	17.0%	100%
No (n = 121)	14.9%	28.1%	33.1%	18.2%	5.8%	100%
#18. Altered instructional practices as a result of performance pay						
Yes (n = 53)	28.3%	39.6%	11.3%	13.2%	7.5%	100%
No (n = 121)	24.8%	38.8%	30.6%	4.1%	1.7%	100%
#19. Modified assessment methods as a result of performance pay						
Yes (n = 53)	26.4%	45.3%	5.7%	15.1%	7.5%	100%
No (n = 121)	24.8%	34.7%	31.4%	7.4%	1.7%	100%
#23. Compensation for individual performance						
Yes (n = 53)	7.5%	15.1%	11.3%	45.3%	20.8%	100%
No (n = 121)	6.6%	18.2%	24.8%	31.4%	19.0%	100%
#24. Compensation for meeting student achievement goals						
Yes (n = 53)	9.4%	11.3%	13.2%	49.1%	17.0%	100%
No (n = 121)	6.6%	17.4%	28.9%	32.2%	14.9%	100%

While no significant differences were found among the three educator eligibility groups, teacher self-efficacy and perceptions of control and autonomy are instrumental in the success of any performance pay program (Ford et al., 2017; Rice et al., 2015). Teachers are primarily

intrinsically motivated, and performance pay programs and accountability reform must build upon this without adverse consequences of decreased self-efficacy and demotivation (Kelley et al., 2002; Tirivayi et al., 2014).

Research Question #2

The second question from this study was “Is there a statistically significant relationship between an educators’ perception score of the North Carolina Teacher Performance Bonus and the educators’ EVAAS growth score?”

Results

The results showed a slight positive association, $r(108) = .288, p < .01$ (Table Q1), between an educator’s perception score regarding the North Carolina Teacher Performance Bonus and the educator’s EVAAS growth score.

Similar Studies

Teacher quality has long been cited as one of the top influences on student achievement (Cowan & Goldhaber, 2018; Desimone et al., 2016; Rothstein, 2015; Skourdoumbis, 2014). VAMs or growth models (student growth percentiles) numerically define a teacher’s effectiveness or quality from a student’s growth measure on a standardized assessment (Geiger, Amrein-Beardsley, & Holloway, 2020; NEA Department of Teacher Quality, 2011; North Carolina Department of Public Instruction, 2018;). The current VAM used in North Carolina is the EVAAS score, which has been used to determine performance pay recipients under the current law (SB. 299-SL2018-5 N.C. Gen. Ass., 2018).

The most controversial alternative pay structure across the US has been based on rewarding teachers for student achievement levels on standardized assessments (Baker, 2014; Liu et al., 2017; Vosters et al., 2018). Defining and measuring teacher quality has proven to be

contentious when linked to teacher compensation (Liu et al., 2017). Geiger et al. (2020) state the US has taken the use of VAMs to the extreme in relation to evaluating teachers while other affluent countries have exercised caution. Concerns regarding VAMs include (a) the reliability and consistency of placing a numerical value on teacher quality over time, (b) the validity of defining an effective teacher, and (c) immanent biases of student assignments to teachers (Moran, 2017; Podgursky & Springer, 2007a; Rothstein, 2015; Winters & Cowen, 2013).

Cowan and Goldhaber (2018) contend performance pay plans based on student achievement have been instrumental in improving teacher effectiveness. Additionally, Hill and Jones (2020) posit the empirical literature regarding performance pay tends to show a small positive impact on student outcomes.

Other Studies

No prior research studies could be found regarding educators' perceptions of the North Carolina Teacher Performance Bonus, and there is a paucity of research literature specifically related to any performance pay plan based on an EVAAS growth score. Yuan et al. (2013) noted Nashville, Tennessee's POINT program aimed at rewarding middle school mathematics teachers for their EVAAS scores resulted in historical rates of turnover among those teachers. Ironically, while the average amount of the POINT program bonus was between \$9,500 and \$11,400, over half of the participants reported making very few to no changes in their instructional practices (Yuan et al., 2013). In comparison to the POINT program, the current study shows 67.9% who had previously received a bonus and 63.6% who had stated they had not altered their instructional practices as a result of performance pay implementation (Table 34). The results of the POINT program study (Yuan et al., 2013) also align with a study completed by Jacob and Springer (2008) on the MAP in Florida in which 34% of the participants stated the program

would incentivize them to work harder. The results of the MAP are very similar to the current study in that 31% of participants stated performance pay was an incentive to work harder to improve student achievement (Table 34).

The DATE program in Texas included teacher incentives based on their students' performance on state-standardized assessments and resulted in teachers reporting a positive experience and a decrease in teacher turnover with the offering of larger monetary awards (Springer et al., 2010). Additionally, performance pay plans based exclusively on student performance garnered positive support and showed strong associations between teacher support and teacher self-efficacy (Jacob & Springer, 2008; Springer et al., 2010). Liang and Akiba (2015b) also found a positive association between performance related pay and improvements in constructivist instruction which has been linked to improved academic achievement (Kim, 2005). Dee and Wyckoff (2015) found that educators' value-added scores were higher the following year for teachers who received awards than for their colleagues who did not.

A similar monetary award aimed at teachers, support staff, and counselors was implemented by the New York City Department of Education in 2007–08 using progress reports of student performance on standardized tests (Marsh & McCaffrey, 2012; Podgursky & Springer, 2011; Springer et al., 2012; Yuan et al., 2013). However, the program was abolished after two years due to no measurable gains shown in school or student achievement outcomes (Fryer, 2011; Goodman & Turner, 2011; Podgursky & Springer, 2011). Additionally, in a study of three performance pay districts in North Carolina using standardized test scores and teachers' value-added scores, Hill and Jones (2021) concluded performance pay made little impact on student achievement scores and subsequent educator EVAAS ratings.

Bowen and Mills (2017) conducted surveys with 120 teachers from both a charter school and a public school who had experienced performance pay. The subsequent analysis linking teachers' survey responses with their corresponding value-added score showed a negative association (Bowen & Mills, 2017). In other words, a lower perception score of merit pay was associated with a higher teacher effectiveness, value-added, score (Bowen & Mills, 2017). Ironically, Bowen and Mills (2017) found the opposite to be true of the performance pay perceptions and principal evaluation scores of these same teachers. As merit pay perceptions increased, the principal evaluation scores of the same teachers also increased (Bowen & Mills, 2017).

Amrein-Beardsley (2016) advised using any type of growth model in a performance pay plan citing growth as extremely difficult to measure and unfair as related to the fairness, reliability, and validity of the growth measures. Additionally, Moran (2017) issues a warning against using a VAM to evaluate teacher effectiveness in high-stakes decisions such as performance pay citing these measures as not valid or reliable. In concurrence, Shifrer et al., (2017) state the EVAAS methodology is ineffective in accounting for differences across schools affecting student achievement that are not within teachers' control such as student body demographics, class composition, and home life.

Many school systems and state educational departments offer alternate performance pay programs not determined by student growth measures. These programs include an increased monetary award for additional duties and/or obtaining certifications such as achieving NBPTS certification and are explicitly defined (Balch & Springer, 2015; Cowan & Goldhaber, 2018; Rice et al., 2015). Other studies also show difficult-to-staff bonuses such as those for teaching in a mathematics, science, or special education classroom have been implemented in

socioeconomically disadvantaged school districts with some success (Adnot et al.; 2017, Baker, 2014; Grissom & Strunk, 2012).

The results of the current study note a small positive association between an educators' perception of performance pay and that educator's corresponding EVAAS growth score. Mixed results have been shown in several studies regarding this positive association. Several studies suggest a problematic parallel between an educator effectiveness score and teacher perceptions citing higher rates of teacher turnover, increased workload, and validity of measurement score (Amrein-Beardsley, 2016; Moran, 2017; Smith & Holloway, 2020). Studies noting positive associations included lower rates of teacher turnover with increased monetary awards, a link between performance pay and teacher efficacy, and improvements to instructional practices (Jacob & Springer, 2008; Liang & Akiba, 2015b; Springer et al., 2010).

Conceptual Framework

The concern regarding teacher performance pay programs has become an issue of intrinsic and extrinsic motivation for teachers as well as a level of equality and fair balance of input versus output (Mintrop et al., 2018; Tirivayi et al., 2014; Yuan et al., 2013). Conroy and Gupta (2016) argue equity theory could be applied to a performance pay program for educators as a fair balance of individual teacher effort and increased salary or recognition. Ford (2018) contends an educator's values, beliefs, and prior experiences will shape the educator's perception of any performance pay plan based on a VAM. Unfortunately, many factors affecting student achievement and subsequent education value-added scores such as economic disparities in schools are outside an educator's control (Amrein-Beardsley, 2016; Horne et al., 2014; Shifrer et al., 2017).

While an overwhelming majority of participants (approximately 80%) across all demographics stated their individual performance had a significant influence on student achievement, the percentage of participants stating their individual performance had a significant influence on receiving performance pay decreased by half (Tables 25–29). This is indicative of teachers who believe their individual efforts matter yet have a low expectation of obtaining the reward (Purvis et al., 2015). In addition, the majority of participants do not understand the process for calculating the monetary award (Table 21–24). Thus, if they do not understand how to achieve the goal of a higher EVAAS rating, the extrinsic motivator of the monetary award is futile (Dishon-Berkovits, 2014; Kelley et al., 2002; Locke & Latham, 2006).

Many aspects affect the motivating factors and equity of performance pay (Liu et al., 2016). A monetary award may allow school districts to retain and recruit highly effective teachers and motivate teachers to improve their instructional practices (Tirivayi et al., 2014). However, the EVAAS score used to evaluate teachers and determine eligibility is controversial, with critics citing issues of the reliability and validity of measuring teacher effectiveness (Amrein-Beardsley et al., 2016; Berk, 2016; Hendrick, 2014).

Research Question #3

The final research question was “What are fourth- through eighth-grade *educators'* *perceptions* of the North Carolina Teacher Performance Bonus Plan in regards to (a) years of experience, (b) gender, (c) personal level of educational attainment, (d) Title 1 school, and (e) receipt of performance pay?”

Results

The most applicable survey response percentages pertain to the knowledge and understanding of the current teacher performance pay system and teacher efficacy (Tables 21–

29) as well as participant responses by demographic category or receipt of prior performance pay (Table 34).

Similar Studies

Advocates of performance pay in education argue incentives aligned with measurable outcomes increases the success of the incentive by motivating educators to increase student achievement (Bowen & Mills, 2017). These programs are touted as better attracting and retaining educators who are more likely to be effective in the classroom (Bowen & Mills, 2017; Kozlowski & Lauen, 2019). However, these extrinsic rewards are in direct contrast to the public-service motivation driving most educators (Kozlowski & Lauen, 2019). As such, policymakers should not only consider this important factor when determining how to best reward educators but should also consider the varying demographics of the teacher population.

In a review of recent literature, Springer and Taylor (2016) along with Bowen and Mills (2017) noted that more experienced teachers were less supportive of pay for performance policies. Additionally, Springer and Taylor (2016) stated teachers new to the profession were more supportive of individual performance pay than a group incentive program. Recent literature also suggests women are less likely to support a competitive performance pay plan, which is attributed to the idea that women are more risk averse than men are (Hill & Jones, 2020). By nature, women are assumed to be more nurturing and are more likely to thrive in a collaborative environment with a collective goal (Hill & Jones, 2020; Springer & Taylor, 2016). Bowen and Mills (2017) also assert educators with a higher risk factor should be more favorable to performance-based pay.

