



5-2011

Relationships Between Teacher Attendance and Student Scores on the Tennessee Comprehensive Assessment Program Achievement Test in East Tennessee.

Melissa Miniard Hensley
East Tennessee State University

Follow this and additional works at: <https://dc.etsu.edu/etd>

 Part of the [Educational Assessment, Evaluation, and Research Commons](#), and the [Elementary and Middle and Secondary Education Administration Commons](#)

Recommended Citation

Hensley, Melissa Miniard, "Relationships Between Teacher Attendance and Student Scores on the Tennessee Comprehensive Assessment Program Achievement Test in East Tennessee." (2011). *Electronic Theses and Dissertations*. Paper 1258.
<https://dc.etsu.edu/etd/1258>

This Dissertation - Open Access is brought to you for free and open access by the Student Works at Digital Commons @ East Tennessee State University. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of Digital Commons @ East Tennessee State University. For more information, please contact digilib@etsu.edu.

Relationships Between Teacher Attendance and Student Scores on the
Tennessee Comprehensive Assessment Program Achievement Test in East
Tennessee

A dissertation

presented to

the faculty of the Department of Educational Leadership and Policy Analysis

East Tennessee State University

In partial fulfillment

of the requirements for the degree

Doctor of Education

by

Melissa Hope Miniard Hensley

May 2011

Dr. Pamela Scott, Chair

Dr. Virginia Foley

Dr. James Lampley

Dr. Elizabeth Ralston

Keywords: Adequate Yearly Progress (AYP), No Child Left Behind (NCLB), Race to the Top (RTTT), Tennessee Comprehensive Assessment Program (TCAP)

ABSTRACT

Relationships Between Teacher Attendance and Student Scores on the Tennessee Comprehensive Assessment Program Achievement Test in East Tennessee

by

Melissa Hope Miniard Hensley

This mixed methods study examined relationships between third, fourth, and fifth grade teacher attendance as well as teacher and administrator perceptions of teacher attendance during the 2005-06, 2006-07, and 2007-08 school years.

Third, fourth, and fifth grade student test scores on the Tennessee Comprehensive Assessment Program (TCAP) Achievement test given in the spring of 2006, 2007, and 2008 were also examined. TCAP score data for this study were gathered electronically, with published data from the Tennessee Department of Education. Teacher attendance records were collected using *Siesta*, a teacher attendance tracking program. Teacher and administrator perceptions were gathered through surveys, interviews, and focus groups.

The population for this study included five K-5 schools and two K-8 schools in a small, rural, public school system in Tennessee. All students in grades 3 through 8 take the TCAP test each spring. Students must take a total of 4 subtests.

Quantitative variables were analyzed using descriptive statistics including *t* tests, analysis of variance (ANOVA), Mann Whitney U, and Pearson correlations.

Qualitative data including interviews, focus groups, surveys, documents, handbooks, and school calendars were analyzed to better understand teacher and administrator perceptions about teacher absences.

The results of this study were mixed. Teachers and administrators who participated in this study agreed that teacher absences do affect student test scores, but the quantitative data did not support this. The null hypotheses were retained in all courses and grades except third grade Math. This means there was no relationship between teacher absences and student test scores.

DEDICATION

This work is dedicated to my loving husband Gary G. Hensley who encouraged me during this entire process. Thank you for your love, patience, and the constant reminder that quitting is not an option.

ACKNOWLEDGEMENTS

Many people made this dream a reality for me, from family and friends to the ELPA Department at ETSU. This would not be possible without the support and encouragement from the following amazing people:

- Family & Friends: Rhonda Clayton, Scott Clayton, Linda Dennis, Rebecca Graham Eiler, Debbie Gietema, Henrietta Hefner, Judy Hickman, Samuel Hollingshead, Rusty James, Dr. Farris Jordan, Jim & Virginia Lowery, Lisa Lowery, Dr. Debra Scott McCarter, Bob McCarter, Mike McClane, Tina & Glen Meyer, LeaAnna Miller, Tim & Kylene Miniard, Virginia Phillips, John Spivey, Sandi Stoutt, Bill Taylor, Cathy Woods, the ETSU ELPA 2007 Cohort, and all administrators and teachers who participated in my study.
- ELPA Department: My chair, Dr. Pamela Scott, Dr. Virginia Foley, Dr. James Lampley, Dr. Elizabeth Ralston, Dr. Eric Glover
- Editor & Statistical Analyst: Travis Scott and Dr. Susan Twaddle

CONTENTS

	Page
ABSTRACT	2
DEDICATION	4
ACKNOWLEDGEMENTS	5
LIST OF TABLES	10
LIST OF FIGURES	11
Chapter	
1. INTRODUCTION	12
Statement of the Problem	12
Research Questions	13
Question 1	14
Question 2	14
Question 3	14
Question 4	15
Question 5	15
Significance of Study	15
Definition of Terms	16
Delimitations	18
Limitations	18
Overview of Study	18
2. REVIEW OF LITERATURE	19
Introduction	19
History of Standardized Testing in Tennessee	19

National Elementary and Secondary Education Act.....	23
No Child Left Behind and Standardized Testing in Tennessee	24
Race To The Top and Standardized Testing in Tennessee	26
TCAP Achievement and Adequate Yearly Progress	27
Causes of Teacher Absences	28
Cost of Teacher Absences	30
Teacher Absenteeism in the United States	31
Effects of Absenteeism on Student Performance	32
Policies and Incentives that Impact Teacher Absenteeism	33
Substitute Teachers and Qualifications.....	34
Summary	36
3. METHODS AND PROCEDURES	37
Introduction	37
Research Design	37
Population	37
Quantitative Procedures	38
Quantitative Research Questions	38
Question 1	38
Question 2	39
Question 3	40
Question 4	41
Question 5	42

Qualitative Procedures	42
Quantitative Data Analysis	43
Qualitative Data Analysis	43
Summary	44
4. ANALYSIS OF DATA	45
Question 1	45
Question 2	49
Question 3	53
Question 4	57
Question 5	60
Teachers Reflections About Teacher Attendance	64
Administrator Reflections About Teacher Attendance	66
Focus Groups Reflections	68
Summary	70
5. FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS	72
Summary of Study	72
Summary of Findings	72
Quantitative Results	73
Question 1	73
Question 2	73
Question 3	74
Question 4	75
Question 5	75

Qualitative Results	75
Conclusions	76
Recommendations for Practice	77
Recommendations for Further Study	78
Summary	79
REFERENCES	81
APPENDICES	87
Appendix A: Interview Guide	87
Appendix B: 2005-06 School Calendar	89
Appendix C: 2006-07 School Calendar.....	90
Appendix D: 2007-08 School Calendar.....	91
Appendix E: Initial Email	92
VITA	93

LIST OF TABLES

Table	Page
1. Pearson's Correlation Coefficients for Third Grade Teacher Absences with Third Grade Test Scores for Math, Reading, Science, and Social Studies	49
2. Pearson's Correlation Coefficients for Fourth Grade Teacher Absences with Fourth Grade Test Scores for Math, Reading, Science, and Social Studies	53
3. Pearson's Correlation Coefficients for Fifth Grade Teacher Absences with Fifth Grade Test Scores for Math, Reading, Science, and Social Studies	57

LIST OF FIGURES

Figure		Page
	1. Third Grade Teacher Absences and Math Test Scores	46
	2. Third Grade Teacher Absences and Reading Test Scores	46
	3. Third Grade Teacher Absences and Science Test Scores	47
	4. Third Grade Teacher Absences and Social Studies Test Scores	48
	5. Fourth Grade Teacher Absences and Math Test Scores	50
	6. Fourth Grade Teacher Absences and Reading Test Scores	50
	7. Fourth Grade Teacher Absences and Science Test Scores	51
	8. Fourth Grade Teacher Absences and Social Studies Test Scores ..	52
	9. Fifth Grade Teacher Absences and Math Test Scores	54
	10. Fifth Grade Teacher Absences and Reading Test Scores	54
	11. Fifth Grade Teacher Absences and Science Test Scores	55
	12. Fifth Grade Teacher Absences and Social Studies Test Scores	56
	13. Boxplot for Third Grade Teacher Absences by School Configuration.....	58
	14. Boxplot for Fourth Grade Teacher Absences by School Configuration.....	59
	15. Boxplot for Fifth Grade Teacher Absences by School Configuration..	60
	16. Boxplot for Third Grade Teacher Absences by Size of School	61
	17. Boxplot for Fourth Grade Teacher Absences by Size of School	62
	18. Boxplot for Fifth Grade Teacher Absences by Size of School	63

CHAPTER 1

INTRODUCTION

The Department of Education was founded in 1867 and was established as a Cabinet level agency and on May 4, 1980 (United States Department of Education, 2009a). The department has changed since then, but the goals remain the same: to gather educational information about programs that work and share it with teachers and educational policymakers. There has been discussion by educational leaders and politicians about what makes an effective teacher, what makes a successful school, and how schools can raise student test scores. What schools do matters, and what matters most is effective teaching (Haycock, 2001). Haycock also found that all students can achieve at high levels if they are taught at high levels. Similarly, Bruno (2002) found that students in a classroom eventually lost the desire to learn when the regular teacher was frequently absent and delivery of the instructional program was from an array of substitute teachers.

Statement of the Problem

The purpose of this study was to analyze the relationships between teacher attendance in the third, fourth, and fifth grades and student test scores on the Tennessee Comprehensive Assessment Program tests administered annually each spring in Tennessee. It also examined teacher and administrator perceptions about teacher attendance. Teacher absenteeism, coupled with the lack of conclusive evidence of the relationship between teacher absences and student achievement, emphasizes the need for this study. Education reformers

from the 1980s indicate that teachers are the cause and potential cure for the decline in student achievement (Jacobson, 1995). Student test scores have become increasingly more important to teachers, administrators, and politicians. Tennessee will begin using student test scores as 35% of a teacher's evaluation in the 2011-12 school year (Tennessee Department of Education, 2010a).

Since 1990 there have been many studies about the impact teacher absences have on student achievement and examining incentives that could potentially help decrease teacher absenteeism. Clotfelter, Ladd, and Vignor (2009) studied a public school system in North Carolina from 1993-94 through 2003-04. Clotfelter et al. found that student math scores dropped 2.3% and reading scores dropped 1% for every 10 days the teacher was absent. Nelson (2008) found that third grade student reading scores decreased as teacher absences increased, but fourth grade math scores increased as teacher absences increased. Jacobson (1995) studied two systems in New York and found that monetary incentives produce lower teacher absenteeism. Test scores were not addressed in the Jacobson study. A study in Florida showed that offering teachers \$50 for each sick day not used was unsuccessful in reducing teacher absences (Keller, 2008).

Research Questions

The following research questions were used to examine the relationship between third, fourth, and fifth grade teacher attendance and student test scores on the TCAP test during the 2005-06, 2006-07, and 2007-08 school years. Also

examined were reasons teachers chose to be absent from school and how principals perceive teacher absences and attendance policies.

Question 1

Are there relationships between third grade teacher absences and third grade student math, reading, science, and social studies scores on the Tennessee Comprehensive Achievement Program Assessment? Math, reading, science, and social studies scores were measured as the percentage of students who scored either proficient or advanced on the Tennessee Comprehensive Assessment Program Assessment.

Question 2

Are there relationships between fourth grade teacher absences and fourth grade student math, reading, science, and social studies scores on the Tennessee Comprehensive Achievement Program Assessment? Math, reading, science, and social studies scores were measured as the percentage of students who scored either proficient or advanced on the Tennessee Comprehensive Assessment Program Assessment.

Question 3

Are there relationships between fifth grade teacher absences and fifth grade student math, reading, science, and social studies scores on the Tennessee Comprehensive Achievement Program Assessment? Math, reading, science, and social studies scores were measured as the percentage of students who scored either proficient or advanced on the Tennessee Comprehensive Assessment Program Assessment.

Question 4

Is there a difference in teacher absences based on school configuration (K-5 schools versus K-8 schools)?

Question 5

Are there differences in teacher absences based on school size (fewer than 400 students versus 400 or more)?

Significance of Study

Results of this study can be used by all stakeholders in the field of education, from administrators and directors, to classroom teachers and substitutes. Teachers need to be aware of the consequences of missing instructional time, while directors and administrators need to be creative in finding ways to legally and ethically encourage teachers to be in their classrooms every day school is in session. Substitutes need more training and consistency from school to school in order to better serve students. One way to accomplish this would be to have assigned substitutes in each building instead of any substitute at any school in the county. Vorell (2007) reported that substitute teachers make up 1% of the entire United States workforce. Pitkoff (2003) reported that students in the United States spend an entire school year, from kindergarten to graduation, without their regular teacher, but Miller, Murnan, and Willet (2007) found that public school teachers in the United States only miss an average of 5% to 6% of school days each year. With that in mind, directors and administrators may consider teacher attendance records during the hiring and recruitment of new teacher as well as advancement of current teachers.

Definition of Terms

Definitions for this study were retrieved from the Tennessee Department of Education website, <http://www.tennessee.gov/education>

Adequate Yearly Progress (AYP): A measure of a school or school district's progress in meeting the NCLB goal of having all students proficient in math and reading, a graduation rate of 90% and 93% attendance by 2014. AYP benchmarks must be met each year (TDOE, 2002a).

Criterion-Referenced Tests (CRT): Any test that measures a student's performance on specific standards and does not compare students to other students (TDOE, 2011a).

Highly Qualified: An academic major, advanced degree, alternative routes, coursework equivalent to academic major, fully licensed, or graduate degree are all ways in which a teacher may become Highly Qualified (HQ) (TDOE, 2005).

No Child Left Behind (NCLB): Signed into law in 2002, NCLB amended and reauthorized the Elementary and Secondary Education Act (ESEA 1964). The focus of NCLB is accountability, flexibility, research based education, and parent options (TDOE, 2002b).

Race to the Top (RTTT): RTTT is a four billion dollar education initiative, asking states to advance reforms in four areas: (a) adopting standards and assessments that prepare students to achieve in college, the workplace, and the global economy; (b) building data systems that measure student success and growth, using the information to help teachers and administrators improve

instruction; (c) recruiting, developing, rewarding, and retaining effective teachers and administrators where they are most needed; and (d) turning around lowest achieving schools (USDOE, 2010a).

Staff Attendance Reports: A computer based report, from the Siesta computer program, that schools and districts use to track teacher attendance.

Student Test Scores: Scores are reported as Below Proficient, Proficient, or Advanced (TDOE, 2009a).

Subgroup: Any special population of students within a school that exceeds 45 students.

Teacher Attendance: Tennessee public school teachers in the district being studied sign a 200-day contract per school year. This contract includes 3 personal days per year, 3 bereavement days per year, and each teacher earns 1 sick day per month. The system being studied also allows teachers to attend unlimited professional development activities during the school day.

