

The University of Southern Mississippi

## The Aquila Digital Community

---

### Dissertations

---

Summer 8-2013

# Teacher Perceptions Regarding the Relationship of Modified Year-Round School Calendars with Student Achievement, Student Behavior, and Teacher Efficacy

George Eugene Huffman  
*University of Southern Mississippi*

Follow this and additional works at: <https://aquila.usm.edu/dissertations>



Part of the [Educational Administration and Supervision Commons](#), [Educational Assessment, Evaluation, and Research Commons](#), and the [Educational Leadership Commons](#)

---

### Recommended Citation

Huffman, George Eugene, "Teacher Perceptions Regarding the Relationship of Modified Year-Round School Calendars with Student Achievement, Student Behavior, and Teacher Efficacy" (2013). *Dissertations*. 185.  
<https://aquila.usm.edu/dissertations/185>

This Dissertation is brought to you for free and open access by The Aquila Digital Community. It has been accepted for inclusion in Dissertations by an authorized administrator of The Aquila Digital Community. For more information, please contact [Joshua.Cromwell@usm.edu](mailto:Joshua.Cromwell@usm.edu).

The University of Southern Mississippi

TEACHER PERCEPTIONS REGARDING THE RELATIONSHIP OF  
MODIFIED YEAR-ROUND SCHOOL CALENDARS WITH  
STUDENT ACHIEVEMENT, STUDENT BEHAVIOR,  
AND TEACHER EFFICACY

by

George Eugene Huffman

Abstract of a Dissertation  
Submitted to the Graduate School  
of The University of Southern Mississippi  
in Partial Fulfillment of the Requirements  
for the Degree of Doctor of Philosophy

August 2013

## ABSTRACT

# TEACHER PERCEPTIONS REGARDING THE RELATIONSHIP OF MODIFIED YEAR-ROUND SCHOOL CALENDARS WITH STUDENT ACHIEVEMENT, STUDENT BEHAVIOR, AND TEACHER EFFICACY

by George Eugene Huffman

August 2013

The purpose of this study was to analyze demographic and school data, as well as data on the perceptions of teachers regarding the impact that a modified year-round school calendar has on student achievement, student behavior, and teacher efficacy. Prior research and literature examined the impact of year-round school calendars on student achievement and student behavior; however, there was a limited amount of research on the perceptions of teachers regarding the school calendar and the impact that the school calendar has on teacher efficacy.

A thirty-seven item researcher-developed questionnaire was utilized for the purpose of this study. The data for this study were obtained from 106 teachers from public schools within districts in the state of North Carolina that employ both traditional school calendars and year-round type calendars.

Demographic data disclosed that these respondents were relatively experienced and that the majority worked in schools with high concentrations of students in poverty. The results did not disclose a significant relationship between teacher perceptions of the school calendar and teacher efficacy. However, a strong positive correlation was found

between teacher perceptions of year-round school calendars and improved student achievement. Similarly, the study revealed a significant relationship between teacher perceptions of year-round school calendars and positive student behavior. A multiple regression analysis determined that grade-level taught served as a negative predictor of teacher perceptions regarding a modified year-round school calendar's impact on student achievement, student behavior, and teacher efficacy.

These findings yielded useful recommendations for policy and practice. Additionally, this study served as a vehicle for continued research into matters of year-round education. Finally, in light of the researcher's interest in a research-based discourse of year-round education in Mississippi, the location where he lives and practices, the study offered a spring-board for exploration of the potential benefits of year-round education in Mississippi.

COPYRIGHT BY  
GEORGE EUGENE HUFFMAN  
2013

The University of Southern Mississippi

TEACHER PERCEPTIONS REGARDING THE RELATIONSHIP OF  
MODIFIED YEAR-ROUND SCHOOL CALENDARS WITH  
STUDENT ACHIEVEMENT, STUDENT BEHAVIOR,  
AND TEACHER EFFICACY

by

George Eugene Huffman

A Dissertation  
Submitted to the Graduate School  
of The University of Southern Mississippi  
in Partial Fulfillment of the Requirements  
for the Degree of Doctor of Philosophy

Approved:

Michael E. Ward  
Director

David E. Lee

James T. Johnson

Rose M. McNeese

Susan A. Siltanen  
Dean of the Graduate School

August 2013

## DEDICATION

I would first like to say thank you and acknowledge God for giving me the courage, motivation, strength and endurance to persevere as I complete this milestone in my life. Phillipians-4:13 states, “For I can do all things through Jesus Christ who gives me strength.” This has been my watchword in my life and I give God the glory and the honor and the praise for this accomplishment. There were many who stood beside me and encouraged me as I wrote this dissertation. Were it not for those persistent and yet inspirational people in my life, I would not have been able to complete this journey. This work is first dedicated to my beautiful wife Darla, who has been a constant as she insisted that I stay the course and not quit even when the intensity and the long hours associated with completing this work took away from our family and our time together. I love you with all my heart. I want to thank my two sons, Derek and Hayden, for being patient as daddy tried to take yet another step in being a lifelong learner in order to be a better provider for our family and role model for you. I love you boys. You are daddy’s pride and joy. I also want to thank my parents Sonya Lowery and Dr. George W. Huffman Jr. who helped to shape me and make me who I am today. Even though there seems be obstacles that life throws our way that keep us from seeing each other and even though the distance and time that comes between our seeing each other seems to get longer and longer, you have both been an encouragement to me and have blessed me with an intense drive and a desire to work hard and strive to be the best at whatever I endeavor to do. Thank you both for instilling that work ethic, and passion, and competitive spirit in me. I love you both very much. “Today is the First Day of the Rest of My Life!”

## ACKNOWLEDGMENTS

I would like to recognize and thank my dissertation committee chair, Dr. Michael Ward, for his support and motivation throughout this process. Even though there were many critiques in his attempt to help me create a product that was ironclad, he always had a word of encouragement that was timely and just what I needed to hear. I will always remember those encouraging words. “No, don’t talk me out of it.” His expertise in the field of education and his innate ability to explain how to work through and complete this process provided me with the support I needed to successfully complete this research study. I knew before I asked him to serve as my dissertation committee chair that he was a stickler for doing things right and for that, I am eternally grateful.

I would also like to thank the other members of my dissertation committee, Dr. David Lee, and Dr. Rose McNeese for their wisdom, their willingness to serve, and their dedication to stay the course with me through this process. In addition, a special thanks goes to my statistician, Dr. James Johnson, for being patient with me and providing me the support I needed to ensure the statistics for this research were correct. It has been a long journey but with their help and encouragement I have been able to accomplish something that I never thought I would.

I also want to thank Dr. Jack McAlpin who, whenever he would see me, would consistently ask me how things were coming along with my research, as if to cheer me on and encourage me to finish the race. That meant a great deal to me as he has been a mentor for me for the last 10 years while I have served in a position of educational leadership as a high school principal.

## TABLE OF CONTENTS

ABSTRACT.....	ii
DEDICATION.....	iv
ACKNOWLEDGMENTS.....	v
LIST OF TABLES.....	viii
CHAPTER	
I. INTRODUCTION.....	1
Statement of the Problem	
Research Questions	
Delimitations	
Assumptions	
Definition of Terms	
Justification	
Summary	
II. REVIEW OF RELATED LITERATURE.....	20
Introduction	
Historical Perspectives	
Stakeholder Perceptions	
Theoretical Framework	
Pertinent Research and Professional Perspectives	
III. METHODOLOGY.....	53
Research Design	
Research Questions and Hypotheses	
Participants in the Study	
Research Procedures	
IV. RESULTS.....	73
V. DISCUSSION.....	93
Limitations	
Recommendations for Practice	
Recommendations for Future Research	

APPENDIXES.....	117
REFERENCES.....	135

## LIST OF TABLES

### Table

1.	Cronbach's Alpha for Pilot Study.....	66
2.	Cronbach's Alpha for Final Study.....	67
3.	Frequencies and Percentages of Demographic Variables.....	77
4.	Frequencies and Percentages of Demographic Variables.....	78
5.	Frequencies and Percentages of Demographic Variables.....	79
6.	Frequencies and Percentages of Demographic Variables.....	80
7.	Frequencies and Percentages of Demographic Variables.....	82
8.	Teacher Perceptions of School Calendars.....	84
9.	Teacher Perceptions of Student Behavior as Related to School Calendars.....	85
10.	Teacher Perceptions of Student Achievement as Related to School Calendars.....	86
11.	Teacher Perceptions of Teacher Efficacy as Related to School Calendars.....	88
12.	Measured Standard Deviations for Independent Variables.....	88
13.	Regression Coefficients for Predicting Teacher Perceptions of School Calendar Impacts.....	90

## CHAPTER I

### INTRODUCTION

School calendar debates have occurred in the United States for as long as public schools have been in existence. While the U.S. has been tinkering with year-round schools for the last 100 years, interest in this concept has varied as societal norms and the economy has changed. Although the economy has become one of the strongest forces behind school calendar debates, the norms and values of individual communities continues to be particularly important when decisions are made regarding changes to school calendars. As a result, stakeholder perceptions based on the norms and values held by a community influence the perceived advantages and/or disadvantages that a modified year round school calendar offers.

The purpose of this study was to examine the perceptions of stakeholders, more specifically teachers, regarding modified year-round school calendars and the relationship that modified year-round school calendars have with student achievement, student behavior, and teacher efficacy. Chapter I provides a framework for developing a study around the perceptions that stakeholders have about year-round education. Although there has been a fair amount of research on the relationship between year-round school calendars and student achievement, research pertaining to the relationship between year-round schools and teacher performance has not been widely available. Because there has been a limited amount of research regarding teacher perceptions of modified year-round school calendars, this study sought to expand the research on this topic. The problem as outlined was to determine the correlation of teacher perceptions of modified year-round school calendars with teacher efficacy, student behavior, and student achievement.

Thirty years ago, *A Nation at Risk*, challenged the American educational institution to take a hard look at public school reform in an effort to improve what was perceived to be a dysfunctional and inadequate educational system. One of the most notable statements from this extensive report addressed the mediocrity found in the educational system, declaring that, “the educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people” (National Commission on Excellence in Education, 1983, p. 5). Since this time, reports and other publications continue to cite the need for K-12 education to address mediocrity by instituting models of comprehensive school reform. Reform models include many of the following points of concern: a focused attention on increased foundational content, more rigorous and measureable standards, more time or more efficient use of time, and the improvement of the teaching profession (Weiss, 2003). By making suggestions for school reform that would help ensure improved performance and success for American students, *A Nation at Risk* not only exposed inadequate performance in public education in the U.S., but also provided an impetus for reforming an educational system that appeared to be slowly falling into a state of stagnancy. Although the commission’s recommendations were not all new ideas, many policymakers began to experiment with ways to increase high school graduation requirements, implement rigorous standards for academic performance, and improve teacher preparation (Hodge, 2007).

Since the release of *A Nation at Risk*, a multitude of reform measures have been implemented, yet the U.S. public education system continues to face problems with student achievement, excellence, and equity (Hodge, 2007). Even with the reform initiatives that have been instituted since the mid 1980’s, student performance and

success continues to lag behind that in other industrialized nations. Graduation rates for high school students in the year 2000, was 85.7% (National Center for Education Statistics, 2006; Vail 2004). For students who entered the ninth grade in the year 2000, only 75% graduated within four years (Seastrom, Hoffman, Chapman, & Stillwell, 2006). U.S. graduation statistics for 2006 show the graduation rate was 74.9% (Protheroe, 2009; Stillwell, 2010). More recent statistics show only slight improvement, up to a meager 75.5% graduation rate (Chapman, Laird, Ifill, & Kewal-Ramani, 2011). In addition, the United States has one of the highest high school dropout rates in the industrialized world (Cuban, 2008; National Center for Education Statistics, 2006). While reform measures that have been instituted to improve student success rates continue to abound, graduation and dropout statistics do not appear to be measuring up to expectations. The excessive dropout rate coupled with a lackluster graduation rate, are two critical components which are creating an educational crisis for the U.S. K-12 public education system.

The underlying issues that cause students to show low academic achievement and eventually drop out of school are complex. These complex issues have to do with students, teachers, and other school personnel as well as the environment in which the students find themselves. For some students, typically those who are economically disadvantaged, these problems become evident long before they enter high school. Many of these students enter high school without basic reading and math computation skills; such deficits prevent them from being successful. Unable to do well and experience success, these students are more likely to skip class and eventually drop out of school. In addition, states have legislated high-stakes testing which students must pass in order to receive a high school diploma. In order to complete state examinations successfully, some school districts are increasing instructional time by starting classes earlier (Metzker,

2003). Others have added days to accommodate a state-mandated expansion of hours; others modify the calendar for localized reasons (Keller, 2001). While it is apparent that students may need more time to do well on high-stakes tests, the perception of many educators is that high-stakes tests are harmful to students and schools. Inflexible high school exit exam policies reduce graduation rates, especially among minority students and students with disabilities (Perkins-Gough, 2005).

Although many students struggle to graduate due to the lack of time to prepare for state exit exams and complete required coursework successfully, the outlook does not get much better for those students who do manage to graduate (Vail, 2004). Among those students who do graduate from high school and attend either a two year or four year college or university, 28% will be required to take remedial courses in English and math before starting regular college coursework (Parsad & Lewis, 2003; Vail, 2004). With the dropout rate being estimated at 29% nationally, and much higher for African American and Hispanic students, the federal government, governors, school superintendents, the Institution of Higher Learning (IHL), philanthropists, and the general public share a deep concern about the low academic achievement of many high school students and the large numbers of high school graduates who are required to take remedial classes in college (Greene & Winters, 2005; Quint, 2006a). Being aware of these concerns, schools and school personnel are under intense pressure to better prepare students for a successful life after high school; however, teachers are finding it more and more difficult to teach the required objectives within the time that is available. A January 2007 report, *On the Clock: Rethinking the Way Schools Use Time*, addresses the challenges that school administrators and teachers face as they creatively allocate school time in an effort to maximize student learning (Johnson & Spradlin 2007; Silva, 2007).

In response to high dropout rates and unacceptable graduation rates, high school reform has moved to the top of the education policy agenda, (Quint, 2006a). Across the United States, educators, particularly principals and district level administrators, are also grappling with school accountability and the challenges to improve under-performing urban and rural schools. With the accountability model of the No Child Left Behind Act (NCLBA) of 2001, and other state accountability systems stressing the importance of students graduating high school, it is obvious that there are high schools in the United States that appear to be deeply troubled and in need of major school transformation (High School Leadership Summit, 2003). While schools and districts are under intense pressure from both federal and state accountability systems to raise student achievement by restructuring low-performing schools, school administrators find themselves with limited options (David, 2008). Although school administrators and teachers are striving to improve student achievement and increase graduation rates, they often have limited data about the reform models and programs that claim to have solutions (Quint, 2006b). As a result of all of the difficulties stakeholders share in preparing for the burgeoning list of skills that the students will need to know in order to graduate and thrive as adults, many education activists have begun to realize that it is important to think systematically about learning and time in school (Gewertz, 2008). In response to this, educational reformers have been attempting to determine if the primary focus should be on school structure or instruction. The underlying perception being that changes in the organizational structure of schools will have a major impact on how students learn and perform.

In 1993, the National Education Commission on Time and Learning conducted research on the amount of time students are in school as compared to student

achievement. The findings from this research were included in the 1994 report, *Prisoners of Time*, which urged school districts to develop school calendars that acknowledged differences in student learning and the major changes taking place in American society (National Education Commission on Time and Learning, 1993; National Education Committee on Time and Learning, 1994). This report argued that America's current education system is hindered by a somewhat universal deference to the clock and the calendar (Johnson & Spradlin, 2007). Nearly three decades ago, the National Commission on Excellence in Education urged schools to add more time to ward off mediocrity in education (Gewertz, 2008). For the last quarter century, presidential commissions, governors, academics, parents, and employers have attempted to fix time students spend in schools (Cuban, 2008). Consequently, while there have been concerns about the amount of time students spend in America's schools, school calendar issues have appeared to increase due to concerns over summer learning loss during long summer vacations, especially for students at risk for academic failure.

Recognizing these concerns, educational reformers have proposed increasing time that students are in school from a 160-180 day instructional calendar to a 200-220 day calendar (Strong American Schools, 2008). This proposal was based on student achievement test results and graduation rates of students in the United States as compared to students in other industrialized countries, where students often spent over twice as much time engaged in actual academic learning time. According to the Associated Press report, (2009), *Obama Would Curtail Summer Vacation*, a survey of industrialized nations shows that students from the United States, whose school year is typically 180 days long, attend the fewest number of academic days per calendar year. Students in Japan attend school 243 days per year, while students in New Zealand spend 190 days per

year in school (Associated Press, 2009). While American students spent 1,406 hours in actual academic learning time, students in Japan, France, and Germany allocated over 3,000 hours to core academics (Sexton, 2003). Many believe that America's progress in student acquisition of knowledge will continue to be less than that of other nations because of the comparatively low level of instructional time in America's schools (National Education Commission on Time and Learning, 1994; Sexton, 2003). As a result, the regulatory and education policy climate may indeed provide the impetus to change the way schools organize the use of instructional time and school calendars (Johnson & Spradlin, 2007).

Intuitively, educational reformers are beginning to re-think the role of time in learning. This means restructuring schools to allow more time for learning by extending the school day or school year. Because of this, the need to revise the standard school day and traditional school calendar is slowly emerging as an increasingly legitimate education policy topic on a national scale. Although a number of strategies are being implemented across the nation to reorganize the use of time in schools, a primary concern is that these schools not only provide more time but also the right kind of time. Merely adding minutes to the school day or weeks to the school year does not necessarily mean that additional time is being successfully utilized for instruction and student engagement (Silva, 2007). As educational reformers have begun to study instructional time more closely, the correlation between the amount of instructional time, engaged time, and student achievement has been examined more closely as well. The underlying perception is that changes in the organizational structure of school calendars will have a major impact on the use of time and student achievement.

### Statement of the Problem

In response to the mandates of the NCLBA of 2001, and other state accountability systems, schools and school districts have sought to understand the causes and provide solutions for the decline in student achievement and for low student graduation rates in America's K-12 public schools. Although contemporary society has made great strides in meeting the challenges of the day, many argue that the American educational system has not been able to keep up with the vast changes that have taken place over the last 100 years.

Benjamin Bloom, in his mastery learning model, recognized that while students vary widely in their learning rates, virtually all learn well when provided with the necessary time and appropriate learning conditions (Bloom, 1968; Guskey, 2001). Consequently, Bloom suggested that if time was altered in order to meet the needs of individual learners, rather than being held constant for all learners as it is in a traditional calendar, a student's mastery of specific skills and concepts would become a better predictor of student learning. In addition, Bloom held to the premise that when given enough time to learn, while being provided quality instruction, over 90% of all students can master what they are taught at an A level (Bloom, 1968; Guskey, 2010).

For decades, pressure on students to optimally use school time to prepare for college has been strongest in middle class and upper middle class families (Cuban, 2008). In these families, parents expect their children to be competitive and attend college. Getting into the best schools is of paramount importance. However, in the name of equity, educators and policymakers have since begun to believe in the notion that all children, including low-income minority students, should be able to go to college. According to John Dewey, schools must act to ensure that each individual gets an

opportunity to escape from the limitations of the social group in which he/she is born, to come into contact with a broader environment, and be freed from the effects of economic inequalities (Soltis, 2002). Raudenbush (2009) asserts that when the amount, quality, and organization of schooling is transformed and sustained, the most disadvantaged children stand to benefit the most. Although school attendance and excellent instruction are two key components to improving student achievement, another chief variable is how the school setting is organized. Laitsch (2005) indicates that a key challenge is constructing educational environments in such a way as to facilitate access to the curriculum for all students by providing opportunities for all students to spend actual time engaged with the curriculum.

In summation, as a result of the lackluster achievement and low graduation rates among America's high school students, it appears that the U.S. public education system has not been able to keep up with the changes that have occurred over the last century. Even with the plethora of reform initiatives that have been enacted since the mid 1980's, the public school system still faces problems with student achievement (Hodge, 2007). Nevertheless, reform measures to change the amount of time students are engaged in learning opportunities by restructuring school calendars continues to be suggested as a means to improve student achievement and increase graduation rates among American students. Although this type of calendar has been shown to be advantageous in the areas of learning retention, weak correlations have been found where student achievement is concerned (Baker, Fabrega, Galindo, & Mishook, 2004). In addition, there is little available evidence to suggest that a calendar change significantly impacts staff stress and attendance. However, most views of the impact of calendar changes on teacher stress and attendance are positive, with only one study reporting negative outcomes (Eames, Sharp,

& Benefield, 2004). Therefore, understanding teacher perceptions of the relationship that a modified year-round calendar has with student achievement, student behavior, and teacher efficacy may provide insight into the potential readiness of Mississippi teachers for the successful implementation of a modified year-round school calendar.

### Research Questions

The purpose of this study was to determine whether there are relationships among teacher perceptions of modified year-round school calendars and teacher perceptions of student achievement, student behavior and teacher efficacy. This study also provided data regarding teacher motivation in terms of teacher absences and job satisfaction. The independent variables analyzed for this study included the following: number of years of teaching experience, teacher age, teacher gender, extra-curricular duties, grade-level taught, school accountability level, free/reduced lunch rate and type of school calendar. The dependent variable for this study was teacher perceptions of the correlation that modified year-round school calendars have with student behavior (i.e. conduct, attendance, dropout rate, and motivation), student achievement, and teacher efficacy. A quantitative research design was used to assess the correlation among teacher perceptions of modified year-round school calendars and student achievement, student behavior, and teacher efficacy. For the purpose of determining how the variables identified in this study correlate, the following research questions were examined:

1. What are the perceptions of teachers regarding the type of school calendar adopted by their school, and regarding teacher efficacy and student achievement in their school?

2. Is there a statistically significant relationship between the perceptions of teachers regarding the type of calendar adopted by a school and their perceptions of teacher efficacy?
3. Is there a statistically significant relationship between the perceptions of teachers regarding the type of calendar adopted by a school and their perceptions of student achievement?
4. Is there a statistically significant relationship between the perceptions of teachers regarding the type of calendar adopted by a school and their perceptions of student behavior?
5. Is there a statistically significant relationship between selected teacher characteristics (teaching experience, teacher gender, grade level taught, and extra-curricular duties) and the perceptions of teachers regarding the type of calendar adopted by a school?

Research Questions 2-5 lend themselves to the development of hypotheses. The hypotheses related to these research questions were written as follows:

- H<sub>1</sub>: There is a statistically significant relationship between the perceptions of teachers regarding the type of calendar adopted by a school and their perceptions of teacher efficacy.
- H<sub>2</sub>: There is a statistically significant relationship between the perceptions of teachers regarding the type of calendar adopted by a school and their perceptions of student achievement.
- H<sub>3</sub>: There is a statistically significant relationship between the perceptions of teachers regarding the type of calendar adopted by a school and their perceptions of student behavior.

H<sub>4</sub>: There is a statistically significant relationship between the perceptions of teachers regarding the type of calendar adopted by a school and their perceptions of selected teacher characteristics (teaching experience, teacher gender, grade level taught, and extra-curricular duties).

#### Delimitations

While the researcher had a particular interest in perceptions of year-round education in his home state, the limited number of year-round schools in the state made this study problematic in Mississippi. Participants for this study were limited to teachers who teach in public elementary schools, middle schools, and high schools within specific school districts in the state of North Carolina that utilize both year-round school calendars and traditional school calendars. A number of schools have adopted year-round education models in that state. While there may be some issues of generalizability from one state to the other, it was believed that study findings could be extrapolated from North Carolina to Mississippi.

#### Assumptions

It was assumed that all participating teachers in the study were honest and were willing to complete the questionnaire in its entirety without fear of potential retaliation for their responses. It was also assumed that the participating teachers have volunteered to participate in this study and that their responses have not been influenced by a desire to influence the results of the study. Furthermore, it was assumed that the participating teachers had a basic understanding of the type of school calendar adopted by the school in which they taught as well as a basic understanding of a modified year-round school calendar.

### Definition of Terms

The following terms were defined for use in this research and were used extensively throughout the course of this study.

*Actual learning time* - The amount of time students are successfully covering content that will be tested (Huitt, 2005)

*At-risk students* - Students who have a high probability of dropping out of school due to the inability to complete state mandated coursework and requirements for graduation (Quint, 2006a).

*Agrarian society* – A society where agriculture is the primary industry (Cuban, 2008; Johnson & Spradlin, 2007).

*Carnegie units* – Secondary school units representing one year of work in specific academic subjects used for meeting graduation requirements from high school and to determine admissibility to particular colleges and universities (Mann, 1929).

*Engaged time* – The time actually spent in learning activity within the instructional setting (Carroll, 1963; Huitt, 2006; Metzker, 2003).

*Equity of learning* – The equal opportunity for students to receive instruction in course offerings, through the public schools, regardless of the type of school calendar (Raudenbush, 2009).

*Extra-curricular* – The activities or duties assigned to teachers outside of the academic curriculum of a school (Shields & Oberg, 2000a).