Expectancy theory is based on valence, expectancy, and instrumentality and as such is directly aligned with teacher efficacy (Purvis et al., 2015, Yuan et al., 2013). Teacher efficacy and expectancy have been defined as teachers' beliefs in their ability to positively affect student

achievement and receive a valued outcome (Rice et al., 2015). In the context of the results of this study, more than half of the participants believed their increased efforts would lead to increased student growth and ultimately result in a monetary award (Tables 25–29). A teacher's self-efficacy is that teacher's belief in his or her ability to significantly influence student achievement and subsequent teaching effectiveness. Jacob and Springer (2008) along with Goldhaber et al. (2011) found that teachers with a higher sense of self-efficacy were more supportive of performance pay. The results of this study are similar to those of the Adkins' (2004) study in which 91% of the instructional respondents were in strong agreement that individual performance has a significant influence on student achievement. Yet, 51% of these same respondents did not agree their individual performance significantly influenced their chances of earning the performance bonus (Adkins, 2004).

Other Studies

The following sections highlight various results of the current study using total percentages based on the demographic categories of (a) years of experience, (b) gender, (c) level of educational attainment, (d) Title 1 school status, and (e) receipt of prior performance pay regarding educators' perceptions of the North Carolina Teacher Performance Bonus. These percentages are discussed in comparison to other studies.

Years of Experience. It should first be noted no teachers with more than 20 years of experience completed the survey. Teachers with all other years of experience reported high percentages of agreement with regard to teacher efficacy (Table 21), which coincides with Adkins' (2004) study of one Florida school district using the same survey instrument. The results indicated teachers at all other levels of experience agreed or strongly agreed additional compensation should be awarded for outstanding individual performance (a) less than three years – 92%, (b) 3 to 10 years – 55%, and (c) 11–20 years – 51% (Table 21). When asked if additional

compensation should be awarded for meeting student achievement goals, participant percentages dropped slightly for teachers with less than three years of experience (77%) and 11 to 20 years of experience (48%; Table 21).

Baker (2014) noted no significant differences for schoolwide bonuses by years of teaching experience for music educators in New Jersey but expressed concern that the results underrepresented rural music educators' opinions of merit pay. A study of the Washington State Teacher Compensation Survey (Goldhaber et al., 2011) resulted in overwhelming opposition to merit pay from teachers at all levels of experience. Upon a more detailed analysis, Goldhaber et al. (2011) stated that teachers with fewer years of experience (three years or less) are slightly more supportive of performance pay than teachers with 25 years of experience are.

Gender. Approximately 80% of participants (male and female) agreed or strongly agreed a teacher's performance has a significant influence on student achievement (Table 26). Several other studies were found regarding an educator's perceptions of performance pay based on gender. In a study of 3,121 full-time classroom teachers who completed the Washington State Teacher Compensation Survey, Goldhaber et al. (2011) stated female teachers were less supportive of a performance pay plan, especially one tied to subject area incentives, but were more supportive of a monetary award for additional teaching certifications such as a NBPTS certification.

In comparison, using the SASS, Jones (2013) also noted men responded to performance pay more favorably than women did with regard to Florida's four types of performance pay plans including individual and school level awards. While one study (Goldhaber et al., 2011) showed women were more supportive of monetary awards based on additional certifications,

Jones (2013) noted that men were more receptive to performance pay linked to individual and group rewards.

Level of Educational Attainment. An overwhelming majority of participants in the current study, regardless of level of educational attainment, agreed or strongly agreed a teacher's individual performance has a significant influence on student achievement (Table 27). However, these percentages were cut in half when participants were asked if a teacher's individual performance has a significant influence on receiving performance pay for those participants with a bachelor's or master's degree (Table 27).

Adkins (2004) found significant differences in the area of individual efficacy and level of agreement for those participants holding a bachelor's degree versus an educational specialist degree. It was difficult to make comparisons to the Adkin's study due to the small sample size ($n = 5$) of participants with an educational specialist degree (Table 27). However, there were no noticeable differences between the percentage of agreement between participants with a bachelor's degree and educational specialist regarding individual teacher efficacy (Table 27). While Russ (2015) only surveyed teachers with a bachelor's or master's degree, those participants with a bachelor's degree were more supportive of a performance pay plan. The percentages of participants with a bachelor's or master's degree in the current study were approximately equivalent in the area of teacher efficacy (Table 27).

Results from the current study and other studies revealed evidence educators with a bachelor's degree appeared to be more favorable of performance pay plans (Adkins, 2004; Goldhaber et al., 2011; Russ, 2015). Across all levels of educational attainment, prior studies have shown that educators emphatically agree upon the importance of teacher quality on student

achievement, yet there is no common agreement on the type or usefulness of one particular type of performance pay plan (Adkins, 2004; Goldhaber et al., 2011; Russ, 2015).

Title 1 School Status. Regardless of whether the participants worked in a Title 1 school district, a majority of all participants in both categories agreed a teacher's individual performance had a significant influence on student achievement (Table 28). However, over half of all participants altered their instructional practices or modified assessments as a result of the monetary award due to the performance bonus regardless of Title 1 school status (Table 28).

Liang and Akiba (2015a) studied an incentive pay program implemented in Missouri that offered additional compensation for National Board certification or advanced degrees, completing additional duties such as mentoring new teachers, or teaching in difficult-to-staff areas such as mathematics or in difficult-to-staff schools. While this performance pay program was not directly related to a teacher's value-added growth measure, it was found that small and economically disadvantaged school districts, notably many including Title 1 schools, were less likely to provide additional incentives for these types of duties (Liang & Akiba, 2015a). This trend raised a concern for the recruitment and retention of highly effective teachers in small rural districts such as those in the current study (Liang & Akiba, 2015a).

Once again, the direct correlation between teacher quality and student achievement was mirrored in participants in both this study and other studies regardless of the Title 1 school status (Cowan & Goldhaber, 2018; Podgursky & Springer, 2007b). The majority of performance pay studies in Title 1 schools are based on additional teaching certifications and difficult-to-staff bonuses in certain subject areas such as mathematics and special education instead of an education value-added measure (Cowan & Goldhaber, 2018; Podgursky & Springer, 2007b). A

major area of concern across all studies is recruitment and retention of quality educators within high-poverty neighborhoods (Cowan & Goldhaber, 2018; Podgursky & Springer, 2007b).

Receipt of Prior Performance Pay.

While Springer et al. (2012) caution against any interpretation of their results, their analysis of 159 teams of middle school teachers regarding a performance bonus is nonetheless interesting. Teachers who received a bonus in the first year of the study were less likely to emphasize standardized testing than those who did not receive a bonus (Springer et al., 2012). Additionally, teachers' perceptions regarding the amount of the bonus varied between those who received a bonus and those who did not receive a bonus (Springer et al., 2012). Teachers who received a bonus noted the monetary amount was large enough to motivate them to work harder (Springer et al., 2012).

Despite the lack of data from other studies regarding educators' perceptions of a performance pay bonus, this study's results disclosed receipt of prior performance pay did not necessarily influence educators' perceptions of performance pay as they pertained to teacher efficacy (Table 29). However, both groups agreed additional compensation should be awarded for outstanding individual performance and for meeting student achievement goals (Table 34).

Analysis of Comments

Participants were given the opportunity to provide additional comments at the end of the survey (Table 31). These comments provided additional data relevant to overall educator perceptions regarding the North Carolina Teacher Performance Pay Plan. Comments were classified based on the main emphasis of the content with regard to (a) knowledge and understanding, (b) individual efficacy, (c) impact on individual performance – motivation, (d) impact on individual performance – negative impact, (e) teacher performance pay

implementation, (f) teacher performance pay implementation – fairness, (g) amount of the award, and (h) Other. Additionally, participant comments were classified as generally positive regarding performance pay, generally negative regarding performance pay, or neutral.

Table 31 provides the percentage distribution of the comments by category.

Approximately 45% of participants’ comments regarding the perceived fairness of the performance pay plan noted the fact not every teacher was eligible to receive the bonus.

Table 31

Comment Frequency Distribution

Comment Category	<i>f</i>	%
Knowledge and understanding	12	13.9%
Individual efficacy	16	18.4%
Impact on individual performance – motivation	7	8.0%
Impact on individual performance – negative impact	5	5.8%
Teacher performance pay implementation	7	8.0%
Teacher performance pay implementation – fairness	39	44.8%
Amount of the award	1	1.1%
Total	87	100%

In particular, one teacher stated, “All the teachers a student/class has ever had have influenced the student’s growth not any one individual teacher.” A science and social studies teacher noted, “I work hard in ELA integration with my lessons but I do not have a chance to share in this ‘reward’.” Another teacher stated, “I think NC had it correct years ago when pay incentives were tied in with the ABC model from the early ‘90s. All school staff were included in this model.” These comments are supported by the level of disagreement shown in the survey response percentages by gender (Table 32) and receipt of prior performance pay (Table 33).

Table 32*Perceived Fairness by Gender*

Years of Experience	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
#25. Performance pay plan fairly distributed						
Female (n = 151)	27.8%	22.5%	40.4%	6.6%	2.6%	100%
Male (n = 23)	43.5%	21.7%	26.1%	8.7%	0.0%	100%

Table 33*Perceived Fairness by Receipt of Prior Performance Pay*

Receipt of Prior Performance Pay	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
#25. Performance pay plan fairly distributed						
Yes (n = 53)	22.6%	30.2%	30.2%	13.2%	3.8%	100%
No (n = 121)	33.1%	19.0%	42.1%	4.1%	1.7%	100%

Individual efficacy, a person's ability to succeed in a particular situation, was the next highest comment category as shown in Table 31 at 18.4%. Participants commented, "Testing is a one day snapshot," "I always strive to do my best for my students," and "knowing that the bonus is based on student GROWTH and not simply a passing score is what makes me happy." Survey responses with regard to teacher efficacy were also highlighted in Tables 25 through 29.

Ironically, the knowledge and understanding category ranked the third highest at 13.9% (Table 31). Survey percentages for this demographic are also highlighted in Tables 21 through 24. This study showed the majority of the participants did not understand the process for awarding performance pay. In fact, one participant contacted the researcher by email stating, "There is no such thing as a North Carolina Teacher Performance Bonus. This was suggested

about 12 years ago but was never implemented.” This particular participant teaches science in a middle school and was not eligible for the bonus but did not understand other elementary and middle school teachers in the school district are eligible for a performance bonus.

Table 34 provides the general overall feeling or valence of the comments within each category. Of the 87 comments provided, 40.2% were generally negative, 33.4% neutral, and 26.4% generally positive regarding the current performance pay plan. While the majority of the knowledge and understanding comments (75%) were neutral many participants were completely unaware of the performance pay plan communicating, “I know nothing,” “I have never been given information about it,” and “I was not aware that teachers received any bonus or pay for growth ... I thought that was taken away in 2008–2009.” Most disturbingly, one teacher commented, “I did not know teachers got Performance Pay ... Guess that means I am not a good teacher because I have never received it.”

While only seven participants commented on the perceived motivation of performance pay, only one comment was positive, noting, “I have received teacher performance pay in the past and I believe I earned every dollar of the bonus.” The majority of the motivational comments declared, “I can look at myself in the mirror and know that I gave it my all,” and “Putting a carrot in front of me is demeaning and devalues the experience of education in and of itself.”