Tennessee Comprehensive Assessment Program Achievement Test (TCAP): A timed, multiple choice assessment given to third through eighth graders in Tennessee. Math, reading, social studies, and science skills are assessed each year (TDOE, 2011b).

Tennessee Value-Added Assessment System (TVAAS): Mathematical analysis that compares the gains each student makes from year to year with the gains made by a normative sample for that same course between those same grades (Sanders, 1992).

Delimitations

This study was delimited to an east Tennessee public school system that consists of five K-5 elementary schools, two K-8 schools, two 6-8 middle schools, and one 9-12 high school. The quantitative results of this study may be generalized to other public elementary schools in rural settings with similar demographics, school calendars, and school configurations. The qualitative results of this study may be generalized to third, fourth, and fifth grade teachers in rural districts.

Limitations

Limitations of this study include the fact that test scores being studied are averages and not individual scores. Teacher attendance information was also based on average teacher attendance and not individual teacher attendance. Due to confidentiality concerns, the director of this school district denied the request for detailed teacher information including gender, highest degree earned, and number of years teaching experience.

Overview of Study

Chapter 1 tells why this study is important to educators. Chapter 2 is a review of literature from the beginning of standardized testing in Tennessee to the current TCAP tests. Several education reforms are also covered in Chapter 2. Chapter 3 covers the methods and procedures used to gather data. Chapter 4 is an analysis of the data. Chapter 5 includes the findings and conclusions of the study as well as recommendations for practice and further study.

CHAPTER 2

REVIEW OF LITERATURE

Introduction

The purpose of this literature review is to provide a context for a study of the relationship between teacher attendance and student test scores in the third, fourth, and fifth grades at public elementary schools in one district in east Tennessee. Factors to be considered from the literature reviewed address: (a) the history of standardized testing, (b) National Elementary and Secondary Education Act (ESEA), (c) No Child Left Behind (NCLB) and standardized testing in Tennessee, (d) Race To The Top (RTTT) and standardized testing in Tennessee, (e) Tennessee Comprehensive Assessment Program (TCAP) achievement and Adequate Yearly Progress (AYP), (f) causes of teacher absences, (g) cost of teacher absences, (h) teacher absenteeism in the United States, (i) effects of absenteeism on student performance, (j) policies and incentives that impact teacher absenteeism, (k) substitute teachers and qualifications. Appropriate literature on these topics provides a contextual base for this study.

History of Standardized Testing in Tennessee

Demands for accountability in public education have taken different forms through various iterations of public educational policy in the United States. According to Atkins (2009) Tennessee began testing grades three through eight in a program called Basic Skills First (BSF) in the 1980s. From BSF in the 1980s to Norm Reference Testing (NRT) in the 1990s, Tennessee moved to criteria based testing (CRT) in 2004 (Atkins, 2009). NRT scores show how well students do in comparison to a national group of students who took the same test items.

CRT scores measure a student's performance on specific standards and do not compare students to other students (TDOE, 2011b).

Tennessee Comprehensive Achievement Program (TCAP) scores are currently used to measure student achievement and teacher effectiveness. Tennessee uses the Tennessee Value-Added Assessment Scale (TVASS) to measure gains. TVAAS is statistical formula used to measure gains by teachers, schools, or systems. Value-added Analysis takes the gains each student makes from year to year and compares them to gains made by a normative sample for that same course between those same grades (Sanders, 1992). Using Sanders's TVAAS formula, if the normal gain from 3rd to 4th grade was 15 points, a 4th grade teacher whose students averaged a 15-point gain would score a 100 or have 100% normal gains. Any teacher whose students scored more than 15 would have higher gains, while scores under 15 would not represent a gain. Sanders (1992) challenged teachers and administrators to use TVAAS to improve teaching because these data are unlike other accountability systems in that these data afford educators a different perspective.

Adequate Yearly Progress (AYP) is a measure of a school's or school district's progress in meeting the NCLB goal of having all students proficient in math and reading, a graduation rate of 90%, and 93% attendance by 2014. AYP benchmarks must be met each year (TDOE, 2002). Tennessee measures AYP based on individual student growth rather than on how many students are already proficient (TDOE, 2009). AYP is measured each year for districts, schools, courses, and subgroups. The subgroups tested in this study included

white, economically disadvantaged, students with disabilities, English language learners, and minority students. Subgroup scores do not count unless there are 45 or more students in that particular subgroup. When any subgroup within the school fails to meet AYP for 1 year, the school is assigned the status of a *Target* school. When a school or system fails to meet AYP in the same category for 2 consecutive years it is placed on a *High Priority* list (TDOE, 2009b).

Accountability is a contested and complex term in educational policy that has precedent in the history of public education (Gunzenhauser & Hyde, 2007). *A Nation at Risk* (1983) emphasized the theme that American students lacked basic skills when compared to their peers in other countries and proposed that the skills gap critically threatened the future of the United States. The report's assertions that the future of the nation was in peril focused educational policy on the need for educational reform. The Commission compared high school student courses taken in 1964-69 and courses taken in 1976-81. This comparison revealed that students were changing from vocational and college prep programs to a general education track. The percentage of students pursuing a general program of study increased from 12% in 1964 to 42% in 1979. In 1983 up to 25% of credits earned toward the general track diploma were for remedial courses, physical or health education, work experience outside school, personal service and development, and training for adulthood and marriage not college (USDOE, 1999). The results of this report also increased involvement by business leaders and the media in setting the tone for education reform (Ross,

2007). These changes are reflected in numerous pieces of legislation that have been passed in the ensuing years.

In 1994 under President Clinton Congress passed the *Goals 2000: Educate America Act*, that included performance standards and assessment measures. There were six original goals addressing student academic achievement. Two goals were added addressing professional development and parental participation.

The Eight National Education Goals of Goals 2000 are as follows:

1. All children in America will start school ready to learn.
2. The high school graduation rate will increase to at least 90%.
3. All students will leave grades 4, 8, and 12 having demonstrated competency over challenging course matter including English, mathematics, science, foreign languages, civics and government, economics, the arts, history and geography, and every school in America will ensure that all students learn to use their minds well, so they may be prepared for responsible citizenship, further learning, and productive employment in our nation's modern economy.
4. United States students will be first in the world in mathematics and science achievement.
5. Every adult in America will be literate and will possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship.

6. Every school in the United States will be free of drugs, violence, and the unauthorized presence of firearms and alcohol and will offer a disciplined environment conducive to learning.
7. The nation's teaching force will have access to programs for the continued improvement of their professional skills and the opportunity to acquire the knowledge and skills needed to instruct and prepare all American students for the next century.
8. Every school will promote partnerships that will increase parental involvement and participation in promoting the social, emotional, and academic growth of children (USDOE, 1994a).

Goals 2000 emphasized public accountability for working toward national goals and support for community and state efforts to improve education.

Congress appropriated \$105 million in 1994 to ensure students reach their full potential. The Goals 2000 Act called for states to develop improvement plans and set the tone for increased focus on high standards, national testing, and accountability (USDOE, 1994a).

National Elementary and Secondary Education Act

In 1965 Congress passed the Elementary and Secondary Act (ESEA) as part of President Lyndon Johnson's War on Poverty. Schools may receive Title I funds if at least 40% of the student population is from low income families (USDOE, 2010c). Title I was implemented to improve achievement for the academically challenged (USDOE, 2004). The purpose of Title I was to ensure all children have a fair and equal opportunity to obtain a high quality education

(USDOE, 2004). Schools must use these Title I funds for additional academic support for low achieving students (USDOE, 2010c). The ESEA was reauthorized in 2002 and renamed the No Child Left Behind (NCLB) Act.

No Child Left Behind and Standardized Testing in Tennessee

The *No Child Left Behind Act* (NCLB), signed into law on January 8, 2002, reauthorized and amended federal education programs established under the 1965 *Elementary and Secondary Education Act* (TDOE, 2004). Goals of NCLB were to ensure proficiency for all students in math, reading, and language arts by 2014 (TDOE, 2004). NCLB focuses on school reform based on accountability, flexibility, research based options, and parental options (TDOE, 2002c). In 2010 the USDOE called for student test scores and teacher and administrator attendance to be published. Coladarci (2005) described NCLB as an ambitious agenda with unprecedented challenges for public schools in the United States. Between 2010 and 2014 schools and systems will be monitored to ensure gains and improvements in student achievement; therefore, each year the percent of students scoring proficient must increase. Other NCLB goals included holding schools more accountable for teaching, learning, and informing parents how well their child's school is performing. NCLB went one step further with the stipulation that all students are to be held to the same academic standards with progress measured by the concept of AYP (Ross, 2007). NCLB defines AYP as an individual state's measure of yearly progress toward achieving state academic standards. It is the minimum level of improvement that states, school districts, and schools must achieve each year (Seivers & McCarger, 2005).

NCLB also requires that teachers are *highly qualified* in their content area. Teachers may become highly qualified in several ways. The first is to have an academic major, verified by the evaluation of college or university transcripts, in the core area one plans to teach. The second way to become highly qualified is to earn advanced certification or credentials such as National Board Certification. There are also two alternative routes to reach highly qualified status. Alternative Licensure Type I and Type II each require teachers to be actively working and making satisfactory progress toward the requirement of being highly qualified. Alternative licensure requires a superintendent or direct request and must be reapplied for each school year (TDOE, 2010b). An option for teachers in Tennessee is to complete 24 credit hours of instruction in his or her core content area. A graduate degree in the core content area will also satisfy the requirement of highly qualified (TDOE, 2005).

NCLB also requires schools and districts to meet or exceed benchmarks and show gains on the TCAP each year (TDOE, 2002b). In the 2005-06 and 2006-07 school years, Tennessee schools were expected to have 83% of their students score proficient or above in language arts and 79% of students score proficient or above in math. Expectations increased in the 2007-08 school year, when Tennessee schools were expected to have 89% of students proficient in language arts and 86% of students proficient or above in math. The expectation of a 93% attendance rate has remained the same (Seivers & McCarger, 2005). Gains are measured using the Tennessee Value-Added Assessment Scale (TVAAS). Tennessee does not rank schools based on how well their students

score on test as a whole but rather on how much each student improves from year to year (Sanders, 1992).

When schools meet or exceed previously mentioned benchmarks, they are said to have made Adequate Yearly Progress (AYP). AYP is measured each year for districts, schools, courses, and subgroups (TDOE, 2002a).

Race to the Top and Standardized Testing in Tennessee

Race to the Top (RTTT) is a four billion dollar education initiative requiring states to: (a) adopt standards and assessments that prepare students to achieve in college, the workplace, and the global economy; (b) build data systems that measure student success and growth, and use that information to help teachers and administrators improve instruction; (c) recruit, develop, reward, retain effective teachers and administrators where they are most needed; and (d) turn around the lowest achieving schools (USDOE, 2010a).

On July 24, 2009, President Barack Obama released the following statement: "America will not succeed in the 21st century unless we do a far better job of educating our sons and daughters..." (Remarks by the President on Education, 2009). Thirty-five states and Washington DC had applied for Phase 1 of Race to the Top (RTTT) funding by the deadline of January, 2010 (USDOE, 2010a). Announced in April 2010, Delaware and Tennessee were the only two states to be awarded RTTT Phase 1 funding. Delaware will receive approximately one hundred million dollars, while Tennessee will receive approximately five hundred million dollars over the next 4 years to facilitate comprehensive school reform (USDOE, 2010c). States awarded Phase 1

funding must then apply to be awarded Phase 2 funding. Feedback with suggestions and recommendations was sent to districts that would receive funding (USDOE, 2010c). RTTT challenges systems to use student test scores as part of the teacher evaluation process. Awards go to states leading the way with ambitious yet achievable plans for implementing coherent, compelling, and comprehensive education reform (USDOE, 2009b). Tennessee chose to use some of its RTTT funding to the make Tennessee Value Added Assessment System (TVAAS) more user friendly. Part of this involved giving all teachers access to TVAAS data, which will require training on how to use individual TVAAS data (USDOE, 2010c).

TCAP Achievement and Adequate Yearly Progress

In Tennessee, measures of Adequate Yearly Progress (AYP) include student scores on the Tennessee Comprehensive Assessment Program (TCAP) achievement tests. The test is a timed, multiple-choice assessment, measuring skills in reading, language arts, mathematics, science, and social studies. Students in grades 3 through 8 must take the tests each spring. TCAP results include criterion-referenced results based on expectations defined in the State of Tennessee Curriculum Content Standards. Results are reported for each student, grade level, and school. Results for grade levels and schools are published and often become the focus of local news media (TDOE, 2002a).

Failure to achieve AYP can result in sanctions and additional monitoring by federal, state, and local education associations. Consequences for a Title I school that makes inadequate yearly progress range from within-district school

choice, to daily school operations being managed by the state (Coladarci, 2005). Hall and Weiner (2004) say AYP is simple: establish clear goals for student learning, measure whether students are reaching them, and commit to making improvements in schools that are not raising student achievement. School averages and subgroup scores are used to determine AYP. Hall and Weiner (2004) describe AYP as a signaling device indicating if schools are meeting the needs of students. Schools failing to display AYP for 2 consecutive years must give parents the option of school choice. School choice means that parents may choose to send their children to any other school in the district. If the parents do choose a different school, the failing school must provide transportation to the school of choice. The failing school may use up to 20% of its Title I funding for transportation (TDOE, 2009b).

Causes of Teacher Absences

Ironically, high-stakes testing and associated stressors may increase the number of teacher absences in a given school year. In a study involving stress and illness, Dworkin, Haney, Dworkin, and Teleschov (1990) found a low but statistically significant relationship between job stress and reported stress-induced illness. Similarly, in 2009 Marley surveyed 1,000 teachers and found that teacher sick-leave days, used due to stress had doubled since 2007. Marley (2009) also reported that 40% of affected teachers did not report stress as the reason for absence due to embarrassment.

According to Scott and McClellan (1990) elementary school teachers averaged 6.63 absences per year, while secondary school teachers averaged

3.32 absences. Ballou (1996) and Podgursky (2003) found that public school teachers in the United States are absent 5% to 6% of days schools are in session. Cook (2008) reported the national average for teacher absenteeism per school year is 5.2%. Clotfelter et al. (2009) found that elementary students score worse on standardized tests when their teacher is absent frequently. Female teachers are absent more days per school year than males (Educational Research Service, 1980). Average absent days per school year for female teachers were 5.29, compared to 3.39 for men (Scott & McClellan, 1990). Clotfelter et al. (2009) reported female teachers miss 3.2 more days than men at age 25 and 35, but only 1.3 days more than men at age 45. Elementary school teachers are more likely to be absent than secondary school teachers (Scott & McClellan, 1990). Clotfelter et al. (2009) also reported elementary school teacher absences more than double that of high school teachers, 33.9 days compared to 16 days per school year. Dworkin et al. (1990) suggested that the first step in solving the teacher absence problem is identifying internal problems that cause high absenteeism.