*High school reform* – A process of changing the traditional American high school through instructional improvements and structural changes to better meet the needs of students (Quint, 2006a).

*Instructional calendar* – The annual academic calendar for schools that is set and developed by a school district in response to a variety of local imperatives (Metzker, 2002).

*Instructional time* - The allocated time, during a school day, for actual time-on-task learning (Cuban, 2008).

*Intersession* – Additional instructional days between grading periods used for both enrichment and remedial work (Eames et al., 2004; Sharp, & Benefield, 2004; Glines, 2002; Kneese, 2000).

*Modified year round calendar* – A year round school calendar designed with instructional periods of 45-60 days and separated by breaks or intersessions of 10-20 days (Johnson, 2000; St. Gerard, 2007)

*Multi-track year round schedule* – A type of year round education schedule designed to reduce overcrowded school facilities by maximizing the use of school facilities through the incorporation of different schedules for students so that some students are receiving instruction while others are on vacation or intersession periods throughout the year (Glines, 2002; Johnson & Spradlin, 2007).

*No Child Left Behind Act of 2001 (NCLBA)* – Known as Public Law 107-110; promoted an increased focus on reading proficiency and reauthorized the Elementary and Secondary Education Act of 1965; designed to improve student achievement and change the culture of America's schools by focusing on accountability results, quality of instruction based on scientific research, expanded parental options and local control (U.S. Department of Education, 2003).

*School accountability* – A measure of school and school district performance based on adequate yearly progress in the areas of individual student performance on

subject area tests, academic growth, graduation rates, and attendance rates (U.S. Department of Education, 2003).

*School curriculum* – The academic and co-curricular course offerings that are available to the student body within a school and school district (Mitchell & Mitchell, 2005).

*Single-track year round schedule* – The type of year round education schedule that utilizes an instructional calendar of 180 days and incorporates short breaks known as intersession periods throughout the school year. All students follow the same calendar (Glines, 2002; Johnson & Spradlin, 2007).

*Student achievement* – A student's ability to maintain and improve their educational performance (Kneese, 2000).

*Teacher efficacy* – A teacher's perceived capability to provide continuity of instruction at a high level by being confident, reflective practitioners who feel empowered to successfully perform as a professional (Shields & Oberg, 2000a).

*Traditional calendar* – A 180 day school calendar, typically extending from the month of August to the month of June and followed by an extended summer break; originally designed to work around times when child labor was needed to support an agrarian society (Johnson & Spradlin, 2007; Sexton, 2003; Sutton, 2007).

*Year round education* – A school scheduling concept which organizes the school year to provide more continuous learning throughout the year by reducing the long summer vacation and incorporating the extra time into shorter, more frequent vacations throughout the year between periods of instruction (Kneese, 2000; National Association of Year-Round Education, 2007).

### Justification

In the 1983 report, *A Nation at Risk*, The National Commission on Excellence in Education suggested that all students should be prepared to seek good jobs, effectively manage their lives, and be able to contribute to American society as productive citizens (Sexton, 2003). This report asserted that gains in academic achievement were diminishing and that the American educational system had lost sight of its basic purpose (National Commission on Excellence in Education, 1983). In the aftermath of the concern created by *A Nation at Risk*, the National Assessment of Educational Progress (NAEP) conducted a resounding study to determine how much knowledge America's seventeen year old students had in the areas of history and literature (Hess, 2008). The results revealed that seventeen year old students tend to fare poorly on questions related to history and literature. Additionally, institutions of higher learning as well as business and military leaders have become less than enthusiastic about the quality of applicants graduating from America's high schools while complaining of the additional relative cost to training graduates in basic reading, writing, spelling, and computation skills (Sexton, 2003; Vail, 2004). As accountability standards have increased in recent years, due to national education initiatives such as the NCLBA of 2001 and the implementation of state systems of accountability, and as pressure mounts from educational, business, and military leaders, educators are focusing more attention on research-based strategies to improve student achievement and close achievement gaps among student populations. While increasing standards and school accountability has become a national initiative, the national focus has been slowly leaning toward time and learning reform. In fact, one of the four findings in *A Nation at Risk* stated that time needed to be adjusted in order for students to be successful. This was reiterated further in the 1994 report, *Prisoners of*

*Time*, which stated that time is the, “unacknowledged design flaw,” in America’s educational system (Gewertz, 2008).

Although year-round education is not a new concept to the U.S. educational system, it has been growing in popularity nationally over the last decade. As policy makers and educators have begun to rethink the role that time plays in learning, the restructuring of the school calendar is now being viewed as a possible solution to the diminishing academic gains of American students. While the results indicate that the impact of modified year-round calendars on student achievement has been positive, although not extensive, it has also been suggested that modifying the school calendar to include a more balanced instructional calendar throughout the school year has a positive impact on the way teachers think about and plan for instruction (Kneese, 2000; Shields & Oberg, 2000a).

Because there was a limited amount of research regarding teacher satisfaction with modified year-round school calendars, the researcher sought to expand the research on the relationship between teacher perceptions of modified year-round school calendars and the correlation with teacher perceptions of student achievement, student behavior, and teacher efficacy. The researcher also sought to provide insight into ways to creatively and efficiently schedule students in order to maximize the use of school facilities and school personnel on a year round basis, while reducing summer learning loss. Additionally, a study of year-round education could serve as a catalyst to begin statewide research initiatives on modifying the traditional school calendar existing in most U.S. schools today.

### Summary

One could surmise that the results that have been collected from prior research studies of schools with modified year-round calendars show a direct correlation with improved student achievement, student attendance, teacher attendance and teacher efficacy. However, studies to date have produced only modest findings to this effect. Davies and Kerry (2000) suggested that changing to a year-round calendar would provide for more continuous learning benefiting all students. It has also been widely acknowledged among proponents for calendar change that a year-round calendar fits better into modern society. Additionally, proponents have claimed that because the long summer break is eliminated, students with learning difficulties do not lose ground due to the significant amount of learning loss that occurs over the long summer break. Furthermore, research has provided evidence that students in lower socioeconomic sub-groups who attend schools with traditional calendars tend to have lower achievement than similar groups of students who attend schools with modified year-round calendars; the out-of-school context necessarily explains the lag in achievement levels of low-income and minority youth (U.S. Department of Education, 2000). The widening achievement gap between students of different socioeconomic backgrounds has been diminished as a result. Although the achievement test gains in specific areas such as math and reading may not be significant for students attending schools with a modified-year round calendar, there have been noticeable improvements in student attendance (Shields & Oberg, 2000a).

While there have been articles that claim that teacher attendance improved and school spending on substitute teachers was reduced as a result of year-round calendars, there has been little available research to support this finding (Shields & Oberg, 2000b).

Nevertheless, the overall goal of this research was to determine the teacher perceptions of modified year-round school calendars and the correlation that these calendars have with student achievement, student behavior, and teacher efficacy within an organization utilizing such a calendar.

## CHAPTER II

### REVIEW OF THE LITERATURE

Educational reformers have studied the issue of time in school for the last century. Throughout this time calendar debates have continued to occur regarding the impact of the structure of school calendars on student achievement. For school officials, calendars have turned into a political ordeal that must be endured annually (Cook, 2005). With no easy answers and no clear winners, schools and school districts continue to evaluate the research that provides insight into the pros and cons of year-round school calendars. Research has also been conducted to determine stakeholder perceptions of year-round school calendars. In addition, research has provided a logical reason for implementing year-round schools in order to give schools more instructional time before testing. On the other hand, it has been difficult to ignore the concerns of parents who want to extend summer to late August or early September (Cook, 2005). Chapter II provides an historical perspective of how year-round school calendars have evolved, the stakeholder perceptions of modified year-round school calendars, the theories that have influenced the development of modified year-round school calendars, and a focused examination of the literature regarding modified year-round school calendars.

#### *Historical Perspectives*

Interest among educational reformers regarding time and learning has brought about many different approaches to address potential links between the amounts of time students need to learn and the desired academic outcomes. James Currie, author of the book entitled, *The Principles and Practice of Common-School Education*, was one of the first progressive educational reformers to provide insight into instructional pedagogy and the organizational structure of schools. His writings revealed a plethora of progressive

ideas on specific topics such as teaching methods, the practical implementation of schools, and the duration of time that schools should operate within individual communities. Currie (1884) suggested that schools that do not provide enough time for students to learn are, “radically bad in constitution” (p. 180). Although some communities might be forced to use a schedule that is shorter in duration because of the influence of local industry or agriculture, it would better serve the students to provide two distinct schedules throughout the course of the year; one schedule should be set during the winter and the other during the summer (Currie, 1884). It was further explained that if the demand for child labor was not prevalent, then the design of the common school should be to provide a general education throughout the year (Currie, 1884).

In the early years of formal schooling in America, school calendars fit the needs of each particular community (Cooper, 2003; Gold, 2002). Some communities had school calendars with long summer breaks that released children from school during the planting and harvesting seasons (Cooper, 2003). In rural areas, it was not unusual for children to attend school for only five to six months of the year, thus allowing them to be able to participate in or assist with the farming economy (Cooper, Valentine, Charlton, & Melson, 2003). During this era, more than fifty percent of the U.S. population relied on farming as the primary occupation (Kennedy, Cohen, & Bailey, 2010).

With the arrival of the twentieth century, the U.S. gradually became a more urban and industrialized country. Due to the advancements that were made in farming equipment and technology during the early 1900’s, the demand for farm hands decreased. As a result, families began to move to the larger more populated cities to find work. The 1920 census showed that over fifty percent of the U.S. population lived in large cities (Kennedy et al., 2010). During this time, urban schools would often operate on an eleven

to twelve month calendar (Cooper et al., 2003). Many large cities kept schools open more than 250 days a year (Gewertz, 2008). Some urban schools were even open 49 weeks out of the year (Johnson & Spradlin, 2007).

As families migrated from the farm to the city the need for the standardization of the school calendar was created (Cooper, 2003). Big city school calendars and rural school calendars began to change as pressure increased to create a system of compulsory education in order to educate the masses of society, thereby allowing more time for the preparation of a capable workforce (Johnson & Spradlin, 2007). While middle class parents in urban settings began insisting on extended vacation time, rural school calendars, which were usually interrupted by farming demands and inadequate funding, became longer. This confluence of urban and rural interests promoted the establishment of the traditional school calendar common in schools today (Johnson & Spradlin, 2007).

Since the early 1900's, the American educational institution has relied upon the traditional school calendar almost universally; this school calendar has typically provided five to six hours of instruction per day for 170-180 days and a lengthy summer break (Johnson & Spradlin, 2007). By the mid-1900's, policy makers and parents began to grow concerned about students losing ground academically during the extended summer vacation months (Cuban, 2008). As stated previously, the traditional nine-month calendar reflected a society that needed children home in the summer to work on farms. This was important for certain communities because of the agrarian cycle of planting and harvesting that these communities thrived on. Cooper (2003) suggests that the present nine month calendar emerged when 85% of Americans were involved in agriculture and when climate control in school buildings was limited. Others have stated that the traditional calendar grew out of the interests of early 20<sup>th</sup>-century urban middle-class

parents; later, lobbyists for summer camps and the tourism industry pressed school boards to allow children to be with their families for long summer breaks (Cuban, 2008). Irrespective of the reason for the development of the traditional school calendar, the position of year-round school advocates is that the traditional school calendar has lost much of its original reason for being.

Many educational reformers argue that the traditional school calendar is insufficient and does not meet the needs of contemporary society (Sutton, 2007; Weatherford, 2001). Rasmussen (2000) contends that outside of tradition, the traditional school calendar has little validity for modern schools. By the year 2000, less than three percent of the American population listed agriculture or farming as their main occupation (Kennedy et al., 2010). Cooper (2003) confirms this thought by expressing that a meager three percent of Americans' livelihoods are associated with agriculture and that air conditioning makes it possible for schools to provide comfortable learning environments year round. Borman (2001) asserts that such a calendar is more appropriate for an agrarian lifestyle which is no longer relevant to the majority of people. Nevertheless, the traditional school calendar remains the standard schedule by which most American schools operate; it is a schedule that can be traced back nearly 150 years (Cooper, 2003; Johnson & Spradlin, 2007).

The first official year-round school was opened in Bluffton, Indiana in 1904 under the leadership of Superintendent William Wirt. Wirt initiated a work-study-play school on a year-round *platoon* system which operated on a rotating four-quarter schedule revolving around the four seasons (Johnson & Spradlin, 2007; Sexton, 2003). This calendar was designed to improve the quality of education during that time and address the space issue. By utilizing current facilities to their fullest potential, Wirt believed that

there would be no need to construct new buildings. Although this plan was successful, it failed to provide the additional space needed (Sexton, 2003). However, due to the success experienced by Wirt, nearly 240 communities adopted this extended-year, curriculum-oriented, space-saving plan, thus setting the stage for a year-round education movement. (Johnson & Spradlin, 2007).

Between 1912 and 1931, Superintendent Addison Poland developed and managed a K-12 year-round school program in Newark, New Jersey that was remarkably similar in design to that of Wirt's year-round education model. The purpose of Poland's year-round education model was to increase learning opportunities for students (Sexton, 2003). During this time, another school superintendent by the name of Harold Weber had a vision to improve the quality of education in his Nashville, Tennessee school by implementing a four-quarter system which covered a span of twelve months. This program was established to create a model of continuous education for the students in this community. While the year-round education model during this time intrigued many educational reformers, it wasn't until 1968 when Park Elementary School in Hayward, California, adopted a year-round calendar that year-round schools entered into the modern era. As a result, this school was viewed as the first year-round school in the modern era and remains the longest-running year-round school in the nation (McGlynn, 2002).

Since the inception of year-round school calendars in the United States, the numbers of schools utilizing such a calendar have increased. In the 2000-2001 school year more than 2.16 million students in 45 states attended over three thousand schools utilizing some type of year-round calendar (Cooper et al., 2003). During the 2005-2006 school year, data from the National Association of Year Round Education (NAYRE)

indicated that 2,850 public schools in 45 states and the District of Columbia utilized year-round education (YRE) calendars (Johnson & Spradlin, 2007). The latest data from the National Association for Year-Round Education (NAYRE) shows that more than two million students in 3,000 schools across 46 states attended school year-round in 2006-2007 (Dessoiff, 2011).

Although the United States has been experimenting with year-round schools for the last 100 years, interest and implementation of this concept has varied. Reasons for implementation have included such causes as fuel conservation, overcrowding, improved educational opportunity and improved student achievement (Sexton, 2003). Year-round calendars have been especially popular in school districts where there is a great need for additional classrooms and schools (Cooper et al., 2003; Shields & Oberg, 2000a). However, year-round education advocates usually contend that the most important reason for changing to a year-round education schedule is to slow down the *summer slide* (Smith, 2012). This describes the significant learning loss that occurs during the extended summer vacation associated with traditional school calendars (Glines, 2000).

There are a myriad of organizational approaches in which year-round calendars have been implemented; however, it is important that one understands the distinct differences between a year-round school calendar and an extended school year. While an extended school year indicates that a compulsory number of school days will be added to the current school year, thereby shortening the summer vacation, a year-round calendar simply redistributes the school days uniformly throughout the calendar year (Johnson & Spradlin, 2007). Year-round school calendars provide for a variety of modifications to the traditional school calendar. Schools and school districts adopting a year-round education calendar typically use a single-track or multi-track plan; the two most common

methods of organizing year-round calendars. With these two calendar designs, the school calendar can be modified without increasing the length of the school year (Cooper et al., 2003).

In a single-track year-round school calendar, all students attend school at the same time and have the same intersessions intermittently spread out throughout the calendar year. State-required and common holiday periods are preserved (Glines, 2002; Wake County Public School System, 2006). Although the single-track plan is often promoted as a multiple-vacation plan featuring shorter segments of academic and vacation time, this plan does not alleviate overcrowding (Glines, 2002; Ready, Lee, & Welner, 2004). Single-track year-round education programs simply redistribute school days throughout the entire year while eliminating the long, traditional summer break, which lasts up to twelve weeks in some instances. Instead, a number of short intersessions are built in to the school calendar between academic terms allowing the opportunity for remediation and enrichment (Johnson & Spradlin, 2007). This type of year-round approach is usually implemented to increase overall instructional time and improve student achievement by spreading out learning into continuous intervals (Sutton, 2007; Weatherford, 2001).

Multi-track year-round education programs utilize the same tenets of the single-track year-round education program but are typically implemented to provide the additional benefit of reducing overcrowding due to increased enrollments in districts where school facilities are not adequate and either the financial capital is not available to construct new buildings or the growth in student population outpaces construction capabilities. The Wake County (North Carolina) Public School System officials explain that students attending schools following a multi-track year-round calendar still attend school for 180 days, just like students on a traditional calendar; however, the two

calendars differ in particular days students are in school and the days they have off for vacation. In this year-round education model students are organized into groups or tracks (Wake County Public School System, 2006). Each group or track is then assigned a school calendar to follow. Whereas a single-track year-round education program operates with one schedule throughout the calendar year, a multi-track program utilizes several calendars throughout the calendar year, with start and stop dates set on a staggered basis for the different groups or tracks. This provides for different academic sessions that alternate with other academic sessions allowing students to have vacation at different times during the calendar year. Overcrowding due to increased enrollment is therefore reduced by limiting the number of students who are actually in school at a single time. By implementing a multi-track school calendar, schools are able to accommodate up to 33% more students than schools on a traditional calendar (Sutton, 2007; Wake County Public School System, 2006). For every three schools on a multi-track program, one less school has to be built (Wake County Public School System, 2006). Year-round school advocates cite the advantages of utilizing expensive school facilities throughout the entire year as opposed to one-half (180) days out of a year, and three-fourths (9) months out of a year (Glines, 2002). By making better use of school facilities throughout the entire year, districts can close older buildings without the additional costs associated with renovations or the construction of new facilities while at the same time alleviating overcrowding (Ready et al., 2004).

### *Stakeholder Perceptions*

Over the last three decades, influential groups have called for higher academic standards, accountability for student outcomes, more homework, more testing, and of course, more time in school (Cuban, 2008). The idea of finding more time for learning

has generated extensive national debates among educational reformers, politicians, business leaders, parents, teachers, and students. These debates have revolved around the inequality of learning among students with differing socioeconomic levels and cultural backgrounds when school is not in session for extended periods of time. One study found that low-income students made similar achievement gains to other students during the school year while the widening of the achievement gap between the two groups occurred over the long summer vacation (Alexander, Entwisle, & Olson, 2007; Huebner, 2010). In another study, Baron and Celaya (2010) found that children's pragmatic skills improved as their number of hours of instruction increased, even in the absence of direct instruction. The literature uniformly asserts that long summer vacations create a time of significant setbacks and risks for low income youth (Fairchild & Smink, 2010). This has been attributed to students' differential access to learning opportunities in the summer; comparisons of such access have provided insight into the fundamental questions of educational stratification while helping to parse school, family, and community influences on children's academic development thus providing for a better understanding of the role of schooling in a child's cognitive development (Alexander, Entwisle, & Olson, 2001; Alexander et al., 2007; Cooper et al., 2003). Considering the changing needs of students, Silva (2007), suggests that policy-makers and educators consider extending learning time policies and programs that target low-income students and English language learners who are most in need of extra learning time (Johnson & Spradlin, 2007). In response, one approach that states and local education agencies have begun to study and implement is the concept of the year-round school calendar.

The year-round school calendar has become an increasingly popular alternative to the traditional nine-month school calendar (Kneese, 2000). The term, *year-round*

*education*, is something of a misnomer because it gives the impression that school is held for 12 months out of the year (Rasmussen, 2000). Cooper (2003) explains that a better name for this type of school calendar is a modified year-round calendar, since it is actually one in which children attend school for the same length of time as a traditional calendar. The National Association for Year-Round Education (NAYRE) defines this type of modified schedule as one which contains no break lasting longer than eight weeks, and in which schools are able to keep students in a constant learning mode while providing intersessions between grading periods. Another way to describe this is with a more contemporary model where the conventional 9-10 month school calendar and long summer break is replaced with a more continuous school year providing more continuous learning by spacing the long summer vacation into shorter, more frequent breaks throughout the calendar year in order to address the problems of students who are falling behind (Johnson, 2000; St. Gerard, 2007). Each grading period consists of 45-60 instructional days, with a 10-20 day break between each. Although there are prescribed numbers of days for each grading period and intersession, there is no single model for year-round schooling because it must be adapted to the context of the local community (Rasmussen, 2000).

The question as to whether a modified year-round calendar is beneficial for students and teachers continues to be a topic of high interest among educational reformers. Because of the flexibility of a modified year-round schedule, year-round education advocates cite several benefits of using a modified year-round schedule. These benefits may include the following: improved student readiness, a happier and more focused student body, improved student attendance, lowered student retention and dropout rates, reduced summer learning loss, higher student achievement among students

who are at-risk, improved parent involvement, and fewer overcrowded classrooms and buildings in school districts where new buildings are not an option (Cooper et al., 2003; Shields & Oberg, 2000a). Furthermore, researchers of social classes, equity of learning, and summer learning loss have been able to provide supporting evidence for summer vacation periods that are academically rich citing the benefits for students who come from low socioeconomic status (SES) families (Alexander et al., 2001; Gorski, 2008; Lareau, 2003). For this reason, the organizational structure of the modified year-round school calendar may provide some very distinct advantages over the traditional school calendar.

One perceived advantage of a modified year-round calendar is a reduction in the summer learning loss that may occur for students who attend schools using a traditional school calendar. Some proponents argue that changing from a traditional calendar to an alternative calendar such as a modified year-round calendar impacts student groups differently (Davies & Kerry, 2000). Evans (2007) asserts that students who are economically disadvantaged are more likely to be impacted by time away from school as compared to their economically advantaged peers. This is due in part to the lack of resources and knowledge about academic enrichment opportunities in low SES families. These factors contribute to the inability of parents, guardians, and other family members to assist students with learning activities that would provide enrichment throughout periods of school vacation. Heyns (1978) further establishes that achievement gaps by family socioeconomic status and race/ethnicity widen more during the summer months than during the school year. However, Evans found that third grade students with a lower socioeconomic status and minority students who attended enrichment programs during the summer performed better than students in the same categories who were enrolled in

schools using a traditional school calendar. McMillen (2001) also found that lower achieving students in schools utilizing a year-round calendar scored slightly higher than their lower-achieving peers attending schools where a traditional calendar was being implemented. McMillen explains that one possibility for the improved academic achievement among at-risk students in year-round schools might be the use of intersessions to provide remediation and enrichment activities in order to increase student exposure to the curriculum. These proponents argue that year-round school calendars will improve student retention by alleviating summer learning loss (Evans, 2007).

Another perceived advantage is the opportunity provided for students to recover credit or remediate in specific content areas during intersessions between grading periods that are spread out over the entire year. “Much of the rationale for year-round schooling hinges upon intersession times that enable teachers to target and remediate students throughout the year with short intensive developmental assistance” (Evans, 2007, p. 2). Byrd (2001) found that providing intersessions between academic sessions throughout the year enhanced overall student achievement for low-achieving students and students who are economically disadvantaged. On the other hand, research shows that students who are economically advantaged tend to lose less, particularly in reading, after summer break, while being compared to their less economically advantaged peers (Alexander et al., 2007; Cooper et al., 2003). Nevertheless, literature related to summer learning loss is clear and compelling and suggests that summer is a season of huge setbacks for low-income youth (Fairchild & Smink, 2010). Many reformers go beyond this basic concept, however, citing the year-round school calendar as an opportunity for the transformation toward a philosophy of lifelong continuous learning (Glines, 2002).

Research has also provided evidence that teachers tend to benefit from a modified year-round school calendar as well. Teachers who have had the opportunity to teach on both a traditional schedule and a modified year-round schedule cite specific benefits such as lessened teacher and student fatigue, improved teacher focus and attendance and a reduction in teacher burnout (Haser & Nasser, 2003; Price, 2000). However, teachers often voice skepticism initially regarding the impact of modified year-round calendars citing a fear of being more susceptible to burnout without the long summer break (Cooper et al., 2003). In addition, teachers who teach on a multi-track year-round schedule often have to keep their personal teaching materials in moveable storage containers in order to easily move to different classrooms when returning from vacations (Shields & Oberg, 2000c). Although skepticism may abound initially, Cooper et al. (2003) found that attitudes were more positive toward modified calendars in more than fifty school districts which surveyed teachers, parents, students, administrators, and staff about their reactions to modified year-round school calendars. The respondents overwhelmingly described the experience as positive and felt that it had a positive effect on student achievement (Cooper et al., 2003). Although attitudes were positive, post-implementation attitudes were more positive than pre-implementation attitudes. In a study conducted by Shields and Oberg (2000b) investigating the role and opinions of stakeholders using modified year-round calendars, teachers reported increased motivation, concentration, and attendance of their pupils. While the literature tends to show a direct correlation between modified year-round school calendars and student attendance and achievement, reviews provide little evidence to suggest there is a significant impact (Eames et al., 2004).