There are also unintended consequences such as an alienation from other teachers or a feeling of competitiveness that completely negates the idea of a community and the advancement of the whole rather than the individual. This feeling of estrangement was evident in several participant comments, “Performance pay brings animosity into the profession which should be built of teamwork,” and “The use of this system promotes unnecessary and counterproductive

hierarchy among educators.” Five participants commented on the negative aspects of performance pay, claiming that it “discriminated against some and creates animosity among staff,” “pits teacher against teacher and foster stress on teachers,” and “promotes an unnecessary and counterproductive hierarchy among educators.”

The seven participants who commented on performance pay implementation expressed various opinions. Four negative comments included, “Performance pay has no effect at all in my teaching ... teachers should be collaborating, not competing,” “puts an emphasis on ‘teaching to the test,’” “degrades certain subject areas as not important,” and “improvement and gains I make with my students do not benefit me.”

Comments about teacher performance pay implementation – fairness were largely negatively skewed at 84.6% (Table 34). Several teachers who reported receiving prior performance pay acknowledged feelings of guilt about receiving the bonus pay, stating “What about the pk–2 teachers who set the foundation for success in grades 3+” and “Every teacher before me has put work into these children and it seems unfair that I am reaping the reward for that.” Additionally, others commented, “All subjects are equally important ... devaluing the learning in other classrooms,” and “Performance pay brings animosity into a profession which should be built of team work.”

Table 34*Category Valence Frequency Distribution*

Comment Category	Overall Valence	<i>f</i>	%
Knowledge and understanding	Positive	2	16.7%
	Negative	1	8.3%
	Neutral	9	75.0%
	Total	12	100%
Individual efficacy	Positive	5	31.2%
	Negative	8	50.0%
	Neutral	3	18.8%
	Total	16	100%
Impact on individual performance – motivation	Positive	1	14.3%
	Negative	6	85.7%
	Neutral	0	0.0%
	Total	7	100%
Impact on individual performance – negative impact	Positive	0	0.0%
	Negative	4	80.0%
	Neutral	1	20.0%
	Total	5	100%
Teacher performance pay implementation	Positive	2	28.6%
	Negative	2	28.6%
	Neutral	3	42.8%
	Total	7	100%
Teacher performance pay implementation – fairness	Positive	2	5.1%
	Negative	33	84.6%
	Neutral	4	10.3%
	Total	39	100%
Amount of the award	Positive	1	100.0%
	Negative	0	0.0%
	Neutral	0	0.0%
	Total	1	100%

Implications

A performance pay plan should acknowledge and respond to the needs of recruitment and retention of high-quality teachers in all school districts across North Carolina. Very little research could be found related to educators' perceptions of the current performance plan. Any future compensation plans must be thoroughly communicated, transparent, and consider the varying needs of students and teachers across all demographics.

Table 16 shows the majority of participants agree their individual performance has a significant influence on student achievement regardless of eligibility status. Yet, the implementation of the current performance pay plan did not motivate them to alter their instructional practices, modify assessments, or work harder (Table 16). There were some interesting comparisons in the percentages for those receiving and not receiving prior performance pay (Table 30). Participants receiving prior performance pay were fairly split regarding whether a monetary award was an incentive to work harder to improve student achievement (Table 30). However, two-thirds of the same participants stated they would not alter their instructional practices or modify their assessment methods as a result of performance pay but agreed that additional compensation should be awarded for meeting student achievement goals and outstanding individual performance (Table 30). These results show participants receiving prior performance pay may possibly value additional compensation not necessarily tied to student achievement. Performance pay associated with additional certifications or difficult-to-staff bonuses may motivate these participants.

The results from the current study suggest that educators with a higher EVAAS growth score are more favorable toward the current performance pay plan based on a VAM. However, while the survey did not explicitly question participants regarding their EVAAS growth score,

there are looming questions regarding teacher efficacy, design, and the equitable distribution of these programs, particularly when the monetary reward is based on teacher value-added growth scores from state standardized tests (Adnot et al., 2017; Cowan & Goldhaber, 2018; Smith & Holloway, 2020). Participant reactions to this measure were overwhelmingly against this component. One participant noted, "...there are too many factors that go into a teacher's EVAAS score that they do not have control over." Another participant commented, "I'd rather see the state actually pay Master's pay to their teachers than to spend money 'rewarding' teachers for the job they are supposed to be doing well regardless of incentive." Thus, it would be wise for state and local policy makers to consider alternative forms of compensation aimed at collegiality, personal growth, and capability of generating consistently valid measures.

Across all demographics, participants did not understand the process for awarding or calculating teacher performance pay (Tables 21–24). Developing an understandable performance pay program with a feasible goal linked to teacher effort that is fairly measured and distributed should be taken into consideration. Tables 25 through 29 highlight educators' perceptions across demographics of the current performance pay plan with regards to self-efficacy and motivation. One participant stated, "Individual performance pay will always create a divide among educators. If a whole system is geared toward creating success in student learning, then the village that is bringing the success should be rewarded." Hence, any performance pay plan should consider the collective efforts of collaboration rather than competition.

Limitations

As with any research study, certain limitations and threats to internal and external validity are bound to exist. Within the context of this research, limitations arose concerning the sample

size, the demographic context of participating school districts and teachers, the time constraints of the survey release, and a worldwide pandemic.

Population and Sample

The small sample size and potential participant bias of the study threatens the internal validity of the findings and can be attributed to several factors. The participants and setting for this study were intentionally decided upon in order to examine the perceptions of rural educators who are geographically isolated from state policymakers in North Carolina. While approximately 400 teachers received the survey, 165 participants fully completed the survey. Nine respondents did not complete all the survey questions. The study had an approximate 41% participation rate.

Several participants did not provide the last five digits of their unique employee identification number or provided inaccurate numbers. Therefore, the school district's EVAAS coordinator was unable to match these employees' identification numbers to their EVAAS growth scores. Additionally, several teachers did not have an EVAAS growth score because they were beginning teachers in North Carolina, had transferred to North Carolina from a different state, or had previously taught in a private and/or charter school not participating in statewide assessments. These factors contributed to a smaller sample size. The results of this convenience sample cannot be generalized to the target population due to attrition. Thus, any inferences based on this sample can only be made regarding the sample itself.

Quantitative Research Design

An additional limitation can be attributed to the survey's quantitative design in which data were only collected from a Likert scale of participants' survey responses. The Likert scale ranged from strongly agree (5) to strongly disagree (1) including a score of 3 indicating a neutral opinion. One participant stated, "There was no option for 'NA.'" This participant taught in a

subject ineligible for the performance bonus and thus chose a neutral response to every question. While the participants were also given the opportunity to provide additional comments, the study did not include qualitative measures such as focus groups or teacher interviews that would have allowed teachers to elaborate on their attitudes regarding their perceptions of the current performance pay plan

COVID-19 Pandemic, Maturation, and Participant Bias

Due to the worldwide COVID-19 pandemic, the researcher had to adapt and revise the study in response to the governmental shutdowns of public schools in North Carolina, thus threatening the external validity of the results. Initially, the researcher was to distribute the survey on-site in each school district. Because of health and safety protocols, the survey had to be distributed online with the assistance of each school district's EVAAS coordinator. This online distribution of the survey instrument did not allow the researcher to answer any participant questions in person. However, one participant did contact the researcher via email with regard to science teachers being ineligible for the bonus.

The survey was initially set to be open for two weeks, but this window had to be extended to allow participants sufficient time to complete the survey while balancing simultaneously teaching face-to-face and online students during the COVID-19 pandemic. The pressure these public school teachers were under was immeasurable since many surely experienced increased stress levels while trying to maintain high instructional expectations for all students, both face-to-face and online, while also assuming the risk of effectively sanitizing their room and instructional resources daily to avoid infecting students and themselves. Additionally, the largest school district in the study experienced an online hacking incident in which their internal infrastructure was compromised by outside sources. This incident further delayed respondents

and presumably affected the participant rate in this school district, which had the lowest percentage of participation.

When this research study began, the North Carolina Accountability program included statewide assessments for EOG tests in third- through eighth-grade mathematics and English language and fifth- and eighth-grade science as well as North Carolina Final Exams (NCFEs) for social studies in fourth through eighth grades and science in fourth, sixth, and seventh grades (North Carolina General Assembly, 2018). During the 2019–20 school year, the NCFE assessments were eliminated from the state’s accountability program, meaning those teachers of NCFEs would no longer receive an EVAAS growth score, which reduced the population size for this study (North Carolina General Assembly, 2019). While these teachers were not eligible for the performance bonus before the elimination of the NCFEs, they now no longer receive an EVAAS growth score potentially resulting in a bias regarding the performance bonus. Additionally, this study was unable to clarify whether participant’s misunderstanding of the current performance pay plan was based on a general understanding of the process for awarding and calculating the monetary award or on the determination of the teacher’s EVAAS score.

The potential participant bias based on a non-response bias resulting in underrepresentation of the three eligibility subgroups or the extreme response bias resulting from a worldwide pandemic could have ultimately affected the external validity of the research study results. When the survey was distributed, many school districts were fully remote, while others were implementing some form of hybrid learning. Educators across the state were having to rethink their instructional practices and learn how to teach online. Understandably, their focus was student instruction and the ability to adequately teach students in a unique learning environment.

Thus, many teachers may have chosen not to complete the survey because it was not germane to their instruction.

Recommendations for Future Research

To further increase knowledge of educators' attitudes and perceptions regarding the current North Carolina Teacher Performance Pay plan, future research should include the following:

1. Incorporate school districts with varying socio-economic demographics from across the state. The present study was limited to the seven far western school districts in North Carolina. Including additional school districts across the state with varying demographics will help to alleviate threats to internal and external validity by having a larger sample size and reducing the potential for participant bias.
2. Limit the survey participants to only those eligible for the performance pay plan bonus. By limiting the survey participants, it will help to reduce participant bias from those ineligible for the performance bonus and allow the researcher to focus on specific components of the performance pay plan.
3. Incorporate a mixed study design using qualitative methods. Using a mixed method research design allows the researcher to examine contradictions between quantitative results and qualitative findings such as those from participant comments. In the context of this study, a mixed methods approach would have allowed the participants a voice to clarify and expound upon their perceptions, further revealing the educator's perceptions.
4. Study educator perceptions of different forms of performance pay such as bonuses for additional certifications or bonuses presumed to increase student achievement in lieu of student growth measures. Because value-added growth measures appear to be

controversial, more research is needed to ascertain the perceived advantages and disadvantages of differing pay plans such as monetary awards for additional certifications, incorporating “looping” in which a teacher instructs the same group of students for at least two school years, teaching in difficult-to-staff subjects, or teaching in socio-economically disadvantaged districts.

5. Study educator perceptions of an individual performance bonus versus a school-wide performance bonus. School-wide bonuses could minimize conflicts between colleagues and champion a spirit of cooperation and cohesiveness in the school. However, school-wide performance bonuses may not motivate educators to exert any effort to improve their instructional practices if attaining the bonus is dependent upon other teachers’ collective efforts.