Ehrenberg, Ehrenberg, Rees, and Ehrenberg (1991) found that higher teacher absenteeism is associated with higher student absenteeism. Nelson (2008) found no significant relationship between teacher attendance and student test scores in Hamblen County, Tennessee. Kay (2006) saw teacher absenteeism as a growing problem. More recently, Ross (2007) found that students are more affected by teacher absences in early grades than in middle

grades or high school, as students can miss out on early learning experiences and exposure to basic concepts of everyday life.

Several studies (Byer, 2000; Lamdin, 1996; Roby, 2004) found that high teacher absenteeism has a negative impact on student achievement. Norton (1998) found that teachers are more likely to be absent in schools with low socioeconomic status or that are failing academically. Clotfelter et al. (2009) also reported that as the percentage of free or reduced price lunch goes up in an elementary school, so do teacher absences. Schools across the nation vary widely, but teachers give many of the same reasons for dissatisfaction that can contribute to teacher absenteeism: overcrowding of classrooms, poor condition of school buildings, lack of respect for the teaching profession, and job stress and burnout (Whitehead, 2006).

Cost of Teacher Absences

Woods and Montagno (1997) focused on the financial aspects of teacher absences. Woods et al. (1997) point out that money is lost when teachers are absent and students lose instructional time when teachers are absent. Data from the National Center for Education Statistics put nationwide expenditures for substitute teachers in 1980 at four billion dollars annually (Sawchuck, 2008). Jacobs and Kristonis (2007) estimated the cost of teacher absenteeism in 2000 to be over 25 billion dollars. Woods (1990) analyzed substitute teacher pay costs for three school districts in northern Indiana and found that nearly 1% of the total operating budget for the districts was used for substitute pay. Madden,

Flanigan, and Richardson (1991) cited a national survey saying that the cost of absent teachers and substitutes in 1981 came to two billion dollars.

A 2007 Harvard University study of an anonymous, large, urban school district in the northern United States, identified three premises that supported concerns for teacher absences; (a) a significant portion of teacher absences are discretionary; (b) teacher absences have a nontrivial impact on productivity; and (c) feasible policy changes can reduce rates of teacher absences (Miller et al., 2007).

Teacher Absenteeism in the United States

Clotfelter et al. (2009) found that teachers in the United States are absent nearly 5% of their contracted school year, but the rest of the American workforce misses less than 3% due to illness. Teacher absences are more likely in systems with generous leave provisions (Ehrenberg et al., 1991). Incentive packages such as compensation for unused sick leave can reduce absences (Ehrenberg et al., 1991). Buy-back of unused leave or bonuses for exceptional attendance can improve teacher attendance (Boyer, 1994). Clotfelter et al. (2009) found that interventions aimed at lowering teacher absences have had mixed success.

Miller et al. (2007) noted studies that teachers are most often absent on Fridays and Mondays. Sawchuck (2008) found that teachers were more likely to take personal or sick days right before summer and winter vacations and on Mondays and Fridays. The time of year that the teacher is absent could affect test scores as teacher absences early in the school year were less detrimental to

student test scores than absences in the spring before standardized tests (Clotfelter et al., 2009).

Systems and administrators have different ways of addressing teacher absences. Glatfelter (2006) and Pitkoff (2003) estimated that the typical K-12 student spends 1 year of the school experience under the tutelage of substitutes and blame district and school policies for allowing this to occur. Miller, Murnan, and Willet (2007) found that public school teachers in the United States only miss an average of 5% to 6% of school days each year, which does not support the Glatfelter (2006) or Pitkoff (2003) studies. Whitehead (2006) points out that administrators need to find ways to make teachers feel appreciated and supported if they are expected to engage in the daily task of teaching children. Guisbond and Neill (2004) recommend giving teachers the assistance they need to do a better job rather than threatening them with sanctions based on standardized test results. Black (2009) suggested that administrators expect higher attendance and discuss the impact of teacher absences on students.

Effects of Absenteeism on Student Performance

Teacher attendance may have an impact on more than standardized tests. Bui (2005) found that teacher absenteeism affects a student's college attendance. The more hours that teachers spent teaching increased the likelihood of college attendance for their students, while frequent absence from school decreased the likelihood of college attendance (Bui, 2005). A study of fourth grade students' performance in North Carolina on state mathematics achievement tests given annually in May found a small but significant negative

impact on student math scores attributable to teacher absences (Miller et al., 2007). Clotfelter, Ladd, and Vigdor (2006) found that every 10 additional days of teacher absences negatively affected student achievement by 1% to 2% of a standard deviation. In Tennessee Nelson (2008) found no relationship between teacher attendance and student test scores. Teacher absenteeism has been found to be highest in elementary schools with lower student achievement and that are composed of economically disadvantaged and minority students (Pitkoff, 1993). Pitkoff's study found that the percentage of students reading below grade level was the greatest predictor of employee absenteeism, followed by the percentage of students receiving free lunch.

The presence of a different teacher may result in the disruption of normal classroom routines and procedures (Rundall, 1986; Turbeville, 1987). Moreover, substitutes who are temporarily employed for 1 or 2 days, do not know each student's learning needs and strengths (Woods & Montagno, 1997). Student assignments during this time may consist solely of busy work that is not challenging for students (Woods & Montagno, 1997). The substitute's lack of detailed knowledge of students' skill levels makes it difficult to provide differentiated instruction that addresses the needs of individual students (Miller et al., 2007).

Policies and Incentives that Impact Teacher Absenteeism

Keller (2008) uncovered several unsuccessful incentive programs in large, low-income districts in Chicago, Dallas, and Florida. Black (2009) points out that administrators must address teacher absences, document meetings, and follow

through with the termination process if attendance does not improve. This is a time consuming process but administrators must make student achievement a priority (Black, 2009).

Chicago offered a 400 dollar incentive for teachers with perfect attendance. This incentive decreased 50 dollars for each sick day teachers used. Keller (2008) did report that the Chicago bonus lowered teacher absences from 7 sick days to 6 sick days, which was not significant.

A 6,200-student school district in Dallas, Texas tried to reduce teacher absenteeism by offering teachers a car. Teachers who missed 2 or fewer days during the school year were eligible. This plan did not reduce teacher absenteeism (Keller, 2008).

Florida tried incentive programs in two Palm Beach County districts. Teachers were offered 50 dollars per sick day not used per year. Individual teacher attendance improved, but it was not significant and the program was discontinued (Keller, 2008).

Substitute Teachers and Qualifications

Norton (1998) found that supportive principals had fewer teacher absences. It should also be noted that administrators have fewer discipline issues when there are fewer substitutes in the building (Pitkoff, 2003). Clotfelter et al. (2009) found that students could have social gains as well as improved discipline and achievement when the classroom teacher is present every day. Pitkoff (2003) also pointed out that substitutes must be evaluated, adding to administrators duties. Administrators must be careful in their efforts to minimize

teacher absences. A 1995 court decision, *Franklin v. St. Louis Board of Education*, found that teachers are entitled to sick days and are not required to present a medical excuse in order to be compensated for sick days (Dodd, 2003). On the other hand, Carr (2009) found that supportive principals recruit, promote, and have lower teacher turn over than do principals seen as harsh or ineffective.

Studies related to the use of substitute teachers have shown that instructional intensity can be reduced when a substitute teacher replaces the formal classroom teacher (Varlas, 2001). Substitute teacher standards vary widely from system to system, but are typically far below those for regular full-time teachers. Vorell (2007) reported that substitute teachers make up 1% of the entire United States workforce. Miller et al. (2007) found that public school teachers in the United States miss an average of 5% to 6% percent of total school days each year. Pitkoff (2003) reported that students in the United States spend an entire school year, from kindergarten to graduation, with a substitute teacher. Miller (2008) discovered that North Dakota is the only state in the United States that requires substitute teachers to have the same credentials as do regular classroom teachers. Australia and Canada also have the same requirements for substitutes and regular classroom teachers (Miller 2008).

Tennessee requires substitute teachers to have a high school diploma or GED and be approved by the local education agency. NCLB requires schools to notify parents if a substitute is in a classroom 4 weeks or more without a highly qualified teacher (USDOE, 2010a). In order to become a substitute in the district

being studied, one must be recommended by a current administrator, attend a training session, have a physical including a Tuberculosis skin test, and pay \$48 for a criminal background check. The minimum education requirement is a high school diploma or General Education Development (GED) <http://jc-schools.net/HR/subteachers.html> (2010).

Summary

Haycock (2001) stated that it was once thought that students' family income and parents' education level played a larger role in what and how students learned at school; however, what matters most is effective teaching. With substitute teachers making up 1% of the United States workforce, administrators must address the issue of teacher attendance (Vorrell, 2007). Woods and Montagno (1997) suggested systems should encourage teachers to be present each day by scheduling conferences and in-service training on days when children are not present. Miller et al. (2007) addressed the teacher attendance problem by pointing out that teachers are absent nearly three times more than other managerial and professional employees.

CHAPTER 3

METHODS AND PROCEDURES

Introduction

The purpose of this study was to determine the relationship between teacher attendance and student test scores and examine teacher and principal perceptions concerning teacher absences. Third, fourth, and fifth grade student test scores were gathered from the Tennessee Department of Education website. Elementary teacher and administrator perceptions were gathered through surveys, interviews, and focus groups. Teacher attendance data were collected from the finance department using Siesta, a teacher attendance program.

Research Design

This mixed methods study was designed to provide a comprehensive picture of the relationship between teacher attendance and student test scores on the TCAP assessment. The quantitative section of this study was analyzed using ANOVA, Mann Whitney U, and Pearson correlation coefficients. Qualitative data were used, including surveys, interviews, focus groups, and document review, to determine if a relationship existed between teacher attendance and student test scores. The years being studied were 2005-06, 2006-07, and 2007-08. Variables in this study include teacher absenteeism and configuration of schools.

Population

The population for this study consisted of all third, fourth, and fifth grade students, teachers, and administrators at five K-5 schools and two K-8 schools in

a rural public school system in Tennessee. All students in the third, fourth, and fifth grades took the Tennessee Comprehensive Assessment Program Achievement Test in 2005-06, 2006-07, and 2007-08. There were approximately 1,500 students, 239 teachers, and seven schools involved in this study.

Quantitative Procedures

Data for the quantitative part of this study were collected using published data from the Tennessee Department of Education. Teacher attendance records were collected from the finance office of the participating school district. *Staff Attendance Reports* were gathered using Siesta, a computer based teacher attendance tracking program. Variables including student subgroups and TCAP subtests, were analyzed using t-tests and Pearson correlations to determine if a relationship exists between teacher attendance and student test scores.

Quantitative Research Questions

The following research questions were used to examine the relationship between third, fourth, and fifth grade teacher attendance and student test scores in math, reading, science, and social studies on the TCAP test during the 2005-06, 2006-07, and 2007-08 school years. Also examined were reasons teachers chose to be absent from school as well as how principals perceive teacher absences and attendance policies.

Question 1

Are there relationships between third grade teacher absences and third grade student math, reading, science, and social studies scores on the Tennessee Comprehensive Achievement Program Assessment? Math, reading,

science, and social studies scores were measured as the percentage of students who scored either proficient or advanced on the TCAP test. To address this research question, Pearson's correlations were used to test the following null hypotheses:

H₀₁: There is no relationship between third grade teacher absences and third grade student math scores on the Tennessee Comprehensive Achievement Program Assessment in a rural public school in Tennessee.

H₀₂: There is no relationship between third grade teacher absences and third grade student reading scores on the Tennessee Comprehensive Achievement Program Assessment in a rural public school in Tennessee.

H₀₃: There is no relationship between third grade teacher absences and third grade student science scores on the Tennessee Comprehensive Achievement Program Assessment in a rural public school in Tennessee.

H₀₄: There is no relationship between third grade teacher absences and third grade student social studies scores on the Tennessee Comprehensive Achievement Program Assessment in a rural public school in Tennessee.

Question 2

Are there relationships between fourth grade teacher absences and fourth grade student math, reading, science, and social studies scores on the Tennessee Comprehensive Achievement Program Assessment? Math, reading, science, and social studies scores were measured as the percentage of students who scored either proficient or advanced on the TCAP test. To address this

research question, Pearson's correlations were used to test the following null hypotheses:

H₀₂₁: There is no relationship between fourth grade teacher absences and fourth grade student math scores on the Tennessee Comprehensive Achievement Program Assessment in a rural public school in Tennessee.

H₀₂₂: There is no relationship between fourth grade teacher absences and fourth grade student reading scores on the Tennessee Comprehensive Achievement Program Assessment in a rural public school in Tennessee.

H₀₂₃: There is no relationship between fourth grade teacher absences and fourth grade student science scores on the Tennessee Comprehensive Achievement Program Assessment in a rural public school in Tennessee.

H₀₂₄: There is no relationship between fourth grade teacher absences and fourth grade student social studies scores on the Tennessee Comprehensive Achievement Program Assessment in a rural public school in Tennessee.

Question 3

Are there relationships between fifth grade teacher absences and fifth grade student math, reading, science, and social studies scores on the Tennessee Comprehensive Achievement Program Assessment? Math, reading, science, and social studies scores were measured as the percentage of students who scored either proficient or advanced on the TCAP test. To address this research question, Pearson's correlations were used to test the following null hypotheses:

H₀₃₁: There is no relationship between fifth grade teacher absences and fifth grade student math scores on the Tennessee Comprehensive Achievement Program Assessment in a rural public school in Tennessee.

H₀₃₂: There is no relationship between fifth grade teacher absences and fifth grade student reading scores on the Tennessee Comprehensive Achievement Program Assessment in a rural public school in Tennessee.

H₀₃₃: There is no relationship between fifth grade teacher absences and fifth grade student science scores on the Tennessee Comprehensive Achievement Program Assessment in a rural public school in Tennessee.

H₀₃₄: There is no relationship between fifth grade teacher absences and fifth grade student social studies scores on the Tennessee Comprehensive Achievement Program Assessment in a rural public school in Tennessee.

Question 4

Is there a difference in teacher absences based on school configuration (K-5 schools versus K-8 schools)? Mann Whitney U tests were used to test the null hypotheses:

H₀₄₁: There is no difference in third grade teacher absences between K-5 schools and K-8 schools.

H₀₄₂: There is no difference in fourth grade teacher absences between K-5 schools and K-8 schools.

H₀₄₃: There is no difference in fifth grade teacher absences between K-5 schools and K-8 schools.

Question 5

Are there differences in teacher absences based on school size (fewer than 400 students versus 400 or more)?

