TEACHERS' PERCEPTIONS OF THE IMPACT OF A 4-DAY WEEK ON SCHOOL CULTURE

ALISON VERNON

2018

The undersigned, approved by the Department Chair of Graduate Studies in Education, have examined a dissertation entitled:

TEACHER PERCEPTIONS OF THE IMPACT OF A 4-DAY WEEK ON SCHOOL CULTURE

Presented by Alison Vernon as a candidate for the degree of Doctor of Education and hereby certify that in their opinion it is worthy of acceptance.

Dr. Nancy Colbaugh, Advisor/Chair
College of Education Dean, SBU

Dr. Bill DuVall, Committee Member
Elementary Education Department Chair, SBU

Dr. Lisa Burton, Committee Member
Adjunct, SBU

TEACHERS' PERCEPTIONS OF THE IMPACT OF A 4-DAY WEEK ON SCHOOL CULTURE

A Dissertation
Presented to
The Faculty of the Graduate Education Department
Southwest Baptist University

In Partial Fulfillment
of the Requirements for the Degree

Doctor of Education

By:

Alison Vernon, B.S., M.S.

Dr. Nancy Colbaugh, Dissertation Advisor

April 11, 2018

ACKNOWLEDGMENTS

As I conclude my personal journey in formal education, I owe gratitude to many people along the way. I feel blessed to have had so many positive, supportive individuals in my life. First and foremost, I must thank my family. My parents have encouraged me every day during my 29 years and will continue to do so in the future. As teachers, they understand my commitment to education and have done everything in their power to help me complete this journey. Their unconditional love and support are the model for which I live my life and strive to help others. My brother and extended family have also shown unconditional love and interest in my research to support me in achieving my goals.

This journey would not have been possible without my committee members whose expertise and patience made this process a smooth one. My advisor, Dr. Nancy Colbaugh, went out of her way to answer questions and read through my paper at any time of the day. There were several times Dr. Colbaugh called me from family vacations to go over my paper and make last minute updates. She worked tirelessly to help me complete this journey. Dr. Bill DuVall provided insight that was invaluable in this experience. I am honored to be his first advisee in the dissertation process and know his future advisees will appreciate his knowledge, patience and sense of humor just as I did. Lastly, I must thank my final committee member, Dr. Lisa Burton. She took her place on my committee just weeks before proposal and gave thoughtful and relevant feedback for the rest of the process. Because of these three amazing individuals, my dissertation process was smooth and successful. I would be remiss if I did not thank the professors that oversaw my program at SBU: Dr. Tammy Condren, Dr. James Truelove, and Dr.

Pam Hedgpeth. Thank you for believing in me and giving me guidance through the beginning stages of this study.

My friends and coworkers provided irreplaceable support in this process. They listened to my talk of school culture and asked questions about the 4-day school week. It was not uncommon to receive an e-mail or Facebook message with an article about the 4-day week as those closest to me supported me in the research process. I look forward to the years to come that can be spent enjoying each other's company instead of discussing my research.

Finally, I owe a million thanks to "my kids." Part of my motivation for completing my doctoral degree came from my students. My students at John Thomas School of Discovery and Hawthorn Elementary remind me every day that learning is never ending. When research and writing got tedious, remembering that there were students looking up to me encouraged me to persevere. What a gift it is to be able to work with students that encourage me to be the best version of myself.

TABLE OF CONTENTS

LIST OF TABLES

ABSTRACT

The American public school system has used the same agrarian-based calendar for the past century despite drastic changes to the educational system. In recent years, some schools have come under financial burdens associated with poor test scores that correlate with funding under legislation. These financial burdens have impacted rural school districts that allocate up to 5% of their budget to transportation. Some schools seek to alleviate these burdens by implementing nontraditional schedules. Among these schedules, the 4-day week has become increasingly popular since the 1970's. Research on the 4-day week has primarily been focused on its impact on financial saving and student achievement. School culture is an important factor in any school building as it impacts teacher satisfaction and student achievement. The researcher sought to understand teachers' perceptions of the impact of a 4-day week on school culture as little research had been done in this area. The researcher used Steve Grunert's School Culture Survey (SCS) as a quantitative tool to collect data from participants utilizing a 4-day school week and participants in similar schools utilizing a 5-day school week in Oklahoma. This tool can be divided into 6 categories that promote a positive, collaborative culture: collaborative leadership, teacher collaboration, professional development, unity of purpose, collegial support, and learning partnership. The data from the SCS showed statistical significance in the areas of collaborative leadership, teacher collaboration, and learning partnership.