REFERENCES

- Adams, J.S. (1963). Towards understanding of inequity. *Journal of Abnormal and Social Psychology*, 67(5), 422–436. <https://doi.org/10.1037/h0040968>
- Adkins, G. K. (2004). *Teacher performance pay: The perceptions of certified school-based personnel* (Doctoral dissertation). <http://purl.fcla.edu/fcla/etd/CFE0000200>
- Adnot, M., Dee, T., Katz, V., & Wyckoff, J. (2017). Teacher turnover, teacher quality, and student achievement in DCPS. *Educational Evaluation and Policy Analysis*, 39(1), 54–76. <https://doi.org/10.3102/0162373716663646>
- Amrein-Beardsley, A., Polasky, S. & Holloway-Libell, J. (2016). Validating “value added” in the primary grades: One district’s attempts to increase fairness and inclusivity in its teacher evaluation system. *Educational Assessment, Evaluation and Accountability*, 28(2), 139–159. <https://doi.org/10.1007/s11092-015-9234-5>
- Arnstine, D. & McDowell, J. A. (1993). Unfair rewards: Merit pay, grades, and a flawed system of evaluation. *Teacher Education Quarterly*, 20(2), 5–21. <https://www.jstor.org/stable/23475190>
- Baker, E. L. & Gordon, E. W. (2014). From the assessment OF education to the assessment FOR education: Policy and futures. *Teachers College Record*, 116(11), 1–24. <https://doi.org/10.1177/016146811411601107>
- Baker, W. R. (2014). Perceptions of New Jersey music teachers regarding merit pay and other forms of compensation. *Visions of Research in Music Education*, 25, 1–23. <https://doi.org/10.1080/10632913.2014.914395>
- Balch, R., & Springer, M. G. (2015). Performance pay, test scores, and student learning objectives. *Economics of Education Review*, 44, 114–125.

<https://doi.org/10.1016/j.econedurev.2014.11.002>

Barrera-Osorio, F. & Raju, D. (2017). Teacher performance pay: Experimental evidence from Pakistan. *Journal of Public Economics*, 148, 75–91.

<https://doi.org/10.1016/j.jpubeco.2017.02.001>

Berk, R. A. (2016). Value of value-added models based on student outcomes to evaluate teaching. *Journal of Faculty Development*, 30(3), 73–81.

https://ronberk.com/articles/2016_value-added.pdf

Bowen, D. H. & Mills, J. N. (2017). Changing the education workforce? The relationships among teacher quality, motivation, and performance pay. *Teachers College Record*, 119(4), 1–32. <http://doi.org/10.1177/016146811711900403>

Brehm, M., Imberman, S. A., & Lovenheim, M. F. (2017). Achievement effects of individual performance incentives in a teacher merit pay tournament. *Labour Economics*, 44, 133–150. <http://doi.org/10.1016/j.labeco.2016.12.008>

Brevetti, M. (2014). Reevaluating narrow accountability in American schools: The need for collaborative effort in improving teaching performances. *The Delta Kappa Gamma Bulletin*, 81(1), 32–35. <https://www.questia.com/library/journal/IP3-3450761911/reevaluating-narrow-accountability-in-american-schools>

Brodsky, A., DeCesare, D., & Kramer-Wine, J. (2010). Design and implementation considerations for alternative teacher compensation programs. *Theory Into Practice*, 49(3), 213–222. <https://www.jstor.org/stable/40890948>

Caillier, J. (2010). Paying Teachers According To Student Achievement: Questions Regarding Pay-For-Performance Models in Public Education. *The Clearing House*, 83(2), 58–61. <http://ezproxy.liberty.edu/login?url=https%3A%2F%2Fwww.proquest.com%2F>

[scholarly-journals%2Fpaying-teachers-according-student-achievement%2Fdocview%2F596621208%2Fse-2%3Faccountid%3D12085](https://scholarly-journals.org/2Fpaying-teachers-according-student-achievement%2Fdocview%2F596621208%2Fse-2%3Faccountid%3D12085)

Carbaugh, B., Marzano, R., & Toth, M. (2017). *The Marzano focused teacher evaluation model*. West Palm Beach, Florida: Learning Sciences Marzano Center.

<https://learningsciences.com/wp-content/uploads/2020/06/2017-Update-The-Marzano-Focused-Teacher-Evaluation-System.pdf>

Chiang, H., Wellington, A., Hallgren, K., Speroni, C., Herrmann, M., Glazerman, S. & Constantine, J. (2015). *Evaluation of the teacher incentive fund: Implementation and impacts of pay-for-performance after two years*. Washington, DC: Mathematica Policy Research.

Choi, H. J. & Park, J. (2016). An analysis of critical issues in Korean teacher evaluation systems. *Center for Educational Policy Studies Journal*, 6, 151–171.

<https://files.eric.ed.gov/fulltext/EJ1128905.pdf>

Conroy, S. A. & Gupta, N. (2016). Team pay-for-performance: The devil is in the details. *Group & Organization Management*, 41(1), 32–65.

<http://doi.org/10.1177/1059601115607746>

Cornman, S. Q., Zhou, L., Howell, M. R., & Young, J. (2018). *Revenues and expenditures for public elementary and secondary education: School year 2014–15 (Fiscal year 2015)*.

Retrieved from the U. S. Department of Education, National Center for Education

Statistics website: <https://nces.ed.gov/pubs2018/2018301.pdf>

Cowan, J. & Goldhaber, D. (2018). Do bonuses affect teacher staffing and student achievement in high poverty schools? Evidence from an incentive for national board certified teachers

- in Washington state. *Economics of Education Review*, 65, 138–152.
<http://doi.org/10.1016/j.econedurev.2018.06.010>
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Thousand Oaks, CA, US: Sage Publications.
- Dee, T. S., & Wyckoff, J. (2015). Incentives, selection, and teacher performance: Evidence from IMPACT. *Journal of Policy Analysis and Management*, 34(2), 267–297.
<http://www.jstor.org/stable/43866371>
- Desimone, L., Hochberg, E. D., & McMaken, J. (2016). Teacher knowledge and instructional quality of beginning teachers: Growth and linkages. *Teachers College Record*, 118(5), 1–54. <http://doi.org/10.1177/016146811611800507>
- Dishon-Berkovits, M. (2014). A study of motivational influences on academic achievement. *Social Psychology of Education: An International Journal*, 17(2), 327–342.
<http://doi.org/10.1007/s11218-014-9257-7>
- Doherty, K. M. & Jacobs, S. (2015). *State of the states 2015: Evaluating teaching, leading, and learning*. Washington, DC: National Council on Teacher Quality.
<https://nctq.org/dmsView/StateofStates2015>
- Edenfield, J. (2014). *Teachers' perceptions of merit pay in Georgia* (Doctoral dissertation, Georgia Southern University). Retrieved from
<https://digitalcommons.georgiasouthern.edu/etd/1058/>
- Fauth, B., Decristan, J., Decker, A., Buttner, G., Hardy, I., Klieme, E., Kunter, M. (2019). The effects of teacher competence on student outcomes in elementary science education: The mediating role of teaching quality. *Teaching and Teacher Education*, 86, 1–14.

<https://www.researchgate.net/publication/336262789> The effects of teacher competence on student outcomes in elementary science education The mediating role of teaching quality

- Field, L. (2015). Using outperformance pay to motivate academics. *Australian Universities' Review*, 57(2), 5–16. <http://hdl.handle.net/1959.14/358613>
- Flake, J. K., Barron, K. E., Hulleman, C., McCoach, B. D., & Welsh, M. E. (2015). Measuring cost: The forgotten component of expectancy-value theory. *Contemporary Educational Psychology*, 41, 232–244. <http://doi.org/10.1016/j.cedpsych.2015.03.002>
- Forand, S. (2012). *Teachers' attitudes and perceptions about pay-for-performance* (Doctoral dissertation). ProQuest Dissertations & Theses Global. <https://www.proquest.com/docview/1039154194?pq-origsite=gscholar&fromopenview=true>
- Ford, T. G. (2018). Pointing teachers in the wrong direction: understanding Louisiana elementary teachers' use of *Compass* high-stakes teacher evaluation data. *Educational Assessment, Evaluation and Accountability*, 30(3), 251–283. <http://doi.org/10.1007/s11092-018-9280-x>
- Ford, T. G., Van Sickle, M. E., Clark, L. V., Fazio-Brunson, M., & Schween, D. C. (2017). Teacher Self-Efficacy, Professional Commitment, and High-Stakes Teacher Evaluation Policy in Louisiana. *Educational Policy*, 31(2), 202–248. <http://doi.org/10.1177/0895904815586855>
- Fowler, F. J. Jr. (1993). *Survey research methods* (2nd ed.). Newbury Park, CA: Sage Publications, Inc.
- Frey, B. S., Homberg, F., & Osterloh, M. (2013). Organizational control systems and pay-for-performance in the public service. *Organizational studies*, 34, 949–972.

<http://doi.org/10.1177/0170840613483655>

Fryer, R.G. (2013). Teacher incentives and student achievement: Evidence from New York City Public Schools. *Journal of Labor Economics*, 31(2), 373–407.

<http://doi.org/10.1086/667757>

Galaz-Fontes, J. F. & Gil-Anton, M. (2013). The impact of merit-pay systems on the work and attitudes of Mexican academics. *Higher Education*, 66(3), 357–374.

<http://doi.org/10.1007/s10734-013-9610-3>

Gall, M., Gall J. P., & Borg, W. R. (2007). *Educational research: An introduction* (8th ed.). Upper Saddle River, NJ: Pearson.

Geiger, T. J., Amrein-Beardsley Audrey, & Holloway, J. (2020). Using test scores to evaluate and hold school teachers accountable in New Mexico. *Educational Assessment, Evaluation and Accountability*, 32(2), 187–235.

<http://doi.org/10.1007/s11092-020-09324-w>

Gius, M. (2013). Using a difference-in-differences approach to estimate the effects of teacher merit pay on student performance. *Eastern Economic Journal*, 39, 111–120.

<http://doi.org/10.1057/eej.2012.22>

Gius, M. (2014). Using fixed effects to estimate the impact of merit pay on teacher job satisfaction. *Journal of Economics and Economic Education Research*, 15(1), 17–30.

https://www.researchgate.net/publication/287248565_Using_fixed_effects_to_estimate_the_impact_of_merit_pay_on_teacher_job_satisfaction

Goldhaber, D., Dearmond, M., & Deburgomaster, S. (2011). Teacher attitudes about compensation reform: Implications for reform implementation. *ILR Review*, 64(3),

441–463. <http://doi.org/10.1177/001979391106400302>

- Goldhaber, D. & Walch, J. (2012). Strategic pay reform: A student outcomes-based evaluation of Denver's ProComp teacher pay initiative. *Economics of Education Review*, 31(6), 1067–1083. <https://doi.org/10.1016/j.econedurev.2012.06.007>
- Goldring, R., Taie, S., & Riddles, M. (2014). *Teacher attrition and mobility: Results from the 2012–13 teacher follow-up survey*. (Report No. 2014-077). U.S. Department of Education
- Goodman, S., & Turner, L. (2011). Does whole-school performance pay improve student learning? *Education Next*, 11(2), 6672. <https://www.educationnext.org/does-whole-school-performance-pay-improve-student-learning/>
- Green, S. B., & Salkind, N. J. (2014). *Using SPSS for windows and macintosh: Analyzing and understanding data*. (7th ed.). Upper Saddle River, NJ: Pearson Education.
- Grissom, J. A., & Strunk, K. O. (2012). How should school districts shape teacher salary schedules? Linking school performance to pay structure in traditional compensation schemes. *Educational Policy*, 26(5), 663–695. <http://doi.org/10.1177/0895904811417583>
- Hendricks, M. D. (2014). Does it pay to pay teachers more? Evidence from Texas. *Journal of Public Economics*, 109, 50–63. <http://doi.org/10.1016/j.jpubeco.2013.11.001>
- Hill, A.J., & Jones, D.B. (2020). The Impacts of Performance Pay on Teacher Effectiveness and Retention: Does Teacher Gender Matter? *Journal of Human Resources* 55(1), 349–385. <https://www.muse.jhu.edu/article/747888>
- Hill, A. J., & Jones, D. B. (2021). Paying for Whose Performance? Teacher Incentive Pay and the Black–White Test Score Gap. *Educational Evaluation and Policy Analysis*, 43(3), 445–471. <https://doi.org/10.3102/01623737211001421>