H₀₅₁: There is no difference between third grade teacher absences based on the size of the school (fewer than 400 students versus 400 or more).

H₀₅₂: There is no difference between fourth grade teacher absences based on the size of the school (fewer than 400 students versus 400 or more).

H₀₅₃: There is no difference between fifth grade teacher absences based on the size of the school (fewer than 400 students versus 400 or more).

Qualitative Procedures

Two qualitative research questions guide this study. They are:

1. What guides teachers regarding their choices to be absent from school?
2. How do principals perceive their school district's policies regarding teacher absence and teacher use of the policy?

Data collection for qualitative part of this study was gathered through surveys, 30 individual interviews, two focus groups, and document review. An email was sent to all third, fourth, and fifth grade teachers and administrators inviting them to participate in this study. Teachers could participate in interviews, surveys, or focus groups. Administrators were invited to participate in surveys only. Documents being reviewed from this district included school calendars, school policies, and teacher and administrator responses.

Quantitative Data Analysis

The Statistical Process for the Social Sciences (SPSS) was used to analyze data. Descriptive and inferential statistical analyses were used. Pearson's correlations were used to determine relationships between teacher absences and student TCAP math, reading, science, and social studies scores. Independent sample *t*-tests were conducted to evaluate differences in teacher absences based on school configuration (K-5 versus K-8) and size of school (fewer than 400 students versus 400 or more students).

Pearson's correlations were used to determine correlations between (a) teacher attendance and student TCAP math, reading, science, and social studies scores, (b) teacher attendance and subgroups scores, (c) teacher attendance and test scores in schools with fewer than 400 students or more than 400 students, (d) teacher attendance and third, fourth, and fifth grade student TCAP scores, (e) teacher attendance at K-8 and K-5 schools, and (f) teacher attendance and student test scores in 2005-06, 2006-07, and 2007-08.

Qualitative Data Analysis

Qualitative research questions, including surveys, focus groups, and document reviews, were used to determine the relationship between teacher attendance and student test scores on the TCAP in 2005-2008. Triangulation was used to look for patterns and themes in teacher and administrator answers to focus group questions, survey questions, and interviews.

Summary

Chapter 3 presents the mixed methods research design, population, research questions, null hypotheses, and a description of the data and analysis used. The study included seven public schools in an east Tennessee district. The population included approximately 1,500 students and 239 teachers. Triangulation was used to ensure qualitative validity and reliability. These data are analyzed in Chapter 4. Chapter 5 includes a summary of the study, findings, conclusions, and recommendations for practice and future research.

CHAPTER 4

ANALYSIS OF DATA

The purpose of this study was to analyze the relationship between teacher attendance and student test scores on the Tennessee Comprehensive Assessment Program Achievement Test given to third, fourth, and fifth grade students in a rural school district in east Tennessee.

Question 1

Are there relationships between third grade teacher absences and third grade student math, reading, science, and social studies scores on the Tennessee Comprehensive Achievement Program Assessment? Math, reading, science, and social studies scores were measured as the percentage of students who scored either proficient or advanced on the TCAP test. To address this research question, Pearson's correlations were used to test the following null hypotheses:

H_{01} : There is no relationship between third grade teacher absences and third grade student math scores on the Tennessee Comprehensive Achievement Program Assessment in a rural public school in Tennessee.

The distribution of third grade teacher absences and third grade math scores is shown in Figure 1.

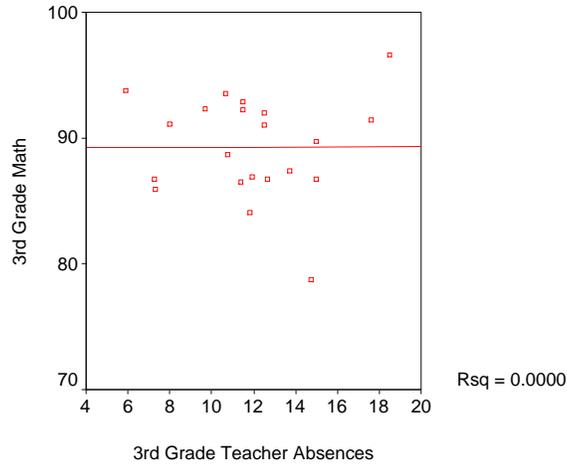


Figure 1. Third Grade Teacher Absences and Math Test Scores

H_{012} : There is no relationship between third grade teacher absences and third grade student reading scores on the Tennessee Comprehensive Achievement Program Assessment in a rural public school in Tennessee.

The distribution of third grade teacher absences and third grade reading scores is shown in Figure 2.

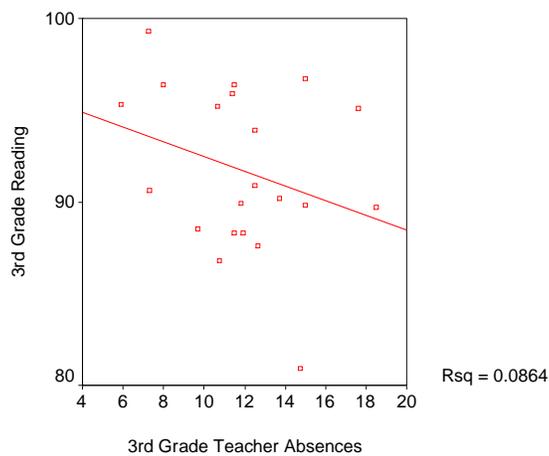


Figure 2. Third Grade Teacher Absences and Reading Test Scores

H₀1₃: There is no relationship between third grade teacher absences and third grade student science scores on the Tennessee Comprehensive Achievement Program Assessment in a rural public school in Tennessee.

The distribution of third grade teacher absences and third grade science scores is shown in Figure 3.

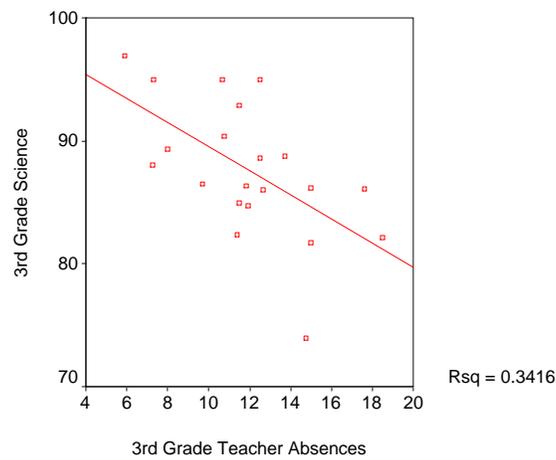


Figure 3. Third Grade Teacher Absences and Science Test Scores

H₀1₄: There is no relationship between third grade teacher absences and third grade student social studies scores on the Tennessee Comprehensive Achievement Program Assessment in a rural public school in Tennessee.

The distribution of third grade teacher absences and third grade social studies scores is shown in Figure 4.

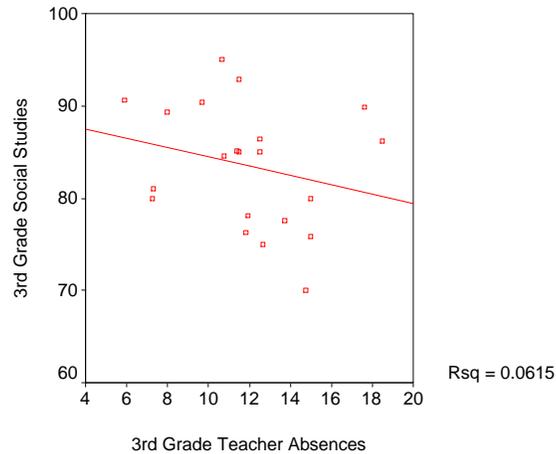


Figure 4. Third Grade Teacher Absences and Social Studies Test Scores

Correlation coefficients were calculated for third grade teacher absences with each of the four third grade test scores for math, reading, science, and social studies. The Bonferroni approach for controlling for Type I error for the four correlations was used to determine the alpha level for testing the null hypotheses: $.05 / 4 = .013$. Therefore, the alpha level required to reject the null hypotheses was .013.

As shown in Table 1, there was a moderate negative relationship ($r = -.585$) between number of third grade teacher absences and third grade science test scores. The relationship was significant at the .01 level. There was a weak negative relationship ($r = -.294$) between third grade teacher absences and third grade reading scores; however, there was not a significant relationship ($r = -.248$) between third grade teacher absences and third grade social studies test scores. The correlation between third grade teacher absences and third grade math scores was not significant and showed very little relationship ($r = .007$).

Table 1

Pearson's Correlation Coefficients for Third Grade Teacher Absences with Third Grade Test Scores for Math, Reading, Science, and Social Studies

Course	<i>n</i>	<i>r</i>	<i>P</i>	Alpha
Science	21	-.585	.005*	.013
Reading	21	-.294	.196	.013
Social Studies	21	-.248	.279	.013
Math	21	.007	.977	.013

Note: *Significant at the .01 level.

Question 2

Are there relationships between fourth grade teacher absences and fourth grade student math, reading, science, and social studies scores on the Tennessee Comprehensive Achievement Program Assessment? Math, reading, science, and social studies scores were measured as the percentage of students who scored either proficient or advanced on the TCAP test. To address this research question, Pearson's correlations were used to test the following null hypotheses:

H₀₂₁: There is no relationship between fourth grade teacher absences and fourth grade student math scores on the Tennessee Comprehensive Achievement Program Assessment in a rural public school in Tennessee.

The distribution of fourth grade teacher absences and fourth grade math scores is shown in Figure 5.

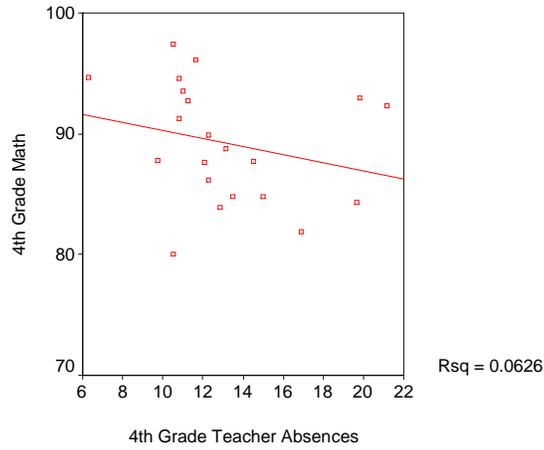


Figure 5. Fourth Grade Teacher Absences and Math Test Scores

H_{O2} : There is no relationship between fourth grade teacher absences and fourth grade student Reading scores on the Tennessee Comprehensive Achievement Program Assessment in a rural public school in Tennessee.

The distribution of fourth grade teacher absences and fourth grade reading scores is shown in Figure 6.

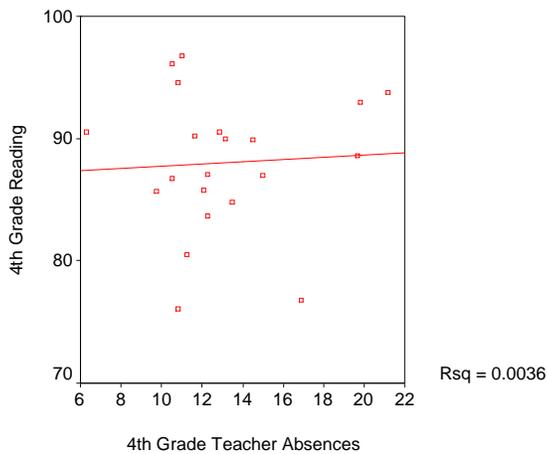


Figure 6. Fourth Grade Teacher Absences and Reading Test Scores

H_O2₃: There is no relationship between fourth grade teacher absences and fourth grade student science scores on the Tennessee Comprehensive Achievement Program Assessment in a rural public school in Tennessee.

The distribution of fourth grade teacher absences and fourth grade science scores is shown in Figure 7.

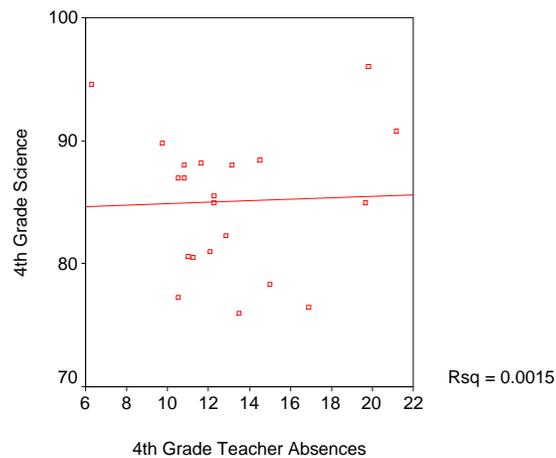


Figure 7. Fourth Grade Teacher Absences and Science Test Scores

H_O2₄: There is no relationship between fourth grade teacher absences and fourth grade student social studies scores on the Tennessee Comprehensive Achievement Program Assessment in a rural public school in Tennessee.

The distribution of fourth grade teacher absences and fourth grade social studies scores is shown in Figure 8.

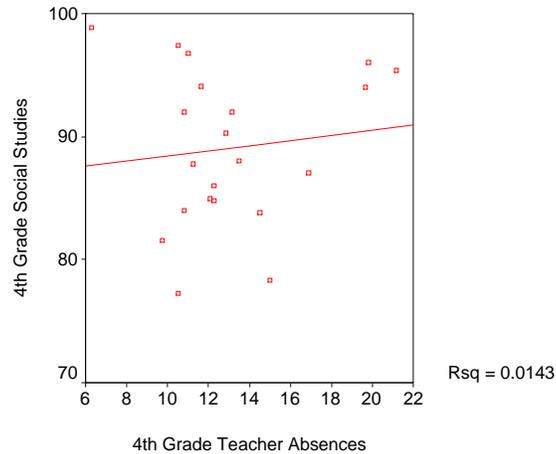


Figure 8. Fourth Grade Teacher Absences and Social Studies Test Scores

Correlation coefficients were calculated for fourth grade teacher absences with each of the four fourth grade test scores for math, reading, science and social studies. The Bonferroni approach for controlling for Type I error for the four correlations was used to determine the alpha level for testing the null hypotheses: $.05 / 4 = .013$. Therefore, the alpha level required to reject the null hypotheses was .013.

As shown in Table 2, there was a moderate negative relationship ($r = -.250$) between number of fourth grade teacher absences and fourth grade math test scores. The relationship was significant at the .01 level. There was a weak, but definite relationship ($r = .060$) between number of fourth grade teacher absences and fourth grade reading scores, as well as for fourth grade teacher absences and fourth grade ($r = .039$) science test scores. Fourth grade teacher absences and fourth grade social studies test scores ($r = .119$) were not significant.