Although there appears to be a large amount of research on the impact of year-round calendars on student attendance and student achievement, evidence of the impact

of modified year-round calendars on school staff is rather limited. However, some of the literature related to the impact of modified year-round calendars on teacher motivation and attendance does provide specific evidence about teacher perceptions of a modified year-round calendar. It has been argued that the more frequent breaks offered by year-round calendars will help reduce teacher stress and time absent from work (Haser & Nasser, 2003; Price 2000). In contrast, others have expressed concerns that changing the school calendar will have an unintended negative effect of increasing stress, workloads, and related absences (National Union of Teachers, 2001). McGlynn (2002) points out that changes involving more complex year-round education systems, such as a multi-track plan, are more likely to have a negative impact on staff. This may be due to increased workloads, greater difficulty in taking holidays, and timetabling difficulties which place greater demands on school space and resources (Shields & Oberg, 2000c). Although there are arguments against changing from a traditional school calendar to a modified year-round school calendar, overall teacher satisfaction appears to be greater for teachers who teach within the constructs of a year-round school calendar. Additionally, teachers in year-round programs generally believe that year-round programs provide for a positive impact on the way teachers think and plan for instruction while improving the continuity of instruction and providing opportunities for reflective analysis of their teaching practices (Kneese, 2000; Shields & Oberg, 2000a). Proponents of year-round school calendars argue that it is not just the teachers and students who benefit from changes in the pattern of the school year but suggest that changing the school calendar can result in an improved school culture where year-round school calendars are successfully implemented (Eames et al., 2004).

While a year-round approach to schooling is appealing to those in favor of year-round education, there are certain organizational leaders who are adamantly opposed to this type of school schedule, citing the need for children to reconnect during the long summer break by spending quality time with the family (Cook, 2005). Additionally, two recent studies of multi-track year-round education programs in California reported negative effects on student achievement (Graves, 2009; Mitchell & Mitchell, 2005). Opponents to year-round education cite concerns with equity of learning as well. In other words, course offerings have varied during different grading periods causing students to be excluded from opportunities to enroll in advanced courses they desire to take. Findings in one study showed widespread use of ability tracking and warned that this practice was akin to promoting academic inequalities by limiting some students' access to higher level courses and more experienced teachers (Mitchell & Mitchell, 2005). Those who oppose changing from the traditional school calendar cite additional key issues with increasing or restructuring the time students spend in school. These can be identified with one of three headings: cost, insufficient and lackluster research, and the importance of social goals of U.S. taxpayers and voters (Cuban, 2008). With respect to year-round schooling, the last issue specifically addresses concerns about the tourism industry as well as quality family time.

In a 2007 study of year-round schools in Indiana, Evans noted that all single-track year-round programs adopted alternative calendars in response to academic concerns and public support for the plan. Although the advantages of a modified year-round school calendar may appear obvious, administrators, teachers, parents and students have varied perceptions of the pros and cons related to modified year-round school calendars. As beneficial as a modified year-round calendar might be, it will be the perceptions of

stakeholders, who are most impacted by changing the school calendar, that will have the greatest influence on the acceptance of such a paradigm shift. This alludes to the fact that stakeholders need to be engaged in the process of adopting a continuous learning model such as a year-round education calendar since there are specific factors that will have to be addressed in order to enhance the learning climate (Glines, 2002). With this in mind, it is essential that the American educational institution begin to study the relationship between expanding the number of instructional hours students are provided, the structure of the school calendar, and student achievement in terms of mastery of core academic objectives, passing of state mandated exit exams, meeting graduation requirements, and performing successfully in a 21<sup>st</sup> century global society.

#### Theoretical Framework

Utilizing time more wisely has been widely suggested among education philosophers since the first official year-round school was opened in Bluffton, Indiana, in 1904, under the leadership of Superintendent William Wirt. Glines (2002) asserted that since that time, many educators have inquired about the practicality of the 50-minute node, September to June, five days a week, scheduling process; most ordinary schools still subscribe to this type of traditional schedule. According to John Dewey, the “father of progressive education”, schools must act to ensure that each individual gets an opportunity to escape from the limitations of the social group in which he is born, to come in contact with a broader environment, and to be freed from the effects of economic inequalities (Soltis, 2002). Many educators have looked beyond the basic scope of year-round education. They do not view year-round education as simply a calendar configuration for space, achievement, or enrichment. Instead, they view year-round education as part of the transformation toward a philosophy of lifelong continuous

learning (Glines, 2002). They believe that schools, like hospitals, are helping institutions, and therefore should offer educational services over the course of a full calendar year rather than one-half of the days of the year and three-fourths of the months in a year (Glines, 2002).

In the 1983 report, *A Nation at Risk*, a recommendation for a longer school year was proposed. The suggestion was to extend the school year from 180 days to 220 days. In the 1994 report, *Prisoners of Time*, this recommendation was reiterated by stating that time is the, “unacknowledged design flaw”, in American education, and should support learning not limit it (Gewertz, 2008). The National Education Commission on Time and Learning (2000) determined that there is too much to teach and not enough time to teach it. In 2008, a foundation-funded report, *A Stagnant Nation: Why American Students Are Still at Risk*, found that the 180-day school year was still intact across the nation and only Massachusetts had started a pilot program to help districts restructure time in learning (Cuban, 2008). More recently, the U.S. Department of Education set guidelines for considering time as a strategy for school improvement through several American Recovery and Reinvestment Act (ARRA) grants such as Race to the Top, Investing in Innovation Fund (i3), and Title I School Improvement Grant (SIG) funds (National Center on Time & Learning, 2010). In addition, President Barack Obama and U.S. Secretary of Education Arne Duncan have expressed support for the use of increased learning time as a means to improve persistently low performing schools and squelch the problem of summer learning loss that appears to be widening the achievement gaps among low SES students and their more affluent peers (Fairchild & Smink, 2010; National Center on Time & Learning, 2010). Despite the apparent need for school improvement and narrowing of achievement gaps among students, educational reformers

have continued to yield very little practical insight on how time can be effectively used to improve student learning. Malcolm Gladwell (2008), surmised in his book *Outliers: The Story of Success*, that the most successful artists, musicians, and athletes have spent thousands of hours honing their skills. Fairchild and Boulay (2002) asserted that the performance of professional athletes or musicians would suffer from an extended break from practice. Although there seems to be an intuitive understanding of the need to use the allotted time students are in school in a more engaging and meaningful way, the long history of attempting to study the connection between time and learning appears to have created only theory and criticism (National Center on Time & Learning, 2010).

In 1913, Edward Thorndike proposed the learning theory known as connectionism in his book, *Educational Psychology: The Psychology of Learning*. This behaviorist theory is based on the original stimulus-response framework and suggests that transfer of learning is always specific and depends on the establishment of connections between identical elements within previous and current learning situations (Thorndike, 1913). The connectionist theory consists of three primary laws: 1. Law of effect, 2. Law of readiness, and 3. Law of exercise. The law of effect is based on responses to a situation followed by rewards that strengthen what was learned. The law of readiness is based on a series of responses which when linked together satisfies a goal. The law of exercise connects the proficiency of performance to the amount of practice. The principles of Thorndike's connectionism theory require that adequate time be allowed for students to be able to perform and master academic objectives through stimulus-response connections whether by a practice and reward model or by connecting prior learning to new learning opportunities. Thorndike asserted that intelligence is a function of the number of connections a student learns. Thorndike also suggested that with any newly

acquired skill, connections must be made in order for the skill to be performed with adequate proficiency. This requires the learner to practice the skill at a level of proficiency that would result in mastery of the skill. Because students learn at different rates, some may require more time to practice in order for the learning connection to be made and the skill to be mastered.

The adoption of the Carnegie Unit in the early 1900's served as the first real connection between student achievement and time spent in school (Marzano & Kendall, 2000). As disparities in the length of school days across the U.S. became apparent, Carleton Mann began to research the range of instructional time variations in schools throughout the country. The purpose of the study was to determine trends in how schools used time for instruction and learning relative to the amount of time allotted (Mann, 1929). Mann's research provided an impetus for additional studies which indicated very acute differences between the time allocated by a school during the day and year and the actual time students were engaged in learning opportunities. However, because Mann's work did not prompt educational reformers to propose recommendations for better uses of time, research on increasing time in learning to improve student achievement waned (National Center on Time & Learning, 2010).

By the early 1960's, John Carroll began to study the research initiated by Mann and the concept of engaged time. It was at this point that Carroll actually incorporated this concept into his model for school-based learning prompting him to propose a model for school learning known as the Carroll Model. His major premise was that school learning is a function of time (Carroll, 1963; Huitt, 2006). This model was formulated from several overlapping educational theories which included Piaget's theory of cognitive development and Skinner's verbal behavior theory. In his model for school

learning, Carroll questioned the appropriate time students needed to learn. This was based on a twenty-five year retrospective study. From this study, Carroll sought to build an integrated model of school learning. He proposed that if each child was allowed the time needed to learn a subject to some criterion level, and if the child spent time appropriately, then the child would probably attain a higher level of achievement (Carroll, 1963; Guskey, 2001). Carroll also equated school learning with the time spent learning divided by the time needed to learn and presupposed that students differ in the amount of time needed to learn. Carroll's model utilized six elements consisting of one output variable, one input variable, and four intermediate variables. Carroll further defined each element or variable. The output variable was defined as academic achievement; the input variable as a students' aptitude or the time needed to learn. The intermediate variables were defined as time available to learn or opportunity to learn, ability to understand, quality of instruction, and time student will spend on learning or perseverance. Carroll believed that time spent was the result of a learner's perseverance and the opportunity to learn (Guskey, 2001). For Carroll, the time spent on learning was the key to mastery learning (Bloom, 1968).

Further research by William Huitt expanded on the Carroll model by revising the time-on-task variable found in Carroll's formula for school learning. From this additional research, another theoretical model was developed known as the Huitt Model. In this model actual learning time is the primary component and is defined as the amount of time students are successfully covering content that will be tested (Huitt, 2005). Based on this model, academic learning time can further be described as a combination of three separate variables: content overlap, involvement, and success. Content overlap is the percentage of content covered by the students in the classroom that is tested and is

sometimes referred to as time on target. Involvement is the amount of time students are actively engaged in learning or time on task. Success is the extent to which students accurately complete assignments. The Huitt Model considers other key elements of time as well. These include the following: engaged time, instructional time, allocated time, school day length, yearly attendance, and length of school year. Because academic learning time is the result of many decisions about how time is spent in schools and classrooms, small increases in a number of these factors can yield a dramatic effect in academic learning time (Huitt, 2005).

Benjamin Bloom, another well-known educational theorist, proposed a somewhat different school learning model known as the “Learning for Mastery” method or Mastery Learning model. Although derived from the work of Carroll, the mastery learning model not only focused on actual learning time, but identified a student’s aptitude to learn as one of the best predictors of school achievement. In this model, Bloom determined that students with high levels of aptitude could learn complex ideas of a particular subject while students with low levels of aptitude could learn only the simplest ideas of the subject (Bloom, 1968). This was in direct contrast to Carroll’s model which viewed aptitude as the amount of time needed for a learner to master learning. While developing the Mastery Learning model, Bloom recognized that while students vary widely in their learning rates, virtually all learn well when provided with the necessary time and appropriate learning conditions (Guskey, 2001). Bloom further contended that teachers typically divide instructional material into small units to help the student process information; however, they did not assess student progress in a manner that would provide opportunities for additional learning. Bloom proposed that two formative assessments be given per unit of instruction. The first assessment would serve not only

as a grade but also as a diagnostic for the instructor to be able to determine where students are deficient. Students who failed to achieve mastery would then be provided further instruction through varied instructional methods and be assessed a second time to monitor the learning progress for those students. Students achieving mastery in the first formative assessment would extend their learning around the unit of instruction and then be assessed on those extended concepts. Bloom's Mastery Learning model suggests that if time is altered in order to meet the needs of individual students through diagnostic pre-assessments, high quality instruction, regular formative assessments for monitoring student progress, corrective instruction, additional formative assessments, and enrichment activities, over 90% of all students would master the specific skills and concepts at a high level of achievement (Bloom, 1968; Guskey, 2009; Guskey, 2010; Marzano, 2009; Rosenshine, 2009).

While all the aforementioned models and theories have some disparity in terms of opportunity to learn and attainment of learning, building upon prior skills and abilities so that all students master the required objectives requires that time in learning be modified in order to attain that end. The task of developing a strategy for mastery learning is to find ways of altering the time individual students need for learning (Bloom, 1968). Conceptually, the year-round education plan known as a modified year-round schedule is aligned with the philosophical belief that restructuring instructional time can improve student achievement. This may be accomplished by offering the needed time for students to receive additional instruction and learning opportunities through schedule variations such as a balanced calendar or 45/15 model where students attend regular classes for 45 days and then have the opportunity to attend remediation or enrichment classes during 15 day intersessions (Stenvall, 2001). Carroll's theory, Huitt's, theory, and Bloom's theory

relate closely to the concept of the modified year-round education calendar because it provides frequent intersessions throughout the calendar year for students to receive additional learning opportunities, a structure that is consistent with the precepts of mastery learning. Although intersessions are often optional, this additional time allows students to remediate, recover credit, or learn more challenging content through enrichment courses. Further, this additional time also promotes Dewey's vision for the school, which is tied to his much larger vision of the democracy of society. His emphasis on the importance of democratic relationships in the classroom dramatically changed the focus of his educational theory from the institution of school to the needs of the school's students. Dewey (1916) asserted that, "schools require for their full efficiency more opportunity for conjoint activities in which those instructed take part, so that they may acquire a social sense of their own powers and of the materials and appliances used" (p. 24). Time then appears to be one of the critical elements for making significant improvements in student learning and for creating alternative education models such as a modified year-round schedule which promotes innovative learning reforms such as mastery learning.

#### Pertinent Research and Professional Perspectives

Calendar debates began to increase in intensity during the late 1980's when the U.S. Education Secretary, Lamar Alexander, attempted to encourage public acceptance of year-round education as a way to better serve the needs of at-risk students (Cook, 2005). In the 1994 report, *Prisoners of Time*, the merits of a longer school day and year were reiterated (National Education Commission on Time and Learning, 1994). In today's world, education professors, scholars, practitioners, and policy makers are continuing to rethink the role of time in learning; however, a recent blue-ribbon report from the

National Center on Education and the Economy (2008) entitled, *Tough Choices or Tough Times*, criticizes how much time students are in school and how well students spend time in school (Cuban, 2008).

Today, enormous flexibility exists for creating school calendars that might better serve the educational needs of students and yet most schools across the U.S. continue to follow a traditional calendar. Fifty years ago the American high school was perceived differently, as most students during this era were not headed to college. At this time, if a student earned a high school diploma with no post-secondary education, he/she could still find a good- paying job that allowed for advancement. If a student did not graduate, he/she could still find good work (Vail, 2004). As one looks at the history of school calendars and schedules, one may conclude that the American educational system has not been well-designed to handle students who need more time to learn. With the traditional school calendar, students have been enabled to fail and then allowed to repeat courses during summer school or the next academic school year. By enabling students to fail, schools have allowed dropout rates to remain unacceptably high as students look for success elsewhere. On average, a third of American students end their high school careers by dropping out of school. Of those dropping out of school, half are Hispanic and African American students (Vail, 2004). As a result, there has been a major cry for change and a push for the high school reform movement.

#### *Restructuring the Use of Time*

Due to the nature of societal changes, many school administrators and policymakers have chosen to break away from the traditional school calendar in order to implement structures that they believe will improve student achievement, improve graduation rates and lower dropout rates. While some education reformers assert that

restructuring instructional time does increase student achievement, there are others who maintain that student achievement is primarily impacted by teacher performance.

Although there are many variables in education that can be analyzed to determine their role in student learning, most of them relate to the relationship between the student and the curriculum (Laitsch, 2005). While teacher performance is probably the strongest contributing factor in the success rate of students, the structure of the educational institution and its curriculum are critical factors upon which restructuring relies. These factors are important mechanisms through which students are provided adequate access to the school curriculum with the intent of providing for improved student achievement and higher graduation rates.

In contemporary educational discussions, high school redesign is a topic in which there is considerable interest. As the economy changes and higher expectations are put into place, by both state and federal educational reformers, proponents of public education are seeking to provide better opportunities for American students. In fact, a change initiative is underway as many high schools across the nation are undergoing comprehensive reform movements in an effort to redesign the educational process and improve student outcomes. One reform measure that many schools are considering is the idea of restructuring school calendars using a modified year-round schedule. This is just one example of a structural innovation that involves making changes in organization, management and the resource of time to establish a strong, positive learning environment that makes better use of time and resources for stakeholders.

Although many variables in education have been analyzed over the years in an effort to determine how they impact student learning, a primary variable is the actual time that students spend engaged with curriculum (Baker et al., 2004). A common question

that educators are seeking to answer is whether American students need to spend substantially more time in school in order to compete effectively in a global economy (Hopkins, 2006). The reason for the concern is directly related to the low rankings of the United States in international comparative studies of student achievement (Tucker, 2007). Because of this, educators, policymakers, and community leaders are rethinking the role time should play in learning (Gewertz, 2008). As educators feel the pressure to prepare students for academic success they have become fearful that standard school hours do not offer enough time to do so; however, a 2004 international study examining the correlations between increased hours of instructional time and student achievement provided weak correlations between the two variables (Baker et al., 2004).

While adding more time to school calendars has been discussed and tried periodically over the last 30 years, the idea of adding instructional time or restructuring learning time has gained momentum over the last decade. For many school districts across the United States, this restructuring of the school calendar has been initiated as backing from state legislatures and grant initiatives have provided funding. This funding is in large part due to the academic-standards movement that has sought to define what students should know and heightened awareness of achievement gaps between students of different races, ethnicities, and socioeconomic backgrounds (Gewertz, 2008).

#### *Year-round Calendars and Student Achievement*

One study researching the effect of modifying the traditional public school calendar on student achievement in English and mathematics in selected school populations in Hawaii sought to determine if a modified year round calendar had a larger effect on academic achievement than the traditional calendar. Findings from this 2009 study indicated that school outcomes for the modified calendar school students in both

grades 3-4 comparisons and 4-5 comparisons were all positive, even though their only superior test results came from grade 3-4 mathematics (Anderson, 2009). Another study sought to determine if there were seasonal differences among students in upper and lower socioeconomic status (SES) groups during the school year and summer months (Alexander et al., 2001). The largest disparities came during the summer when upper SES children's skills continued to advance while lower SES children's skills showed little or no gains (Alexander et al., 2001; U.S. Department of Education, 2000). With traditionally disadvantaged children being less likely to experience a cognitively rich home and neighborhood environment, the influence of formal schooling on their academic development was stronger (Alexander et al., 2001; Downey, von Hippel, & Broh, 2004; Raudenbush, 2009). While seasonal comparison research shows that the out-of-school environment during the summer months helps to improve student achievement among upper SES groups, the gap in reading and math skills grows during the long summer vacation. This further suggests that non-school factors tend to create an educational inequality among students in different socioeconomic groups during the summer (Downey et al., 2004).

A longitudinal study tracking the performance of Baltimore students from first grade through age 22 in the area of reading noted that while low-income children in the study made as much progress as middle income children, the lower SES students' reading skills fell behind during the summer months (Alexander et al., 2007; Smith 2012). The researchers concluded that a majority of the 9<sup>th</sup> grade reading achievement gap can be attributed to unequal access to summer learning opportunities during elementary school (Alexander et al., 2007). This representative group of Baltimore school children demonstrated that an increase in student achievement could be traced mainly to the time

spent by students engaged in academic skills, whether during the scheduled school calendar or during the summer. More recent findings provide an analysis of the performance of elementary students and conclude that student performance tends to fall by about a month during the summer (McCombs et al., 2011). The long summer break creates hardships on students, particularly for younger children and students from low SES families, by interfering with the retention of material (Metzker, 2002). According to Gewertz (2011), summer learning loss has been determined to be one of the three major obstacles to reading proficiency at the end of 3<sup>rd</sup> grade. This statistic has been further addressed in another study conducted by the Annie E. Casey Foundation (Smith, 2012). This study indicates that, “one in six children who are not reading proficiently in 3<sup>rd</sup> grade does not graduate from high school on time, a rate four times greater than that for proficient readers” (Hernandez, 2011, p. 3). Other researchers have examined the factors that contribute to summer learning loss and have found that it can largely be explained by the lack of summer reading activity (Allington & McGill-Franzen, 2008).

Kim (2004) found that summer learning loss was directly related to a lack of exposure to summer reading activity in a sample of 6<sup>th</sup> grade students in an urban school system. Research has also found that students from more affluent homes have roughly 10 times more access to reading material than students in lower-income homes (Neuman & Celano, 2001). Further research supports these findings by confirming the disproportionate numbers of books found in the homes of more affluent children as compared to poor children (Constantino, 2005). This is due in part to the restricted access that lower SES students have to reading material at home as compared to their more-advantaged peers. In addition, this also explains approximately 80% of the reading achievement gap between poor and non-poor students at the age of 14 (Alexander et al.,

2007). While the phenomenon of summer learning loss has been studied since the inception of year-round school calendars, the decline is far worse for lower-income students and appears to be cumulative, contributing substantially to the achievement gap between low SES and high SES students (Smith, 2012). While nearly every gap grows faster during the summer months, as compared to the school year, the overriding results suggest that schools serve as important equalizers (Downey et al., 2004).

#### *Year-round Calendars and Student Behavior*

As previously mentioned, year-round schools appear to help reduce the achievement gaps among students of all socioeconomic classes. In addition, teachers in year-round schools report better classroom behavior among students attending year-round schools (Anderson, 2010; Heaberlin, 2000). However, Palmer and Bemis (2000) found that students attending schools with traditional calendars had better self-concepts than their peers who attended schools with year-round calendars. In contrast, in a 2000 study of elementary school students in Georgia, Heaberlin asserted that year-round education has a positive impact on student discipline. It was determined in Heaberlin's study that elementary students attending year-round schools had a decrease in suspensions as well as discipline referrals. Although there appeared to be a positive impact of year-round schooling on student behavior, Heaberlin noted that there were no statistically significant differences between students attending year-round schools and their peers attending schools using a traditional school calendar.

In another study regarding the role and opinions of stakeholder perceptions of year-round calendars, teachers reported increased motivation, concentration, and attendance of their students (Palmer & Bemis, 2000; Shields & Oberg, 2000c). When student attendance was compared between schools utilizing year-round calendars with

those utilizing traditional calendars, one out of five students attending year-round schools had better attendance than those attending schools using a traditional calendar (Palmer & Bemis, 2000). This may be directly attributed to teacher motivation and teacher morale which may be enhanced by the shorter breaks that support academic growth and motivate students (Shields & Oberg, 2000c).

While teachers report better classroom behavior among students attending year-round schools, teachers also perceive improvements in student achievement for students attending schools utilizing a year-round approach. Even so, weak correlations were found among year-round education, student attendance, academic performance, and behavior patterns (Baker et al., 2004; Eames et al., 2004; Sexton, 2003). Nonetheless, the aforementioned research indicates that smaller class size benefits associated with year-round schools not only include enhanced academic performance, but also improve student behavior and teacher morale (Stevenson, 2007).

#### *Year-round Calendars and Teacher Efficacy*

Although research shows that schools serve as important equalizers for students in terms of student achievement, it is the capacity of school personnel within the school that has the greatest impact on what the students learn. Because of this, research into the perceptions of teachers regarding year-round school calendars is important. In terms of teacher perceptions of year-round calendars and teacher efficacy, more teachers perceive the idea of year-round schooling in a positive manner after being educated on the concept (Sutton 2007). Year-round education advocates have heralded year-round calendars as providing better working conditions and improved teacher satisfaction (Kneese, 2000; Price, 2000). Proponents for changing to a year-round school argue that the more regular breaks offered by year-round calendars reduces teacher stress and time off from work

(Haser & Nasser, 2003; Price, 2000). As a result, school spending on substitute teachers is reduced (Eames et al., 2004).

While the majority of teachers who teach on a year-round calendar report less stress and burnout, a few teachers do report stress as a drawback to the year-round calendar due to extended contracts and fewer breaks (Kneese, 2000). One reason for this is the type of year-round school calendar that is implemented. McGlynn (2002) explains that teachers are more likely to have a negative opinion of multi-track systems as compared to single-track systems because they are more complicated. Multi-track calendars tend to make it more difficult to take holidays and may cause teachers to perceive longer working hours (Davies & Kerry, 2000). Such calendars often create organizational issues as well. These challenges sometimes require teachers to share classrooms with other teachers. Many teachers are then required to pack up materials and move during scheduled intersession breaks. Upon returning to school these teachers may find themselves in different classrooms. Finding the necessary equipment to move materials along with the added need for storage space can produce additional stresses.