- Horne, J., Foley, V. P., Flora, B. H. (2014). Race to the paycheck: Merit pay and theories of teacher motivation. *Journal of Academic Administration in Higher Education*, 10(1), 35–39. <https://dc.etsu.edu/etsu-works/3057/>
- Hulleman, C. S., & Barron, K. (2010). Performance pay and teacher motivation: Separating myth from reality. *Phi Delta Kappa International*, 91(8), 27–31. <http://doi.org/10.1177/003172171009100806>
- Jacob, B. A. & Levitt, S. D. (2003). Rotten apples: An investigation of the prevalence and predictors of teacher cheating. *The Quarterly Journal of Economics*, 118(3), 843–877. <http://doi.org/10.1162/00335530360698441>
- Jacob, B. & Springer, M. G. (2008). *Teacher attitudes toward pay for performance: Evidence from Hillsborough County, Florida*. Nashville, Tennessee: National Center on Performance Incentives. https://my.vanderbilt.edu/performanceincentives/files/2012/10/200808_JacobSpringer_AtitudePayPerf.pdf
- Jeon, L., & Wells, M. B. (2018). An organizational-level analysis of early childhood teachers' job attitudes: Workplace satisfaction affects early head start and head start teacher turnover. *Child & Youth Care Forum*, 47(4), 563–581. <http://doi.org/10.1007/s10566-018-9444-3>
- Johnson, S. M. (2012). Build the capacity of teachers and their schools. *Phi Delta Kappa International*, 94(2), 62–65. <https://eric.ed.gov/?id=EJ1003140>
- Jones, M. D. (2013). Teacher behavior under performance pay incentives. *Economics of Education Review*, 37, 148–164. <http://doi.org/10.1016/j.econedurev.2013.09.005>
- Jones, M. & Hartney, M. T. (2017). Show who the money? Teacher sorting patterns and

- performance pay across the U.S. school districts. *Public Administration Review*, 77(6), 919–931. <http://doi.org/10.1111/puar.12789>
- Kainz, K. (2019). Early academic gaps and Title 1 programming in high poverty, high minority Schools. *Early Childhood Research Quarterly*, 47, 159–168.
https://www.researchgate.net/publication/353623373_Early_academic_gaps_and_Title_I_programming_in_high_poverty_high_minority_schools
- Kelley, C., Heneman III, H., & Milanowski, A. (2002). Teacher motivation and school-based performance awards. *Educational Administration Quarterly*, 38, (3), 372–401.
<http://doi.org/10.1177/0013161X02383004>
- Kelley, C. J. & Finnigan, K. (2003). The effects of organizational context on teacher expectancy. *Educational Administration Quarterly*, 39(5), 602–634.
<http://doi.org/10.1177/0013161X03257299>
- Kim, J. S. (2005). The effects of a constructivist teaching approach on student academic achievement, self-concept, and learning strategies. *Asia Pacific Education Review*, 6(1), 7–19. <https://files.eric.ed.gov/fulltext/EJ728823.pdf>
- Kobussen, G., Kalagnanam, S. & Vaidyanathan, G. (2014). The impact of better-than-average bias and relative performance pay on performance outcome satisfaction. *Accounting Perspectives*, 13(1), 1–27. <http://doi.org/10.1111/1911-3838.12022>
- Koppich, J. E. (2010). Teacher unions and new forms of teacher compensation. *The Phi Delta Kappan*, 91(8), 22–26. <http://doi.org/10.1177/003172171009100805>
- Kozlowski, K. P. & Lauen, D. L., (2019). Understanding teacher pay for performance: Flawed assumption and disappointing results. *Teachers College Record*, 12(2), 1–38.
<https://www-tcrecord-org.ezproxy.liberty.edu/library/content.asp?contentid=22587>

- Krahenbuhl, K. S. (2016). Student-centered education and constructivism: Challenges, concerns, and clarity for teachers. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 89(3), 97–105.
<http://doi.org/10.1080/00098655.2016.1191311>
- Lauen, D. L., & Kozlowski, K. P. (2013). *Teacher performance incentives in North Carolina*. Chapel Hill, North Carolina: Consortium for Educational Research and Evaluation-North Carolina. <https://publicpolicy.unc.edu/wp-content/uploads/sites/107/2015/07/Teacher-Performance-Incentives-in-NC.pdf>
- Lauen, D. L., & Kozlowski, K. P. (2014). *Race to the top performance incentives in North Carolina: A summative report*. Chapel Hill, North Carolina: Consortium for Educational Research and Evaluation-North Carolina. <https://publicpolicy.unc.edu/wp-content/uploads/sites/107/2015/07/Race-to-the-Top-Performance-Incentives-in-North-Carolina-August-2014.pdf>
- Liang, G. & Akiba, M. (2015a). Teacher evaluation, performance-related pay, and constructivist instruction. *Educational Policy*, 29(2), 375–401.
<http://doi.org/10.1177/0895904813492379>
- Liang, G. & Akiba, M. (2015b). Characteristics of teacher incentive pay programs: A statewide district survey. *Journal of Educational Administration*, 53(6), 702–717.
https://www.researchgate.net/publication/281610059_Characteristics_of_teacher_incentive_pay_programs_A_statewide_district_survey
- Liu, S. & Zhao, D. (2013). Teacher evaluation in China: Latest trends and future directions. *Educational Assessment, Evaluation, and Accountability*, 25(3), 231–250.
<http://doi.org/10.1007/S11092-013-9168-8>

- Liu, S., Zhao, D. & Xie, W. (2016). Chinese teachers' attitudes toward performance pay: The cases of three schools. *International Journal of Educational Management*, 30(6), 791–808. <https://eric.ed.gov/?id=EJ1109240>
- Liu, S., Xu, X. & Stronge, J. (2017). The influences of teachers' perceptions of using student achievement data in evaluation and their self-efficacy on job satisfaction: Evidence from China. *Asia Pacific Education Review*, 1–17. <https://eric.ed.gov/?id=EJ1198377>
- Locke, E.A. & Latham, G. P. (2006). New directions in goal-setting theory. *Current Directions In Psychological Science*, 15(5), 265–268. <https://doi.org/10.1111/j.1467-8721.2006.00449.x>
- Loeb, S., Miller, L. C., & Strunk, K. O. (2009). The state role in teacher compensation. *Education Finance and Policy*, 4(1), 89–114. <http://www.mitpressjournals.org/doi/abs/10.1162/edfp.2009.4.1.89>
- Marsh, J. S. (2014). *Performance-based pay: Perceptions of elementary teachers of the Pandora school district* (Doctoral dissertation). ProQuest Dissertations & Theses Global. <https://hdl.handle.net/10355/45609>
- Marsh, J.A. & McCaffrey, D.F. (2012). What are achievement gains worth – to teachers? *The Phi Delta Kappan*, 93(4), 52–56. <https://doi.org/10.1177/003172171109300413>
- Meng, F. & Wu, J. (2015). Merit pay fairness, leader-member exchange, and job engagement: Evidence from Mainland China. *Review of Public Personnel Administration*, 35(1), 47–69. <http://doi.org/10.1177/0734371X12453057>
- Meng, F. & Wu, J. (2017). Policy expectation moderates the relationship between merit pay policy effectiveness and public service motivation. *Social Behavior and Personality: An International Journal*, 45(8), 1–13. <https://doi.org/10.2224/sbp.4917>

Milanowski, A. (2000). School-based performance award programs and teacher motivation.

Journal of Education Finance, 25(4), 517–544. <https://www.jstor.org/stable/40691079>

Mintrop, R., Ordenes, M., Coghlan, E., Pryor, L., & Madero, C. (2018). Teacher evaluation, pay for performance, and learning around instruction: Between incentives and resonant procedures. *Educational Administration Quarterly*, 54(1), 3–46.

<http://doi.org/10.1177/0013161X17696558>

Mintrop, R., Pryor, L., & Ordenes, M. (2018). A complex adaptive system approach to evaluation: Application to a pay-for-performance program in the USA. *Educational Assessment Evaluation and Accountability*, 30, 285–312.

<http://doi.org/10.1007/s11092-018-9276-6>

Moran, R. M. R. (2017). The impact of a high stakes teacher evaluation system: Educator perspectives on accountability. *Education Studies*, 53(2), 178–193.

<http://doi.org/10.1080/00131946.2017.1283319>

Munroe, A. (2017). Measuring student growth within a merit-pay evaluation system: Perceived effects on music teacher motivation career commitment. *Contributions to Music Education*, 42, 89–105. <https://www.jstor.org/stable/26367438>

National Center for Education Statistics. (2020). *Characteristics of Public School Teachers*.

Washington, D.C.: Institute of Education Sciences, U.S. Department of Education.

https://nces.ed.gov/programs/coe/indicator_clr.asp

National Education Association Department of Teacher Quality. (2011). *Promoting and Implementing the National Education Association Policy Statement on Teacher Evaluation and Accountability*. Washington, D.C.

https://www.nea.org/sites/default/files/2020-07/2011NEA_Teacher_Eval_Toolkit_0.pdf

- National Education Association Research. (2021). *Rankings of the states 2020 and estimates of school statistics*. Washington, D.C. <https://www.nea.org/about-nea/media-center/press-releases/covid-19-pandemic-threatens-small-gains-made-national-teacher>
- Nieto, S. (2001). *What keeps teachers going?* New York, NY: Teacher's College Press.
- North Carolina Department of Public Instruction. (2019). *North Carolina School Report Cards*. <https://www.dpi.nc.gov/data-reports/school-report-cards>
- North Carolina Department of Public Instruction. (2018a). *2016–2017 State of the teaching profession in North Carolina: Report to the North Carolina General Assembly*. Raleigh, North Carolina. <https://www.dpi.nc.gov/media/380/open>
- North Carolina Department of Public Instruction. (2018b). *Third Grade Read to Achieve Teacher Bonus Program: Report to the North Carolina General Assembly*. Raleigh, North Carolina. <https://www.dpi.nc.gov/districts-schools/testing-and-school-accountability/state-tests/grade-3-read-achieve-rt>
- North Carolina Department of Public Instruction. (2020). *Fiscal Year 2020–2021 North Carolina Public School Salary Schedules*. Raleigh, North Carolina. <https://www.dpi.nc.gov/media/8596/download>
- North Carolina Department of Public Instruction. (2020a). *Teacher Legislated Performance Bonuses – LEAs and other public schools*. SL2018-5. Raleigh, North Carolina. <https://www.dpi.nc.gov/media/7246/download>
- North Carolina General Assembly. (2017). *Teacher Legislated Performance Bonuses – LEAs and other public schools*. SL2017-57, Raleigh, North Carolina: North Carolina General Assembly. <http://.dpi.state.nc.us/docs/fbs/budget/conferencesummary2018.pdf>