Table 2

Pearson's Correlation Coefficients for Fourth Grade Teacher Absences with Fourth Grade Test Scores for Math, Reading, Science, and Social Studies

Course	<i>n</i>	<i>r</i>	<i>p</i>	Alpha
Math	21	-.250	.274	.013
Social Studies	21	.119	.606	.013
Reading	21	.060	.797	.013
Science	21	.039	.867	.013

Question 3

Are there relationships between fifth grade teacher absences and fifth grade student math, reading, science, and social studies scores on the Tennessee Comprehensive Achievement Program Assessment? Math, reading, science, and social studies scores were measured as the percentage of students who scored either proficient or advanced on the TCAP test. To address this research question, Pearson's correlations were used to test the following null hypotheses:

H₀₃₁: There is no relationship between fifth grade teacher absences and fifth grade student math scores on the Tennessee Comprehensive Achievement Program Assessment in a rural public school in Tennessee.

The distribution of fifth grade teacher absences and fifth grade math scores is shown in Figure 9.

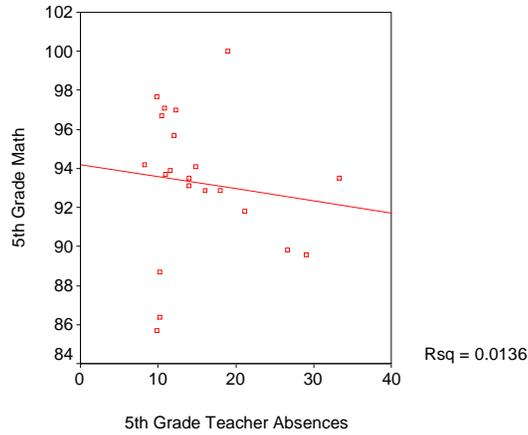


Figure 9. Fifth Grade Teacher Absences and Math Test Scores

H₀₃: There is no relationship between fifth grade teacher absences and fifth grade student reading scores on the Tennessee Comprehensive Achievement Program Assessment in a rural public school in Tennessee.

The distribution of fifth grade teacher absences and fifth grade reading scores is shown in Figure 10.

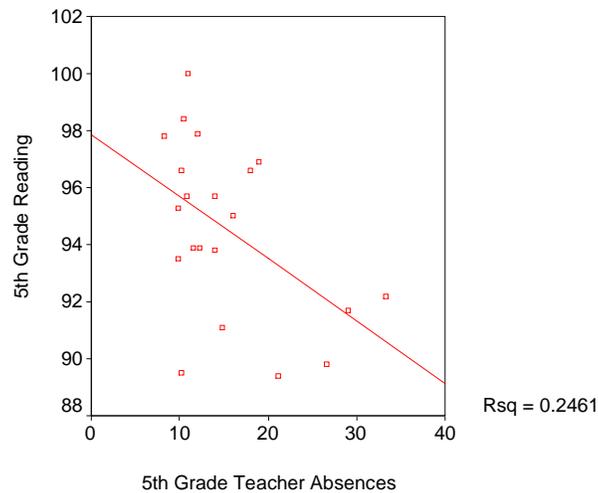


Figure 10. Fifth Grade Teacher Absences and Reading Test Scores

H₀₃: There is no relationship between fifth grade teacher absences and fifth grade student science scores on the Tennessee Comprehensive Achievement Program Assessment in a rural public school in Tennessee.

The distribution of fifth grade teacher absences and fifth grade science scores is shown in Figure 11.

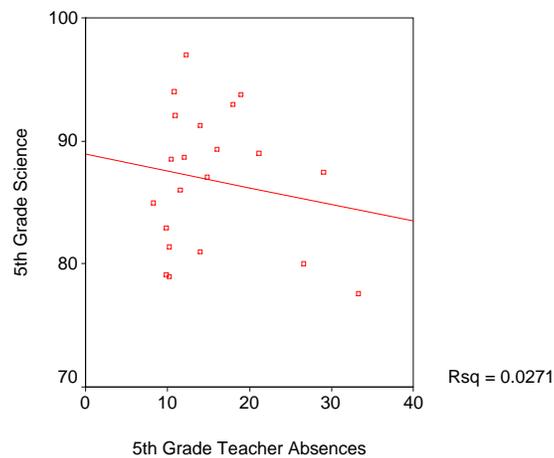


Figure 11. Fifth Grade Teacher Absences and Science Test Scores

H₀₃₄: There is no relationship between fifth grade teacher absences and fifth grade student social studies scores on the Tennessee Comprehensive Achievement Program Assessment in a rural public school in Tennessee.

The distribution

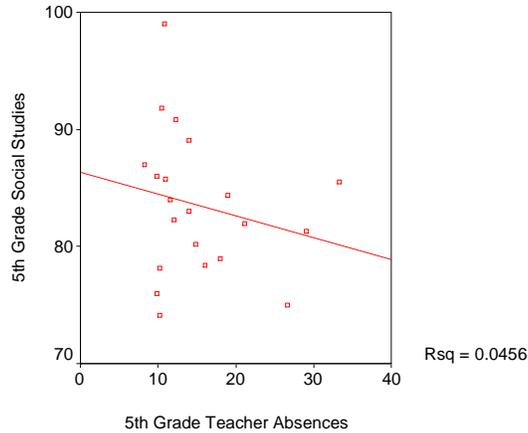


Figure 12. Fifth Grade Teacher Absences and Social Studies Test Scores

Correlation coefficients were calculated for fifth grade teacher absences with each of the four fifth grade test scores for math, reading, science and social studies. The Bonferroni approach for controlling for Type I error for the four correlations was used to determine the alpha level for testing the null hypotheses: $.05 / 4 = .013$. Therefore, the alpha level required to reject the null hypotheses was $.013$.

As shown in Table 3, there was a weak but definite negative relationship ($r = -.165$) between number of fifth grade teacher absences and fifth grade science test scores, fifth grade teacher absences and fifth grade social studies ($r = -.213$) test scores. The relationship between fifth grade teacher absences and fifth grade math ($r = -.117$) test scores was significant at the $.01$ level. The relationship ($r = -.496$) between fifth grade teacher absences and fifth grade reading scores was moderately negative.

Table 3

Pearson's Correlation Coefficients for Fifth Grade Teacher Absences with Fifth Grade Test Scores for Math, Reading, Science, and Social Studies

Course	<i>n</i>	<i>r</i>	<i>P</i>	Alpha
Reading	21	-.496	.022	.013
Social Studies	21	-.213	.353	.013
Science	21	-.165	.476	.013
Math	21	-.117	.615	.013

Question 4

Is there a difference in teacher absences based on school configuration (K-5 schools versus K-8 schools)?

H₀₄: Among third grader teachers there is no difference in teacher absences between K-5 schools and K-8 schools.

A Mann-Whitney *U* test was conducted to determine whether or not there was a difference in third grade teacher absences based on school configuration (K-5 schools versus k-8 schools). The Mann-Whitney *U* test was not significant, $z = -.117$, $p = .907$. Therefore, the null hypothesis was retained. The mean of teacher absences was 11.25 for third grade teachers at K-8 schools which was only slightly higher than the mean of 10.90 for third grade teachers at K-5 schools.

Figure 13 shows the distributions of third grade teacher absences by school configuration.

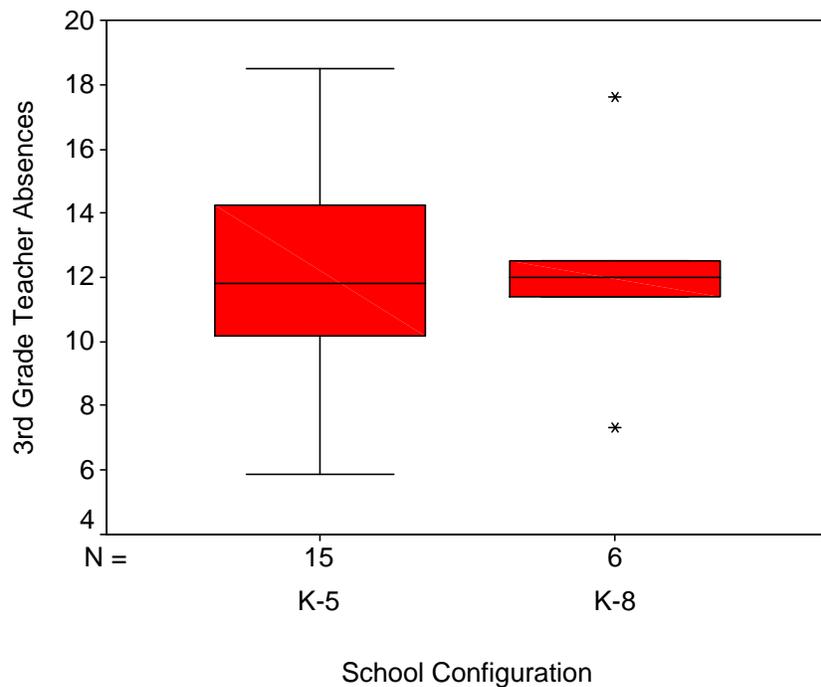


Figure 13. Boxplot for Third Grade Teacher Absences by School Configuration

H_{04_2} : Among fourth grader teachers there is no difference in teacher absences between K-5 schools and K-8 schools.

A Mann-Whitney U test was conducted to determine whether or not there was a difference in fourth grade teacher absences based on school configuration (K-5 schools versus k-8 schools). The Mann-Whitney U test was not significant, $z = -.935$, $p = .350$. Therefore, the null hypothesis was retained. The mean of teacher absences was 11.80 for fourth grade teachers at K-5 schools which was only slightly higher than the mean of 9.00 for fourth grade teachers at K-8 schools.

Figure 14 shows the distributions of fourth grade teacher absences by school configuration.

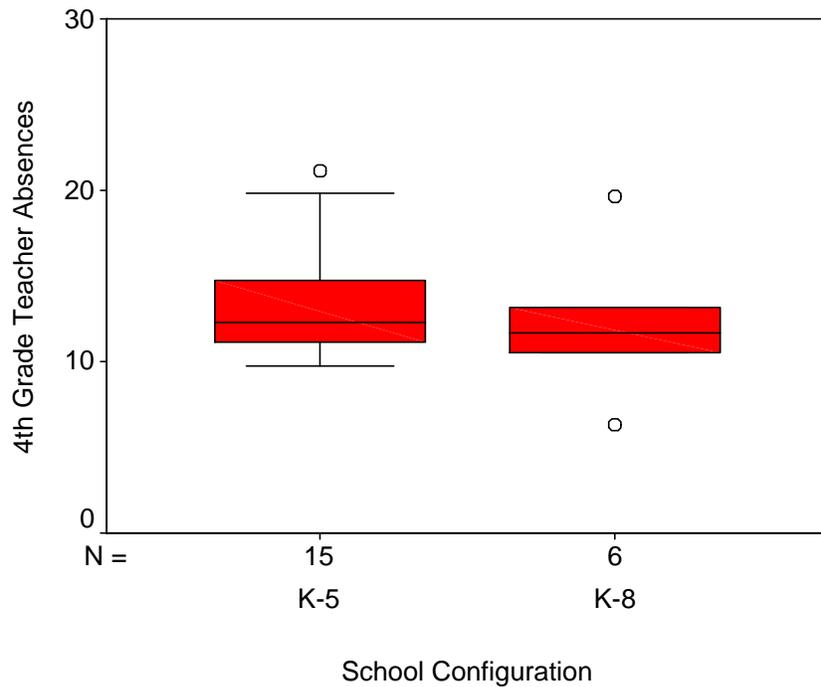


Figure 14. Boxplot for Fourth Grade Teacher Absences by School Configuration

H_{04} : Among fifth grader teachers there is no difference in teacher absences between K-5 schools and K-8 schools.

A Mann-Whitney U test was conducted to determine whether or not there was a difference in fifth grade teacher absences based on school configuration (K-5 schools versus k-8 schools). The Mann-Whitney U test was not significant, $z = -.195$, $p = .846$. Therefore, the null hypothesis was retained. The mean of teacher absences was 11.42 for fifth grade teachers at K-8 schools which was only slightly higher than the mean of 10.83 for fifth grade teachers at K-5 schools.

Figure 15 shows the distributions of fifth grade teacher absences by school configuration.

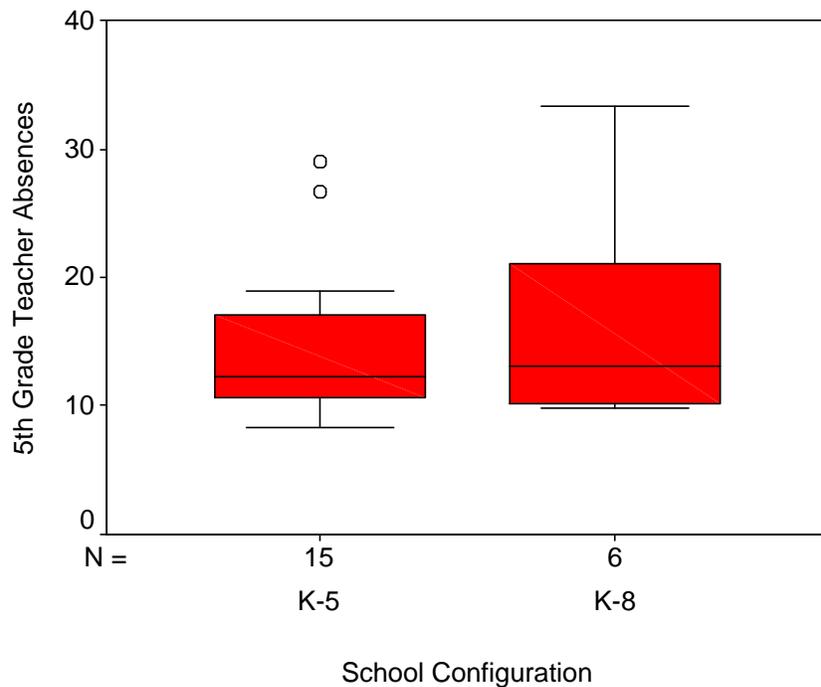


Figure 15. Boxplot for Fifth Grade Teacher Absences by School Configuration

Question 5

Are there differences in teacher absences based on school size (fewer than 400 students versus 400 or more)?

H_{05_1} : Among third grader teachers, there is no difference in teacher absences between schools with fewer than 400 students and schools with 400 or more students.

A Mann-Whitney U test was conducted to determine whether or not there was a difference in third grade teacher absences based on the number of students in schools (fewer than 400 versus 400 or more). The Mann-Whitney U test was not significant, $z = -1.245$, $p = .213$. Therefore, the null hypothesis was retained. The mean of teacher absences was 12.46 for third grade teachers at

schools with 400 or more students, only slightly higher than the mean of teacher absences of 9.06 for third grade teachers at schools with fewer than 400 students.