CHAPTER ONE

INTRODUCTION

The American public school system has used the same agrarian-based yearly school schedule for approximately 150 years (National Education Commission on Time and Learning, 1994). Over the years, district administrators have studied the feasibility of nontraditional schedules. Some of the social, economic, and political reasons district administrators have attempted to implement new schedules in American public schools are the transformation of the United States' economy from an industrial nation to a global information technology-focused nation, the publishing of *A Nation at Risk in* the 1980s, and the introduction of the No Child Left Behind (NCLB) Act of 2001 (Cuban, 2008; Fager, 1997; Leiseth, 2008; National Education Commission on Time and Learning, 1994). Anderson and Walker (2015) cited a number of research studies that have focused on the impact of a 4-day school week on district finances and on student achievement, but little research has been done to examine the impact of the 4-day week on school culture.

Chapter One introduces the concept of a 4-day school week. The first section provides a brief background of this form of alternative scheduling. In addition to describing the background of a 4-day school week, other alternative scheduling options, such as year-round schooling and block scheduling, are introduced. After identifying the background of the study, the problem to be studied is introduced. The rationale, theoretical underpinnings, and limitations of the study are addressed.

Schools in America have faced a variety of financial and ideological challenges since becoming tax supported in the early 19th century (Cuban, 2008). Educational leaders have struggled to fund all programs students need and desire. However, financial

challenges of the past century have not only impacted the attitudes and budgets, but also the organizational framework of public schools. These challenges included the drastic budget cuts and rising fuel and utility costs, which became increasingly prevalent in the 1970s (Dixon, 2011; Duchscherer, 2011; Gaines, 2008). These factors, paired with increasing academic performance expectations and potential budget cuts for failing schools brought about through legislation such as NCLB, resulted in district administrators seeking to alleviate this stress through a variety of strategies (National Education Commission on Time and Learning, 2000). One way school districts dealt with these financial changes was through alternative scheduling in which the amount of academic seat hours remained constant while the overall schedule of the school was altered to better fit other factors such as student retention and transportation costs (Dixon, 2011).

One of the most prevalent organizational shifts in educational scheduling is from a 9-month schedule to a year-round schooling model (Cuban, 2008; Dixon, 2011). Historically, a traditional school model used approximately nine out of the 12 months of the year for the process of teaching students, while the building remained empty or was used for summer school during the 3 remaining months. Districts using the year-round schedule organized their schedule to accommodate more frequent breaks instead of one long break (French, 2013). Some research showed that the use of a shorter summer intermission with more frequent breaks throughout the year prevented academic and behavioral regression (Cuban, 2008; French, 2013; Leiseth, 2008). More frequent breaks also allowed staff members to provide tutoring for students and enrichment activities between sessions (Leiseth, 2008).

Another organizational shift that rearranged instructional time instead of adding additional time was the use of block scheduling (Cuban, 2008). Several districts sought to improve student achievement without drastically increasing overall costs or overhauling the district schedule by implementing block scheduling. Block scheduling has typically been used in the secondary setting (Fager, 1997) as it focused on creating longer periods of time for core academic learning time (Hale, 2007). These longer blocks of time often doubled the length of a traditional 55-minute period and helped educators focus on difficult concepts that required higher level thinking. Jenkins, Queen, and Algozzine (2002) suggested block scheduling was the one answer to limitations of the traditional high school schedule because it did not require a dramatic change in the district schedule.