- North Carolina General Assembly. (2018). *Teacher Legislated Performance Bonuses – LEAs and other public schools*. SB. 99 SL2018-5, Raleigh, North Carolina: North Carolina General Assembly. <http://.dpi.state.nc.us/docs/fbs/budget/budgetsummary2019.pdf>
- North Carolina General Assembly. (2019). *An Act to Reduce Testing Administered to Students in Public Schools and to Make Various Technical and Clarifying Changes Related to Education Laws*. SB. 621, Raleigh, North Carolina: North Carolina General Assembly. <https://www.ncleg.gov/Sessions/2019/Bills/Senate/PDF/S621v7.pdf>
- Podgursky, M. J., & Springer, M. G. (2007a). Credentials versus performance: Review of the teacher performance pay research. *Peabody Journal of Education*, 82(4), 551–573. <http://doi.org/10.1080/01619560701602934>
- Podgursky, M. J., & Springer, M. G. (2007b). Teacher performance pay: A review. *Journal of Policy Analysis and Management*, 26(4), 909–949. <http://doi.org/10.1002/pam.20292>
- Podgursky, M. J., & Springer, M. G. (2011). Teacher compensation systems in the United States K–12 public school system. *National Tax Journal*, 64(1), 165–192. <http://ezproxy.liberty.edu/login?url=https://search-proquest-com.ezproxy.liberty.edu/docview/857185038?accountid=12085>
- Protsik, J. (1995). *History of Teacher Pay and Incentive Reforms*. Madison, Wisconsin: Consortium for Policy Research in Education. <https://files.eric.ed.gov/fulltext/ED380894.pdf>
- Purvis, R. L., Zagenczyk, T. J., & McCray, G. E. (2015). What’s in it for me? Using expectancy theory and climate to explain stakeholder participation, its direction and intensity. *Science Direct*, 33, 3–14. <https://www.sciencedirect.com/science/article/abs/pii/S026378631400043X>

- Rice, J. K., Malen, B., Jackson, C., & Hoyer, K. M. (2015). Time to pay up: Analyzing the motivational potential of financial awards in a TIF program. *Educational Evaluation and Policy Analysis*, 37(1), 29–49. <http://doi.org/10.3102/0162373714524622>
- Incentives: Insights from a TIF program. *Leadership and Policy in Schools*, 16(3), 475–501. <http://doi.org/10.1080/15700763.2016.1205201>
- Ritter, G. W., & Jensen, N. C. (2010). The delicate task of developing an attractive merit pay plan for teachers. *Phi Delta Kappa International*, 91(8), 32–37. <http://www.jstor.org/stable/20697115>
- Rothstein, J. (2015). Teacher quality policy when supply matters. *The American Economic Review*, 105(1), 100–130. <http://doi.org/10.1257/aer.20121242>
- Rovai, A. P., Baker, J. D., & Ponton, M. K. (2014). *Social Science Research Design and Statistics* (2nd ed.). Chesapeake, VA: Watertree Press LLC.
- Russ, R. D. (2015). *Teacher attitudes regarding performance-based pay* (Order No. 3707142). Available from ProQuest Central; ProQuest Dissertations & Theses Global; Social Science Premium Collection. (1696057914). <http://ezproxy.liberty.edu/login?url=https%3A%2F%2Fwww.proquest.com%2Fdissertations-theses%2Fteacher-attitudes-regarding-performance-based-pay%2Fdocview%2F1696057914%2Fse-2%3Faccountid%3D12085>
- Schmidt, J. A. (2015). Does pay-for-performance strain the employment relationship? The effect of manager bonus eligibility on nonmanagement employee turnover. *Personnel Psychology*, 69(2), 395–429. <http://doi.org/10.1111/peps.12106>
- Shifrer, D., Turley, R. L., & Heard, H. (2017). Do teacher financial awards improve teacher retention and student achievement in an urban disadvantaged school district?

American Educational Research Journal, 54(6), 1117–1153.

<http://doi.org/10.3102/0002831217716540>

Shriki, A., & Patkin, D. (2016). Elementary school mathematics teachers' perception of their personal needs. *Teacher Development*, 20(3), 329–347.

<https://doi.org/10.1080/13664530.2016.1155476>

Skourdombis, A. (2014). Teacher effectiveness: Making the difference to student achievement? *British Journal of Educational Studies*, 62, 111–126.

<http://doi.org/10.1080/00071005.2014.930413>

Smith, W. C., & Holloway, J. (2020). School testing culture and teacher satisfaction. *Educational Assessment, Evaluation and Accountability*, 32(4), 461–479.

<http://dx.doi.org/10.1007/s11092-020-09342-8>

Soupir-Fremstad, J. (2013). *The expectancy theory: Teachers' perspectives of motivation and compensation* (Order No. 3596727). Available from ProQuest Central; ProQuest Dissertations & Theses Global; Social Science Premium Collection. (1449199734).

<http://ezproxy.liberty.edu/login?url=https%3A%2F%2Fwww.proquest.com%2Fdissertations-theses%2Fexpectancy-theory-teachers-perspectives%2Fdocview%2F1449199734%2Fse-2%3Faccountid%3D12085>

Springer, M. G., Ballou, D., Hamilton, L. S., Le, V.-N., Lockwood, J. R., McCaffrey, D. F.,... Stecher, B. M. (2010). *Teacher pay for performance: Experimental evidence from the project on incentives in teaching*. Nashville, TN: National Center on Performance Incentives at Vanderbilt University.

https://www.rand.org/content/dam/rand/pubs/reprints/2010/RAND_RP1416.pdf

Springer, M. G. & Gardner, C. D. (2010). Teacher pay for performance: Context, status, and

- direction. *Phi Delta Kappa International*, 91(8), 8–15. <https://jstor.org/stable/20697111>
- Springer, M. G., Lewis, J. L., Podgursky, M. J., Ehlert, M. W., Taylor, L. L., Lopez, O. S., Ghoshdastidar, B., & Peng, A. (2010). *Districts awards for teacher excellence (D.A.T.E) program: Year one Evaluation Report*. National Center on Performance Incentives. Austin, TX.
- https://my.vanderbilt.edu/performanceincentives/files/2012/10/DATE_Final_Report_ES5.pdf
- Springer, M. G., Pane, J. F., Le, V., McCaffrey, D. F., Burns, S. F., Hamilton, L. S., & Stecher, B. (2012). Team pay for performance: Experimental evidence from the Round Rock pilot project on team incentives. *American Educational Research Association*, 34(4), 367–390. <http://doi.org/208.95.50.183>
- Springer, M. G., Swain, W. A., & Rodriguez, L. A. (2016). Effective teacher retention bonuses: Evidence from Tennessee. *Educational Evaluation and Policy Analysis*, 38(2), 199–221. <http://doi.org/10.3102/0162373715609687>
- Springer, M. G., & Taylor, L. L. (2016). Designing incentives for public school teachers: Evidence from a Texas incentive pay program. *Journal of Education Finance*, 41(3), 344–381. <https://muse.jhu.edu/article/613779>
- Swain, W. A., Rodriguez, L. A., & Springer, M. G. (2019). Selective retention bonuses for highly effective teachers in high poverty schools: Evidence from Tennessee. *Economics of Education Review*, 68, 148–160. <http://doi.org/10.1016/j.econ.edu.rev.2018.12.008>
- Tirivayi, N., van den Brink, H. M., & Groot, W. (2014). Group incentives for teachers and their effects on student learning: A systematic review of theory and evidence. *School*

Effectiveness and School Improvement, 25(4), 570–601.

<http://doi.org/10.1080/09243453.2013.857697>

U. S. Department of Education. (2012). *Teacher incentive fund: First implementation report, 2006 and 2007 grantees*. Washington, D.C.: Evaluation and Policy Development, Policy and Program Studies Service, Office of Planning, U.S. Department of Education.

<https://www2.ed.gov/rschstat/eval/teaching/tif/report.pdf>

U. S. Department of Education. (2018). *Teacher incentive fund*. Washington, D.C.: Office of Innovation and Improvement, Office of Elementary and Secondary Education, U. S. Department of Education. <https://oese.ed.gov/teacher-incentive-fund/>

U. S. Department of Education. (2018). *Study of title 1 schoolwide and targeted assistance programs: Final report*. Washington, D.C.: Office of Innovation and Improvement, Office of Planning, Evaluation, and Policy Development, Policy and Programs Study Service, U. S. Department of Education.

<https://www2.ed.gov/rschstat/eval/title-i/schoolwide-program/report.pdf>

Vosters, K. N., Guarino, C. M. & Wooldridge, J. M. (2018). Understanding and evaluating the SAS EVAAS univariate response model (URM) for measuring teacher effectiveness. *Economics of Education Review*, 66, 191–205.

<http://doi.org/10.1016/j.econedurev.2018.08.006>

Vigdor, J. L. (2008). *Teacher Salary Bonuses in North Carolina*. Nashville, Tennessee: National Center on Performance Incentives.

https://my.vanderbilt.edu/performanceincentives/files/2012/10/200803_Vigdor_TeacherBonusesNC.pdf

Vroom, V. H. (1995). *Work and motivation*. New York, NY: Jossey-Bass.

- Warner, R. M. (2013). *Applied statistics: From bivariate through multivariate techniques* (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Winters, M. A., & Cowen, J. M. (2013). Would a value-added system of retention improve the distribution of teacher quality? A simulation of alternative policies. *Journal of Policy Analysis and Management*, 32(3), 634–654. <http://doi.org/10.1002/pam.21705>
- Woestman, D. S., & Wasonga, T. A. (2015). Destructive leadership behaviors and workplace attitudes in schools. *National Association of Secondary School Principals. NASSP Bulletin*, 99(2), 147–163. <http://doi.org/10.1177/0192636515581922>
- Yuan, K., Le, V., McCaffrey, D. F., Marsh, J. A., Hamilton, L. S., Stecher, B. M., & Springer, M.G. (2013). Incentive pay programs do not affect teacher motivation or reported practices: Results from three randomized studies. *American Educational Research Association*, 35(1), 3–22. <http://doi.org/10.3102/0162373712462625>
- Zee, M., & Koomen, H. M. Y. (2016). Teacher Self-Efficacy and Its Effects on Classroom Processes, Student Academic Adjustment, and Teacher Well-Being: A Synthesis of 40 Years of Research. *Review of Educational Research*, 86(4), 981–1015. <http://doi.org/10.3102/0034654315626801>
- Zhang, X. & Ng, H. (2017). An effective model of teacher appraisal: Evidence from secondary schools in Shanghai, China. *Educational Management Administration, & Leadership*, 45(2), 196–218. <http://doi.org/10.1177/1741143215597234>

APPENDICES

Appendix A

Institutional Review Board Approval

LIBERTY UNIVERSITY INSTITUTIONAL REVIEW BOARD

September 15, 2020

Tiffany Clossadie
Linda Holcomb

Re: IRB Exemption #193-FY19-20-400 Fourth Through Eighth Grade Educator Perceptions of the North Carolina Teacher Performance Bonus

Dear Tiffany Clossadie, Linda Holcomb:

The Liberty University Institutional Review Board (IRB) has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and no further IRB oversight is required.

Your study falls under the following exemption category, which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46.101(b):

Category 2(f). Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording). The information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects.

Your stamped consent form can be found under the Attachments tab within the Submission Details section of your study on Cayuse IRB. This form should be copied and used to gain the consent of your research participants. If you plan to provide your consent information electronically, the contents of the attached consent document should be made available without alteration.