Figure 16 shows the distributions of third grade teacher absences by number of students in schools.

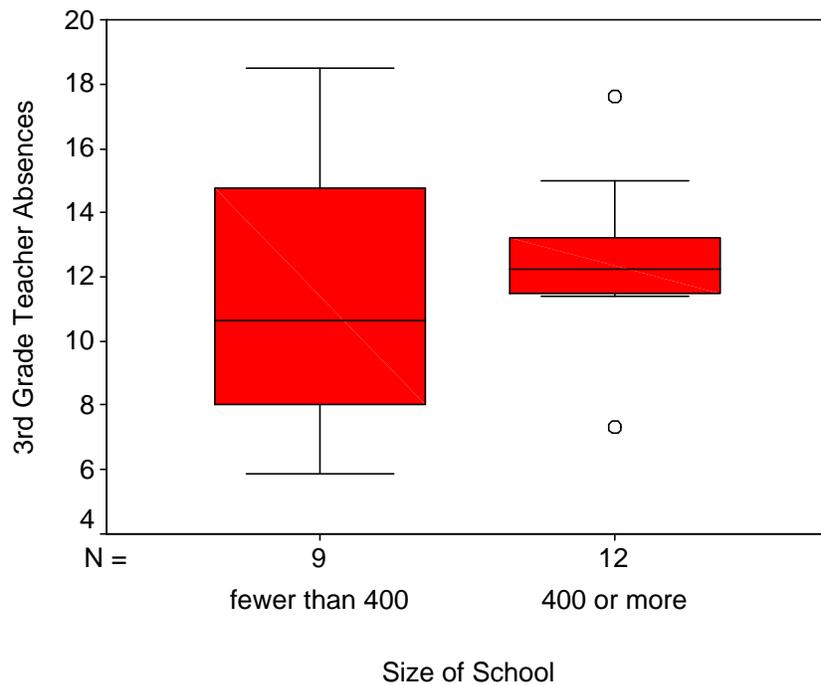


Figure 16. Boxplot for Third Grade Teacher Absences by Size of School

H_{05_2} : Among fourth grader teachers, there is no difference in teacher absences between schools with fewer than 400 students and schools with 400 or more students.

A Mann-Whitney U test was conducted to determine whether or not there was a difference in fourth grade teacher absences based on the number of

students in schools (fewer than 400 versus 400 or more). The Mann-Whitney U test was not significant, $z = -.285$, $p = .776$. Therefore, the null hypothesis was retained. The mean of teacher absences was 11.33 for third grade teachers at schools with 400 or more students, only slightly higher than the mean of teacher absences of 10.56 for fourth grade teachers at schools with fewer than 400 students.

Figure 17 shows the distributions of fourth grade teacher absences by number of students in schools.

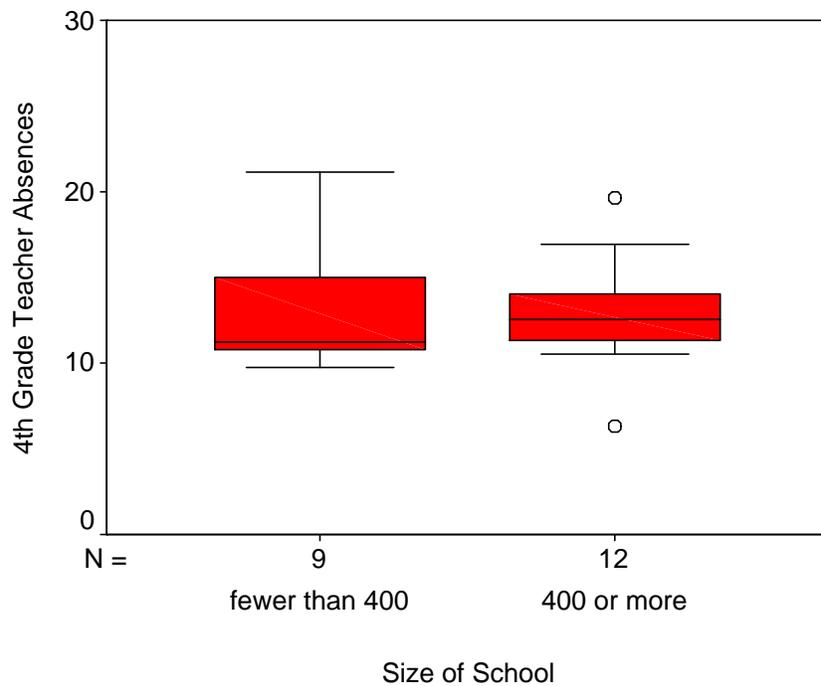


Figure 17. Boxplot for Fourth Grade Teacher Absences by Size of School

H_{05_3} : Among fifth grader teachers, there is no difference in teacher absences between schools with fewer than 400 students and schools with 400 or more students.

A Mann-Whitney U test was conducted to determine whether or not there was a difference in fifth grade teacher absences based on the number of students in schools (fewer than 400 versus 400 or more). The Mann-Whitney U test was not significant, $z = -.853$, $p = .393$. Therefore, the null hypothesis was retained. The mean of teacher absences was 12.46 for fifth grade teachers at schools with 400 or more students, only slightly higher than the mean of teacher absences of 9.06 for fifth grade teachers at schools with fewer than 400 students.

Figure 18 shows the distributions of fifth grade teacher absences by number of students in schools.

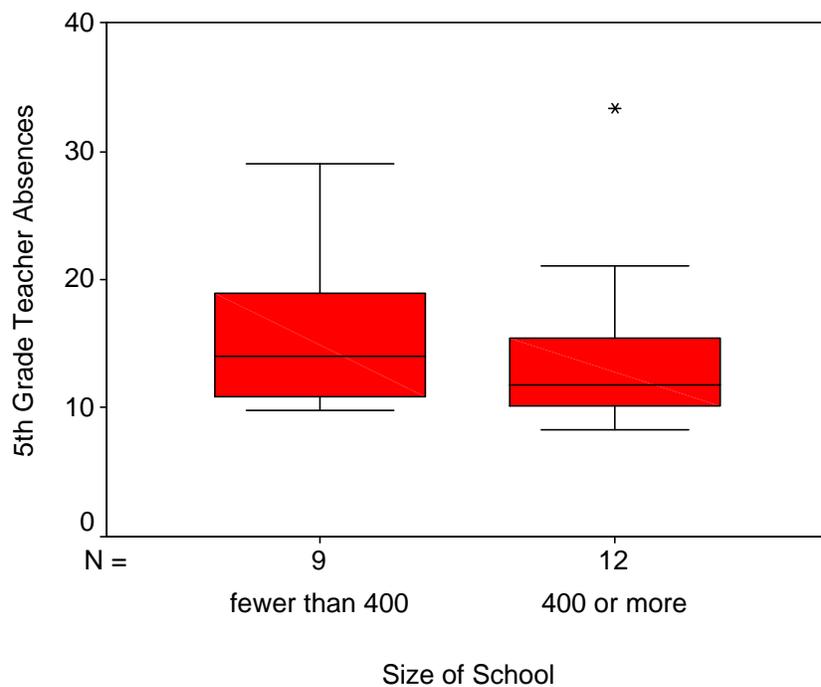


Figure 18. Boxplot for Fifth Grade Teacher Absences by Size of School

Teacher Reflections About Teacher Attendance

Fourteen third through fifth grade teachers participated in the survey portion of this study. They ranged in age from 25 to 60 old and teaching experience ranged from 1st year to 22 years in the classroom.

All 15 teachers surveyed had no concerns about the current attendance policy. One teacher reported no concerns because she “has good attendance” but she was concerned “about the attendance of her children’s teachers.” Another teacher added that she would like to see “a few comp days in addition to the 2 personal days” teachers currently receive.

All of the teachers I surveyed said they rarely miss due to personal illness. One male teacher said he used several sick days “taking care of a sick wife.” He also reported that he sometimes uses sick days to “take care of sick children.”

There were several reasons given for the use of sick days. One teacher said she only misses work if the “grandparents cannot watch her sick child.” Another teacher said she had to be “really sick or needed somewhere else” to be absent. One teacher said she would miss work “to sell a house.” While several teachers admitted they use sick days to miss events at school that they feel are “unstructured and wasted instructional days” such as pep rally days, field days, and assemblies.

Thirteen of the 15 teachers surveyed reported coming back to a situation they see as negative. After an absence they come back to: more papers to grade, discipline issues, notes from substitutes, and incomplete student work. One teacher added that if she “planned well, I will have completed work on my

desk.” Only one teacher reported something positive about being out: “a bunch of great coworkers, team members, faculty who were concerned about my well being.”

Over half of teachers surveyed, eight teachers, said they do change their lesson plans for a substitute. Those who do change lesson plans reported they leave busy work, review, and things students can do with little or no instruction. Five teachers said the lesson plan on an absence day was dependent on the substitute she was able to get. The one teacher who reported that she does not change her lesson plans did not change because she wanted to keep things routine for her students.

Only one teacher recommended a change in the current attendance policy. Her suggestion was to add comp days like surrounding counties. The other thirteen teachers said they would change nothing.

Over half of the teachers surveyed said “yes”, they do think teacher attendance affects student test scores. One teacher said students “need routine, consistency, and their teacher’s professional knowledge of the course.” Another teacher said students “do not have the opportunity they would if the teacher were there.” Four teachers said “No, teacher attendance does not affect student test scores.” Those teachers added that “abuse” of sick days may affect test scores, but “an occasional absence” would not.

The question about teacher attendance being a part of teacher evaluations split teachers into two groups, with half of the teachers surveyed saying yes and half saying no. The teachers who said teacher attendance

should be a part of teacher evaluations, said teachers would not be absent as much if it were a part of the evaluation. Teachers who said attendance should not be a part of the evaluation said “some things cannot be helped” and “teachers are mature enough to decide if they are too sick to come in.”

Six teachers recommended higher pay for unused sick days, prizes, or rewards for good attendance. One teacher suggested that teachers have a medical excuse for each day missed. Another teacher said “less testing, more discipline in schools, student accountability, just let us teach!”

With standardized testing becoming more important to teachers and administrators, there has to be some way to encourage teacher attendance. Tennessee has just announced that student performance will be 50% of teacher evaluations, with 35% of teacher evaluations being based on student test scores. With this new evaluation formula, teachers may think twice before taking sick days when they are not sick.

Administrator Reflections About Teacher Attendance

Fourteen administrators participated in this portion of the study. They ranged in age from 30 to 60 years of age and experience as principal ranged from 1st year to 17 years.

Four administrators reported “misuse of sick days” as a concern about current attendance policy. Four other administrators agreed that this district “needs to pay teachers more for unused sick days.” Surrounding districts pay 75 to 100 dollars for unused sick days. This district pays only 25 dollars per unused sick day. Three administrators had no concerns about the current attendance

policy. Two administrators said they were not aware of an attendance policy. While one administrator said “It seems to be working well, leave it alone.”

The question about the biggest concern about teacher absences was answered differently based on years of administration experience. More experienced administrators reported teacher absenteeism as a financial burden on the school or county budget. Administrators with fewer than 5 years experience all reported lost instructional time, lower test scores, and students suffering academically. One administrator said she has seen a pattern of “young teachers using more” sick days than veteran teachers. Another administrator reported that he “expects” a large number of absences on days before and after breaks. And one administrator said he conducted a survey in his school and his largest concern was “there is not enough incentive to not use sick days.” Two other administrators said because teachers earn one sick day per month, they see this as a “license to be out.”

Ten administrators in this district agreed that the amount of money teachers receive for unused sick day should be raised to compete with surrounding districts. Two administrators called for documentation of sick days used. Another wanted to change the number of days from 2 personal days and a sick day per month to 5 days total per year. One administrator said she would make no changes to the current teacher attendance policy in the district being studied.

The question about teacher attendance affecting student test scores received a 100% “yes.” Administrators in this district said teacher attendance

affects student test scores. One administrator pointed out that when a teacher misses 1 day, students lose 2 days of instruction, the day missed and a day to review lost material. Another administrator said “students need a routine and consistency in order to learn.” One administrator admitted he has seen test scores of teachers with excessive absenteeism and those scores are always lower than teachers who are at school every day.

Eleven of the 14 administrators agreed that teacher attendance should be a part of teacher evaluations. One administrator who agreed said our core business is teaching and learning. Another said administrators should look at patterns and reasons for absences. Two administrators said excessive absenteeism should be a part of the evaluation as an area to strengthen. One administrator said “if we give them the days, they should be able to take them.”

Most administrators in this survey said monetary incentives would encourage higher teacher attendance. The theme here was higher pay for unused sick days. One even said higher pay for better attendance. The other four administrators surveyed wanted more accountability for the days teachers are absent. One mentioned discussing the importance of attendance with the faculty at the beginning of the year.

Focus Group Reflections

Fifteen third through fifth grade teachers participated in the focus group portion of this study. They ranged in age from 25 to 55 years old and experience ranged from 1st year to 22 years in the classroom.

Eight of the teachers in this focus group said they are usually only absent when they have sick children. Other reasons given for being absent were doctor appointments, field days, birthdays, before and after breaks, and mental health days.

Other than sick children, there were only four factors that influenced these teachers' decisions to be absent. Those four reasons were; professional development, weather, activities at school, and availability of substitutes.

Eight teachers agreed that discipline was the worst part of being absent. They also mentioned extra paperwork in the form of notes or student work and their rooms were messier than they left them. One teacher said substitutes "never follow the lesson plan."

All teachers in this focus group said they do change lesson plans for substitutes when they are absent. Some teachers said they made work easier, some said they make work more difficult. Some teachers left more work while others did not increase the amount of work left but left more structured work to keep the students busy. Several teachers said the work they leave depends on the quality of the substitute they are able to secure.

Only 5 of the 15 teachers in this focus group had a concern about the current teacher attendance policy. One teacher said it was not effective. Two teachers said it is not enforced or not equally enforced. Another said she did not appreciate those who abuse sick days.

Only 3 of the 15 teachers offered possible changes to the current teacher attendance policy in this county. One teacher encouraged all administrators to

enforce the attendance policy equally. Another teacher requested that someone else call a substitute teacher for her. One teacher said it would help if each school had substitutes who knew the students.

Thirteen of the 15 teachers in this focus group said attendance did affect student test scores. One teacher commented “I hope so!” One said it depends on the quality of the students, while another said it depended on the quality of the substitute. Two other teachers said teacher attendance may not affect if the substitute teacher reviews while the teacher is away and teachers are not absent the week before TCAP tests.

There were mixed emotions about whether teacher attendance should or should not be a part of teachers’ evaluations. None of the teachers said that teacher attendance should not be a part of the evaluation, but they could not agree what percentage of the evaluation it should be. All teachers agreed that it should be some part of the evaluation.