Coaches and other support personnel tend to have similar views of year-round calendars as those of other teachers. One issue that is quite different for these faculty and staff has to do with the impact of the year-round school on extra-curricular activities. Because most athletic events throughout the school year have been organized around a traditional calendar, teachers who coach or lead extra-curricular activities within a year-round school may be engaged in the activity throughout scheduled vacations or intersession breaks (Kneese, 2000). Although the teacher or coach may be able to share the leadership of the activity with another teacher or coach, the extra-curricular program may suffer without the guidance of the teacher or coach assigned to lead the activity or

event. This in turn may cause additional stress due to the performance expectation of the community that is associated with extra-curricular activities such as the athletic and band programs. Due to this added stress, coaches or teachers who lead such high profile activities may sacrifice much needed vacation time to ensure assigned extra-curricular programs are successful (Shields & Oberg, 2000a).

While there are some negative outliers, research for the most part has provided evidence that teachers in year-round schools report that intersessions occur on a timetable providing breaks that are better aligned to when they are needed (Webb, Frampton, Henderson, & Hyrman, 2009). In addition to perceived wellness benefits, teachers also believe that the organization of instructional time in a year-round calendar allows them to be reflective practitioners by enabling them to plan at regular intervals during the academic year when it is needed most (Shields & Oberg, 2000a). Furthermore, research findings typically show positive results that may be attributed to greater flexibility, easier time management, more time off work, and the opportunity to participate in year-round professional development opportunities that will impact student learning (Haser & Nasser, 2003; Shields & Oberg, 2000c; Speck, 2002).

### Summary

As noted earlier, the traditional school calendar was formed during a time of an agrarian society (Weatherford, 2001). This type of calendar became dominant when the livelihoods of most Americans were tied to agriculture (Cooper et al., 2003). Having the summers off from school allowed children to help on the farm (Sutton, 2007). Americans in today's society are now engaged in occupations that are multi-faceted and require an educational background that fits with the way we live and work. In order to achieve this end, the United States needs to be competitive with academic performance elsewhere in

the world and offer creative and innovative workers; however, the educational system constructed by the United States is deemed by many to be designed to deprive the vast majority of students of a reason to take tough courses and study hard (Tucker, 2007). The National Commission on Time and Learning (1994) addressed this issue by stating that schools should respond to the needs of today's students by remaining open longer during the day; some schools in every school district should remain open throughout the calendar year.

Arguably, the adoption of school calendars in the past has been driven by economic factors rather than by educational implications (Cooper, 2003). There is little reason to believe that this will change in the future (Cooper et al., 2003). This, coupled with the weak correlations found between modified year-round calendars and learning retention and student achievement, have made it difficult to present arguments for the implementation of modified year-round school calendars in order to reduce summer learning loss, improve stakeholder satisfaction and bolster student achievement. In addition, the impact of calendar change on teaching staff has not been researched extensively; therefore, the researcher concluded that further study was needed to explore teacher perceptions of year-round school calendars and the correlation with teacher efficacy, student behavior, and student achievement.

## CHAPTER III

### METHODOLOGY

The contents of Chapter III include the research design, participants, procedures, and research protocols for the analysis of data. Chapter III describes the research design used for the study of perceptions that teachers have about modified year-round school calendars, along with the study of perceptions that teachers have about how modified year-round calendars correlate with student achievement, student behavior, and teacher efficacy. Research questions and hypotheses are outlined and a description of participants is provided. This chapter also contains a description of the instrument that was used to collect the data in this study. In addition, the independent variables and dependent variables are explained, along with a statistical analysis of the data collected.

#### Research Design

The research design for this study regarding the perceptions that teachers have about the correlation between modified year-round school calendars and student achievement, student behavior, and teacher efficacy was non-experimental and utilized a quantitative approach for the analysis of responses. The dependent variables for the study included teacher perceptions of modified year-round school calendars and teacher perceptions of the impact of a modified year-round school calendar upon student achievement, student behavior (i.e. conduct, attendance, drop-out rate, motivation) and teacher efficacy. The independent variables in the study included the following: years of teaching experience, gender, age, grade-level taught, extra-curricular duties, type of school calendar employed by the school, experience in a year-round school, socioeconomic status, and school performance level. These variables were operationalized in order to allow the researcher to determine teacher perceptions of the

type of school calendar and their perceptions of how the type of school calendar impacted teacher efficacy, student achievement, and student behavior. Teacher efficacy was operationalized via the mean of a subscale of survey items that addressed participants' perceptions about their own performance and satisfaction relative to core teaching responsibilities. Student achievement was operationalized via the mean of a subscale of survey items as well. These items addressed the participants' perceptions regarding the impact that a modified year-round school calendar has on student achievement. Student behavior was also operationalized via the mean of a subscale of survey items which addressed teacher participants' perceptions regarding the impact that a modified year-round school calendar has on student achievement.

For socioeconomic status, participation in the free/reduced lunch program was utilized. The metric was an interval scale that assigned values categorizing respondents into specific groups using four ranges of percentages for free/reduced lunch rate. These values were then used to determine if the SES of students might influence a teacher's perception of the impact that a modified year-round school calendar has on student achievement, student behavior, and teacher efficacy. Calendar types, extra-curricular duties, and school performance level were all operationalized using a nominal scale with value codes assigned. These items were used analytically to determine teachers' perceptions of the impact that a modified year-round school calendar has on student achievement, student behavior, and teacher efficacy. The different types of school calendars were assigned value codes as follows: 1. a school using a traditional school calendar with a summer school program, 2. a traditional school calendar without a summer school program, 3. a modified year-round school calendar with 180 days of instruction, and 4. a modified year-round school calendar with more than 180 days of

instruction. Extra-curricular duties were operationalized as follows: 1. Athletic Coach, 2. Lead Teacher, 3. Club Sponsor, 4. Band/Choral Director, 5. Distance Learning Facilitator, 6. Other.

School performance level was also operationalized using a nominal scale with value codes as follows: 1. Honor School of Excellence, 2. School of Excellence, 3. School of Distinction, 4. School of Progress, 5. No Recognition, 6. Priority School, and 7. Low Performing School. Each of these value codes represented a designated label for a category in which schools are placed based on specific performance criteria. The value codes and criteria for designated labels are as follows: 1 = Honor School of Excellence in which 90% of students performed at/above grade level, and the school met expected growth and Adequate Yearly Progress (AYP), 2 = School of Excellence in which 90% of students performed at/above grade level and the school met expected growth but did not meet AYP, 3 = School of Distinction where 80-89% of students performed at/above grade level and the school met expected growth but did not meet AYP, 4 = School of Progress in which 60-79% of students performed at/above grade level and the school met expected growth but did not meet AYP, 5 = No Recognition in which 60-100% of students performed at/above grade level but the school met neither the expected growth nor AYP, 6 = Priority School where less than 60% of students performed at/above grade level irrespective of whether expected growth was met, and finally, and 7 = Low Performing School where fewer than 50% of students performed at/above grade level and expected growth was not met by the school.

### Research Questions and Hypotheses

Understanding teacher perceptions of the correlation among modified year-round school calendars, student achievement, student behavior, and teacher efficacy was

discerned through the use of a researcher-developed study. Based on the literature review, the following research questions were proposed for this study.

1. What are the perceptions of teachers regarding the type of school calendar adopted by their school, and regarding teacher efficacy and student achievement in their school?
2. Is there a statistically significant relationship between the perceptions of teachers regarding the type of calendar adopted by a school and their perceptions of teacher efficacy?
3. Is there a statistically significant relationship between the perceptions of teachers regarding the type of calendar adopted by a school and their perceptions of student achievement?
4. Is there a statistically significant relationship between the perceptions of teachers regarding the type of calendar adopted by a school and their perceptions of student behavior?
5. Is there a statistically significant relationship between selected teacher characteristics (teaching experience, teacher gender, grade level taught, and extra-curricular duties) and the perceptions of teachers regarding the type of calendar adopted by a school?

Research Questions 2-5 lent themselves to the development of hypotheses.

Research Question 1 focused on descriptive statistics only. The hypotheses related to research questions 2-5 were as follows:

- H<sub>1</sub>: There is a statistically significant relationship between the perceptions of teachers regarding the type of calendar adopted by a school and their perceptions of teacher efficacy.

H<sub>2</sub>: There is a statistically significant relationship between the perceptions of teachers regarding the type of calendar adopted by a school and their perceptions of student achievement.

H<sub>3</sub>: There is a statistically significant relationship between the perceptions of teachers regarding the type of calendar adopted by a school and their perceptions of student behavior.

H<sub>4</sub>: There is a statistically significant relationship between the perceptions of teachers regarding the type of calendar adopted by a school and their perceptions of selected teacher characteristics (teaching experience, teacher gender, grade level taught, and extra-curricular duties).

#### Participants in the Study

In an effort to obtain a sufficient number of participants for this study, questionnaires were sent to 351 teachers from schools in four public school districts from the state of North Carolina. These districts were selected because they employed both traditional school calendars and year-round school calendars. The goal was to obtain at least a 25% participation rate from public North Carolina elementary schools, middle schools and high schools utilizing either modified year-round school calendars or traditional school calendars.

Participation of teachers was voluntary and based upon the consent from the administrative leaders of each school and school district; this permission was provided by each school district superintendent on school district letterhead in response to the letter of request (Appendix A). In an effort to gain consent to conduct research within selected schools, a consent letter, which provided information about the study, was sent to individual school principals in districts where superintendents approved the study

(Appendix B). Principals were asked to access a specific web address, identify the school in which they were employed, mark yes or no for consent, and provide the number of teachers to be surveyed. Upon receiving consent from school principals, the researcher sent the teacher population at each school site a formal letter (Appendix C). Informed consent was then obtained from all participants. A written statement was presented to all participants outlining the purpose of the study and describing the procedures for the study. A statement was provided explaining that the survey was completely voluntary and that participants could refuse to answer any items they chose not to answer and/or discontinue the questionnaire at any time without penalty. Participants were provided with a consent form (Appendix D). All participants and those assisting with the distribution of the questionnaire were asked to sign a consent form explaining that they were informed that their completion of the questionnaire was completely voluntary and that they agreed to participate in the research study. Participants were asked to complete a questionnaire analyzing the perceptions of teachers regarding year-round school calendars (Appendix E). The respondents comprised a sample of teachers who were teaching in school districts that employed different types of school calendars.

The researcher originally sought to include an equal number of teacher participants from schools utilizing a traditional calendar and schools utilizing a year-round type calendar; however, only three schools in the study utilized a traditional school calendar, while six schools used a year-round type of school calendar. A total of 125 respondent questionnaires were sent to teachers employed by schools with a traditional school calendar and 226 respondent questionnaires were sent to teachers employed by schools with a year-round type of calendar. Of the 125 respondent questionnaires sent to teachers employed by schools with a traditional school calendar, 36 teachers completed

the questionnaire and returned it to the researcher. Of the 226 respondent questionnaires sent to teachers employed by schools with a year-round type of calendar, 67 participating teachers completed and returned the questionnaire to the researcher. Only 3 respondents selected the Other option for describing the type of school calendar used by their schools; these individuals listed a different variation of the school calendar. Out of the 106 respondents, the response rate for teachers employed by schools using a traditional calendar was 34% of total respondents. The response rate for teachers employed by schools using a year-round type of calendar was 63.2% of total respondents. The 3 teacher respondents who marked other made up 2.8% of the total respondents. Of the 351 individuals in the targeted sample, 106 teachers returned the participant questionnaire for an overall response rate of 30%.

#### Instrumentation

The instrument for this study was developed by the researcher and entitled *A Study of School Calendars* (Appendix E). The quantitative research questionnaire that was distributed to the teachers was worded in a non-threatening manner and contained items regarding teacher perceptions of modified year-round school calendars and their impact upon student behavior, student achievement and teacher efficacy. The questionnaire consisted of thirty-seven items. It was expected to take approximately fifteen minutes to complete the questionnaire.

#### *Demographic Items*

The first ten items used in the instrument pertained to personal, professional, and school demographic data. Scales of measurement and value codes were assigned to the scales for demographic items. Interval scales and value codes represented teacher age and socioeconomic status of the students at the school where the teacher is employed.

For age, the scale was age (1 = 20-29, 2 = 30-39, 3 = 40-49, 4 = 50-59, 5 = 60-69, 6 = 70+). For socioeconomic status, the scale for free/reduced lunch rate was (1 = <25%, 2 = 26%-50%, 3 = 51%-74%, 4 = 75%-100%). Although all ranges were supposed to have an equal percentage of 25%, response 3 only has a 24% range and response 4 has a 26% range. This was an error on the part of the researcher; however, the researcher analyzed this category using an interval scale.

A continuous nominal scale was developed for items that addressed the following topics: type of school calendar used, gender, extra-curricular duties, school performance level, and experience in a year-round school. The nominal scale and value codes were assigned as follows: type of school calendar employed by the school (1 = traditional with 180 instructional days, 2 = traditional with 180 instructional days and an extended school year or summer school program, 3 = modified year-round with 180 instructional days, 4 = modified year-round with more than 180 days and 5 = other). For gender, the scale was (1 = Male and 2 = Female). For extra-curricular duties, the scale was (1 = athletic coach, 2 = lead teacher, 3 = club sponsor, 4 = band/choral director, 5 = distance learning facilitator, 6 = other). For attended a year-round school as a student, the scale was (1 = Yes and 2 = No). For previously employed by a year-round school, the scale was (1 = Yes and 2 = No). Extra-curricular duties were initially thought to be useful in determining the perceptions that teachers with additional duties had regarding the type of school calendar and the impact of the school calendar on student achievement, student behavior, and teacher efficacy. However, due to a low response rate by respondents to the item pertaining to extra-curricular duties, it was determined that most of the respondents either did not have additional duties or the additional duties assigned were

not included on the questionnaire item pertaining to extra-curricular duty assignments.

This variable was therefore excluded from the analyses.

Ordinal scales and value codes represented the grade level taught, numbers of years of teaching experience, and school performance level. For grade level taught, the scale was ( 1 = K, 2 = 1, 3 = 2 , 4 = 3, 5 = 4, 6 = 5, 7 = 6, 8 = 7, 9 = 8, 10 = 9, 11 = 10, 12 = 11, 13 = 12, 14 = other). For number of years of teaching experience, the scale was (1 = 0-4, 2 = 5-9, 3 = 10-14, 4 = 15-19, 5 = 20-24, 6 = 25+).

The levels of accountability for schools in the North Carolina public school system are graduated, although not consistently, and include the following scale in rank order: 1 = Honor School of Excellence in which 90% of students performed at/above grade level, and the school met expected growth and its Adequate Yearly Progress (AYP) target, 2 = School of Excellence in which 90% of students performed at/above grade level and the school met expected growth but did not meet its AYP target, 3 = School of Distinction where 80-89% of students performed at/above grade level and the school met expected growth but did not meet its AYP target, 4 = School of Progress in which 60-79% of students performed at/above grade level and the school met expected growth but did not meet its AYP target, 5 = No Recognition in which 60-100% of students performed at/above grade level but the school met neither the expected growth nor its AYP target, 6 = Priority School where less than 60% of students performed at/above grade level irrespective of whether expected growth was met, and finally, and 7 = Low Performing School where fewer than 50% of students performed at/above grade level and expected growth was not met by the school. Although the scale for school performance appears to treat school performance as a reverse-polarity variable, where the most desirable rating receives a 1 and the least desirable rating receives a 7, the data from this

item were used strictly to identify the performance level of the schools in which respondents taught.

The remaining items pertained to the perceptions that teachers have about year-round school calendars and the impact of modified year-round school calendars upon student behavior, student achievement and teacher efficacy. Among these items were reversed-polarity items to help ensure respondents actually read each item before choosing a response. These items included item numbers 17, 26, 28, and 31.

The instrument included a Likert-type scale of 1-5 with descriptors for items 11-37. The Likert scale of 1-5 correlated with the descriptors as follows: 1- represents strongly disagree, 2- represents disagree, 3- represents neither disagree nor agree, 4- represents agree, and 5- represents strongly agree. Perception items were organized into subscales for assessing perspectives on school calendar, student behavior, teacher efficacy, and student achievement. Items 21, 24, 25, 26, 27, 29, 30, 31, and 37 were grouped to form a single mean for the construct of school calendar. Items 12, 19, 34, 35, and 36 were grouped to form a single mean for the construct of student behavior. Items 11, 13, 14, 15, 16, and 22 were grouped to provide a single mean for the construct of teacher efficacy. Items 17, 18, 23, 28, 32, and 33 were grouped to form a single mean for the construct of student achievement.

#### *School Calendars Subscale*

Nine items from section B and section C, which included numbers 21, 24, 25, 26, 27, 29, 30, 31, and 37, were intended to measure teacher perceptions of the school calendar being used by the school in which they were employed. Participating teachers reflected on the items using the previously mentioned Likert-type scale with ordinal ratings ranging from 1-5. The mean of the subscale of items on participants' perceptions

about the calendar type being used at the school where they were employed was used to determine how well existing school calendars provided for the needs of teachers and students, and was used in the analysis of Hypotheses 1-4. This subscale provided the researcher with teacher perceptions of the benefits and or limitations of different school calendar types as they impact student achievement, student behavior, and teacher efficacy. As previously mentioned, items 26 and 31 were reversed-polarity items used to ensure respondents actually read the survey items prior to selecting a response.

#### *Student Behavior Subscale*

Six items were initially used for the subscale of student behavior; however, two items had to be eliminated to ensure that the Cronbach's alpha reliability coefficient for this construct was adequate and the subscale was reliable. The items eliminated from this subscale were numbers 20 and 34. The other items included in this subscale were 12, 19, 35, and 36. These items were intended to measure teacher perceptions of the impact of the type of school calendar on student behavior. Teacher participants reflected on these items using the previously mentioned Likert-type scale with ordinal ratings ranging from 1-5. There were no reversed-polarity items for this construct.

#### *Student Achievement Subscale*

Six items from section B and C, which included item numbers 17, 18, 23, 28, 32, and 33, were used for the subscale of student achievement. These items were intended to measure teacher perceptions of the impact of the type of school calendar on student achievement. Teacher participants reflected on these items using the Likert-type ordinal scale with ratings ranging from 1-5. Items 17 and 28 were reversed-polarity items to ensure respondents actually read the survey items prior to selecting a response.

### *Teacher Efficacy Subscale*

Six items were initially used for the subscale of teacher efficacy; however, two items were eliminated to ensure that the reliability standard for this construct was met. The items eliminated from this subscale were numbers 16 and 22. Although items 16 and 22 were eliminated, four additional items remained, allowing for the reliability of this particular construct to be determined and utilized for the purposes of this study. The other items included in this subscale were 11, 13, 14, and 15. These items were intended to measure teacher perceptions of the correlation between the type of school calendar and teacher efficacy. Teacher participants reflected on these items using the Likert-type ordinal scale with ratings ranging from 1-5. There were no reversed-polarity items for this construct.

### *Instrument Validity and Reliability*

In order to ensure content validity of the researcher-developed instrument, a panel of three experts was assembled to provide an expert review of the instrument. This panel consisted of three people with particular expertise about school calendars and time issues in schools. The three member panel consisted of a former school district superintendent who also had prior experience as a deputy superintendent in charge of curriculum and federal programs, a state department of education director of curriculum and instruction who formerly served as a federal programs director and an elementary school principal and high school assistant principal, and a curriculum specialist in the educational consulting field who had prior experience as a language arts teacher for a high performing and star level school district. Prior to administering the questionnaire to the panel of experts, the researcher explained the purpose of the research to the panel members. The panel of experts was asked to review the instrument for its readability

and the degree to which survey items were readily understood in order to elicit knowledgeable responses from participants. The panel of experts was asked to complete a validity questionnaire to provide specific feedback regarding the instrument (see Appendix F). Although two members from the panel of experts completed the validity questionnaire, one member of the expert panel made comments and suggestions on the original instrument. All suggestions regarding the instrument were used to make modifications to the researcher-developed instrument prior to conducting the pilot study.

Once the instrument was refined through the use of expert panel feedback, a pilot test of the instrument was administered to a panel of 21 participants prior to the study in order to verify the reliability of the instrument. The 21 participants in the pilot test were teachers in a year-round school and were provided with a consent form that they signed, thus acknowledging that their participation was completely voluntary and that they agreed to be a member of the pilot study. A statement was also provided explaining that the survey was voluntary and that pilot test participants could refuse to answer any items they chose not to answer and/or discontinue the questionnaire at any time without penalty. The pilot test was conducted with participants from a North Carolina school which utilized a year-round type of calendar in order to determine reliability and to further aid in determining item clarity in the questionnaire. Reliability of the instrument was determined using Cronbach's alpha coefficient test. A Cronbach's alpha of  $< .7$  was determined for school calendar (.63) and teacher efficacy (.69); this indicated that the instrument was not reliable for these two subscales. However, it was determined that these subscales would continue to be included in the study since the Cronbach's alpha for these two subscales was slightly lower than .7. A Cronbach's alpha of .7 was determined

for student behavior (.76) and student achievement (.71); therefore, the instrument was found to be reliable for these two subscales (see Table 1).

Table 1

*Cronbach's Alpha for Pilot Study*

Subscale	Cronbach's alpha
Student behavior	.76
Student Achievement	.71
Teacher Efficacy	.69
School Calendar	.63

Cronbach's alpha reliability for each subscale is reliable at 0.70.

As data were analyzed for student behavior, items 20 and 34 were eliminated. This was done to ensure reliability of the instrument for the subscale of student behavior. As a result, a lower Cronbach's alpha occurred but reliability was maintained. As data were analyzed for teacher efficacy, items 14 and 15 were utilized for the pilot study. This was done to improve the significance of this subscale for the pilot study. The pilot study results that occurred after items 11, 13, 16, and 22 were eliminated provided a Cronbach's alpha that was slightly lower than significant. For the final study, items 11 and 13 were added back into the subscale for teacher efficacy. By adding these two items back, the Cronbach's alpha for teacher efficacy dropped significantly causing a low significance. Table 1 and Table 2 provide details of the tests for reliability from the pilot study and from the final study.

Table 2

*Cronbach's Alpha for Final Study*

Subscale	Cronbach's alpha
Student behavior	.72
Student Achievement	.75
Teacher Efficacy	.55
School Calendar	.74

Cronbach's alpha reliability for each subscale is reliable at 0.70.

### Data Collection Process

Prior to recruiting the participants for this study, letters from districts allowing consent to conduct research were obtained from school district superintendents and school principals. Upon receiving approval from the Institutional Review Board (IRB) of The University of Southern Mississippi (Appendix G) and after obtaining permission from school district superintendents to survey participants, the researcher implemented the survey process which was completed by April 2013. The purpose of the research project was explained through a formal letter to individual school principals that asked for their consent to survey teachers within their schools. Upon receiving consent from school principals, the researcher sent the teacher population at each school site a formal letter explaining the purpose of the research project and inviting them to participate in the survey during their planning time, at a faculty meeting, or a time designated by the school

principal. The signing of the consent form and the completion of the questionnaire served as consent for teacher participation in the study.

It was explained to the participating teachers that completion of the informed consent letter and completion of the questionnaire would take no longer than fifteen minutes. Further, teachers were informed that all information obtained from these questionnaires was being utilized for the sole purpose of this research and that the information from this study might be used at a professional conference or in a professional publication. In addition, it was explained that the completed questionnaires would be kept secure in a fire-proof safe within the study of the researcher's home for no more than one calendar year and at the end of one calendar year, the forms of all participants would be shredded. Finally, it was also explained that upon the completion of this research study, results and conclusions would be made available to the participating teachers, schools and school districts upon written request.

After teachers signed the consent form and completed the questionnaire, they were asked to return the consent form and questionnaire in a self-addressed stamped envelope to the researcher's address. The researcher collected the completed questionnaires, analyzed the responses and disaggregated the resulting data. The questionnaires were analyzed for the purpose of this study only and were shared as necessary with the researcher's advisors and dissertation chair.

### Analysis of Data

During the study, a questionnaire was provided for selected participants from public elementary schools, middle schools, and high schools within specific school districts in the state of North Carolina that employed year-round schedules and traditional

schedules. Data were gathered from the questionnaire and analyzed using the statistical program SPSS.

Reliability and internal consistency of the variables in this study were analyzed using a Cronbach's alpha test of coefficient reliability. For the final study, a Cronbach's alpha test of coefficient reliability was once more performed on each subscale in order to determine the reliability of each construct. A Cronbach's alpha of 0.70 or greater was considered acceptable. From the pilot study results, the researcher was able to determine that two subscales yielded a reliability of greater than 0.70, while two yielded a reliability slightly less than 0.70 (see Table 1). Due to the fact that the Cronbach's alpha for school calendars and teacher efficacy was slightly lower than 0.70., the items for these two subscales were retained for the final study (see Table 2).

By comparison, the results of the final study analysis indicated that three of the subscales yielded a reliability of greater than 0.70, with only one subscale below that standard. The subscales of student behavior, student achievement, and school calendars all had reliability coefficients of greater than 0.70. In the final analysis of the study, the subscale for teacher efficacy had a lower reliability coefficient of 0.55. This is significantly lower than the pilot study results and may be cause for further study. The reader should take note here, as other issues related to this statistic will be discussed in Chapters IV and V (see Table 2).