The 4-day school week is another alternative scheduling option that is the focus of this study. Four-day weeks consist of the same number of instructional hours as a traditional school week; however, these hours are dispersed over 4 days instead of 5 (Chamberlain, Cierniak, & Plucker, 2012; Hale, 2007). There are a variety of options for a 4-day week that help district administrators meet the needs of their community (Leiseth, 2008). Some districts reported using a 4-day week for the entire year while others implemented a 4-day week only during certain parts of the school year, such as in the winter months or in preparation for standardized testing (Donnis-Keller & Silvernail, 2009; Plucker et al., 2012; Weldon, 2008).

Similar to other alternative schedules, districts were given certain requirements for a 4-day schedule. These requirements usually related to the number of instructional hours instead of the number of instructional days. Given these parameters, districts were allowed to adjust their schedule accordingly as long as the number of instructional hours

was met each school year. The most common options for four-day scheduling included Monday-Thursday or Tuesday-Friday (Kordosky, 2011). Some districts required teachers to come to school each fifth day to have additional planning and collaboration time, while in other districts, teachers were not contracted to be present on campus on the fifth day. While there were many options for the implementation of a 4-day week, this study considered all schools utilizing a 4-day schedule, regardless of how the fifth day was utilized.

The second focus of this study was on school culture. School culture is a factor in student learning and performance, as well as teacher education and retention, and is key to successful school improvement (Cohen, McCabe, Michelli, & Pickeral, 2009; Fullan & Hargreaves, 1996; Schein, 2017). Culture also affected student self-esteem, mental health, and likelihood to use alcohol or drugs during their school years (Cohen et al., 2009; Hoge, Smit, & Hanson, 1990; Kasen, Johnson, & Cohen, 1990).

Most research on the topic of 4-day school focused on the financial and academic impact of a 4-day week (Anderson & Walker, 2015; Beesley & Anderson, 2007). In some districts, approximately 1.5% of the operating budget was saved by switching to a 4-day week (Feaster, 2002). Anderson and Walker (2015) suggested further research be completed to determine the impact of the implementation of this schedule on teachers' perceptions and morale. The focus of this study was on how the implementation of the 4-day week impacts teachers' perceptions of the school culture.

Theoretical Framework

This study was designed to better understand teachers' perceptions of the impact of a 4-day week on school culture. The idea that perceptions and attitudes toward a

specific idea are formed, based on human interactions with the idea in question, comes from functionalist theory of attitudes, introduced by Katz in 1960. This theory explores the formulation of opinions and the reason for shifts in attitude. Katz (1960) took the understandings and beliefs from two schools of thought on attitude formation and combined them to develop his own theory.

The first school of thought assumes that humans have no rational thought-making strategies (Katz, 1960). This model is described as irrational and allows for emotions to influence attitudes and perceptions. The second thought is that human beings are completely rational (Katz, 1960). He proposed the idea that all attitudes and perceptions are developed based on logic, and emotions have little impact on the decision-making process (Katz, 1960). Katz introduced the idea that humans develop attitudes for a functional reason, hence the name functionalist theory of attitude. In this theory, he brought both schools of thought together. Katz (1960) believed thoughts and attitudes serve a certain purpose for the individual and must be developed through a combination of emotion and logic. He believed that one cannot be purely rational or purely emotional. Rational thinking and emotional thinking are continuously working together to help individuals form or alter their attitudes pertaining to new or changing stimuli. It is through the lens of the functionalist theory of attitudes that this study is explored.

Paired with the functionalist theory of attitudes, Ward Goodenough's cultural framework sets up a model for any study that takes a close look at school culture (Goodenough, 1981). Goodenough's (1981) framework, cited in Henstrand (2006) marries two types of anthropology: cognitive anthropology and interpretative anthropology. Cognitive anthropology assumes that culture resides within individuals'

minds (Tyler, 1969). For this reason, researchers can examine the differences and similarities between individuals, groups, and entire cultures.