Please note that this exemption only applies to your current research application, and any modifications to your protocol must be reported to the Liberty University IRB for verification of continued exemption status. You may report these changes by completing a modification submission through your Cayuse IRB account.

If you have any questions about this exemption or need assistance in determining whether possible modifications to your protocol would change your exemption status, please email us at libirb@liberty.edu.

Sincerely,
G. Michele Baker, MA, CIP
Administrative Chair of Institutional Research
Research Ethics Office

Appendix B

School District Permission Request Form

May 22, 2020

Superintendent, ██████████ County Schools
██████████

Dear ██████████:

As a graduate student in the School of Education at Liberty University, I am conducting research as part of the requirements for a Doctor of Education, Ed.D., degree. The title of my research project is *Fourth- Through Eighth-Grade Educator Perceptions of the North Carolina Teacher Performance Bonus*. The purpose of my research study is to better understand educators' perceptions about, and attitudes towards, the North Carolina Teacher Performance Bonus Plan. Additionally, I will be determining if a difference exists between fourth- through eighth-grade educators' perceptions from those educators eligible for a bonus, teachers of End of Grade (EOG) assessment courses, and not eligible for a bonus, teachers of North Carolina Final Exam (NCFE) assessment courses. Participants will be separated into three eligibility groups (a) no bonus, (b) one bonus, and (c) two bonuses based on the EOG and/or NCFE assessment courses they teach. Finally, I will be examining the relationship between an educators' perception score and their Education Value-Added Assessment System (EVAAS) score.

I am writing to request your assistance in contacting your fourth- through eighth-grade mathematics, science, social studies and English educators in the ██████████ County School District. I will provide an initial participant recruitment email inviting eligible fourth- through eighth-grade educators to participate in the research study. I would ask this recruitment email be sent to all eligible educators in the fourth through eighth grade. All participant responses will remain anonymous. I am also asking permission to work with your EVAAS district coordinator in order to pair each participant's survey responses with their most recent EVAAS growth score using the last five digits of their unique ten digit employee identification number.

Participants will be asked to complete the attached survey. Each educator's EVAAS growth score will be linked to their respective survey responses by the last five digits of their ten digit employee identification number generated by the North Carolina Department of Public Instruction. Participants will be presented with informed consent information prior to participating. Taking part in this study is completely voluntary, and participants are welcome to discontinue participation at any time.

Upon completion of the study, I will share a written copy of the results with you. Again, any research data collected will not be identifiable to any participants. If I believe a direct quote from the comment section could possibly identify an individual, it will **not** be used.

For education research, school/district permission should be on approved letterhead with the appropriate signature(s). Thank you for considering my request. If you choose to grant permission, please provide a signed statement on official letterhead indicating your approval. A permission letter document is attached for your convenience.

Thank you for your consideration.

Tiffany S. Clapsaddle
Doctoral Candidate

Appendix C

School District 1 Consent Form



June 22, 2020

Tiffany S. Clapsaddle
Doctoral Candidate
Liberty University



Dear Mrs. Clapsaddle:

After careful review of your research proposal entitled *Fourth Through Eighth Grade Educator Perceptions of the North Carolina Teacher Performance Bonus*, I have decided to grant you permission to contact our fourth through eighth grade educators and invite them to participate in your study and to work with our EVAAS coordinator.

Check the following boxes, as applicable:

The requested data WILL BE STRIPPED of all identifying information before it is provided to the researcher.

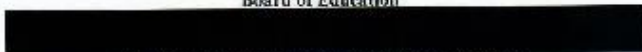
I am requesting a copy of the results upon study completion and/or publication.

Sincerely,



Superintendent
County Schools

Board of Education



An Equal Opportunity/Affirmative Action Employer

Appendix D

School District 2 Consent Form

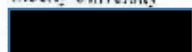


ALL STUDENTS LEARNING AT
HIGH LEVELS



June 19, 2020

Tiffany S. Clapsaddle
Doctoral Candidate
Liberty University



Dear Mrs. Clapsaddle:

After careful review of your research proposal entitled *Fourth Through Eighth Grade Educator Perceptions of the North Carolina Teacher Performance Bases*, I have decided to grant you permission to contact our fourth through eighth grade educators and invite them to participate in your study and to work with our EVAAS coordinator.

Check the following boxes, as applicable:

The requested data WILL BE STRIPPED of all identifying information before it is provided to the researcher.

I am requesting a copy of the results upon study completion and/or publication.

Sincerely,



Superintendent
Schools

Sincerely,



Ed.S
Superintendent
Schools



Appendix E

School District 3 Consent Form



[Redacted]
[Redacted]
[Redacted] Superintendent
[Redacted]

June 22, 2020

To Whom It May Concern:

As Superintendent of [Redacted] Schools, I am pleased to amend my written consent for Tiffany S. Clapsaddle to pursue research with [Redacted] School as a requirement of her Doctorate in Education program with Liberty University.

I am aware that the research will require contact with district staff as well as with fourth through eighth grade teachers. I am aware that all participant responses and data collected will be anonymous in order to ensure privacy and confidentiality.

I wish Ms. Clapsaddle the best in her pursuit of a Doctoral Degree.

Please contact me at [Redacted] or by phone: [Redacted] if you need additional information.

Sincerely,

[Redacted]
[Redacted] Superintendent
[Redacted]

Appendix F

School District 4 Consent Form



[REDACTED] County Schools

[REDACTED], Ed., D.
Superintendent

September 9, 2020

Tiffany S. Clapsaddle
Doctoral Candidate
Liberty University
[REDACTED]

Dear Mrs. Clapsaddle:

After careful review of your research proposal entitled *Fourth Through Eighth Grade Educator Perceptions of the North Carolina Teacher Performance Bonus*, I have decided to grant you permission to contact our fourth through eighth grade educators and invite them to participate in your study and to work with our EVAAS coordinator.

Check the following boxes, as applicable:

The requested data WILL BE STRIPPED of all identifying information before it is provided to the researcher.

I am requesting a copy of the results upon study completion and/or publication.

Sincerely,

[REDACTED]

[REDACTED]

Superintendent
[REDACTED] County Schools

Board of Education
Charles H. Francis, Chairman
Ann Barrett, David Burnette, Ronnie Clark, Jim Harley Francis,
Larry Henson, Steven Kirkpatrick, Bobby Rogers, Jimmy Rogers

Appendix G

School District 5 Consent Form



[Redacted]

PUBLIC SCHOOLS

Superintendent

June 19, 2020

Tiffany S. Clapsaddle
Doctoral Candidate
Liberty University

[Redacted]

Dear Mrs. Clapsaddle:

After careful review of your research proposal entitled *Fourth Through Eighth Grade Educator Perceptions of the North Carolina Teacher Performance Bonus*, I have decided to grant you permission to contact our fourth through eighth grade educators and invite them to participate in your study and to work with our EVAAS coordinator.

Check the following boxes, as applicable:

The requested data WILL BE STRIPPED of all identifying information before it is provided to the researcher.

I am requesting a copy of the results upon study completion and/or publication.

Sincerely,

[Redacted Signature]

Superintendent

[Redacted] Schools

[Redacted]

Appendix H
School District 6 Consent Form

[REDACTED] *County Schools*

*Superintendents
Office*

June 19, 2020

Tiffany S. Clapsaddle
Doctoral Candidate
Liberty University
[REDACTED]

Dear Mrs. Clapsaddle:

After careful review of your research proposal entitled *Fourth Through Eighth Grade Educator Perceptions of the North Carolina Teacher Performance Bonus*, I have decided to grant you permission to contact our fourth through eighth grade educators and invite them to participate in your study and to work with our EVAAS coordinator.

Check the following boxes, as applicable:

- The requested data WILL BE STRIPPED of all identifying information before it is provided to the researcher.
- I am requesting a copy of the results upon study completion and/or publication.

Sincerely,

[REDACTED]
Superintendent
[REDACTED] County Schools

Appendix I

School District 7 Consent Form

[REDACTED] *County Public Schools*
 From the Office of the Superintendent
[REDACTED] + [REDACTED] + [REDACTED]
[www.\[REDACTED\].k12.nc.us](http://www.[REDACTED].k12.nc.us)

Superintendent: [REDACTED] Phone: [REDACTED]
 Fax: [REDACTED]

August 21, 2020

Tiffany S. Clapsaddle
Doctoral Candidate
Liberty University

[REDACTED]

Dear Mrs. Clapsaddle:

After careful review of your research proposal entitled *Fourth and Eighth Grade Educator Perceptions of the North Carolina Teacher Performance Bonus*, the [REDACTED] County Board of Education has granted you permission to contact our fourth through eighth grade educators and invite them to participate in your study and to work with our EVAAS coordinator.

Check the following boxes, as applicable:

The requested data WILL BE STRIPPED of all identifying information before it is provided to the researcher.

I am requesting a copy of the results upon study completion and/or publication.

Sincerely,

[REDACTED]
[REDACTED]

Appendix J

Participant Information Letter and Consent to Participate

Month Day, 2020

██████████ Schools Educator
██████████ Schools

Dear ██████████ Schools Educator:

As a graduate student in the School of Education at Liberty University, I am conducting research as part of the requirements for a Doctor of Education, Ed.D, degree. The purpose of my research study is to better understand educators' perceptions about, and attitudes towards, the North Carolina Teacher Performance Bonus Plan (NCTPBP). Additionally, I will be determining if a difference exists between fourth- through eighth-grade educators' perceptions of the NCTPBP from those educators eligible for the bonus, teachers of End of Grade (EOG) assessment courses, and educators not eligible for the bonus, teachers of North Carolina Final Exam (NCFE) assessment courses. Participants will be separated into three eligibility groups (a) no bonus, (b) one bonus, and (c) two bonuses based on the EOG and/or NCFE assessment courses they teach. Finally, I will also be examining the relationship between an educator's perception score and their Education Value-Added Assessment System (EVAAS) score. I am writing to invite eligible participants to join my study.

Participants must teach English Language Arts, mathematics, science or social studies in the fourth- through eighth-grade in one of the seven school districts located in the far western counties of North Carolina. Participants, if willing, will be asked to complete an online survey. It should take approximately 15 minutes to complete the survey. The school district's EVAAS Coordinator will link your EVAAS growth score to your survey responses through the last five digits of your unique ten digit employee identification number, but the information will remain anonymous. Participation will be completely anonymous, and no personal, identifying information will be collected. If a direct quote from the comment section could possibly identify an individual, it will **not** be used. Please keep in mind you do not have to provide comments.

To participate, please click on the [survey link](#). You will be asked for the last five digits of your ten digit employee identification number and the school system in which you work to begin the survey. The survey link will remain live for two weeks.

A consent document is provided as the first page of the survey. The consent document contains additional information about my research. After you have read the consent document, please click the link to proceed to the survey. Doing so will indicate that you have read the consent information and would like to take part in the survey.

If you choose to participate, you will be entered in a raffle to receive a \$50 VISA gift card.

Sincerely,

Tiffany S. Clapsaddle
Doctoral Candidate

Appendix K
Reminder Letter to Participants

Month Day, 2020

Dear [REDACTED] Schools Educator:

As a graduate student in the School of Education at Liberty University, I am conducting research as part of the requirements for a Doctor of Education, Ed.D, degree. One week ago, an email was sent inviting you to participate in a research study. This follow-up email is being sent to remind you to complete the survey if you would like to participate and have not already done so. The survey will close in one week.