Descriptive statistics were used to analyze data from the demographics section of the instrument as well as the data associated with constructs that were assessed through each of the subscales. Descriptive statistics included means, frequencies, percentages, and standard deviations. In the analysis of Hypotheses 1, 2, and 3, a Pearson correlation test was run in order to determine whether there was a significant correlation with the

type of school calendar and the three constructs of teacher efficacy, student behavior, and student achievement.

A multiple regression analysis was conducted for Research Question 5 and the related hypothesis, Hypothesis 4, in order to assess the relationships among the perceptions of teachers regarding the type of calendar adopted by a school and selected teacher characteristics (teaching experience, teacher gender, grade level taught, and extra-curricular duties). The multiple regression tested Hypothesis 4 for teacher perceptions of the correlation between the dependent variable, school calendar, and these predictors. Due to a low response rate to the item related to extra-curricular duties, this particular predictor was eliminated from the multiple regression for Hypothesis 4. The multiple regression was utilized to determine if the constants were predictors of the perceptions that teachers have regarding the type of school calendar. Analysis of the data provided the researcher with the information needed to determine the significance of specific predictors relative to teacher perceptions of the type of school calendar and the demographic and descriptive variables included in this study. Subsequent results then helped the researcher determine whether or not to reject the null hypothesis or fail to reject the null hypothesis.

### Summary

Chapter III explains the research design and procedures to be used for the completion of this study. The selection of participants is included as well. In addition, the instrumentation is described, along with the process for obtaining relevant data. Once all relevant data were obtained, the process of data analysis was conducted using the statistical program SPSS. For this study, the researcher used a self-made questionnaire titled, A Study of School Calendars (see Appendix E). This questionnaire was used to

determine the correlation between teacher perceptions of a modified year-round school calendar and student achievement, student behavior, and teacher efficacy. Prior to conducting the study, a panel of experts was asked to help determine the validity and reliability of the questionnaire. Revisions to the instrument were made accordingly.

Prior to the final study being conducted, a pilot study was conducted to further determine the reliability of the instrument. The pilot study was conducted among 21 teachers from a North Carolina school which utilized a year-round type schedule. The pilot study provided insight into teacher perceptions of the type of school calendar and the impact that the type of school calendar had on student achievement, student behavior, and teacher efficacy. Pilot study results indicated that the type of school calendar directly impacted student achievement and student behavior; however, the reliability of the subscales of school calendar and teacher efficacy were relatively low as the Cronbach's alpha was less than 0.70 for both. Although the subscale for teacher efficacy and school calendar was  $<0.70$ , they were only slightly lower and therefore both were included in the final study.

The final study was conducted at the beginning of the second semester of the 2012-2013 school year in public elementary schools and middle schools across the state of North Carolina. In comparison with the results of the pilot study, the regression analysis of the constructs in the final study showed that teacher perceptions of the type of school calendar had a significant impact on student behavior and student achievement; however, it was determined that there was not a significant relationship between teacher efficacy and the type of school calendar as determined by Cronbach's alpha of .55. In addition, the Pearson correlation showed a very small correlation between the type of school calendar and teacher efficacy resulting in hypothesis 1, which addresses teacher

perceptions of the type of school calendar and the correlation with teacher efficacy, being rejected. Hypotheses 2 and 3 were both accepted as the Pearson correlation was relatively strong for both teacher perceptions of the type of school calendar and student behavior as well as teacher perceptions of the type of school calendar and student achievement.

Although there have been studies and analyses of year-round education that appear to shed some light on the correlation between modified year-round education, student achievement and student behavior, the research that has been conducted on teacher perceptions of year-round education is inconclusive. The results of this study provide some insight for the researcher and the reader regarding teacher perceptions of year-round school calendars and are supported by the literature found by the researcher; however, further research regarding school calendars and teacher efficacy is warranted.

## CHAPTER IV

### RESULTS

The purpose of this study was to investigate teacher perceptions of a modified year-round school calendar and the correlation that a modified year round school calendar has with student behavior, student achievement, and teacher efficacy. Specific characteristics such as teacher gender, years of experience, grade-level taught and extra-curricular duties were also studied to determine whether or not they would be significant predictors of the impact of the school calendar. Data were collected from questionnaires completed by 106 participating teachers who taught in public elementary schools and middle schools across the state of North Carolina that either utilized a traditional school calendar or a year-round type calendar. Data were disaggregated and analyzed using the statistical program SPSS. Data was obtained from a 37 item, researcher-developed questionnaire. Demographic data were obtained from ten items which were assigned value codes. Descriptive data were also obtained from 23 items which were assigned an ordinal response Likert-type scale from 1 (strongly disagree) to 5 (strongly agree). Chapter III outlined the statistical methods for this study; Chapter IV provides a description of results from the analyses of demographic and descriptive data and the study hypotheses.

The statistical data compiled in Chapter IV were obtained from a questionnaire developed by the researcher. This questionnaire consists of thirty-seven items and was designed to gather information regarding teacher perceptions of the correlation between year-round school calendars and student achievement, student behavior, and teacher efficacy. The questionnaire consists of ten items related to teacher demographics and twenty-three descriptive items with ordinal response scales. These twenty-three

descriptive items used a five-point Likert-type scale ranging from (1) strongly disagree to (5) strongly agree. Nine items in this study assess teacher perceptions of the school calendar and how the school calendar correlates with student behavior, student achievement and teacher efficacy. Four items focus on teacher perceptions of the impact of the school calendar upon student behavior, and six focus on teacher perceptions of the impact of the school calendar upon student achievement. An additional four items address teacher perceptions of the impact of the school calendar upon teacher efficacy. Four items (items 16, 20, 22, and 34) had to be omitted to obtain adequate Cronbach's alphas. Upon receipt of each completed questionnaire, the researcher assigned a random number to each of the questionnaires to organize data and ensure that anonymity of participants was maintained. The data were compiled in an Excel spreadsheet and analyzed utilizing the statistical program SPSS.

Data for this study were obtained from teachers of students in grades Pre-K through 6 in elementary and middle schools from four school districts across the state of North Carolina. Letters were also sent to middle schools, serving grades 7 and 8, as well as high schools, serving grades 9-12, but no respondents from these grade levels consented to participate. Letters requesting consent to conduct research were sent to superintendents of six public school districts in the state of North Carolina. Four superintendents provided consent to conduct this research in their school district. Upon approval to conduct research in each school district, principals were contacted to seek their permission to conduct research within their individual schools. Principals from nine schools agreed to participate in the study.

Of the nine schools participating in the study, six schools utilize a type of year-round school calendar and serve students in grades Pre-K through 5. Two of these

schools utilize a modified year-round school calendar. Two additional schools in this study use a traditional school calendar and serve students in grades Pre-K through 5. Only one of the participating schools in this study uses a traditional school calendar and serves students in grades 6-8. A total of three hundred fifty-one questionnaires were mailed to individual schools within the North Carolina public school system. Of the 351 possible participants, 106 teacher participants voluntarily agreed to participate.

The researcher sought to include an equal number of teacher participants from schools utilizing a traditional calendar and schools utilizing a year-round type calendar; however, only four schools in the study utilized a traditional school calendar while six schools used a year-round type school calendar. There were 125 respondent questionnaires sent to teachers employed by schools with a traditional school calendar, while 226 respondent questionnaires were sent to teachers employed by schools with a year-round type calendar. Of the 125 respondent questionnaires sent to teachers employed by schools with a traditional school calendar, 36 participating teachers completed the questionnaire and returned it to the researcher. Of the 226 respondent questionnaires sent to teachers employed by schools with a year-round type school calendar, 67 participating teachers completed and returned the questionnaire to the researcher. Only 3 respondents selected the Other category and listed a different variation of the school calendar. Out of the 106 respondents, the response rate for teachers employed by schools using a traditional calendar was 34%. The response rate for teachers employed by schools using a year-round type of calendar was 63.2%. The 3 teacher respondents who marked other made up 2.8% of the teacher participants. Of the 351 individuals in the targeted sample, 106 teachers returned the participant questionnaire for an overall response rate of 30%. After the data from the 106 completed

questionnaires used for this study were disaggregated and analyzed, four additional questionnaires arrived in the mail. The data from the four late questionnaires were not included in this study.

#### Results of Analyses of Personal, Professional, and School Demographics

The majority of the 106 participating teachers, 63.2% (n=67), were employed in schools that have a balanced 180 day modified year-round school calendar. This type of calendar provides grading periods of 45 to 60 days with 15 to 20 day intersessions between each grading period. The design of this type of school calendar balances the grading periods across the calendar year by providing more frequent breaks between grading periods. Of all the respondents who participated in this study, 19 teacher participants (17.9%) were employed by schools with a traditional school calendar and an extended school year with an additional 10-20 days of instruction set aside for credit recovery or summer school courses to be offered. Participants employed by schools with a traditional school calendar made up 16.0% of all respondents (n=17) (see Table 3).

Only 5.7% (n=6) of the participants in this study are male, while 94.3% (n=100) participants in this study are female. Participants in this study ranged in age from 20-69. The largest group of participants made up 43.4% of all respondents (n=46) and were between the ages of 30-39. The next-largest group of participants were teachers who ranged in age from 20-29. These teachers made up 22.6% (n=24) of all participants surveyed (see Table 4).

Table 3

*Frequencies and Percentages of Demographic Variables*

Variable	Frequency	Percentage
<u>Calendar type</u>		
Traditional calendar (180 days of instruction with grading periods of 45 days and breaks at holidays, spring break and summer)	17	16.0
Traditional calendar (180 days of instruction with grading periods of 45 days and breaks at holidays, spring break and summer with an extended school year program)	19	17.9
Modified year-round calendar (180 days of instruction with grading periods of 45-60 days and 10-20 day intersessions along with breaks at holidays, spring break and summer)	57	53.8
Modified year-round calendar (More than 180 days of Instruction with grading periods of 45-60 days and 10-20 day intersessions along with breaks at holidays, spring break and summer)	10	9.4
Other	3	2.8
Total	106	100.0

Table 4

*Frequencies and Percentages of Demographic Variables*

Variable	Frequency	Percentage
<u>Gender</u>		
Male	6	5.7
Female	100	94.3
Total	106	100.0
<u>Age</u>		
20-29	24	22.6
30-39	46	43.4
40-49	21	19.8
50-59	13	12.3
60-69	2	1.9
Total	106	100.0

The largest subgroup of teachers by grade(s) taught by were those in the category of Other. This category is comprised of 28.3% (n=30) participants who teach a variety of grade levels. The next highest number of participants (n=15) were found to be assigned to teach third grade; they made up 14.2% of all respondents. Teachers assigned to teach second grade made up the next largest category with 12.3% assigned to teach this grade level (n=13) (see Table 5).

Table 5

*Frequencies and Percentages of Demographic Variables*

Variable	Frequency	Percentage
<u>Grade Level Taught</u>		
K	11	10.4
1	11	10.4
2	13	12.3
3	15	14.2
4	12	11.3
5	4	3.8
6	10	9.4
14 (Other)	30	28.3
Total	106	100.0

The next set of demographic data addressed the extra-curricular duties assigned to participating teachers. Other duties assigned is a category from which an attempt was also made to gather data; however, due to the large number of participants who did not mark this particular item on the questionnaire, the results from this particular category were not used in the analyses.

The number of years of experience for those teachers participating in this study was found in the range of zero to 25+ years. The largest number of participants 26.4% (n=28) had 5-9 years of experience while the second largest group of participants 23.6%

(n=25) had 10-14 years of experience. The smallest number of participants came from the category of 25+ years of experience (see Table 6).

Table 6

*Frequencies and Percentages of Demographic Variables*

Variable	Frequency	Percentage
<u>Experience</u>		
0-4 years	20	18.9
5-9 years	28	26.4
10-14 years	25	23.6
15-19 years	18	17.0
20-24 years	10	9.4
25 or more years	5	4.7
Total	106	100.0
<u>School accountability</u>		
Honor school of excellence	1	0.9
School of excellence	0	0
School of distinction	7	6.6
School of progress	82	77.4
No recognition	3	2.8
Priority school	3	2.8
Low performing	7	6.6

Table 6 (continued).

Variable	Frequency	Percentage
<u>School accountability</u>		
No response	0	2.8
Total	106	100.0

In terms of school accountability, most of the participating teachers 77.4% (n=82) selected the school performance rating of School of Progress, a designation meaning that 60-79% of students are at/above grade level and the school met expected achievement growth; however, the school did not meet its adequate yearly progress (AYP) targets for No Child Left Behind (see Table 6). The lowest number of respondents 6.6% (n=7) selected the school performance rating of Low Performing, a designation meaning there were fewer than 50% of students performing at/above grade level and expected achievement growth was not met by the school (see Table 6).

The demographic items also addressed student poverty levels. The largest percentage of respondents for this particular item, 56.6% (n=60), indicated that the socioeconomic status of students from their schools was the 75%-100% free/reduced lunch rate. The second largest percentage of participants, 34.9% (n=37), selected the student socioeconomic status of 51%-74% free/reduced lunch rate (see Table 7).

Of the participants involved in the study, the largest percentage, 94.3% (n=100), had never attended a year-round school as a student. The proportion of participants involved in this study who had never been employed in a year-round school was 38.7%

(n=41). Among respondents, 51.9% (n=55), were currently teaching in a year-round school (see Table 7).

Table 7

*Frequencies and Percentages of Demographic Variables*

Variable	Frequency	Percentage
<u>Socioeconomic status</u>		
<25%	0	0
26-50%	9	8.5
51-74%	37	34.9
75-100%	60	56.6
Total	106	100.0
<u>Year-round education student</u>		
Yes	5	4.7
No	100	94.3
No response	1	0.9
Total	106	100.0
<u>Employed in year-round school</u>		
Yes	9	8.5
No	41	38.7
No response	55	51.9
Total	105	99.1

Descriptive statistics for those indicators used to determine teacher perceptions of the school calendar came from items 21, 24, 25, 26, 27, 29, 30, 31, and 37. The researcher employed a Likert-type scale in which 1=strongly disagree and 5= strongly agree. The means from responses to these items were calculated, along with an overall mean for the subscale. The responses pertaining to teacher perceptions of the school calendar had an overall mean of 3.66 (see Table 12), with a range of responses from 2.63 to 4.15 for these nine items (see Table 8). The top two means, Items 30 and 29, indicated that the participating teachers agreed that they are more confident when students have more time to learn ( $M=4.15$ ), and that they are more motivated to teach when breaks are provided between grading periods ( $M=4.11$ ). Conversely, the bottom two means, Items 31 and 26, denote that the teacher participants disagreed slightly that modifying the school calendar with a shorter summer would reduce the opportunity for professional development and personal growth ( $M=2.79$ ). They also disagreed slightly that there is insufficient time in the current school calendar for students to master required objectives ( $M=2.63$ ) (see Table 8). Two reversed-polarity items, Items 26 and 31, were utilized within this subscale. The original means for these two items were reported (see Table 8); however, the scores were reversed for the calculation of the overall subscale mean for school calendar (see Table 12).

Teacher perceptions of the impact of the school calendar on student behavior was assessed using items 12, 19, 35, and 36. The overall subscale mean of teacher responses for perceptions of the impact of the school calendar on student behavior was 3.68 (see Table 12), with a range of individual item means from responses from 2.54 to 3.80 on the five-point Likert scale (see Table 9). The overall mean indicated

Table 8

*Teacher Perceptions of School Calendars*

Variable	Mean	Std. Deviation
<u>School calendar perceptions</u>		
q30 More confident teacher if students had more time	4.15	.77
q29 More motivated to teach with breaks between grading periods	4.11	.95
q25 School calendars with frequent breaks improve student achievement	3.73	.93
q37 Current school calendar meets student academic needs	3.67	.85
q24 A modified 180 day YR calendar offers more student opportunities	3.65	.88
q27 Increasing time students are in school improves achievement	3.64	1.08
q21 I have adequate time to teach required objectives	3.39	.97
*q31 Modifying the school calendar with a shorter summer will not allow professional/personal growth	2.79	1.08
*q26 Students do not have enough time in the current school calendar to master the required objectives	2.63	.96

Mean is based on a Likert-type scale from 1 (strongly disagree) to 5 (strongly agree). \*Reversed-polarity item

that the teachers participating in this study tended to moderately agree that a balanced school calendar, with grading periods of 45-60 days and 15-20 day intersessions, positively impacts student behavior. While the means of all items were similar, the two items with the highest means, Items 12 and 36, provided evidence that teachers moderately agreed that student behavior is positively impacted by a balanced school calendar (M=3.80), and that balanced school calendars with frequent breaks motivate students (M=3.80) (see Table 9).

Table 9

*Teacher Perceptions of Student Behavior as Related to School Calendars*

Variable	Mean	Std. Deviation
<u>School calendar and student behavior</u>		
q12 School schedule helps student behavior	3.80	.82
q36 A balanced school calendar with frequent breaks motivates students	3.80	.87
q19 Frequent breaks help improve the graduation rate	3.57	.92
q35 A modified 180 year-round calendar has a positive effect on student behavior	3.54	.82

Mean is based on a Likert-type scale from 1 (strongly disagree) to 5 (strongly agree).

The perceptions of teachers included in this study regarding the impact of the school calendar on student achievement was assessed using items 17, 18, 23, 28, 32, and 33. The overall mean of the responses for teacher perceptions of the impact of the school

calendar on student achievement was 3.61(see Table 12); individual item means ranged from 2.41 to 4.04 on the five-point Likert-type scale (see Table 10). The highest means among these results were for Item 33 (M=4.04), which indicated that the teachers involved in this study agreed that remediation during three week intersessions has a positive effect on student achievement, and Item 32 (M=3.74), which indicated that participants agreed utilizing a 180 day year-round school calendar also has a positive effect on student achievement. Teachers disagreed slightly that the type of school calendar has no effect on student achievement (Item 28, M=2.75). They also disagreed with the notion that the number of instructional days has no impact on student achievement (Item 17, M=2.41) (see Table 10). For this subscale, these last two items were reversed in polarity. The un-reversed item means were reported in Table 10 but the scores of these reversed items were reversed for calculating the overall subscale mean reported in Table 12.

Table 10

*Teacher Perceptions of Student Achievement as Related to School Calendars*

Variable	Mean	Std. Deviation
<u>School calendar and student achievement</u>		
q33 Remediation during 3 week intersessions has a positive effect on student achievement	4.04	.80
q32 A modified 180 day year-round calendar has a positive effect on student achievement	3.74	.85

Table 10 (continued).

Variable	Mean	Std. Deviation
<u>School calendar and student achievement</u>		
q18 An even distribution of days improves student achievement	3.50	1.04
*q28 Type of school calendar does not affect student achievement	2.75	.99
*q17 Number of instructional days has no impact on student achievement	2.41	1.15

Mean is based on a Likert-type scale from 1 (strongly disagree) to 5 (strongly agree). \*Reversed-polarity item

Teacher perceptions of the impact of the school calendar on teacher efficacy were assessed by a subscale that had an overall mean of 4.22 (see Table 12). The items assessing the perceptions that teachers have regarding their efficacy are 11, 13, 14, and 15 (see Table 11). There were problems with two of the items, Items 16 and 22; because of this, the items were eliminated. Responses to these items ranged from 3.93 to 4.46 on the five-point Likert-type scale used for this study. In terms of work satisfaction (Item 11, M=4.46) and teacher effectiveness (Item 13, M=4.37), teachers participating in this study agreed that they are satisfied with their current occupation and that they were effective teachers. Teacher participants also expressed that they typically do not miss work more than one day each semester (Item 15, M=4.11) and that they feel they are leaders at the school in which they teach (Item 14, M=3.93). As was noted in the

discussion of the instrument in Chapter III, this subscale produced a low reliability coefficient, so descriptive results for this construct need to be viewed with caution.

Table 11

*Teacher Perceptions of Teacher Efficacy as Related to School Calendars*

Variable	Mean	Std. Deviation
<u>School calendar and teacher efficacy</u>		
q11 Work satisfaction	4.46	.59
q13 I feel I am an effective teacher	4.37	.57
q15 Absent one day or less/semester	4.11	.10
q14 I feel I am a leader at this school	3.93	.94

Mean is based on a Likert-type scale from 1 (strongly disagree) to 5 (strongly agree).

Table 12

*Means and Standard Deviations for Independent Variables*

Variable	Mean	Std. Deviation
<u>Means and standard deviations</u>		
Calendar (1-5)	3.66	.54
Behavior (1-5)	3.68	.69
Efficacy (1-5)	4.22	.52
Achievement (1-5)	3.61	.66

Mean is based on a Likert-type scale from 1 (strongly disagree) to 5 (strongly agree).

### Results from Analyses of the Hypotheses

The first hypothesis upon which this study is based states that there is a statistically significant relationship between the type of school calendar and their perceptions of teacher efficacy. The Pearson correlation was  $r(106) = .121, p = .217$ . The Pearson  $r$  was not significant; therefore, the first hypothesis was rejected. The relatively low reliability for the self-efficacy subscale may have influenced these results. The second hypothesis states that there is a statistically significant relationship between the perceptions of teachers regarding the type of calendar adopted by a school and their perceptions of student achievement. This hypothesis was accepted. There was a strong Pearson  $r(106) = .788, p < .001$ , which indicated that positive teacher perceptions of a balanced year-round school calendar strongly correlated with positive teacher perceptions of improved student achievement. On the other hand, teacher perceptions of a traditional school calendar did not appear to have a strong correlation with teacher perceptions of student achievement.

The third hypothesis states that there is a statistically significant relationship between the perceptions of teachers regarding the type of calendar adopted by a school and their perceptions of student behavior. This hypothesis was also accepted. The Pearson correlation for this hypothesis was moderately strong  $r(106) = .714, p < .001$ , which indicated that positive teacher perceptions of a balanced year-round school calendar correlated with positive teacher perceptions of improved student behavior. However, teacher perceptions of a traditional school calendar did not appear to have a very strong correlation with teacher perceptions of student behavior.

The fourth hypothesis states that there is a statistically significant relationship between the perceptions of teachers regarding the type of calendar adopted by a school

and their perceptions of selected characteristics (teaching experience, teacher gender, grade level taught, and extra-curricular duties). A multiple regression was used for this analysis. Almost half of the participants did not provide information for assigned extra-curricular duties; therefore, data for extra-curricular duties were not included in the analysis. Of the other three characteristics, teacher experience and teacher gender did not appear to be good predictors because they both had a significance coefficient well above .001; however, grade-level taught was a significant predictor of the perceptions of teachers regarding grade level taught and the impact of the school calendar on student achievement, student behavior, and teacher efficacy ( $F(3,102) = 4.729, p = .004, R^2 = .122$ ). From these data, it appeared that grade-level taught was a negative predictor with a significance of  $p < .001$ , and a  $t$ -value of -3.72 indicating that as the grade-level taught increases, the type of school calendar becomes less effective in terms of student achievement, student behavior, and teacher efficacy (see Table 13).

Table 13

*Regression Coefficients for Predicting Teacher Perceptions of School Calendar Impact*

Model	Unstandardized		Standardized		
	Coefficients		Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	3.735	.444		8.422	.000
Experience	.007	.036	0.19	.208	.836
Gender	.080	.217	0.34	.368	.713

Table 13 (continued).

Model	Unstandardized		Standardized		
	Coefficients		Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	3.735	.444		8.422	.000
Grades	-.038	.010	-.346	-3.720	.000

a: Dependent Variable: calendar

### Summary

Chapter IV provides specific results for the study of teacher perceptions of the impact of school calendars on student behavior, student achievement, and teacher efficacy. Data were obtained from 106 teachers from public schools within districts in the state of North Carolina that employ both traditional school calendars and year-round type calendars. A researcher-developed questionnaire was utilized for the purposes of this study. Demographic data included the following: school calendar type, teacher gender, teacher age, grade-levels taught, extra-curricular duties, years of experience, school performance level, student socioeconomic status, attendance in a year-round school, and employed by a year-round school. These data were analyzed and reported in terms of frequencies and percentages.

Descriptive data were also obtained from 23 items on the questionnaire. An ordinal response scale was assigned to each descriptive item using a five-point Likert-type scale ranging from (1) strongly disagree to (5) strongly agree. The questionnaire contained 9 items related to teacher perceptions of school calendars, 6 items pertaining to teacher perceptions of the impact that school calendars have on student achievement, 5

items pertaining to teacher perceptions of the impact that school calendars have on student behavior, and 4 items pertaining to teacher perceptions of the impact that school calendars have on teacher efficacy.

The first hypothesis states that there is a significant relationship between teacher perceptions of the school calendar and teacher efficacy. The Pearson correlation for this hypothesis was not significant; therefore, hypothesis 1 was rejected. Hypothesis 2 states that there is a significant relationship between teacher perceptions of the school calendar and student achievement, and hypothesis 3 states that there is a significant relationship between teacher perceptions of the school calendar and student behavior. The Pearson correlation for both hypothesis 2 and hypothesis 3 was significant; therefore both hypothesis 2 and hypothesis 3 were accepted. Hypothesis 4 states that there is a statistically significant relationship between the perceptions of teachers regarding the type of calendar adopted by a school and their perceptions of selected characteristics (teaching experience, teacher gender, grade level taught, and extra-curricular duties).