Twelve of the 15 teachers in this focus group said bonuses or incentives would encourage higher teacher attendance. Their suggestions ranged from food or shopping gift cards to monetary prizes at the end of the year for those with perfect attendance. Three of the teachers said smaller class size would be more of an incentive.

Summary

Quantitative data showed either a negative relationship or no relationship between teacher attendance and student test scores except in math. Qualitative

data revealed that teachers and administrators believed that a relationship existed between teacher attendance and student test scores.

Chapter 4 analyzed the relationship between teacher attendance and student test scores on TCAPs. Third, fourth, and fifth grade teacher attendance, TCAP scores, as well as teacher and administrator responses were gathered. School size and configuration was taken into consideration when analyzing the data. This district has two K-8 schools and five K-5 schools. The school configurations are fewer than 400 students and more than 400 students. Chapter 5 includes a summary of the study and the findings and recommendations of this study.

CHAPTER 5

FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Summary of Study

The purpose of this study was to determine if a relationship exists between teacher attendance and student test scores on the TCAP test over a 3-year period. This study used surveys, interviews, and a focus group to examine teacher and administrator perceptions of teacher absences.

Summary of Findings

The quantitative part of study was guided by five quantitative research questions, and the qualitative part consisted of surveys, focus groups, and individual interviews. The null hypotheses were retained in all courses and grade except third grade Math. This would conclude there is no relationship between teacher absences and student test scores. The qualitative part of this study examined teacher and administrator perceptions of teacher absences.

Administrators and teachers who participated viewed teacher absence as a problem in this district.

Teachers interviewed did view teacher absences as a problem and said that bonuses and incentives would help mitigate this problem. Based on interviews, surveys, and focus groups, teachers and administrators agree that teacher absences affect student test scores, although that perception was not supported by this study. Most teachers are absent due to events at school or sick children, not personal sickness. Teachers reported that the quality of the substitute does affect students' education and some teachers even change

lesson plans based on the substitute who is available. Teachers in this study perceived absences early in the year as more detrimental than absences late in the year, basing this on the fact that TCAP tests are given in the spring. But Clotfelter et al. (2009) report disagreed saying teacher absences early in the school year were less detrimental to student test scores than absences in the spring before standardized tests.

Quantitative Results

Question 1

Are there relationships between third grade teacher absences and third grade student math, reading, science, and social studies scores on the Tennessee Comprehensive Achievement Program Assessment? Math, reading, science and social studies scores were measured as the percentage of students who scored either proficient or advanced on the Tennessee Comprehensive Assessment Program Assessment.

The Pearson correlation coefficient of $-.585$ indicated the relationship between teacher absences and third grade science scores was moderate. The null hypothesis was rejected. There were negative but definite relationships in reading $-.294$ and social studies $-.248$. Those null hypothesis were retained. There was no relationship between teacher absences and math test scores, $.007$. The null hypothesis was retained.

Question 2

Are there relationships between fourth grade teacher absences and fourth grade student math, reading, science, and social studies scores on the

Tennessee Comprehensive Achievement Program Assessment? Math, reading, science, and social studies scores were measured as the percentage of students who scored either proficient or advanced on the Tennessee Comprehensive Assessment Program Assessment.

The Pearson correlation coefficient of $-.250$ indicated a weak but definite, negative relationship between teacher absences and fourth grade math. The null hypothesis was retained. There was no correlation between fourth grade teacher absences and fourth grade student TCAP scores. There was a weak relationship in social studies, $.119$. This null hypothesis was retained. There were very weak relationships between teacher absences and reading $.060$ and science $.039$ test scores; therefore, those null hypothesis were retained.

Question 3

Are there relationships between fifth grade teacher absences and fifth grade student math, reading, science, and social studies scores on the Tennessee Comprehensive Achievement Program Assessment? Math, reading, science, and social studies scores were measured as the percentage of students who scored either proficient or advanced on the Tennessee Comprehensive Assessment Program Assessment.

The Pearson correlation coefficient of $-.496$ indicated a moderate, negative relationship between teacher absences and fifth grade reading test scores. The null hypothesis was retained. There was a negative weak but definite relationship in social studies $-.213$ and science $-.165$, and those null

hypothesis were retained. There was a weak negative relationship between teacher absences and math -.117 test scores. The null hypothesis was retained.

Question 4

Is there a difference in teacher absences based on school configuration (K-5 schools versus K-8 schools)?

There was not a significant relationship between teacher absences in K-5 and K-8 schools at any grade level.

Question 5

Are there differences in teacher absences based on school size (fewer than 400 students versus 400 or more)?

There was not a significant relationship between teacher absences based on school size (fewer than 400 students versus 400 or more students).

Qualitative Results

Third through fifth grade teachers opinions who participated in the focus group portion of this study were similar to the opinions of teachers who participated in the survey portion of this study. The age range was also similar, early 20s to 60 years old and classroom teaching experience ranged from 1st year to more than 20 years in both groups.

These teachers were very open about the fact they most often use sick days for others, not their own sickness. The majority of teachers interviewed said dealing with student discipline was the only negative issue they face when they return to work. No teachers mentioned questions from administrators or consequences for being absent. Most teachers admitted that they do change

lesson plans when they have to be absent. Teachers said absences do affect test scores but should not be a part of the teacher evaluation process, and they all agreed that some reward or bonus for unused sick days would encourage higher attendance.

In addition to teachers, 14 administrators participated in this portion of the study. They ranged in age from 30 to 60 years of age and experience as principal ranged from 1 year to 17 years.

It was surprising that some experienced administrators were not aware of an attendance policy. Most administrators surveyed said that teacher attendance does affect student test scores. Administrators had mixed responses about whether attendance should be a part of the teacher evaluation process. One first year administrator suggested teacher attendance could be an area to improve if absences were an issue. While some administrators said rewards or bonuses would increase teacher attendance, other administrators said they expect teachers to be at work everyday because it is their job.

Conclusions

Administrators and directors need to find creative, legal, and ethical ways to encourage teachers to be in their classrooms every day possible. Substitutes need more training and consistency in order to better serve students. A small monetary incentive is offered, but it is not comparable to other districts. Teachers earn 1 sick day per month and 3 to 5 personal days per year. Personal days are determined by number of years of service with the district. This district

does offer some monetary options for those who save sick days, but most choose to use them before they retire.

The system being studied had no real consistency from school to school in the monitoring of sick leave. Teachers did not have to report an absence to anyone, but they were responsible for finding a substitute teacher from a list of approved substitutes. In order to become a substitute in this system, one must be recommended by a current administrator, attend a training session, have a physical including a Tuberculosis skin test, and pay 48 dollars for a criminal background investigation. The minimum education requirement is a high school diploma or GED.

The director of this system did acknowledge teacher absences as a problem. This system spends nearly 1% of its yearly operating budget on substitutes, or one million dollars over the period being studied, but currently there is no teacher attendance policy stating consequences for excessive absences.

Recommendations for Practice

- Have teachers call principal and substitute. This may reduce teacher absences if the teacher has to tell the principal why he or she will not be at work. This would also help administrators keep up with who is out frequently.
- Raise the amount paid for unused sick leave. Past research indicates monetary incentives do not work, but this county needs to do something to keep teachers in the classroom.

- Have professional development after school or during summer not while students are at school. This system offers many training opportunities during the school day. Each day teachers are attending these training sessions, students are with a substitute. Teachers may not want to be away from their students as much now that 35% of the teacher evaluation is based on TCAP scores.

Schools where teachers have to call in directly to the principal have a lower rate of teacher absences than schools where teachers call in to an answering service, so I would recommend that administrators have teachers call them instead of just getting a substitute on their own.

Specific substitutes in each building in the system would be beneficial. Currently most substitutes will work at any school and in any grade in the county. If specific substitutes were assigned specific schools, I think it would be beneficial for substitutes and students. This way the substitutes would know the students, teachers, and building thereby helping students stay on task even when the teacher is away.

Recommendations for Further Study

- Study specific courses, not averages, in middle and high school. This was a study of elementary teachers, students, and scores. Elementary students in this district are with a single teacher all day. Middle and high school students have different teachers for each course.
- Study specific student subgroups that may be more affected by teacher attendance. Subgroups in this district included white, economically

disadvantaged, students with disabilities, English language learners, and minority students.

- Study days teachers miss, such as Mondays, Fridays, before and after breaks, and the length of the absence. This would help the system identify patterns of teacher absences that need to be addressed.
- Study personal, sick, and professional days missed. This system says personal days may not be taken before or after a break or holiday, so most teachers use sick days before and after breaks. But it would be interesting to see if teachers who miss often for professional development have higher test scores than those who miss often for sick and personal days.

Summary

With increasing demand for accountability and high-stakes testing that underlie today's educational policies, additional research is needed to determine what kind of incentive would increase teacher attendance. This study would have been richer if individual teacher attendance could be used instead of averages of teacher absences per school, per grade. Individual student data, such as gender, socioeconomic status, and ethnicity could also affect this study. It would have also been interesting to see if there are more absences before and after holidays and which days of the week are missed the most. Having teacher days absent coded as personal, professional, or sick days could also make a difference in the study. Teachers and administrators agreed that teacher

attendance is important for student success. They also agreed incentives, or bonuses for unused sick days would encourage higher teacher attendance.

REFERENCES

- Ballou, D. (1996). The condition of urban school finance: Efficient resource allocation in urban schools. *Selected papers in School Finance*, 61-82.
- Black, S. (2009). The absentee teacher. *The American School Board Journal*, 196(9), 48-49.
- Boyer, C. (1994). *The relationship between buy-back provisions and teacher attendance rates*. (ED384972). ERIC.
- Bruno, J. (2002). The geographical distribution of teacher absenteeism in large urban school district settings: implications for school reform efforts aimed at promoting equity and excellence in education. *Educational Policy Analysis Archives*, 10(32). Retrieved from <http://epaa.asu.edu/epaa/v10n32/>
- Bui, K. (2005). Middle school variables that predict college attendance for first generation students. *Education*, 126, 203-220.
- Byer, J. (November, 2000). *The effects of absences and academic self-concept on academic achievement in two eleventh-grade U. S. history classes*. Paper presented at the meeting of the Mid-South Educational Research Association, Bowling Green, KY.
- Carr, N. (2009). Finding and keeping good teachers. *The American School Board Journal*, 196(9), 52-54.
- Clotfelter, C., Ladd, H, & Vigdor, J. (2009). Are teacher absences worth worrying about in the united states?. *Educational Finance and Policy*, 4, 115-149.
- Clotfelter, C. T., Ladd, H. F., & Vigdor, J. L. (2006). *Teacher absences: importance, incidence, and consequence*. Paper presented at the Association for Public Policy Analysis and Management. Duke University, NC.
- Coladarci, T. (2005). Adequate yearly progress, small schools, and students with disabilities: the importance of confidence intervals when making judgments about ayp. *Rural Educational Quarterly*, 24(1), 40-47.
- Cook, J. (2008, February 7). Teacher absences may take a bite out of students' education. *McClatchy Tribune Information Services*.
- Dodd, V. (2003). *Practical Education Law for the Twenty-First Century*. Durham, NC: Carolina Academic Press.

- Dworkin, A, Haney, C, Dworkin, R, & Teleschov, R. (1990). Stress and illness behavior among urban public school teachers. *Educational Administration Quarterly*, 26(1), 60-72.
- Educational Research Service. (1980). Employee absenteeism: a summary of research. Arlington, VA: Educational Research Service.
- Ehrenberg, R., Ehrenberg, R., Rees, D., & Ehrenberg, E. (1991). School district leave policies, teacher absenteeism, and student achievement. *Journal of Human Resources*, 26(1), 72-105.
- Glatfelter, A. (2006). *Substitute teachers as effective classroom instructors*. (ED494940). ERIC.
- Guisbond, L, & Neill, M. (2004). Failing our children: no child left behind undermines quality and equity in education. *The Clearing House*, 78(6), 12-16.
- Gunzenhauser, M, & Hyde, A. (2007). What is the value of public school accountability?. *Educational Theory*, 57, 489-507.
- Hall, D, & Weiner, R. (2004). Accountability under no child left behind. *The Clearing House*, 78(1), 12-16.
- Haycock, K. (2001). Closing the achievement gap: helping all students achieve. *Educational Leadership*, 58(6), 9-13.
- Jacobs, K. & Kristonis, W. (2007). *An analysis of teacher and student absenteeism in urban schools: what the research says and recommendations for educational leaders*. (ED499647). ERIC.
- Jacobson, S. (1995). Monetary incentives and the reform of teacher compensation: a persistent organizational dilemma. *International Journal of Educational Reform*, 4(1), 29-35.
- Kay, S. (2006). *Global security in the twenty-first century: the quest for power and the search for peace*. Lanham, MD: Rowman and Littlefield.
- Keller, B. (2008). Studies link teacher absences to lower student scores. *Education Week*, 27(28), 9.
- Lamdin, D. (1996). Evidence of student attendance as an independent variable in education production functions. *Journal of Educational Research*, 89, 155-162.

- Madden, H., Flanigan, J., & Richardson, M. (1991). *Teacher absences: are there implications for educational restructuring?* (ED 343199). ERIC.
- Marley, D. (2009). Sick leave due to stress doubles. *The Times Educational Supplement*, 3. Retrieved from Education Full Text database.
- Miller, R. (2008). Tales of teacher absence: new research yields patterns that speak to policymakers. *Center for American Progress*. October.
- Miller, R. T., Murnan, R. J. & Willett, J. B. (2007). Do teacher absences impact student achievement? Longitudinal evidence from one urban school district. NBER Working Paper No. 13367 JEL. No. 12, J08, J22, J33, J38. Retrieved from <http://www.nber.org/papers/w13356>
- National Commission on Excellence in Education (1983). *A nation at risk: The imperative for educational reform*. Washington DC: U. S. Department of Education.
- Nelson, A. (2008). An analysis of the relationship between teacher variables and student achievement scores in Hamblen County, Tennessee. Dissertation East Tennessee State University.
- Norton, M. S. (1998). Teacher absenteeism: a growing dilemma in education. *Contemporary Education*, 62(2), 95-99.
- Pitkoff, E. (2003). School practices that encourage teacher absenteeism. *School Administrator*, 26(1), 72-105.
- Pitkoff, E. (1993). Teacher absenteeism: What administrators can do. *NASSP Bulletin*, 77, 39-45.
- Podgursky, M. (2003). Fringe benefits. *Education Next*, 3(3)71-76.
- Roby, D. (2004). Research on school attendance and student achievement: A study of Ohio schools. *Educational Research Quarterly*, 28(1), 3-16.
- Remarks by the President on Education. (2009). Retrieved from http://www.whitehouse.gov/the_press_office/Remarks-by-the-President-at-the-Department-of-Education/
- Ross, K. N. (2007). Making the grade: is there a connection among school factors, student standardized test scores, and adequate yearly progress? Unpublished PhD, Southern Illinois University Carbondale.
- Rundall, R. (1986). Continuity in subbing: problems and solutions. *The Clearing House*, 59, 240.