Cognitive anthropology also addresses the phenomenon of culture drift, which describes how a culture changes from one generation to another (Goodenough, 1981). With the understanding that culture resides in one's mind, culture drift seeks to find the key stimulus for overall change within a culture. Cognitive anthropology strives to explain how the creation of, or change in, culture, which resides in the mind of the individual, can create dissonance between public culture and a person's beliefs (Henstrand, 2006). When there is dissonance between public culture and personal beliefs, the individual can fall into a feeling of crisis until an equilibrium is found (Henstrand, 2006). Understanding the impact of cognitive anthropology will help the researcher understand culture as a combination of individual beliefs that come from both rational thinking and emotional thinking. This is especially important in examining situations in which teachers may not have had input on a change but have strong opinions on the outcome.

Interpretive anthropology, on the other hand, considers culture to be an accumulation of individually held beliefs that result in a single commonly held belief (Geertz, 1973). Geertz (1987) also described culture as a game that humans play as they interact with each other with rules that are known to some and unknown to others. This implies humans are captive of their culture and have little chance of changing it. Interpretive anthropology is a much more social way to interpret culture. Instead of believing culture resides in the minds of individuals, interpretive anthropology examines culture as something that lives among the individuals and only changes with consensus

over time. This allows the researcher to consider the culture as a whole, rather than as many pieces that work independently of each other.

This study utilizes both theories, understanding that teachers create their own perception of culture, while there are some factors that are influenced by the relationships between teachers. Understanding the different ways that culture and attitudes are formed and maintained helped the researcher understand that a drastic change in schedule, especially one that might be suddenly implemented, will impact both individual ideas of culture as well as the collective idea of culture both in a rational and an emotional way.

Problem Statement

Since the 1930s, stakeholders in public, rural schools have had to respond to budget crises (National Education Commission on Time and Learning, 2000). In many instances, changes were made due to budget constraints and lacked adequate stakeholder buy-in and formal research regarding student achievement and stakeholder satisfaction. Though there has been formal research done on the implementation of a 4-day week, it is problematic that research has been primarily limited to student achievement and the financial impact on the district (Anderson & Walker, 2015). Because culture is such a large part of the school and because teachers are one of the main factors in student achievement, more formal research is needed to examine how the implementation of the 4-day school week can impact teachers' perceptions of school culture (Anderson & Walker, 2015; Deal & Peterson, 2016; Schein, 2017).

Rationale for the Study

As schools seek to alleviate financial crises with alternative scheduling, it is important to understand the impact of a 4-day week on all facets of the school

environment. When school districts make decisions, they must understand how culture will be impacted, especially if the teachers have little say in the change process. Researchers have frequently examined the impact of a 4-day schedule on student achievement and financial factors. However, very little research has been conducted regarding the impact of teachers' perceptions of a 4-day school week on school culture (Anderson & Walker, 2015). A collaborative school culture has been found to be the most effective type of school culture for student achievement (Chance, Cummins, & Wood, 1996; Deal & Kennedy, 1999; Deal & Peterson, 2016; Fullan & Hargreaves, 1996; Gruenert, 1998; Hargreaves, 1991; Kain, 1996; Little, 1982; Lortie, 1975; Newmann & Wehlage, 1995; Rosenholtz, 1989; Sarason, 1996; Schein, 2017; Schlechty, 1997; Wagner, 1994). This study examined teachers' perceptions of the components of a collaborative culture within a school building. The intent of this study was to determine how the implementation of the 4-day week impacted the perceptions of teachers on school culture.

Research Question and Hypothesis

The purpose of this study was to understand teachers' perceptions of the impact of a 4-day week on school culture. The researcher used Steven Gruenert's School Culture Survey to collect data concerning these attitudes and their impact on overall school culture. The following research question was addressed: What are the differences in school culture perceptions between teachers using a 4-day school week and those using a 5-day school week? For this study, the null hypothesis was used. The hypothesis was as follows: There will be no significant difference in teachers' perceptions of school culture between teachers using a 4-day week and teachers using a 5-day week.

Limitations, Delimitations, and Assumptions

While the researcher intended to provide accurate data, the school setting has many variables, aside from the schedule, which influence school culture.

Limitations. Despite attempts to control for variables, several factors naturally occur within a district. Some of these variables may have an extended impact on culture.