The only characteristic that served as a significant predictor was grade-level taught. This served as a negative predictor indicating that as the grade-level taught increased, the type of school calendar became less effective in terms of student achievement, student behavior, and teacher efficacy. Chapter V will provide a detailed discussion of these results.

## CHAPTER V

### DISCUSSION

The purpose of this study was to determine teacher perceptions of the relationships among year-round schools, student achievement, student behavior, and teacher efficacy. Chapter V provides a discussion of the results of the findings from this study, which were outlined in Chapter IV. Chapter V contents also include the study limitations, and recommendations for policy, practice, and future research.

#### Summary of Procedures

Five research questions were identified and four hypotheses were developed for this study. It was determined that a quantitative research design would be used in order to assess the relationships among modified year-round school calendars and the dependent variables of teacher perceptions of student achievement, student behavior, and teacher efficacy, as well as independent variables which include the following: type of school calendar, number of years of teaching experience, teacher age, teacher gender, extra-curricular duties, grade-level taught, level of school performance, and free/reduced lunch rate.

In an effort to obtain a sufficient number of participants for this study, questionnaires were sent to 351 teachers in school districts across the state of North Carolina. The goal was to obtain at least a 25% participation rate from North Carolina public school teachers in elementary schools, middle schools and high schools that were utilizing either a traditional school calendar or a type of year-round school calendar. Although teacher consent forms were sent to teachers in middle schools serving grades 7 and 8 and high schools serving grades 9-12, no respondents from these grades consented to participate in this study; therefore, there were no teachers from grades 7-12 included in

this study. A study sample of at least 100 teachers was desired for the purposes of this study. Of the 351 consent forms sent to teachers, 106 individuals consented to participate and were asked to complete a questionnaire analyzing the perceptions of teachers regarding year-round school calendars. These participants included teachers from North Carolina school districts that employed different types of school calendars. Participation of teachers was voluntary as was the participation of districts and schools, which was determined based upon individual school administrators' and school district administrators' approval. Permission was obtained from each participating school district superintendent on school district letterhead.

Prior to administering the questionnaire for this study, the researcher explained the purpose of the research and presented the questionnaire to a panel of experts. This panel consisted of three people with particular expertise about school calendars and time issues in schools. The panel of experts was asked to review the instrument for its readability and provide knowledgeable responses about the degree to which items were readily understood. The panel of experts was asked to complete a validity questionnaire to provide specific feedback regarding the instrument. Although two members from the panel of experts made no suggestions regarding the instrument, one made specific suggestions on the instrument itself as to the directions in the instrument. The instrument was modified based on feedback from the panel.

Before consent to conduct research was requested, school districts across the state of North Carolina were closely analyzed to determine the types of school calendars employed within each school district. It was determined that six North Carolina public school districts would be included in the study based on the prevalence of a combination of year-round school calendars and traditional school calendars within each district.

Letters seeking consent to conduct research were then sent to the six school district superintendents. Four superintendents agreed to provide consent to conduct research within their school districts. Upon approval from superintendents, individual school principals were contacted to seek their permission to conduct research within their individual schools. Principals from nine schools agreed to participate in the study. Once approval to conduct research was obtained from school district superintendents, the Institutional Review Board (IRB) of The University of Southern Mississippi gave approval to begin the research study.

Informed consent was obtained from all participants. A written statement was presented to all participants outlining the purpose of the study and describing the procedures for the study. A statement was provided explaining that the survey was completely voluntary and that participants could refuse to answer any items they chose not to answer and/or discontinue the questionnaire at any time without penalty. Participants were provided with a consent form. All participants and those assisting with the distribution of the questionnaire were asked to sign a consent form explaining that they were informed that their completion of the questionnaire was completely voluntary and that they agreed to participate in the research study.

Data for this study were obtained from 106 teachers in grades Pre-K through 6 in elementary and middle schools from four public school districts across the state of North Carolina. Initially, the purpose of the research project was explained through a formal letter to the teacher populations at each selected school site. Prospective teacher participants were invited to participate in the survey during their planning time, at a faculty meeting, after school or a time designated by the school principal. The researcher sought the consent of all participating teachers and provided directions on how to

complete the survey. Upon completion of the questionnaire, teachers were asked to return the questionnaire in a self-addressed stamped envelope to the researcher's address. The researcher collected the completed questionnaires and randomly assigned each questionnaire a number. The questionnaires were secured in a lock box when not in use. The data from the surveys were organized on Excel spreadsheet and then analyzed using the statistical program, SPSS. The data were shared with the researcher's advisors.

### Review and Discussion of Major Findings

In order to address the study's objectives, the researcher sought demographic and school-related data, along with teacher perceptions about school calendars. Descriptive and correlational statistics were calculated using these data. This section provides an overview of the findings from the demographic data. It also recaps findings related to the research questions and hypotheses that were developed for the study.

#### *Descriptive Data from Personal, Professional, and School Demographics*

In the process of this research, it was determined that six of the nine schools involved in the study utilized a type of year-round school calendar and served students in grades Pre-K through 5. Two schools utilized a modified year-round school calendar and served students in grades Pre-K through 5 while two additional schools used a traditional school calendar and served students in grades Pre-K through 5. One of the participating schools used a traditional calendar and served students in grades 6-8.

Demographic data from this research showed that the majority of the teachers who participated in this study were employed by schools that utilized a balanced 180 day modified year-round school calendar, while a minimal number of teachers were employed by schools that utilized a traditional school calendar with an extended school year. Of the participants who volunteered to participate in this study, the vast majority

were female. Only a very small number of males participated. Participants ranged in age from 20-69, with almost half falling within the age range of 30-39. Regarding teaching assignment, just over a quarter of the respondents (28.3%) fell into the category of Other, reflecting a variety of grade levels taught. Additionally, a little more than a quarter of all teachers combined fell into the categories of second and third grade. Very few middle school teachers participated; those who did were instructors in grades 5 and 6.

These findings do not require extensive discussion beyond the descriptive information already presented; however, it is useful to note that there were very few males. This was probably not a particularly skewed result since most responses were from elementary teachers whose ranks typically include relatively few males. Although research shows that men comprise nearly half of all secondary school teachers, only 18.3% were reported to teach in middle and elementary grades. Further, only 2.3% were reported to teach in grades Pre-K and Kindergarten (U.S. Bureau of Labor Statistics, 2011). Given the relationship of calendar with matters of family concern, this is not an inconsequential result, since research continues to indicate that care-giving responsibilities in the home are often disproportionate by gender. In addition, these findings did not allow insights into the perspectives of secondary school teachers in grades 7-12 as there were no teachers from these grades who consented to participate. There were also limited insights into middle schools since only one of the participating schools included middle school grades.

The number of years of experience for participating teachers was found to be predominantly in the range of five to fourteen years, with the largest percentage falling in the five to nine year category. These data indicated that respondents in this study were, in general, relatively experienced. Other duties assigned was a category from which an

attempt to obtain data was also made; however, due to a low number of responses to this particular item on the questionnaire, the results from this category were not used for this study. The school accountability item yielded results that showed that the majority of participating teachers were affiliated with schools assigned the accountability rating of School of Progress in which sixty to seventy-nine percent of students were at/above grade level and in which the school had met expected growth, but did not meet its AYP target. It should be noted that the responses concerning school performance ratings were self-reported and not corroborated through other sources; however, teachers did not appear to inflate the performance of their schools, since the School of Progress designation is not among the top, nor the bottom tiers of school performance. The socioeconomic status of students from these schools was found to be predominantly in the 75%-100% free/reduced lunch category; the next highest frequency was for the range 51%-74%. This statistic suggests that most students from the schools involved in this study were from low-income families. The next three pieces of data indicated that an overwhelming majority of participating teachers had never attended a year-round school as a student, while nearly half had never been employed in a year-round school. Roughly half of the teachers participating in this study expressed that they were currently teaching in a year-round school setting.

#### *Descriptives from Teacher Perception Subscales*

Descriptive statistics from the items used to determine teacher perceptions of school calendars showed relatively high means. This indicated that participating teachers agreed that their ability to teach and student achievement were impacted by the type of school calendar employed by a school. The participants also agreed that they were more motivated to teach and student achievement was more likely to be improved when breaks

were provided more frequently throughout the school year between grading periods. Concomitantly, the teachers participating in this study also agreed moderately that the use of a modified year-round school calendar offered more academic opportunities for students and that increasing the time students were in school helped to improve student achievement. Conversely, the teachers participating in this study disagreed slightly that a reduction in the length of summer breaks caused a reduction in professional development opportunities; they also disagreed that it limited personal growth.

These results appear to be aligned with existing literature surrounding teacher perceptions of year-round schools; past findings showed positive results in year-round schools. This attributed to greater flexibility, easier time management, more time off work, and the opportunity to participate in year-round professional development that will impact student learning (Haser & Nasser, 2003; Shields & Oberg, 2000c; Speck, 2002). Advocates of year-round education support this notion stating that year-round calendars provide better working conditions and improved teacher satisfaction (Kneese, 2000; Price, 2000). In addition, prior research has also shown that teachers perceive improvements in student achievement for students attending schools utilizing a year-round school calendar even though weak correlations have been found between year-round education and academic performance (Baker et al., 2004; Eames et al., 2004; Sexton, 2003).

The descriptive statistics from this research also showed relatively high overall and individual item means for teacher perceptions regarding the impact of the type of school calendar on student behavior. The results indicated that the teachers involved with this study agreed moderately that student behavior was impacted by the type of school calendar and also moderately concurred with the notion that a modified 180 day year-

round calendar had a positive impact on student behavior as well. Teachers from this study also moderately agreed that student motivation and graduation rates were positively impacted by the use of a balanced school calendar with frequent breaks.

These results appear to be parallel with the existing research that has shown that teacher perceptions of a year-round type school calendar with frequent breaks is associated with better classroom behavior among students (Anderson, 2010; Heaberlin, 2000). Teachers in year-round schools have also reported increased motivation, concentration, and attendance of their students (Palmer & Bemis, 2000; Shields & Oberg, 2000c). Research suggests that when student attendance was compared between schools utilizing year-round calendars with those utilizing traditional calendars, one out of five students attending year-round schools had better attendance than those attending schools using a traditional calendar (Palmer & Bemis, 2000).

The perceptions of teachers included in this study regarding the impact of the type of school calendar on student achievement had fairly high overall and item-specific means as well. This indicated that they were in moderate agreement that student achievement and the type of school calendar were related. Teacher participants agreed that a 180 day year-round school calendar had a positive effect on student achievement as well. The participants also agreed moderately that an even distribution of days helped to improve student achievement; however, they disagreed that the number of instructional days had no impact on student achievement. They also disagreed moderately that the type of calendar had no impact on student achievement. In addition, participants agreed that reducing the length of the summer while adding instructional time and remediation during three-week intersessions had a positive effect on student achievement as well.

The level of agreement among respondents that a year-round calendar positively impacts student achievement is of even greater interest in light of the socioeconomic status of their students. The vast majority of teachers reported high levels of student poverty in their schools. Supporting evidence for the impact that the type of school calendar has on student achievement among differing socioeconomic groups comes from the disparities that occur during the long summer breaks when upper SES children's skills continue to advance while lower SES children's skills show little or no gains (Alexander et al., 2001); U.S. Department of Education, 2000). Moreover, research revealed that the out-of-school environment for students during the summer months tended to help improve student achievement among upper SES groups due to consistent exposure to community and cultural events and the opportunity that is provided for this group of students to read throughout the summer months (Alexander et al., 2001). On the other hand, students in lower SES groups tended to flounder in terms of academic student achievement during the summer months and the achievement gap tended to widen in both math and reading because of a lack of exposure to text and a lack of opportunities to experience different cultural events during the long summer break (Alexander et al., 2001). As previously stated in the literature review, this tendency suggested that non-school factors such as a student's family and neighborhood promotes an educational inequality among students in different socioeconomic groups during the summer (Downey et al., 2004). These results also appear to be consistent with previous research which suggested that academic achievement gaps grew faster during the summer months as compared to when school was in session. Furthermore, this research indicated that the influence of formal schooling on student achievement can be directly traced to the time

spent by students engaged in academic skills, whether during the school year or summer (Alexander et al., 2001; Downey et al., 2004; Raudenbush, 2009).

Teacher perceptions of their own efficacy had higher overall and item-specific means than the other dependent variables. The items for this particular subscale did not get at teacher perceptions regarding whether teachers associated effectiveness and satisfaction with the school calendar. The low level of absenteeism provided evidence of the teachers' high levels of satisfaction with the school and with their own effectiveness. However, the nature of the study did not permit the researcher to actually determine the effectiveness of respondents nor their rates of attendance. These were self-reported data and were not corroborated through other sources. It should be further noted that the low Cronbach's coefficient for this subscale means that the reader should consider these results with caution.

#### *Findings and Discussion Related to the Hypotheses*

The Pearson correlations for Hypotheses 1-3 in this study were analyzed and later used to determine whether these hypotheses would be rejected or accepted. The first hypothesis stated there would be a statistically significant relationship between teacher perceptions of the type of school calendar and the correlation with teacher efficacy. The Pearson correlation for this hypothesis was rather low and therefore indicated that the first hypothesis should be rejected. Because of the low Pearson correlation, this hypothesis was not found to be statistically significant.

This finding did not confirm what the researcher believed would occur, nor was it consistent with a number of previous studies. According to the existing research, the majority of teachers who teach on a year-round calendar report less stress and burnout which in turn eliminates the need for teachers to be absent from work. In addition,

research cites the wellness benefits that go along with a decrease in stress (Webb et al., 2009). The research also provides insight regarding how teachers view the organization of time in a year-round approach. Teachers believe that the organization of instructional time in a year-round calendar allows them to plan at regular intervals during the academic year when it is needed most thus eliminating the additional stress and time that comes along with the preparation of lessons and planning (Shields & Oberg, 2000a). In addition, such research into the perceptions of teachers regarding year-round school calendars oftentimes shows there is a relationship between variables of school calendar and perceptions of efficacy. Such research found that teachers reported increased motivation and concentration among their students leading to less stress (Haser & Nasser, 2003; Price, 2000). Furthermore, teachers reported that the additional time off between grading periods allowed for more teacher collaboration and increased time to effectively plan lessons during the school year while offering teachers time to work on personal growth opportunities through professional development (Haser & Nasser, 2003; Shields & Oberg, 2000c; Speck, 2002). The teacher participants in this study may have felt efficacious because of other factors such as their personal belief as to why they were called to the teaching profession or their desire to affect change in a positive way in the lives of children. These considerations might provide an explanation for why there was not a significant correlation between the types of school calendar and teacher efficacy. In addition, the previously noted problems with the self-efficacy subscale's reliability could have been a factor in the low Pearson's  $r$  value.

The second hypothesis stated there would be a statistically significant relationship between the perceptions of teachers regarding the type of calendar adopted by a school and their perceptions of student achievement. This hypothesis was accepted with a strong

positive Pearson correlation at the 0.01 level. This confirmed the prediction that there would be a significant correlation between type of school calendar and perceptions of student achievement. According to these results, a balanced year-round school calendar appears to be related to perceptions of higher achievement, whereas a traditional calendar appears to be less related.

Some previous research reinforces this finding. Supporting evidence provided by a representative group of Baltimore school children demonstrated that as student achievement increased, time spent by students engaged in academic skills increased (Alexander et al., 2007; Smith 2012). While the literature review in Chapter II addressed findings, which are occasionally inconsistent, regarding the impact of year-round education, improved student achievement was perceived to be one of the primary benefits for using a balanced year-round approach in designing the school calendar. Research indicated that this type of calendar would allow students from all socioeconomic backgrounds to have more equitable opportunities to maintain constant educational engagement throughout the year without lengthy extended summer breaks that would exacerbate learning loss and widen the achievement gap between low socioeconomic students and their more affluent classmates (Alexander et al., 2007; Smith, 2012). More affluent students on the other hand did not tend to benefit from this type of calendar primarily because of the educational exposure and support they were provided during long summer breaks (Alexander et al., 2001).

To some degree, findings from existing research corroborated the benefits of a year-round balanced school calendar and the impact it has on student achievement. For instance, findings from a 2009 study indicated that school year-to-year achievement gains for students in a modified year-round calendar school who were in grades 3-4 and 4-5

were all positive, even though their only superior test results came from grade 3-4 mathematics (Anderson, 2009). Although there appeared to be a positive impact of year-round schooling on student achievement, there were no statistically significant differences between students attending year-round schools and their peers attending schools using a traditional school calendar (Heaberlin, 2000). From other studies, weak correlations were found among year-round education, student attendance, academic performance, and behavior patterns (Baker et al., 2004; Eames et al., 2004; Sexton, 2003).

The third hypothesis stated that there would be a statistically significant relationship between the perceptions of teachers regarding the type of school calendar adopted by a school and their perceptions of student behavior. This hypothesis was also accepted with a moderately strong Pearson correlation and aligned with the prediction that there would be a significant correlation between the type of school calendar and student behavior. The sign of the Pearson correlation for this subscale also indicated a positive direction for significance at the 0.01 level. This confirmed the prediction that there would be a significant correlation between type of school calendar and perceptions of student behavior. According to these results and previous research, a balanced year-round school calendar appears to be more related to teacher perceptions of better student behavior, while teacher perceptions of a traditional calendar appear to be less related.

Previous research findings supported the findings from the analysis for Hypothesis 3. Such literature provides evidence that behavior may be improved in students attending schools with year-round calendars due to increased student motivation to learn (Anderson, 2010; Heaberlin, 2000). Because of this increased motivation to learn students tended to become less unruly during class while at the same time

improving student achievement. According to research, this may have been attributed to teacher motivation and teacher morale, which in turn supports academic growth and motivates students (Shields & Oberg, 2000c). Research also suggested that class sizes tended to be smaller in schools utilizing a type of year-round balanced calendar, which in turn helped to enhance academic performance and improve student behavior and teacher morale (Stevenson, 2007). Furthermore, attendance was found to be improved depending on the type of school calendar utilized by a school. One study found that students attending a school with a year-round type calendar were less likely to be absent as compared to students attending schools with a traditional calendar (Palmer & Bemis, 2000; Shields & Oberg, 2000c).

The fourth hypothesis stated there would be a statistically significant relationship between the perceptions of teachers regarding their perceptions of type of calendar adopted by a school and selected characteristics such as teaching experience, teacher gender, grade level taught, and extra-curricular duties. Nearly half of all participants did not provide a response to the item associated with extra-curricular duties. Due to the limited response to this item on the questionnaire, data for extra-curricular duties were not included in the study. The remaining three variables of teacher experience, teacher gender, and grade-level taught were all analyzed as predictors along with their relationship with the type of school calendar. A multiple regression analysis was used to determine the significance of each variable in predicting the perceptions of teachers regarding the relationship that a balanced year-round school calendar had on student achievement, student behavior and teacher efficacy. Of the three variables, teacher experience, teacher gender, and grade level taught, the latter was the only one that appeared to be a good predictor, albeit a negative one, of the perceptions that teachers

had regarding the impact that a balanced year-round school calendar had on student achievement, student behavior, and teacher efficacy. The results indicated that as the grade level taught increased, teacher perceptions of the impact that the type of school calendar had on student achievement, student behavior and teacher efficacy was less related.

The significance of grade level taught as a predictor provided this researcher with additional insight into the perceptions that teachers have regarding the type of calendar adopted by a school. The lack of a significant correlation between teacher perceptions of the type of school calendar and the other two constants, teacher experience and teacher gender, was not surprising. In the professional literature reviewed, there were no studies to indicate that a teacher's perception of the type of school calendar utilized by a school had anything to do with teacher experience or teacher gender. Conversely, there was not a lot of research on the correlation between the type of school calendar and grade level taught that would indicate that further research might be needed in this area.

#### Limitations

This study provided useful results; that said, there were some issues that limited the generalizability of the findings. One such limitation for this study was the lack of responses to the item regarding the variable, extra-curricular duties, which was assessed in the opening section of the survey instrument and intended for use in Hypothesis 4. The question for this particular variable was not marked by nearly half of all respondents. This may have been due to the respondent's lack of understanding of what the item was asking or it could simply have been that the respondents who did not mark an answer to this item had not been assigned any of the extra-curricular duties listed. At any rate, this variable was not used due to the lack of response.

A second limitation was the relatively small number of participants and participant schools. While the number of participants provided sufficient data for analysis, a larger sample of both participants and schools was desired. A third limitation was the participation of secondary schools. No administrators of secondary schools serving grades 9-12 agreed to participate in the study. Only one middle school administrator agreed to have the school's teachers participate.

A fourth limitation was the low response rate from males. This may be an artifact of the relatively small number of males who teach in elementary schools, and the fact that there was very limited participation from non-elementary teachers. But, as was noted previously, the issue of teacher gender within a context of an examination of school calendars is of interest. A fifth limitation was that the data for self-efficacy and the self-reporting of the level of school performance were not corroborated through other sources.

Another limitation is evident in the fact that some items did not work well in the study. Four were eliminated to improve the reliability of the instrument. Even after items were eliminated, the reliability of the teacher efficacy subscale was relatively weak, with a Cronbach's alpha coefficient of .55.

### Recommendations for Policy and Practice

These results of this study and prior research provide useful underpinnings for recommendations related to policy and practice. Prior research about modified year-round school calendars cites positive impact, albeit minimal, that these types of calendars have on student achievement and student behavior. The results from this research study indicated a strong, positive correlation between teacher perceptions of the impact that a modified year-round school calendar has on student achievement and student behavior. Based on these findings, this researcher recommends that school districts and leaders in

education begin to look carefully at the amount of time students are in school as well as the types of school calendars that are available. As the state of Mississippi begins the process of implementing the new Common Core State Standards it would behoove all educators to take a closer look at the benefits of a more balanced school calendar to ensure that students are provided adequate time to complete coursework, meet the demands and rigor associated with the new standards, and retain the content learned during previous grades.

It has long been acknowledged that the long summer break associated with traditional school calendars creates hardships on students, particularly for younger children and students from low SES families, by interfering with the retention of material (Metzker, 2002). As previous research indicates, the achievement gap grows faster during the summer months as compared to the school year. A significant body of literature suggests that schools serve as important equalizers (Downey et al., 2004); school calendars should, therefore, be organized to optimize student learning and accelerate the progress of lower-achieving students.

Although previous literature suggests that more affluent students do not typically benefit from additional days being added to the school year, the literature explains that all students might benefit if the opportunity for frequent breaks is provided between grading periods as part of a balanced school calendar (Smith, 2012). This opportunity would offer struggling students the additional time to recover credit or receive remediation during three week intersessions if needed. The results from this study, related to the socioeconomic status of students whose teachers were included, suggest that a majority of the students in this study were from lower socioeconomic groups. Based on research from previous literature, the strong correlation in the present study between teacher

perception of year-round calendars and student achievement, and the fact that the students in the present study were low-income, it is reasonable to assert that low-income students in particular could benefit from the implementation of a modified year-round school calendar. This would help to ensure that they have access to organized academic opportunities and educational support consistently balanced throughout the school year (Alexander et al., 2001; Downey et al., 2004).

John Dewey asserted that in order for schools to reach high levels of efficiency, they should be utilized to offer students more opportunity for conjoint activities in which those instructed take part, so that they may acquire a knowledge of the materials being taught and the resources being used (Dewey, 1916). Based on Dewey's assertion, it would appear reasonable that if students need additional time to learn the required information then schools should provide opportunities for students who need additional assistance to prepare for more in depth studies and more rigorous assessments.

A key challenge becomes that of providing opportunities for all students to spend actual time engaged with the curriculum (Laitsch, 2005). Even if additional time is not added to the school calendar, at the very least, time that students are engaged in learning opportunities, whether in school or outside of school, should be analyzed further to ensure students do not lose the knowledge acquired during grading periods. Failure to acknowledge this need would, in the opinion of this researcher, be unethical and would in turn set students up for failure.

Another result that has implications for policy deals with the impact that a modified year-round school calendar has on student behavior. Based on previous studies, teachers who teach in schools utilizing a year-round school calendar report better student behavior in the classroom (Anderson, 2010; Heaberlin, 2000). Teachers also reported

increased motivation, concentration, and attendance of students who attended schools utilizing a year-round school calendar (Palmer & Bemis, 2000; Shields & Oberg, 2000c). Although other studies report that weak correlations exist between a year-round calendar and student behavior, the aforementioned research indicates that there is indeed a correlation (Baker et al., 2004; Eames et al., 2004; Sexton, 2003). The perception of teachers in the present study that a year-round calendar positively impacts student behavior corroborates and strengthens the research on this correlation. If students are to achieve excellence in their academic progress and reach their destination of graduating from high school, while at the same time getting prepared to enter the workforce or college, the implications for addressing the issues of student motivation, student attendance, student discipline, and ultimately student academic performance are essential. Because this research has shown that there is a moderately strong correlation between a modified year-round school calendar and student behavior, the researcher and reader are provided with evidence to support the need for addressing the reasons why students do not stay motivated and on track to graduate. In addition, this research provides an opportunity for the researcher and the reader to begin having conversations with educational leaders regarding the need to look closely at the design of school calendars so that educators can make the necessary changes to improve student achievement and graduation while reducing behavioral issues and dropout rates.