- Sanders, W. (1992). Tennessee value-added assessment system. Retrieved from <http://www.shearonforschools.com/TVAAS.html>
- Sawchuck, S. (2008). Analysis tracks teachers' use of discretionary leave time. *Education Week*, 28(11), 65.
- Scott, K. & McClellan, E. (1990). Gender differences in absenteeism. *Public Personnel Management*, 19, 229-253.
- Sievers, L. & McCarger, J. (2005) *A Handbook for Principals*. Tennessee Department of Education. July.
- Tennessee Department of Education. (2011a) Definition of CRT. Retrieved from http://www.tn.gov/education/assessment/ach_faq.shtml
- Tennessee Department of Education. (2011b) Definition of TCAP. Retrieved from http://www.tn.gov/education/assessment/ach_faq.shtml
- Tennessee Department of Education. (2010a). First to the Top. Retrieved from <http://www.tn.gov/firsttothetop/programs.html>
- Tennessee Department of Education. (2010b). Alternative License. Retrieved from <http://www.tn.gov/education/lic/alt.shtml>
- Tennessee Department of Education. (2009a). Report card 2009. Retrieved from <http://www.state.tn.us/education/reportcard/index.shtml>
- Tennessee Department of Education. (2009b). Public school choice. Retrieved from <http://www.state.tn.us/education/fedprog/fpschlchoice.shtml>
- Tennessee Department of Education. (2009c). Accountability Chart for Schools. Retrieved from <http://tn.gov/education/nclb/ayp/doc/tnacctabilitychart2009.pdf>
- Tennessee Department of Education. (2005). Definition of Highly qualified. Retrieved from http://www.tn.gov/education/nclb/doc/NCLB_ImpPlan_08_18_05.pdf
- Tennessee Department of Education. (2004) Tennessee 2004 Report Card. Retrieved from <http://www.k-12.state.tn.us/RptCrd05/doc/Primer%20Explanation.doc>
- Tennessee Department of Education. (2002a) Definition of AYP. Retrieved from <http://www.state.tn.us/education/nclb/ayp/doc/AYP2008%20FAQ.doc>

- Tennessee Department of Education. (2002b) Definition of NCLB. Retrieved from <http://www.tn.gov/education/nclb/index.shtml>
- Turbeville, I. F. (1987). The relationship of selected teacher characteristics on teacher absenteeism in selected school districts of South Carolina, Unpublished PhD, University of South Carolina.
- United States Department of Education. (2010a). Race to the top. Retrieved from <http://www.ed.gov/programs/racetothetop/index.html>
- United States Department of Education. (2010b). A blueprint for reform: The reauthorization of the elementary and secondary education act. <http://www2.ed.gov/policy/elsec/leg/blueprint/blueprint.pdf>
- United States Department of Education. (2010c). Phase 1 Funding. Retrieved from <http://www2.ed.gov/programs/racetothetop/phase1-applications/comments/tennessee.pdf>
- United States Department of Education. (2009a) History of United States Department of Education. Retrieved from <http://www.ed.gov/about/overview/fed/role.html?src=ln>
- United States Department of Education. (2009b). Race to the top: application for initial funding. Retrieved from <http://www2.ed.gov/programs/racetothetop/application.doc>
- United States Department of Education. (2004). Title I. Retrieved from <http://www2.ed.gov/policy/elsec/leg/esea02/pg1.html>
- United States Department of Education. (1999) A nation at risk: an open letter to the American people. Retrieved from <http://www2.ed.gov/pubs/NatAtRisk/index.html>
- United States Department of Education. (1994). Goals 2000: Education America Act of 1994, Pub. L. No. 103-227, 108 Stat. 125
- Varlas, L. (2001). Succeeding with substitute teachers. *Education Update*, 43(7), 4-5.
- Vorell, M. S. (2007). Babysitters or guest teachers: substitute teacher identity management in the larger organizational culture of a school district. University of Colorado.
- Whitehead, D. (2006). Teacher, where are you? *Childhood Education*, Summer. Retrieved from http://findarticles.com/p/articles/mi_qa3614/is_200907/ai_n32127432/

Woods, R. (1990). The effects of teacher attendance on student achievement in two selected school districts. Unpublished Ed.D, Ball State University.

Woods, R., & Montagno, R. (1997). Determining the negative effect of teacher attendance on student achievement. *Education* 118(2), 307-316.

APPENDICES

APPENDIX A

Interview Guide

- I. Introduction
 - A. Welcome
 - B. Thank you for participating in this study about teacher absences. Your opinions are important and this information will be shared with be shared with Central Office. Your comments will remain anonymous. Any questions before we begin?
 - C. Signing of consent form
 - D. Begin session

- II. Main Interview Questions for Teachers
 1. As a teacher, what are your concerns about the current attendance policy in this county?
 2. Share with me why you are absent, when you are absent.
 3. What are some factors that influence your decision to be absent?
 4. What do you face when you return?
 5. Do you change the format of your lesson plan when you are absent?
 6. If you could change one thing about the attendance policy, what would it be?
 7. Do you believe teacher attendance affects student test scores? Why or why not?
 8. Do you believe teacher attendance should be a part of teacher evaluations? Explain.
 9. What do you think would encourage higher teacher attendance?

- III. Main Interview Questions for Administrators
 1. As an administrator, what are your concerns about the current attendance policy?
 2. What do you think is the biggest problem concerning teacher absences? If you could change one thing about the teacher attendance policy, what would it be?
 3. Do you believe teacher attendance affects student test scores? Why or why not?
 4. Do you believe teacher attendance should be a part of teacher evaluations? Explain
 5. What do you think would encourage higher teacher attendance?

IV. Main Interview Questions for Focus Groups

1. Share with me why you are absent, when you are absent.
2. What are some factors that influence your decision to be absent?
3. What do you face when you return?
4. Do you change the format of your lesson plan when you are absent?
5. As a teacher, what are your concerns about the current attendance policy in this county?
6. If you could change one thing about the attendance policy, what would it be?
7. Do you believe teacher attendance affects student test scores? Why or why not?
8. Do you feel that teacher attendance should be a part of teacher evaluations? Explain.
9. What do you think would encourage higher teacher attendance?

APPENDIX B

2005-2006 School Calendar

August 1, 2005	Day #1 Teacher In-service (Principal Directed)
August 2, 2005	Day #2 Teacher In-service (Principal Directed)
August 3, 2005	Student Registration Day (Students 1/2 Day)
August 3, 2005	Countywide Employee Meeting 1:00-3:00 pm
August 4, 2005	Professional Development Day #1 (System-wide)
August 5, 2005	Administrative Day #1 (Students Off)
August 8, 2005	First Full Day of School for Students
September 5, 2005	Labor Day Holiday
October 7 & 10, 2005	Fall Break (Students & Staff)
November 4, 2005	Professional Development Day #2 (System-wide)
November 23,24,25, 2005	Thanksgiving Holidays
December 15, 2005	Exam Day (Full Day)
December 16, 2005	Exam Day (1/2 Day – Dismiss @ 11:30am)
December 19-30, 2005	Christmas Holidays
January 2, 2006	Extended New Year Holiday for Students & Staff
January 3, 2006	Administrative Day #2 for Teachers & Administrators
January 4, 2006	2 nd Semester Begins – Full Day
January 16, 2006	Professional Development #3 / MLK Holiday
February 1, 2006	TCAP Writing Assessment 5 th , 8 th , 11 th grades
February 20, 2006	Administrative Day #3 (Presidents Day-Students Off)
March 20-24, 2006	Spring Break
April 14, 2006	Good Friday
April 17-28, 2006	TCAP Testing Grades 3-8
April 28, 2006	Professional Development Day #4 (System-wide)
May 2, 2006	In-service Day #3 / Election Day
May 17, 2006	Exam Day (Full Day)
May 18 , 2006	Exam Day (1/2 Day – Dismiss @ 11:30am)
May 19, 2006	Administrative Day #4
May 22, 2006	Summer School Begins

Unplanned School Closings

December 16, 2005	Snow/Ice Day
February 9, 2006	Snow Day
February 13, 2006	Snow /Ice Day

180 Student Days
3 Scheduled In-service Days
2 Self-Selected In-service Days
10 Paid Holidays
4 Administrative Days
1 P/T Conference Day
200 Day Teacher Contract

APPENDIX C

2006-2007 School Calendar

August 1, 2006	Day #1 Teacher In-service (Principal Directed)
August 2, 2006	Student Registration Day (Students 1/2 Day)
August 2, 2006	Countywide Employee Meeting 1:00-3:00 pm
August 3, 2006	Day #2 Teacher In-service (Principal Directed)
August 4, 2006	Professional Development Day #1 (System-wide)
August 7, 2006	Administrative Day #1 & LINK Day for Freshmen
August 8, 2006	First Full Day of School for Students
September 4, 2006	Labor Day Holiday
October 6 & 9, 2006	Fall Break (Students & Staff)
November 7, 2006	Professional Development Day #2 (System-wide)
November 22,23,24, 2006	Thanksgiving Holidays
December 14, 2006	Exam Day (Full Day)
December 15, 2006	Exam Day (1/2 Day – Dismiss @ 11:30am)
December 18-29, 2006	Christmas Holidays
January 1, 2007	Extended New Year Holiday for Students & Staff
January 2, 2007	Administrative Day #2 for Teachers & Administrators
January 3, 2007	2 nd Semester Begins – Full Day
January 15, 2007	Day #3 Teacher In-service / MLK Holiday
February 6, 2007	TCAP Writing Assessment 5 th , 8 th , 11 th grades
February 16, 2007	Professional Development Day #3
February 19, 2007	Administrative Day #3 / Presidents Day
March 19-23, 2007	Spring Break
April 6, 2007	Good Friday
April 16-27, 2007	TCAP Testing Grades 3-8
April 27, 2007	Professional Development Day #4 (System-wide)
May 17, 2007	Exam Day (Full Day)
May 18 , 2007	Exam Day (1/2 Day – Dismiss @ 11:30am)
May 19, 2007	Administrative Day #4
May 21, 2007	Summer School Begins

Unplanned School Closings

January 29, 2007	Weather Day
February 1, 2007	Weather Day

180 Student Days
3 Scheduled In-service Days
2 Self-Selected In-service Days
10 Paid Holidays
4 Administrative Days
1 P/T Conference Day
200 Day Teacher Contract

APPENDIX D

2007-2008 School Calendar

August 6, 2007	Day #1 Teacher In-service (Principal Directed)
August 7, 2007	Day #2 Teacher In-service (Principal Directed)
August 8, 2007	Student Registration Day (Students 1/2 Day)
August 8, 2007	Countywide Employee Meeting 1:00-3:00 pm
August 9, 2007	Professional Development Day #1 (System-wide)
August 10, 2007	Administrative Day #1
August 13, 2007	First Full Day of School for Students
September 3, 2007	Labor Day Holiday
October 12 & 15, 2007	Fall Break (Students & Staff)
November 5, 2007	Professional Development Day #2 (System-wide)
November 21,22,23, 2007	Thanksgiving Holidays
December 19, 2007	Exam Day (Full Day)
December 20, 2007	Exam Day (1/2 Day – Dismiss @ 11:30am)
December 21-31, 2007	Christmas Holidays
January 1,2,3,4, 2008	Extended New Year Holiday for Students & Staff
January 7, 2008	Administrative Day #2 for Teachers & Administrators
January 8, 2008	2 nd Semester Begins – Full Day
January 21, 2008	Day #3 Teacher In-service / MLK Holiday
February 5, 2008	Professional Development Day #3 / Election Day
February 6, 2008	TCAP Writing Assessment 5 th , 8 th , 11 th grades
February 18, 2008	Administrative Day #3 / Presidents Day
March 17-21, 2008	Spring Break
March 24, 2008	Good Friday
April 14-17, 2008	TCAP Testing Grades 3-8
April 25, 2008	Professional Development Day #4 (System-wide)
May 21, 2008	Exam Day (Full Day)
May 22 , 2008	Exam Day (1/2 Day – Dismiss @ 11:30am)
May 23, 2008	Administrative Day #4
May 27, 2008	Summer School Begins

Unplanned School Closings

October 8, 2007	Water Day	October 9, 2007	Water Day
February 14, 2008	Illness Day	February 15, 2008	Illness Day
February 27, 2008	Weather Day		

180 Student Days
 3 Scheduled In-service Days
 2 Self-Selected In-service Days
 10 Paid Holidays
 4 Administrative Days
1 P/T Conference Day
 200 Day Teacher Contract

APPENDIX E

Initial Email

To: Any 3rd, 4th, or 5th grade teachers that are a part of the Jefferson County School System
From: Melissa Miniard Hensley
Date: October 1, 2010
Re: Research

I am currently doing research on teacher perceptions about teacher attendance and student test scores. I am using data from the third, fourth, and fifth grades in Jefferson County for this study. The name of my research project is, Relationships Between Teacher Attendance and Student Scores on the Tennessee Comprehensive Assessment Program Achievement Test in East Tennessee.. I would like to ask you to privately share your perceptions of the current attendance program. Your perceptions will be compiled in my dissertation and shared with Central Office as a way to help produce a stronger attendance policy. Your participation in this program is completely voluntary. All information shared with me will be coded and protected. Any use of quotes will be assigned pseudonyms and you will have an opportunity to review all information for accuracy before completion.

If you are interested please respond to me at hensleym4@k12tn.net or call me at 865-696-1095.

If you have any additional questions please do not hesitate to ask.

Sincerely,

Melissa Miniard Hensley

VITA

MELISSA HOPE MINIARD HENSLEY

Personal Data: Date of Birth: March 14, 1977
 Place of Birth: Jefferson City, Tennessee

Education: Carson-Newman College, Jefferson City, Tennessee
 Bachelor of Science, 2000
 Family and Consumer Science Education

 Carson-Newman College, Jefferson City, Tennessee
 Certification, Elementary Education Pre-K-8, 2001

 Carson-Newman College, Jefferson City, Tennessee
 Master of Education, 2005
 School Counseling, Pre K-12

 East Tennessee State University, Johnson City, Tennessee
 Certification, Administration and Supervision, 2008

 East Tennessee State University, Johnson City, Tennessee
 Doctor of Education, 2011
 School Leadership, K-12

Professional
Experience: Technology Facilitator, Jefferson Middle School, Jefferson City,
 Tennessee, 2000-2001

 Technology Teacher, Jefferson Middle School, Jefferson City,
 Tennessee, 2001-2005

 School Counselor, Jefferson Middle School, Jefferson City,
 Tennessee, 2005- Present