1. The teacher attitudes were not controlled for in this study. All teachers in school districts implementing a 4-day schedule were presented with this survey electronically and at a random time. They were not given any professional development or dialogue regarding the benefits or concerns about a 4-day school week prior to completing this survey.
2. The length of time a 4-day schedule had been implemented was also not controlled for in this study.
3. The researcher was limited by the decision of superintendents to cooperate with the study.
4. Finally, the researcher had no control over how many people completed and submitted the survey.

Delimitations. While there are several limitations over which the researcher had no control, there are several delimitations for which the researcher planned. The researcher controlled for variables in the following ways:

1. The study used only schools implementing a 4-day week in Oklahoma.
2. Only full-time, certified teachers within districts implementing a 4-day week participated in the study.

3. Teachers who have previously used a 4-day week or who are currently planning for implementation were not included in the population.

Assumptions. The researcher assumed all participants answered survey questions honestly. The researcher also assumed that a 4-day week was the motivation behind answers regarding the organizational change and its impact on culture.

Design Controls

This quantitative survey study began by identifying all districts using a 4-day week in Oklahoma by accessing this information on the Oklahoma State Department of Education Web site. The researcher used a purposive sampling to select participants from schools using a 5-day school week. A purposive sampling was necessary because there were more schools utilizing a 5-day school week than a 4-day school week within the set enrollment band. After contact had been made with the superintendent of each district selected to participate in the study and permission was granted for employees to participate, the School Climate Survey (SCS) was administered electronically to all teachers in the district. The SCS was used to collect teachers' perceptions of school culture within buildings implementing a 4-day week and a 5-day week.

The researcher controlled the design of this study by involving a population including only teachers currently teaching in a district implementing the 4-day week and those in a district of the similar size utilizing a 5-day week. The design was also controlled by selecting participants only in Oklahoma. This design was limited to a quantitative study because it allowed the researcher to include a large number of participants. If a qualitative approach had been used, fewer members of the population could have participated, which could have decreased the validity and reliability of the

study. It would also have meant that results might not be generalizable to the entire population.

Definition of Key Terms

Alternative schedule - For the purpose of this study, alternative scheduling in the educational setting is defined as any schedule other than a 9-month schedule with 5-day weeks.

Block schedule - The block schedule is a scheduling method, typically used in the secondary setting, in which class periods are extended and fewer classes are held per day than in a traditional schedule (Fager 1997; Hale, 2007).

Core academic time - Core academic time refers to time spent on mathematics or English language arts instruction (Hale, 2007; National Education Commission on Time and Learning, 1994).

4-day week - The 4-day week refers to a schedule in which days are lengthened to give students days off school in a more reliable pattern. The most well known version of this schedule includes 4 days of instruction with no school on the 5th day. There are other varieties of this schedule including a version where students get 1 day off every 2 weeks or only use 4-day weeks during the winter months (Plucker et al., 2012; Donnis-Keller & Silvernail, 2009).

School climate - School climate "refers to the quality and character of school life…" (Cohen et al., 2009, p. 182). Researchers use qualitative data to measure climate in a specific organizational setting, instead of generalizing to several settings (Denison, 1996). School climate and school culture are often interchanged; however, climate looks at the more temporary social emotional factors of the school.

School culture - Researchers generally classify culture as the trait that focuses on the characteristics of individuals that are generalizable despite the organizational environment (Denison, 1996). This term is often used interchangeably with school climate even though it focuses on a deeper, more ingrained attitude within the school.

Stakeholder - A stakeholder is any person, group, or entity with a vested interest in a specific district or the 4-day school week project (Leiseth, 2008). Stakeholders include but are not limited to students, teachers, administrators, parents, community members, and business owners.

Traditional schedule - A traditional schedule consists of 5-day weeks for approximately nine continuous months. Students have approximately three continuous months of vacation each summer.

Year-round schedule - A year-round schedule consists of blocks of learning time with several shorter breaks throughout the year (Hale, 2007).