An additional result that warrants discussion is the finding that grade-level taught negatively predicts teacher perceptions regarding a modified year-round school calendar. This result indicated to the researcher that as the grade-level taught increased, the teacher's positive perception of the impact that a modified year-round school calendar had on student achievement, student behavior, and teacher efficacy decreased. This

finding has implications for discussions of the grade-levels at which it might be most beneficial to consider year-round calendars.

Finally, this study provides insight that can be useful in the discussion of year-round education in the researcher's home state of Mississippi. Although this study was completed in North Carolina, these findings can be extrapolated from North Carolina to Mississippi. This research revealed that the majority of the teachers surveyed perceived that students from low SES families were positively impacted by the implementation of a modified year-round school calendar. That being stated, this study provides evidence that might potentially impact the perceptions of Mississippi teachers regarding the implementation of year-round schools and the impact that such schools would have on student achievement. Evidence from previous research provides positive correlations that indicate that students who fall within lower socioeconomic categories similar to their peers in other states, and who are afforded the opportunity to attend schools utilizing a balanced year-round school calendar, are usually able to show growth in student achievement (Downey et al., 2004). In addition to this, when students feel confident in their abilities, they tend to behave better, while also improving their achievement (Anderson, 2010; Heaberlin, 2000).

As mentioned previously, this research and prior research studies indicate that a balanced year-round school calendar allows students from lower socioeconomic backgrounds to be able to experience a fair and equitable education just as their more affluent peers do (Alexander et al., 2007; Smith 2012). The implications for the use of a balanced year-round school calendar in Mississippi is far reaching; however, the most pressing issue in education across the state of Mississippi is the implementation of the new Common Core State Standards. A balanced year-round calendar could provide

school districts across Mississippi the opportunity to better serve its students by providing additional time to master these new standards while at the same time reducing the learning loss that the long summer break contributes to. As teachers plan for full implementation of the Common Core State Standards in 2014-2015, it is worth taking a closer look at the benefits that a balanced year-round school calendar will offer Mississippi teachers and the students they serve.

Based on this research and prior studies, educators from the Mississippi Department of Education should begin discussing a program for piloting a balanced year-round school calendar. This would provide useful information that could be used to measure the effectiveness of a modified year-round school calendar within the state of Mississippi prior to the full implementation of the Common Core State Standards. This might better ensure that the needs of all Mississippi students are met regardless of their socioeconomic standing.

#### Recommendations for Future Research

In terms of future research, there were several relevant topics addressed in this study that could produce additional findings for the issues surrounding modified year-round school calendars. It is recommended that future studies analyze the following:

1. The lack of responses to the item regarding the variable, extra-curricular duty, inhibited the ability of the researcher to determine whether this variable had an impact on teacher perceptions of modified year-round school calendars thus eliminating this variable from the study. It is recommended that future researchers identify the extra-curricular duties assigned to teachers of both schools that employ a year-round school calendar and schools that use a

traditional school calendar to determine the impact that this variable will have on teacher perceptions of modified year-round school calendars.

2. There were a relatively small number of participants and participant schools included in this study. It is recommended that future researchers gain access to a larger pool of schools and teachers to ensure a more representative sample of participants.
3. The participation of secondary schools serving grades 9-12 and grades 7-8 in middle schools was devoid in this study. It is recommended that future researchers focus attention on teachers within these grade levels to gain a broader perspective of the perceptions that teachers from these grade levels would offer.
4. The low response rate from male elementary school teachers created a small sample size for this subgroup. A larger sample could provide a more in-depth understanding of the perceptions of male elementary school teachers regarding a modified year-round school calendar and the impact on student achievement, student behavior, and teacher efficacy.
5. The data for teacher-efficacy was meager in this study as well as in other similar research studies; therefore, further research is warranted in order to determine whether a modified year-round school calendar has a significant impact on teacher efficacy.
6. The data from the level of school performance showed that most schools involved in this study had a rating of school of progress; a designation where 60-79% of students were at/above grade level and the school met expected growth but did not meet Adequate Yearly Progress (AYP). Because the

responses from the teacher participants regarding school performance level were not corroborated, it is recommended that future researchers corroborate participant responses and seek to include more participants from both the high and low ends of the school performance rating scale.

7. Finally, future studies should attend to and improve upon the construction of the self-efficacy subscale for this study. The low reliability of the subscale in the present study might be strengthened by additional attention to the elements of the subscale items.

### Summary

The purpose of this study was to analyze demographic and school data, as well as data on the perceptions of teachers regarding the impact that a modified year-round school calendar has on student achievement, student behavior, and teacher efficacy. Prior research and literature examined the impact of year-round school calendars on student achievement and student behavior; however, there was a limited amount of research on the perceptions of teachers regarding the school calendar and the impact that the school calendar has on teacher efficacy.

A thirty-seven item researcher-developed questionnaire was utilized for the purpose of this study. The data for this study were obtained from 106 teachers from public schools within districts in the state of North Carolina that employ both traditional school calendars and year-round type calendars. Demographic data disclosed that these respondents were relatively experienced and that the majority worked in schools with high concentrations of students in poverty.

The results did not disclose a significant relationship between teacher perceptions of the school calendar and teacher efficacy. However, a strong positive correlation was

found between teacher perceptions of year-round school calendars and improved student achievement. Similarly, the study revealed a significant relationship between teacher perceptions of year-round school calendars and positive student behavior. A multiple regression analysis determined that grade-level taught served as a negative predictor of teacher perceptions regarding a modified year-round school calendar's impact on student achievement, student behavior, and teacher efficacy.

These findings yielded useful recommendations for policy and practice. Additionally, this study served as a vehicle for continued research into matters of year-round education. Finally, in light of the researcher's interest in a research-based discourse of year-round education in Mississippi, the location where he lives and practices, the study offered a spring-board for exploration of the potential benefits of year-round education in Mississippi.

## APPENDIX A

## LETTER TO THE SUPERINTENDENT

George E. Bo Huffman  
218 Lennis Welch Road  
Magee, MS 39111

July 2, 2012

Dear Superintendent:

I am a doctoral student in the department of Educational Leadership and Counseling at The University of Southern Mississippi. I am conducting a research study that is designed to examine teacher perceptions regarding the correlation between modified year-round school calendars and student behavior, student achievement and teacher efficacy. The results of this study will benefit state and local educational administrators as well as teachers by making them more aware of the benefits and limitations that modified year-round school calendars provide. The study will also contribute to the field of education by identifying specific perceptions of educators who are currently utilizing modified year-round school calendars thus providing insight into possible school calendar reform measures for other states and school districts; reform measures that may ultimately enhance academic achievement of students. The Institutional Review Board (IRB) at The University of Southern Mississippi has approved this study.

The population for this study will consist of school teachers from grades k-12 within your school district. Although participation in this study is completely voluntary, the teacher responses to the survey, which will take approximately 15 minutes of their time, will be of paramount importance to this research study. Please know that the teacher responses will be kept completely secure and confidential and will be summarized along with other teacher responses. Code numbers will be assigned to each survey and will be used only for monitoring returns.

I am respectfully requesting your approval to conduct this study within your school district. I know that your time is valuable, but without your assistance, this research study cannot be completed. Upon your approval, I will be mailing the questionnaire to the teachers at each school site along with a self-addressed stamped envelope for your teachers to complete during their planning time. These surveys need to be completed and returned by Friday, September 28, 2012. If you have questions about this study, you may contact Bo Huffman at (601) 573-5093 or at [george.huffman@eagles.usm.edu](mailto:george.huffman@eagles.usm.edu). Once this dissertation is complete, I will be more than happy to share the results of this study with anyone in your district.

If you choose to grant me permission to request data from your teachers and use their questionnaire answers in this study, please copy the content below to your district letterhead, sign and date in the appropriate places, and fax or email the permission document back to me as soon as possible. If you have any questions, please feel free to contact me via email or phone.

Thank you.

George E. Bo Huffman  
Doctoral Candidate  
cell: 601-573-5093  
fax: 601-849-6201  
george.huffman@eagles.usm.edu

By signing and returning this form, I give Mr. George E. Bo Huffman permission to conduct a research study at \_\_\_\_\_ School. I acknowledge that Mr. Huffman may confer with each school administrator and upon approval from the administrator that Mr. Huffman will deliver consent forms and questionnaires to each instructor employed during the 2012-2013 school year.

---

Superintendent's Signature

---

Date

## APPENDIX B

## LETTER TO THE PRINCIPAL

March 20, 2013

Dear Principal,

My name is George E. Bo Huffman. I am a doctoral student in the department of Educational Leadership and Counseling at The University of Southern Mississippi. I am conducting a research study designed to examine teacher perceptions regarding the correlation between modified year-round school calendars and student behavior, student achievement, and teacher efficacy. My dissertation committee chair, Dr. Mike Ward, who served as the former state superintendent of Public Instruction from 1996-2004, assisted me in identifying your school as a possible research site. Schools were selected as prospective research sites from school districts utilizing both traditional and year-round school calendars. As per institutional review board requirements, I have contacted your superintendent to request approval to conduct research within your school district. Please note the attachment with the superintendent's approval as documentation to conduct research within the Cumberland County School District.

After receiving the superintendent's approval to move forward with this study, I am now seeking your approval to conduct research within your school.

The dependent variables for the study will include teacher perceptions of year-round schools and their perceptions of the relationship between year-round schools and student achievement, student behavior, and teacher efficacy. The independent variables in this study are years of teaching experience, gender, age, grade level taught, extra-curricular duties, type of school calendar, experience in a year-round school, free/reduced lunch rate, and school performance level. The population for this study will consist of school teachers from schools within your district that serve grades k-12 and utilize either a traditional school calendar or year-round school calendar. Although teacher participation in this study is completely voluntary, the teacher responses to the survey, which will take approximately 15 minutes to complete, will be of paramount importance to this research. Teacher responses will be kept completely confidential and will be summarized along with other teacher responses. No teacher or school will be identified by name.

I am respectfully requesting your approval, as the building level administrator, to conduct this study within your school. I know that your time is valuable, but without your assistance, this research study cannot be completed. Upon your approval, I will mail the required number of participant consent forms, questionnaires and self-addressed, stamped envelopes to your school. When you receive the consent forms and questionnaires, I would ask that you distribute these to the teachers to complete at their convenience. These surveys need to be completed and returned to me by Friday, April 5, 2013. Once this dissertation is complete, I will be happy to share the results with you.

If you agree to grant me permission to request data from your teachers, please complete the following online request to conduct research in your school by going to the link below. If you have trouble accessing the link below, simply type the link web address

into the web browser and complete the consent to conduct research there. Thank you in advance for your assistance with this process.

<https://docs.google.com/a/eagles.usm.edu/spreadsheet/viewform?fromEmail=true&formkey=dGNOdlJxWGFmS1I4U1ZmWW1kdlnRQmc6MQ>

Sincerely,

*George E. Bo Huffman*

George E. Bo Huffman, Doctoral Candidate  
The University of Southern Mississippi

## APPENDIX C

## PARTICIPANT COVER LETTER

Dear Participant,

I am currently a doctoral candidate at The University of Southern Mississippi. I am conducting a research study on the perceptions of teachers regarding year-round school calendars and the relationship that year-round school calendars have with student achievement, student behavior, and teacher efficacy. Please take a few moments of your time to complete the enclosed questionnaire. The survey should take no more than 15 minutes to complete. Upon completion, this information will be shared with my dissertation committee.

The data collected from the completed questionnaires will be compiled and analyzed. All data completed is anonymous and will be kept completely confidential. To ensure confidentiality of the school and participants, no one will be identified by name including the school district, name of the school, and participant. Upon completion of this research study, I will shred all surveys. As the researcher, I have received permission from your school and school district leadership to conduct this research. I am very appreciative for your participation. The completed and returned questionnaire and consent form will serve as your consent to participate; however, you have the option to decline to participate if you so wish. If you decide to withdraw from participation at any time there is no penalty or risk of negative consequences.

As part of this study, I will be asking teachers from school districts that utilize year-round calendars and traditional calendars to complete a survey to gather data that can provide insights for school leaders on the perceptions of teachers regarding year-round school calendars and the relationship that year-round school calendars have with student achievement, student behavior, and teacher efficacy. If you agree to participate, please return the completed consent forms and survey in the self-addressed, stamped envelope by Friday, April 19, 2013. Should you have any questions please contact: Bo Huffman, email: [george.huffman@eagles.usm.edu](mailto:george.huffman@eagles.usm.edu); phone: (601) 573-5093. This research is being conducted under the supervision of Dr. Mike Ward, University of Southern Mississippi, email: [mike.ward@usm.edu](mailto:mike.ward@usm.edu); phone: (601) 266-5832.

This research project has been reviewed and approved by the Human Subjects Protection Review Committee, which ensures that all research fits the federal guidelines for research involving human subjects. Any questions or concerns about the rights of a research participant should be directed to the Chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5147, Hattiesburg, MS 39406-0001, (601)266-6820.

Sincerely,

*George E. Bo Huffman*

George E. Bo Huffman  
Doctoral Candidate

APPENDIX D  
INFORMED LETTER OF CONSENT  
ADULT CONSENT FOR RESEARCH

**University of Southern Mississippi  
118 College Drive #5147  
Hattiesburg, MS 39406-0001  
(601) 266-6820**

**Consent to Participate in a Research Study**

**Date: October 15, 2012**

**Title of Study: Teacher Perceptions Regarding the Relationship of Modified Year-round School Calendars with Student Achievement, Student Behavior, and Teacher Efficacy.**

**Research will be conducted by: George E. Bo Huffman**

**Email Address: [george.huffman@eagles.usm.edu](mailto:george.huffman@eagles.usm.edu) Phone Number: (601) 573-5093**

**Faculty Advisor: Dr. Mike Ward**

---

**What are some general things you should know about research studies?**

Classroom teachers who are employed by school districts that utilize both year-round school calendars and traditional school calendars are being asked to participate in this study. Participating in this study is voluntary. You may refuse to take part, or you may withdraw your consent to be in the study, for any reason, without penalty.

Research studies are designed with the intent to obtain new knowledge. This new information may help people in the future. You may not receive any direct benefit from being in the research study. There also may be risks to being in research studies.

Details about this study are discussed below. It is important that you understand this information so that you can make an informed choice about being in this research study. You are being given this consent form for review and by filling out and returning the survey you will be consenting to participate. You may ask the researcher named above, or staff member assisting him throughout this process, any questions you have about this study at any time.

**What is the purpose of this study?**

The purpose of this research study is to examine teacher perceptions of year-round school calendars and the relationship that year-round school calendars have with student achievement, student behavior, and teacher efficacy. The goal of this research is to consider the perceptions of teachers regarding year-round school calendars and to determine if there is a statistically significant relationship between year-round school calendars, student achievement, student behavior, and teacher efficacy.

**How many people will take part in this study?**

If you decide to be in this study, you will be one of approximately 300 participants surveyed in this research study.

**How long will your part in this study last?**

If you choose to participate, you will be asked to read and sign the consent form and fill out a questionnaire, which will last no longer than 15 minutes. Signing the consent form and completion of the questionnaire will serve as your consent to participate in this study. A self-addressed stamped envelope will be provided in order to easily return the completed survey to the researcher. At the conclusion of this study a report of the findings will be made available to you upon request by emailing me at [george.huffman@eagles.usm.edu](mailto:george.huffman@eagles.usm.edu).

**What will happen if you take part in this study?**

Your part in this study is completely voluntary and anonymous. As a participant, you may refuse to answer any question you choose not to answer and/or discontinue the questionnaire at any time without penalty. As a participant, you will be invited to read and sign the consent form and fill out a questionnaire during your planning time, at a faculty meeting, or a time designated by the school principal. Completion and return of the questionnaire and consent form will serve as your consent to participate in this study. The researcher will collect and disaggregate data from the questionnaire. Throughout the process of analysis, the researcher will keep the questionnaire and all information obtained from the questionnaire secured in a fire-proof safe within the study of the researcher's home. The questionnaire will be kept no longer than one year and will be shredded upon completion of this research project.

**What are the possible benefits from being in this study?**

Findings from this research are intended to provide potential assistance to school and state officials in order to better understand the perceptions of teachers regarding year-round school calendars. Your answers to the survey items will contribute to study findings that school administrators can take into account as they seek research data regarding the relationship between year-round school calendars and student achievement, student behavior, and teacher efficacy. The study may also provide insights into the proper design and effective implementation of a year-round school calendar in order to affect change for school-wide improvement.

**What are the possible risks or discomforts involved from being in this study?**

The risks are relegated to the respondents not feeling comfortable answering the questions and expressing their opinions. The questionnaires will be completely

anonymous and complete confidentiality for respondents will be provided. Only the researcher and faculty advisors will be able to view the participant's responses. All responses will be kept secure and locked in the researcher's home. Questionnaires will be shredded after one year.

**How will your privacy be protected?**

Participants will not be identified in any report or publication about this study. Questionnaires will be collected and placed in a fire-proof safe within the study of the researcher's home. Only the researcher and faculty advisors will view the questionnaires. The questionnaires will be kept locked up and in the researcher's possession for one calendar year. All questionnaires will be shredded after completion of this project and kept no longer than one year.

**What if you have questions about this study?**

You have the right to ask, and have answered, any questions you may have about this research study. If you have questions, or concerns, you should contact the researchers listed on the first page of this form.

**What if you have questions about your rights as a research participant?**

This project has been reviewed by the Human Subjects Protection Review Committee, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about your rights as a research subject should be directed to the chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive # 5147, Hattiesburg, MS 39406-0001, (601) 266-6820.

**Research Consent Form:** To be completed by non-student participant.

**Project Name:**

TEACHER PERCEPTIONS REGARDING THE RELATIONSHIP OF  
MODIFIED YEAR-ROUND SCHOOL CALENDARS WITH STUDENT  
ACHIEVEMENT, STUDENT BEHAVIOR, AND TEACHER  
EFFICACY

Sponsoring Organization: The University of Southern Mississippi

Principal Researcher George E. Bo Huffman Telephone: 601-573-  
5093

Project Location: \_\_\_\_\_

Participant's Name \_\_\_\_\_

**Participants Rights and Assurances**

I have received a copy of the adult consent for research along with this research consent form for the aforementioned research project. Having thoroughly read and reviewed the information contained in the adult consent for research, I am familiar with the purpose, methods, scope and intent of the research project.

\_\_\_\_\_ **I am willing** to participate in this research project.

\_\_\_\_\_ **I am not willing** to participate in this research project.

If I am willing to participate in this research, I understand that during the course of this project my responses will be kept strictly confidential and that none of the data released in this study will identify me by name or any other identifiable data, descriptions or characterizations. Furthermore, I understand that I may choose to discontinue my participation in this project at any time or refuse to respond to any questions I choose not to answer. I am a voluntary participant and have no liability or responsibility for the implementation, methodology, claims, substance or outcomes resulting from this research project. I am also aware that my decision not to participate will not result in any adverse consequences or disparate treatment due to that decision.

I fully understand that this research is being conducted for constructive educational purposes and that I voluntarily participate in this project.

Participant's Signature \_\_\_\_\_ Date \_\_\_\_\_

Research Assistant's Signature \_\_\_\_\_ Date \_\_\_\_\_

## APPENDIX E

## INSTRUMENTATION

## A Study of School Calendars

**SECTION A**

**This section is being used to understand your school, your primary role at the school and your experience as a staff member. All information will be kept completely anonymous.**

**(Please mark the appropriate answer)**

1. What is the type of academic school calendar that your school currently utilizes?

- ☐ A traditional school calendar with 180 days of instruction, grading periods of 45 days, and breaks at Thanksgiving, Christmas, Spring Break, Easter, and Summer.
- ☐ A traditional school calendar with 180 days of instruction, grading periods of 45 days, and breaks at Thanksgiving, Christmas, Spring Break, Easter, and Summer with an extended school year or summer school program.
- ☐ A modified year-round school calendar with 180 days of instruction, grading periods of 45-60 days with 10-20 day intersessions between grading periods and breaks at Thanksgiving, Christmas, Spring Break, Easter, and Summer.
- ☐ A modified year-round school calendar with more than 180 days of instruction, grading periods of 45-60 days with 10-20 day intersessions between grading periods and breaks at Thanksgiving, Christmas, Spring Break, Easter, and Summer.
- ☐ Other (Please Specify) \_\_\_\_\_

2. Are you male or female?

- ☐ Male      ☐ Female

3. What is your age?

- ☐ 20-29      ☐ 30-39      ☐ 40-49      ☐ 50-59      ☐ 60-69      ☐ 70 +

4. What grade(s) do you currently teach? (Select all that apply.)

- ☐ K      ☐ 1      ☐ 2      ☐ 3      ☐ 4      ☐ 5      ☐ 6      ☐ 7      ☐ 8
- ☐ 9      ☐ 10      ☐ 11      ☐ 12      ☐ Other (Please Specify) \_\_\_\_\_

5. What extra-curricular activities or duties are you assigned? (Select all that apply.)

- ☐ Athletic Coach    ☐ Lead Teacher    ☐ Club Sponsor  
☐ Band/Choral    ☐ Distance learning    ☐ Other (Please Specify) \_\_\_\_\_

6. How many total years of experience do you have in education?

- ☐ 0-4 years    ☐ 5-9 years    ☐ 10-14 years  
☐ 15-19 years    ☐ 20-24 years    ☐ 25 years or more

7. What is the performance level of your school?

- ☐ Honor School of Excellence (90% of students at/above grade level, met expected growth and met AYP)  
☐ School of Excellence (90% of students at/above grade level, met expected growth and did not meet AYP)  
☐ School of Distinction (80-89% of students at/above grade level met expected growth and did not meet AYP)  
☐ School of Progress (60-79% of students at/above grade level met expected growth and did not meet AYP)  
☐ No Recognition (60-100% of students at/above grade level, did not meet expected growth and did not meet AYP)  
☐ Priority School (Less than 60% of students at/above grade level irrespective of meeting expected growth)  
☐ Low Performing School (Less than 50% of students at/above grade level and did not meet expected growth)

8. What percentage of students in your school receives free/reduced lunch?

- ☐ <25%    ☐ 26%-50%    ☐ 51%-74%    ☐ 75%-100%

9. Have you ever attended a year-round school as a student?

- ☐ Yes    ☐ No

10. Have you ever been employed in a year-round school?

- ☐ Yes    ☐ No

## **SECTION B**

**This section asks about your perceptions as a teacher about the school, the type of academic calendar and your ability to effectively facilitate the learning process.**

**(Please check one box for each statement.)**

	<i>1</i> Strongly Disagree	<i>2</i> Disagree	<i>3</i> Neither Disagree nor Agree	<i>4</i> Agree	<i>5</i> Strongly Agree
11. I like working at this school.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. The school schedule helps student behavior.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. I feel that I am an effective teacher.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. I feel that I am a leader at this school.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. I am not absent from work frequently.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. The amount of instructional time impacts my ability to teach effectively.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Student achievement is not impacted by the number of instructional days.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Student achievement will improve if the number of instructional days (i.e. 180) are evenly distributed over 12 months.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. More breaks during the year help improve the graduation rate.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Student dropout rates will increase if the summer break is shorter.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. I have adequate time to teach students the required academic objectives.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. I am more effective as a teacher when my students have more time to learn.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### SECTION C

**This section is being used to understand teacher perceptions about year-round schools and the correlation between type of school calendar, student achievement, student behavior, and teacher efficacy.**

**(Please mark the appropriate answer)**

23. Reducing the length of summer vacation and extending instructional time into the summer months will improve student achievement.

☐ Strongly Disagree  
 ☐ Disagree  
 ☐ Neither Agree nor Disagree  
 ☐ Agree  
 ☐ Strongly Agree

24. A modified, 180-day, year-round instructional school calendar would provide students with more academic opportunities.

☐ Strongly Disagree  
 ☐ Disagree  
 ☐ Neither Agree nor Disagree  
 ☐ Agree  
 ☐ Strongly Agree

25. School calendars with frequent breaks help to improve student attendance.

☐ Strongly Disagree  
 ☐ Disagree  
 ☐ Neither Agree nor Disagree  
 ☐ Agree  
 ☐ Strongly Agree

26. The current school calendar does not provide enough time for students to master the required academic objectives.

☐ Strongly Disagree  
 ☐ Disagree  
 ☐ Neither Agree nor Disagree  
 ☐ Agree  
 ☐ Strongly Agree

27. Modifying the school calendar by increasing the length of time students are in school helps to improve student achievement.