If you choose to participate, you will be asked to complete an online survey. It should take approximately 15 minutes for you to complete. Participation will be completely anonymous, and no personal, identifying information will be collected. If a direct quote from the comment section could possibly identify an individual, it will **not** be used. Please keep in mind you do not have to provide comments. You will be asked for the last five digits of your ten digit employee identification number and the school system in which you work to begin the survey. This information will only be used by the school district's EVAAS coordinator to link your EVAAS score to your survey responses.

To participate, please click on the [survey link](#).

A consent document is provided as the first page of the survey. The consent document contains additional information about my research. After you have read the consent form, please click the link to proceed to the survey. Doing so will indicate that you have read the consent information and would like to take part in the survey.

If you choose to participate, you will be entered in a raffle to receive a \$50 VISA gift card.

Sincerely,

Tiffany S. Clapsaddle
Doctoral Candidate

Appendix L

Participant Consent Form

Participant Consent

Title of the Project: FOURTH- THROUGH EIGHTH-GRADE EDUCATOR PERCEPTIONS OF THE NORTH CAROLINA TEACHER PERFORMANCE BONUS

Principal Investigator: Tiffany Clapsaddle, Liberty University

Invitation to be Part of a Research Study

You are invited to participate in a research study. In order to participate, you must teach English Language Arts, mathematics, science or social studies in the fourth- through eighth-grade in one of the seven school districts located in the far western counties of North Carolina. Taking part in this research project is voluntary.

Please take time to read this entire form and ask questions before deciding whether to take part in this research project.

What is the study about and why is it being done?

The purpose of the study is to better understand educators' about, and attitudes towards, the North Carolina Teacher Performance Bonus Plan. Additionally, the study will determine if any differences exist between fourth- through eighth-grade educator perceptions of the North Carolina Teacher Performance Bonus Plan from those educators eligible for the bonus, teachers of End of Grade (EOG) assessment courses and not eligible for the bonus, teachers of North Carolina Final Exam (NCFE) assessment courses. Additionally, the study will be examining the relationship between an educator's perception score and their Education Value-Added Assessment System (EVAAS) score.

What will happen if you take part in this study?

If you agree to be in this study, I would ask you to do the following things:

1. Complete an online survey containing 28 questions using a Likert-scale rating (strongly agree to strongly disagree) as well as provide any additional comments relating to the North Carolina Teacher Performance Bonus Plan. The survey should take approximately 15 minutes to complete.

How could you or others benefit from this study?

Participants should not expect to receive a direct benefit from taking part in this study.

Benefits to society include improving the opportunity in which every student receives a quality education. State and local policymakers may gain a better understanding of what motivates educators and render fiscally responsible decisions regarding alternative compensation plans.

What risks might you experience from being in this study?

The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

How will personal information be protected?

The records of this study will be kept private. Research records will be stored securely, and only the researcher will have access to the records.

- Participant responses will be anonymous. Participants will provide the last five digits of their ten digit employee identification number and the school system in which they work to begin the survey.
- Once the survey is closed, the researcher will provide the last five digits of the employee identification number of those completing the survey to each school district's EVAAS coordinator
- The school district's EVAAS Coordinator will provide the participant's EVAAS growth score linked to the last five digits of the participant's ten digit employee identification number. The EVAAS growth score and the employee identification number are only accessible by the participant and the EVAAS Coordinator.
- Data will be stored on a password-locked computer and may be used in future presentations. Any printed copies of the data will be stored in a locked file cabinet inside a locked office in which only the researcher will have access. After three years, all electronic records will be deleted, and any printed copies will be shredded.

How will you be compensated for being part of the study?

Participants will not be compensated for participating in this study. However, at the conclusion of the survey, one participant will be compensated for participating in this study. Any participants who fully answer the 28 Likert item questions will be entered in a raffle to receive a \$50 VISA gift card. The gift card will be delivered to the winning participant's school district EVAAS coordinator and identified using the last 5 digits of the participant's 10 digit employee identification number.

Is study participation voluntary?

Participation in this study is voluntary. Your decision whether to participate will not affect your current or future relations with Liberty University. If you decide to participate, you are free to not answer any question or withdraw at any time prior to submitting the survey without affecting those relationships.

What should you do if you decide to withdraw from the study?

If you choose to withdraw from the study, exit the survey and close your internet browser. Your responses will not be recorded or included in the study.

Whom do you contact if you have questions or concerns about the study?

The researcher conducting this study is Tiffany Clapsaddle. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at tsclapsaddle@liberty.edu. You may also contact the researcher's faculty sponsor, Dr. Linda Holcomb, at ljholcomb@liberty.edu.

Whom do you contact if you have questions about your rights as a research participant?

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515 or email at irb@liberty.edu

Your Consent

Before agreeing to be part of the research, please be sure that you understand what the study is about. You can print a copy of the document for your records. If you have any questions about the study later, you can contact the researcher/study team using the information provided above.

Appendix M

Permission Request to Use Survey Instrument

July 19, 2019

Tiffany Clapsaddle
Liberty University
School of Education
321 Carriage Lane
Murphy, NC 28906

Dear Mr. Adkins:

I am a doctoral student from Liberty University writing my dissertation titled *Fourth- Through Eighth-Grade Educator Perceptions of the North Carolina Teacher Performance Bonus*, under the direction of my dissertation committee chaired by Dr. Linda Holcomb, who can be reached at ljholcomb@liberty.edu.

I would like your permission to use the Teacher Performance Pay Attitudinal Survey instrument in my research study. I would like to use and print your survey under the following conditions:

- I will use the surveys only for my research study and will not sell or use it with any compensated activities.
- I will include the copyright statement on all copies of the instrument.
- I will send a copy of my completed research study to your attention upon completion of the study.

If these are acceptable terms and conditions, please indicate so by replying to me through e-mail: tsclapsaddle@liberty.edu.

Sincerely,

Tiffany Clapsaddle
Doctoral Candidate

Appendix N

Consent to Use Survey Instrument



PERSONAL | PASSIONATE | PROGRESSIVE

THE SCHOOL DISTRICT OF LEE COUNTY

Gregory K. Adkins, Ed.D.

Superintendent

2855 Colonial Boulevard, Fort Myers, FL 33956 | O: 239.337.8300 | F: 239.337.8378

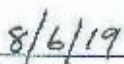
LETTER OF PERMISSION

Permission has been granted to Tiffany Clapsaddle to utilize and make modifications for research purposes to the Teacher Performance Pay Attitudinal Survey Instrument from the following dissertation:

Adkins, Gregory, K. (2004). Teacher Performance Pay: The Perceptions of Certified School-based Personnel (Doctoral dissertation). Retrieved from Proquest.



 Gregory K. Adkins, Ed.D.



 Date

BOARD MEMBERS GWYNETHA S. GITTENS, Chair, District 1 | CHRIS M. PATRICCA, Vice Chair, District 2 | MARY FISCHER, District 3
 MELISSA W. GIOVANNELLI, District 4 | REBBIE JORDAN, District 5 | DEFSY VAUGHN, District 6 | CATHLEEN O'BANION MORGAN, District 7
 GREGORY K. ADKINS, Ed.D., Superintendent | ALAN L. GABRIEL, Esq., Super Attorney

Appendix O

Teacher Performance Pay Attitudinal Survey

A written form of the online version of the Teacher Performance Pay Attitudinal Survey will be placed here once consent for use has been obtained.

Teacher Performance Pay Attitudinal Survey

Purpose: The purpose of this survey is to obtain information from certified school-based personnel regarding their attitudes and perceptions of teacher performance pay. All information collected in this survey is confidential and respondents are anonymous. The data obtained in this survey will be used as the basis for a dissertation being completed at Liberty University involving the assessment of teacher attitudes about teacher performance pay systems.

Part I: Participant Information:

Please provide the last 5 digits of your unique 10 digit employee identification number. This number is your North Carolina Staff Unique Identification (UID) and is also the number you use to access your PowerSchool account.

Please provide the name of the school district in which you work.

Part II: Demographic Information

Directions - Please circle one option for each item which best describes your current situation.

1. What is your current teaching assignment at your school this year? Choose all that apply.

ELA

Math

Science

Social Studies

2. Which best describes the total number of years you have been employed as a professional educator?

Less than 3 years

3 to 10 years

11 to 20 years

21 or more years

3. What is your gender?

Female

Male

4. Which one best describes your personal level of educational attainment?

Baccalaureate

Masters

Specialist

Doctorate

5. Is your school labeled a Title 1 school as defined by the North Carolina Department of Public Education (NCDPE)?

Yes No

6. Have you received performance pay at any time during the last four years?

Yes No

Directions – Please fill in the appropriate circle for each item to indicate your level of agreement with the statement for Parts II, III, IV, and Va. If you do not feel you know the correct answer, leave the space provided blank and move to the next question.

Response Key	
Strongly Agree	SA
Agree	A
Neutral	N
Disagree	D
Strongly Disagree	SD

Part III: Knowledge and Understanding

SA A N D SD

7. I clearly understand the process for awarding teacher performance pay to individual teachers in NC.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. I clearly understand the process for calculating the amount of teacher performance pay disbursed to the individual teacher.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Part IV: Individual Efficacy

SA A N D SD

9. My individual performance as an educator has a significant influence on student achievement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. My individual performance as an educator has a significant influence on whether or not I earn teacher performance pay.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. I have adequate resources (i.e. materials, supplies) to support my efforts in obtaining teacher performance pay.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. I have adequate administrative assistance to support my efforts in obtaining teacher performance pay.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. My chance of receiving teacher performance pay is the same as any other teacher.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

14. Student body composition has a greater impact on my ability to receive teacher performance pay than my individual effort as a teacher.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
--	----------------------------------	----------------------------------	----------------------------------	----------------------------------	----------------------------------

Part V: Impact on Individual Performance

SA A N D SD

15. Teacher performance pay provides an incentive for me to work harder toward improving student achievement.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
16. Teacher performance pay encourages me to participate in staff development to improve my skills as an educator.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
17. Increasing the size of the teacher performance pay bonus would increase my motivation to improve student achievement.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
18. I have altered my instructional practice as a result of teacher performance pay.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
19. I have modified my assessment methods as a result of teacher performance pay.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
20. My workload has increased as a result of the implementation of teacher performance pay.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
21. I have experienced increased stress as a result of the implementation of teacher performance pay.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
22. I work longer hours as a result of the implementation of teacher performance pay.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>

Part VIa: Teacher Performance Pay Implementation

SA A N D SD

23. Educators should receive additional compensation for outstanding individual performance.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
24. Educators should receive additional compensation for meeting student achievement goals.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
25. The current teacher performance pay plan is fair in how it distributes performance pay awards.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
26. The current teacher performance pay plan is aligned with school goals in how it rewards performance.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>

Part VIb: Teacher Performance Pay Implementation

Directions – Please circle the letter of the one option that completes the sentences in a manner best expressing your opinion.

27. The amount of the performance pay reward should be

- A. zero
- B. below \$500 per teacher
- C. between \$500 and \$800 per teacher
- D. between \$1000 and \$2000 per teacher
- E. more than \$2000 per teacher

28. The proportion of a teacher's pay related to performance should be

- A. zero
- B. less than 1% of base salary
- C. between 1% and 5% of base salary
- D. between 6% and 10% of base salary
- E. more than 10% of base salary

You have reached the end of this survey. Thank you for your participation.

If you have additional comments regarding Teacher Performance Pay, please include these comments on the bottom of this survey form.