Summary

Chapter One contained an introduction to the 4-day week and a brief history of its implementation since the 1930s (Donnis-Keller & Silvernail, 2009; Leiseth, 2008; Tharp, 2014). The 4-day schedule was introduced to save money in public schools but little research concerning teacher perceptions of school culture was available to those who were interested in understanding the impact of culture in the school. To further this idea, the functional theory of attitude was overviewed. The functional theory of attitude states that individuals form their ideas and opinions about a concept based on their interactions with the concept. The way a 4-day week impacts a school culture can be reflected in teacher opinions about school culture. The purpose of this study is to differentiate

between the cultural factors of schools that implement a 4-day week and schools that implement a 5-day week. Based on this analysis, the researcher looked for common threads in the cultural data of schools to examine the impact of teachers' perceptions of a 4-day week on school culture.

In Chapter Two, existing literature and research about the 4-day week will be reviewed using a thematically organized approach. Traditional schedules and additional alternative schedules, like the year-round schedule and the block schedule, will also be examined to better understand the context in which alternative schedules may be implemented. The importance of school culture and the history of the 4-day week in Oklahoma will also be examined. Chapter Three will outline the method for identifying participants that meet the criteria of the study. This chapter will also describe the method and tools used to collect data concerning teachers' perceptions of school culture. Chapter Four includes an overview of the findings from the study described in Chapter Three. Chapter Five will provide a summary of this study, and it will give recommendations and outline implications for any educational leaders considering a 4-day schedule or educational researchers looking to further this study.

CHAPTER TWO

REVIEW OF LITERATURE

The emphasis of this review is on a collaborative culture as research shows it is the most effective type of school culture for student achievement (Chance, Cummins, & Wood, 1996; Deal & Kennedy, 1999; Deal & Peterson, 2016; Fullan & Hargreaves, 1996; Gruenert, 1998; Hargreaves, 1991; Kain, 1996; Little, 1982; Lortie, 1975; Newmann & Wehlage, 1995; Rosenholtz, 1989; Sarason, 1996; Schein, 2017; Schlechty, 1997; Wagner, 1994). Because little peer-reviewed research is available on the topic of 4-day school weeks (Plucker et al., 2012; Tharp, 2014), the year-round schedule and the block schedule are also reviewed. These alternative schedules are reviewed to determine if the information from alternative scheduling research is applicable to the culture of the 4-day week schedule. This section also explores the use of a 4-day workweek in the business sector. The chapter concludes with an analysis of the research regarding school culture.

Traditional Schedules

The public schools' calendar in America has always been controlled by "the clock, the calendar, and the agrarian society" (Hale, p. 12 , 2007) and adult needs (Owens, J., Drobnich, Baylor, & Lewin, 2014; Hopkins, 2009; National Education Commission on Time and Learning, 2004). Education began to receive public funds in the early 19th century, which resulted in more government control over details such as school schedules (Cuban, 2008). During his tenure as the nation's first Secretary of Education between 1837 and 1853, Horace Mann continued the movement toward a common schedule by advocating for a schedule with a minimum of 6 months (Mann &

Filler, 1965; Tharp, 2014). Prior to these organizational shifts, many schools or districts set independent schedules to fit the needs of their communities. While this worked for families and teachers, differing schedules became an issue as schools began to compete on an interscholastic level.

Eventually, the average American school schedule allowed for 9 months of education, with short breaks for holidays, and 3 months of vacation during the summer. Many believe this traditional schedule developed from the needs of agrarian families as their children were needed to help on the farm during the summer months (Cuban 2008; Hopkins, 2009; Leiseth, 2008). In a more urban setting, the traditional schedule was partially influenced by the tourism industry that persuaded families to vacate the large cities during the hot summer months (Cuban, 2008). Other opportunities, such as camps and family vacations, were available during the summer months. Students would be unable to attend these activities if they did not have a long break from school in the summer (Cuban, 2008). Regardless of the cause of the traditional 9-month schedule, it has been used, almost exclusively, for over a century in American public schools (National Education Commission on Time and Learning, 1994).

Hale (2007) indicated school calendars throughout the world varied in the number of days students were required to attend. The typical American school year required 180 student days (Hale, 2007). Students in other high-achieving nations typically attended school a greater number of days with Japan topping all other countries with 243 school days each year (Leiseth, 2008; Hale, 2007). However, more days did not always yield higher achievement. Sweden frequently ranked high in mathematics and only required 170 days of school per year (Chaika, 2005; Hale, 2007).