☐ Strongly Disagree  
 ☐ Disagree  
 ☐ Neither Agree nor Disagree  
 ☐ Agree  
 ☐ Strongly Agree

28. The type of school calendar implemented does not affect student achievement.

☐ Strongly Disagree  
 ☐ Disagree  
 ☐ Neither Agree nor Disagree  
 ☐ Agree  
 ☐ Strongly Agree

29. I would be more motivated to teach if the yearly school calendar had breaks between each 9 week grading period.

☐ Strongly Disagree  
 ☐ Disagree  
 ☐ Neither Agree nor Disagree  
 ☐ Agree  
 ☐ Strongly Agree

30. I would feel more confident as a teacher knowing that my students had more time to master the required state objectives.

☐ Strongly Disagree   ☐ Disagree   ☐ Neither Agree nor Disagree   ☐ Agree   ☐ Strongly Agree

31. Modifying the school calendar with a shorter summer break would not allow me enough time for professional/personal growth.

☐ Strongly Disagree   ☐ Disagree   ☐ Neither Agree nor Disagree   ☐ Agree   ☐ Strongly Agree

32. A modified, 180-day, year-round instructional school calendar would have a positive effect on student achievement.

☐ Strongly Disagree   ☐ Disagree   ☐ Neither Agree nor Disagree   ☐ Agree   ☐ Strongly Agree

33. Providing remedial academic assistance immediately after grading periods during 3-week intersessions would have a positive effect on student achievement.

☐ Strongly Disagree   ☐ Disagree   ☐ Neither Agree nor Disagree   ☐ Agree   ☐ Strongly Agree

34. Students attending schools with grading periods and scheduled breaks balanced throughout the calendar year behave poorly.

☐ Strongly Disagree   ☐ Disagree   ☐ Neither Agree nor Disagree   ☐ Agree   ☐ Strongly Agree

35. A modified, 180 day, year-round calendar has a positive impact on student discipline.

☐ Strongly Disagree   ☐ Disagree   ☐ Neither Agree nor Disagree   ☐ Agree   ☐ Strongly Agree

36. Students are more motivated when school grading periods and breaks are evenly distributed throughout the calendar year.

☐ Strongly Disagree   ☐ Disagree   ☐ Neither Agree nor Disagree   ☐ Agree   ☐ Strongly Agree

37. The current school calendar is sufficient to meet the academic needs of the students.

☐ Strongly Disagree   ☐ Disagree   ☐ Neither Agree nor Disagree   ☐ Agree   ☐ Strongly Agree

## APPENDIX F

## Modified Year-Round Education

Validity Questionnaire

Thank you for volunteering your time to assist me in the development of this survey. Your input is very important with respect to the survey itself and the development of my dissertation overall. Your willingness and consideration to participate in this study is greatly appreciated.

**Please rate the attached questionnaire based on the following information:**

1. Does the survey contain language that can be understood by teachers who have taught on different academic calendars? If no, please explain.

---

---

---

---

2. Does the survey address specific and appropriate issues in the statements, as it relates to obtaining information regarding student and teacher perceptions about the relationships of modified year round education with student achievement, student motivation, teacher efficacy and teacher motivation? If no, please explain.

---

---

---

---

3. Do you find any of the survey items offensive or obtrusive? If so, please explain.

---

---

---

---

4. Are there any items that you would exclude from the survey? If so, which item(s)?

---

---

---

---

5. Are there any items that you would include that are ***not*** a part of the survey? If so, please explain.

---

---

---

---

6. Please make any other comments or suggestions about the survey below.

---

---

---

---

## APPENDIX G

## INSTITUTIONAL REVIEW BOARD NOTICE OF COMMITTEE ACTION

**INSTITUTIONAL REVIEW BOARD**

118 College Drive #5147 | Hattiesburg, MS 39406-0001

Phone: 601.266.6820 | Fax: 601.266.4377 | [www.usm.edu/irb](http://www.usm.edu/irb)

**NOTICE OF COMMITTEE ACTION**

The project has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

The risks to subjects are minimized.

The risks to subjects are reasonable in relation to the anticipated benefits.

The selection of subjects is equitable.

Informed consent is adequate and appropriately documented.

Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.

Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.

Appropriate additional safeguards have been included to protect vulnerable subjects.

Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the "Adverse Effect Report Form".

If approved, the maximum period of approval is limited to twelve months.

Projects that exceed this period must submit an application for renewal or continuation.

**PROTOCOL NUMBER: 12092702**

**PROJECT TITLE: Teacher Perceptions Regarding the Relationship of Modified Year Round School Calendars with Student Achievement and Teacher Efficacy**

**PROJECT TYPE: Dissertation**

**RESEARCHER/S: George E. Huffman**

**COLLEGE/DIVISION: College of Education & Psychology**

**DEPARTMENT: Educational Leadership & School Counseling**

**FUNDING AGENCY: N/A**

**IRB COMMITTEE ACTION: Expedited Review Approval**

**PERIOD OF PROJECT APPROVAL: 10/10/2012 to 10/09/2013**

**Lawrence A. Hosman, Ph.D.**

**Institutional Review Board Chair**

## References

- Alexander, K., Entwisle, D., & Olson, L. (2001). Schools, achievement, and inequality: a seasonal perspective. *Educational Evaluation and Policy Analysis*, 23(2), 171-191.
- Alexander, K., Entwisle, D., & Olson, L. (2007). Lasting consequences of the summer learning gap. *American Sociological Review*, 72(4), 167-180.
- Allington, R., & McGill-Franzen, A. (2008). Got books? *Educational Leadership*, 65(7), 20-23.
- Anderson, A. (2010). *Year-round schooling*. Specialist in Education Thesis, Northern Michigan University. Retrieved April 18, 2012, from [www.nmu.edu/.../Students/GradPapers/EdSpecialist/Anderson\\_Allan\\_EP.pdf](http://www.nmu.edu/.../Students/GradPapers/EdSpecialist/Anderson_Allan_EP.pdf)
- Anderson, J. (2009). *The effect of modifying the traditional public school calendar on student achievement in English and mathematics in selected school populations in Hawaii*. Available from ProQuest Dissertations and Theses database. (UMI No. 3399535)
- Associated Press. (2009). Obama would curtail summer vacation. *MSNBC.com, Education*, Retrieved October 6, 2010, from [http://www.msnbc.msn.com/id/33044676/ns/us\\_news-education/page/2/](http://www.msnbc.msn.com/id/33044676/ns/us_news-education/page/2/)
- Baker, D., Fabrega, R., Galindo, C., & Mishook, J. (2004). Instructional time and national achievement: cross-national evidence. *Prospects* 34(3), 311-334.
- Baron, J., & Celaya, M. (2010). *Developing pragmatic fluency in an EFL context*. In: Roberts, Leah, Martin Howard, Muiris Ó Laoire and David Singleton (eds.), EUROSLA Yearbook: Volume 10, vi, 281, pp. 38–61. DOI: 10.1075/eurosla.10.05bar

- Bloom, B. (1968). Learning for mastery. *Evaluation Comment*, 1(2), 1-10.
- Borman, G. (2001). Summers are for learning. *Principal Magazine*, 80(3), 26-29.
- Byrd, J. (2001, April). Student achievement: Is equality really necessary? Paper presented at the Annual Meeting of the American Educational Research Association, Seattle, WA.
- Carroll, J. (1963). A model of school learning. *Teachers College Record*, 64, 723-733. Harvard University.
- Chapman, C., Laird, J., Ifill, N., & Kewal-Ramani, A. (2011). *Trends in high school dropout and completion rates in the United States: 1972-2009*. (NCES 2012-006). U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved April 18, 2012, from <http://nces.ed.gov/pubsearch>
- Constantino, R. (2005). Print environments between high and low socioeconomic status communities. *Teacher Librarian*, 32(3), 22-25.
- Cook, G. (2005). Calendar wars. *American School Board Journal*, 192(1), 24-27.
- Cooper, H. (2003). *Summer learning loss: The problem and some solutions*. Retrieved from ERIC database. (EDO-PS-03-5)
- Cooper, H., Valentine, J.C., Charlton, K. & Melson, A. (2003). The effects of modified school calendars on student achievement and on school and community attitudes. *Review of Educational Research*, 73(1), 1-52.
- Cuban, L. (2008). The perennial reform: Fixing school time. *Phi Delta Kappan*, 90(4), 240-250.

- Currie, J. (1884). *The principles and practice of common-school education*. London, UK: W. Stewart & Co., The Holborn Viaduct Steps, E.C., Edinburgh and Glasgow: J. Menzies & Co.
- David, J.L. (2008). Small learning communities. *Educational Leadership*, 65(8), 84-85.
- Davies, B., & Kerry, T. (2000). The role of calendar innovation in improving learning in schools, *TOPIC*, 23(8), pp.1-7. Retrieved April 3, 2012, from [www.nfer.ac.uk/nfer/PRE\\_PDF\\_Files/00\\_23\\_08.pdf](http://www.nfer.ac.uk/nfer/PRE_PDF_Files/00_23_08.pdf) · PDF file
- Dessoff, A. (2011). Is year-round schooling on track? *District Administration*, 48(7), 34-45.
- Dewey, J. (1916). *Democracy and education: An introduction to the philosophy of education*. Retrieved June, 6, 2011, from <http://www.manybooks.net/titlesdeweyjohetext97dmedu10.html>
- Downey, D., von Hippel, P., & Broh, B. (2004). Are schools the great equalizer? Cognitive inequality during the summer months and the school year. *American Sociological Review*, 69(5), 613-635.
- Eames, A., Sharp, C., & Benefield, P. (2004). *Review of the evidence relating to the introduction of a standard school year: final report*. National Foundation for Educational Research. Retrieved January 21, 2012, from <http://www.leeds.ac.uk/educol/documents/00003697.htm>
- Evans, R. (2007). *A comparative study of student achievement between traditional calendar schools and year-round schools in Indiana* (Doctoral Dissertation, Purdue University, 2007). Retrieved February 17, 2011, from Dissertations & Thesis @ CIC Institutions. (UMI No. 3287265)

- Fairchild, R., & Boulay, M. (2002). *What if summer learning loss were an education policy priority?* Presentation at the 24th Annual Association for Public Policy Analysis and Management Research Conference, Washington, DC.
- Fairchild, R., & Smink, J. (2010). Is summer school the key to reform? *Education Week*, 29(31), 34, 40.
- Gewertz, C. (2008). Consensus on learning time builds. *Education Week*, 28(5), 1, 14-17.
- Gewertz, C. (2011). P-2 years targeted to achieve grade 3 reading proficiency. *Education Week*, 30(36), 1, 23.
- Gladwell, M. (2008). *Outliers: The story of success*. New York, NY. Little, Brown and Company.
- Glines, D. (2000). *Reflecting year-round education: Traditions and innovations*. San Diego, CA; National Association of Year-Round Education.
- Glines, D. (2002). Year-round education. In *Encyclopedia of Education*. Retrieved October 6, 2010, from <http://www.encyclopedia.com/doc/1G2-3403200661.html>
- Gold, K. (2002). *Schools in: The history of summer education in American public schools*. New York, NY: Peter Lang Publishing Inc.
- Gorski, P. (2008). The myth of the culture of poverty. *Educational Leadership*, 65(7), 32-36.
- Graves, J. (2009). The academic impact of multi-track year-round school calendars: A response to school overcrowding. *Journal of Urban Economics*, 67(3), 378-391.
- Greene, J., & Winters, M. (2005). *Public high school graduation and college readiness rates: 1991-2002*. New York, NY: Manhattan Institute.
- Guskey, T. (2001). *Benjamin S. Bloom's contributions to curriculum, instruction, and school learning*. Retrieved October 6, 2010, from ERIC database. (ED457185)

- Guskey, T. (2009). Mastery learning. In T. L. Good (Ed.), *21st century education: A reference handbook, Volume I*, pp. 194–202. Thousand Oaks, CA: Sage.
- Guskey, T. (2010). Lessons of mastery learning. *Educational Leadership*, 68(2), 52-57
- Haser, S., & Nasser, I. (2003). Teacher job satisfaction in a year-round school. *Educational Leadership*, 60(8), 65-67.
- Heaberlin, R. (2000). *The effects of year-round education on elementary school students*. Unpublished Doctoral Dissertation. The University of Georgia. Athens, GA.
- Hernandez, D. (2011). *Double jeopardy: How third-grade reading skills and poverty influence high school graduation*. Baltimore, MD: Annie E. Casey Foundation.
- Hess, F. (2008). Still at risk. *Education Outlook*, (2). Retrieved February 21, 2012, from <http://www.aei.org>
- Heyns, B. (1978). *Summer learning and the effects of schooling*. New York, NY: Academic.
- High School Leadership Summit. (2003). *Turning around low-performing high schools* (GPO No: ED-99-CO-0163). Washington, DC: DTI Associates, Inc. Retrieved October 17, 2009 from <http://www.ed.gov/about/offices/list/ovae/pi/hsinit/index.html>
- Hodge, S. (2007). Editors review of tough choices or tough times: The report of the new commission on the skills of the American workforce by the national center on education and the economy. *Harvard Educational Review*, 77(4). Retrieved February 21, 2012, from <http://www.hepg.org/her/abstract/636>

- Hopkins, G. (2006). Alternative school calendars: Smart idea or senseless experiment? *Education World*. Retrieved August 29, 2011, from <http://www.educationworld.com/admin/admin/admin126.shtml>
- Huebner, T. (2010). Reimagining school: Year-round schooling. *Educational Leadership*, 67(7), 83-84.
- Huitt, W. (2005). Academic learning time. *Educational Psychology Interactive*, Valdosta, GA: Valdosta State University. Retrieved March 27, 2011, from <http://www.edpsycinteractive.org/topics/process/class.html>
- Huitt, W. (2006). Overview of classroom processes. *Educational Psychology Interactive*, Valdosta, GA: Valdosta State University. Retrieved March 27, 2011, from <http://www.edpsycinteractive.org/topics/process/class.html>
- Johnson, K. (2000). *Frequently asked questions about year-round education*. San Diego, CA: National Association for Year-Round Education.
- Johnson, S., & Spradlin, T. (2007). Alternatives to the traditional school-year calendar. *Education Policy Brief*, 5(3), 1-11.
- Keller, B. (2001). August openings put schools on hot seat. *Education Week*, 20(43), 1, 25.
- Kennedy, D., Cohen, L., & Bailey, T. (2010). *The american pageant*. New York, NY: Wadsworth.
- Kim, J. (2004). Summer reading and the ethnic achievement gap. *Journal of Education of Students at Risk*, 9(2), 169-189.
- Kneese, C. (2000). *Teaching in year-round schools*. ERIC Clearinghouse on Teaching and Teacher Education. Washington, DC. Retrieved April 4, 2012, from ERIC database. (ED449123)

- Laitsch, D. (2005). Instructional time and student achievement. *Research Brief*, 3(10).  
Retrieved October 17, 2009, from <http://www.ascd.org/publications/researchbrief/v3n10/toc.aspx>
- Lareau, A. (2003). *Unequal childhoods: Class, race, and family life*. Los Angeles, CA: University of California Press.
- Mann, C. (1929). How schools use their time. *Teachers College Record*, 30(5), pp. 481-482. Retrieved April 6, 2012, from <http://www.tcrecord.org/Content.asp?ContentID=5711>
- Marzano, R. (2009). Setting the record straight on “high yield” strategies. *Phi Delta Kappan*, 91(1), 30-37.
- Marzano, R., & Kendall, J. (2000). *A comprehensive guide to designing standards-based districts, schools and classrooms*. Alexandria, VA: ASCD.
- McCombs, J., Augustine, C., Schwartz, H., Bodilly, S., McInnis, B., Lichter, D., & Cross, A. (2011). *Making summer count: How summer programs can boost students' learning*. Santa Monica, CA: RAND. Retrieved April 3, 2012, from [www.rand.org/content/dam/rand/pubs/monographs/2011/RANDMG1120.pdf](http://www.rand.org/content/dam/rand/pubs/monographs/2011/RANDMG1120.pdf)
- McGlynn, A. (2002). Districts that school year-round: In a handful of systems, every school follows a year-long calendar-year-round schools. *The School Administrator*, 59(3), 34-38.
- McMillen, B. (2001). A state-wide evaluation of academic achievement in year-round schools. *Journal of Educational Research*, 95(2), 67-74.
- Metzker, B. (2002). School calendars. ERIC Digest. Retrieved April 6, 2012, from [www.ericdigests.org/2003-2/calendars.html](http://www.ericdigests.org/2003-2/calendars.html)

- Metzker, B. (2003). Time and learning. ERIC Digest. Retrieved April 6, 2012, from [www.ericdigests.org/2003-5/time.html](http://www.ericdigests.org/2003-5/time.html)
- Mitchell, R., & Mitchell, D. (2005). Student segregation and achievement tracking in year-round schools. *Teachers College Record*, 107(4), 529-562.
- National Association of Year-Round Education. (2007). *Number of public, charter and private schools with year-round programs: 2005-2006*. Retrieved April 10, 2007, from <http://www.nayre.org/SchoolsbyState.html>
- National Association of Year-Round Education. *What is year-round education?* Retrieved March 1, 2007, from <http://nayre.org/about.html>
- National Center on Education and the Economy. (2008). *Tough choices or tough times: The report of the new commission on the skills of the American workforce*. San Francisco, CA: Josey-Bass.
- National Center on Education Statistics. (2006). *The condition of education*. Washington DC: Department of Education. Retrieved April 3, 2007, from <http://nces.ed.gov/programs/coe/statement/index.asp>
- National Center on Time & Learning. (2010). *The relationship between time and learning: A brief review of the theoretical research*. Boston, MA. Retrieved April 4, 2012, from [www.timeandlearning.org](http://www.timeandlearning.org)
- National Commission on Excellence in Education. (1983). *A nation at risk: The imperative for educational reform*. Washington, DC: Department of Education. Retrieved February 21, 2012 from <http://www.ed.gov/pubs/NATATRISK.html>
- National Education Commission on Time and Learning. (1993). *Research findings*. Washington, DC: Author: ED 372491.

- National Education Commission on Time and Learning. (1994). *Prisoners of Time*, Washington, DC: Government Printing Office. ERIC Document Reproduction Service No. ED 366115.
- National Education Commission on Time and Learning. (2000). *Prisoners of Time*, Peterborough, NH: Crystal Springs Books.
- National Union of Teachers. (2001). *Pattern of the school year: Proposals for a six-term year*. Retrieved March 26, 2012, from <http://www.teachers.org.uk/resources/pdf/702.pdf>
- Neuman, S., & Celano, D. (2001). Access to print in low-income and middle-income communities. *Reading Research Quarterly*, 36(1), 8-26.
- No Child Left Behind (NCLB) Act of 2001, Pub. L. No. 107-110, § 115, Stat. 1425 (2002).
- Palmer, E., & Bemis, A. (2000). *Year-round education*. Retrieved April 23, 2012, from <http://www.cehd.umn.edu/cares/Reports/docs/Year-round.pdf>
- Parsad, B., & Lewis, L. (2003). Remedial education at degree-granting postsecondary institutions in fall 2000. *NCES Quarterly*, 5(4).
- Perkins-Gough, D. (2005). The perils of high school exit exams. *Educational Leadership*, 63(3), 90-91.
- Price, C. (2000). *The rhythms of schooling: A proposal to integrate the stages of learning, assessment and transfer with terms and holidays*. London, UK: Local Government Association.
- Protheroe, N. (2009). Using data to reduce the drop-out rate. *Principal's Research Review*, 4(4), 1-7.

- Quint, J. (2006a). *Meeting five critical challenges of high school reform: Lessons from research on three reform models*. New York, NY: MDRC.
- Quint, J. (2006b). Research-based lessons for high school reform: Findings from three models. *Principal's Research Review*, 1(3), 1-8.
- Rasmussen, K. (2000). Year-round education: Time to learn, time to grow. *Educational Update*, 42(2). Retrieved October 17, 2009, from <http://www.ascd.org/publications/newsletters/educationupdate>
- Raudenbush, S. (2009). The brown legacy and the o'conner challenge: Transforming schools in the images of children's potential. *Educational Researcher*, 38(3), 169-180.
- Ready, D., Lee, V., & Welner, K. (2004). Educational equity and school structure: School size, overcrowding, and schools-within-schools. *Teachers College Record*, 106(10), 1989-2014.
- Rosenshine, B. (2009). Systematic instruction. In T. L. Good (Ed.), *21st century education: A reference handbook, Volume I*, pp. 235–243. Thousand Oaks, CA: Sage.
- Seastrom, M., Hoffman, L., Chapman, C., & Stillwell, R. (2006). *The average freshman graduation rate for public high schools from the common core of data: School years 2002-03 and 2003-04*. Washington DC: U.S. Department of Education, National Center for Education Statistics.
- Sexton, M. (2003). *A case study of the effects of year round education on attendance, academic performance, and behavior patterns*. (Doctoral Dissertation). Retrieved February 21, 2012, from ProQuest Dissertations and Theses database. (AAT 3208032)

- Shields, C., & Oberg, S. (2000a). *Year-round schooling: Promises and pitfalls*. Lanham, MD: Scarecrow/Technomics.
- Shields, C., & Oberg, S. (2000b). Choice and voice in school calendar reform. *Canadian Journal of Education*, 25(1), 27-40.
- Shields, C., & Oberg, S. (2000c). Year-round schooling: Reviewing what we know. *From Inquiry to Practice Series*. Bloomington, IN: Phi Delta Kappa International.
- Silva, E. (2007). *On the clock: Rethinking the way schools use time*. Washington, DC: Education Sector.
- Smith, L. (2012). Slowing the summer slide. *Educational Leadership*, 69(4), 60-63.
- Soltis, J. (2002). Dewey, John (1859-1952). In *Encyclopedia of Education*. Retrieved June 7, 2011, from [http://www.encyclopedia.com/doc/1G2-34032\\_00180.html](http://www.encyclopedia.com/doc/1G2-34032_00180.html)
- Speck, M. (2002). *Professional development increasing student achievement year round education: Why can't we get it right?* Retrieved April 6, 2012, from <http://www.eric.ed.gov/PDFS/ED465709.pdf>
- St. Gerard, V. (2007). Year round schools look better all the time. *Education Digest: Essential Reading Condensed for Quick Review*, 72(8), 56-58.
- Stenvall, M. (2001). Balancing the calendar for year round learning. *Principal Magazine*, 80, 18-21.
- Stevenson, K. (2007). Educational trends shaping school planning and design: 2007. Retrieved April 23, 2012, from [www.ncef.org/pubs/trends2007.pdf](http://www.ncef.org/pubs/trends2007.pdf)

- Stillwell, R. (2010). *Public school graduate and dropouts from the common core of Data: School year 2007-2008* (NCES 2010-341). Washington DC: U.S. Department of Education. Retrieved from National Center for Education Statistics, Institute of Education Sciences website: <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2010341>
- Strong American Schools. (2008). *A stagnant nation: Why american students are still at risk*. Retrieved September 22, 2011, from <http://broadeducation.org/asset/1128-a%20stagnant%20nation.pdf>
- Sutton, A. (2007). *Year-round schooling: Perceptions of students, teachers, and administrators*. (Masters Thesis, Marietta College, 2007), Retrieved April 4, 2012, from <http://etd.ohiolink.edu/view.cgi/Sutton%20Andrea%20A.pdf?marietta1177961266>
- Thorndike, E. (1913). *Educational psychology: The psychology of learning*, New York, NY: Teachers College.
- Tucker, M. (2007). Charting a new course for schools. *Association for Supervision and Curriculum Development*, 64(7), 48-52.
- U.S. Bureau of Labor Statistics, Division of Labor Force Statistics. (2011). *2011 Bureau of labor statistics current population survey*. Washington, D.C. Retrieved May 28, 2013, from [www.bls.gov/CPS](http://www.bls.gov/CPS)
- U.S. Department of Education, National Center for Education Statistics. (2000). *America's kindergarteners: Findings from the Early Childhood Longitudinal Study, kindergarten class of 1998-99*. Fall 1998 (NCES 2000-070 by J. West, K. Denton, & E. Germino-Hausken). Washington DC: Author.

U.S. Department of Education, Office of the Secretary, Office of Public Affairs. (2003).

*No Child Left Behind: A Parent's Guide*, Washington, D.C.

Vail, K. (2004). Remaking high school. *American School Board Journal*, 191(11), 14-19.

Wake County Public School System. (2006). *What is a year-round school?* Wake

County Public School System: Year-Round Schools Resource Center. Retrieved

February 21, 2012, from <http://wcpss.net/year-round/>

Weatherford, T. (2001). *Attitudes and perceptions of school personnel, parents, and*

*community members toward year-round schools in Maury County*. Unpublished

doctoral dissertation, Tennessee State University, Nashville.

Webb, T., Frampton, A., Henderson, E., & Hyrman, R., (2009). *Teacher wellness in*

*year-round schools: An exploratory study*. Retrieved April 3, 2012, from

[www.sd36.bc.ca/general/news/2009/TeacherWellness.pdf](http://www.sd36.bc.ca/general/news/2009/TeacherWellness.pdf)

Weiss, H. (2003). Evaluating education reform. *The Evaluation Exchange: A*

*Periodical on Emerging Strategies in Evaluating Child and Family Services*, 9(2),

2-23.