Alternative Schedules

As the United States started to face an economic downturn, schools started to consider alternative scheduling. The Arab Oil Embargo of the 1970s, *A Nation at Risk* from the 1980s and the NCLB were all motivators for federal and state laws to allow districts to explore alternative schedules. Other considerations for alternative scheduling were family schedules and the distance families lived from the school campus. In some rural areas, students' daily transportation to and from school took over four hours (Reeves, 1999). In one study, a superintendent noted that prior to using a 4-day week some parents did not send their child to school at all if the student had an appointment or other reason to leave school early because it would also require the parent to make a long drive to the school and, sometimes, an even longer drive to the appointment (Hale, 2007). Despite the cause for an alternative schedule, stakeholders generally belonged to one of two schools of thought. One school of thought was to increase the number of hours and/or days in the school year while the other group preferred rearranging the schedule to make the same number of hours more effective (Cooper, Valentine, Charlton & Melson, 2003). There are several options for alternative scheduling that will be discussed in the next paragraphs.

Year-round schooling. One of the most popular and well known forms of the alternative schedule was year-round schooling. This method, referred to as modified school years in other countries, was used across the globe and was most commonly used in the United Kingdom, the United States, Canada, and New Zealand (Winter, 2005). Year-round schooling was first implemented in the United States in Gary, Indiana in the 1960s (Cuban, 2008). Parents, teachers, and other stakeholders noticed a large portion of

the first quarter was spent reviewing content from the previous year. These stakeholders were concerned that a long summer break was the reason for this need for review, and in turn, the reason for lower achievement (Cuban, 2008; Leiseth, 2008).

Year-round schedules typically do not add instructional hours to the year. Instead, they rearrange the number of hours into 4-6 weeks of instruction and then have a short break before returning to school (Leiseth, 2008; Hale, 2007). Enrichment or tutoring is often available during the vacation weeks so instructional hours can be dedicated to new content (Leiseth, 2008). In some districts, research showed teachers also received professional development courses during the weeks they were not engaged in teaching students so they did not miss instructional time with students (Leiseth, 2008). Losing instructional time to participate in professional development often added unnecessary stress for teachers (National Education Commission on Time and Learning, 2000).

There were a variety of schedules that fell under the title of year-round schooling, including the single-track, dual-track, and multitrack models. Under the single-track model, all students in a school or a district were on the same schedule. This means all students had the same time in school and the same time on vacation (Cooper et al., 2003; Haser & Nasser, 2005). This option was beneficial for families as all students were on the same schedule. Within a single-track schedule, administrators determined what kind of schedule to use. Some district leaders found a schedule with 45 instructional days followed by 15 vacation days to be most effective in their district. This divided the year into four parts (Hale, 2007; Leiseith, 2008). Another option that was frequently used divided the year in three parts with a longer summer vacation by providing 60 instructional days with 20 vacation days (Hale, 2007; Leiseith, 2008). Leiseth (2008) also

mentioned another three-part variety in which students had 90 days of instruction followed by 30 days of vacation.

A second option for the year-round schedule was the dual track. As the name suggests, this track allowed some students to be on a traditional 9-month schedule while other students in the same building were on a year-round schedule (Winter, 2005). This schedule was used as a pilot program to examine the effects of year-round education on a variety of factors within the school before beginning full implementation. This method was often called a School-Within-A-School, as two schedules were being implemented in one building (Wall, 1994). Sexton (2003) noted that some administrative issues occurred when implementing two different schedules in one school, as there were multiple first and last days of each quarter, semester, and/or school year that caused stress and a negative sentiment for administrators, teachers, and other school staff, as well as parents and students.

The final option for a year-round schedule was the multitrack version. The multi track schedule allowed several different single tracks to be used at once so as much as one fifth of the student body was out of school at any point throughout the school year (Wildman et al., 1999). Even though it was not used as frequently as the other options, the multi track schedule provided a more continuous learning pattern for all students involved (Hale, 2007). An increase in the achievement of underprivileged or disadvantaged students was seen when using this schedule, (Cooper et al., 2003; Cooper, Nye, Charlton, Lindsay, & Greathouse, 1996).

Multi track schedules, typically used in overcrowded buildings and districts, involved the use of several single-track schedules working concurrently. When the multi

track schedule was implemented, only four fifths of the student body was in the building at a time (Cooper et al., 2003; Cuban, 2008; Leiseth, 2008; Wildman et al., 1999). When a building exceeded 115% of its capacity, it became more cost efficient to use a temporary multitrack, year-round schedule instead of completing construction projects or adding mobile units (Coleman & Freehorn, 1993). Schools typically returned to a single-track schedule when the overcrowding subsided (Cooper et al., 2003).

Despite saving money on construction and other costs, issues arose from a multi track schedule. For instance, teachers typically shared classrooms and workspaces due to the number of students inhabiting the building (Leiseth, 2008; Hale, 2007). Teachers had to share valuable classroom space to store materials or the district had to spend money on storage solutions for supplies belonging to teachers who were on break (Leiseth, 2008). Additionally, custodians had a shorter window of time to get large cleaning projects done than during the traditional 3-month summer vacation (Cooper et al., 2003). This schedule also posed inconveniences to some families. Students in the same family were on different tracks (Leiseth, 2008) and some even missed out on summer activities like camps (Wildman et al., 1999).

No matter what type of year-round schedule was utilized, student achievement was always a top concern of district administrators (Cuban, 2008; Leiseth, 2008). While year-round schooling became a popular option, research showed it had little to no impact on student achievement. In general, students in several meta-analyses performed at the same level, if not slightly higher than in a traditional schedule (Ballinger, 1995; Kneese, 2000; McMillen, 2001; Roby, 1995; Six, 1993). Students who were identified as lower-

achieving showed slightly more gains when on a year-round schedule, however no gains shown were statistically significant (McMillen, 2001).

In addition to the data on student achievement, year-round schools also boosted teacher morale and attitudes, which helped school culture become more positive. The combination of innovative and responsive administrators and frequent breaks helped teachers feel renewed and motivated (Haser & Nasser, 2005). Not only did teachers feel refreshed and motivated, but retention and satisfaction also improved (Council, 2010; Haser & Nasser, 2005; Poor, 2010; Sexton, 2003). Aside from both personal and professional renewal, teachers also had time to reflect on their practice to become more effective teachers.

Block scheduling. Several districts sought to improve student achievement without drastically increasing overall costs or overhauling the district schedule by implementing block scheduling. The use of the block schedule allowed administrators to rearrange instructional time instead of adding additional time to the school year (Cuban, 2008). Block scheduling refers to a schedule that includes longer classes that meet fewer times than they would in a traditional schedule (Fager, 1997; Hale, 2007). Block scheduling was typically used in the secondary setting (Fager, 1997) as it focused on creating longer periods of time for core academic time (Hale, 2007). These longer blocks of time doubled the length of a traditional 55-minute period, which helped educators focus on difficult concepts that required higher level thinking. Jenkins et al. (2002) suggested block scheduling was the one answer to limitations of the traditional high school schedule because it did not require a dramatic change in the district schedule.

Implementing a block schedule was an attractive way to rearrange core academic time because each school administrator could organize a schedule that responded to the needs of the students and staff in his or her school. Some courses were arranged so classes met every day for double the time so classes could be completed in a semester instead of an entire year, while other schedules allowed classes to meet every other day for twice the amount of time as they would have using a regular schedule (Hale, 2007).

While block scheduling did not add additional minutes to the school calendar, it was a more economically feasible way to create longer blocks of time for teachers to emphasize difficult core academic topics (Fager, 1997; Leiseth, 2008). Some districts saw an increase in grade point average but there was no conclusive data to suggest that this success extended to student achievement in standardized test scores (Zepeda & Mayers, 2006). Some critics of block scheduling were concerned that the curriculum was diminished with a block schedule. These critics worried there was little time for science, social science, and elective classes that led to an applied understanding of English language arts and mathematics (Leiseth, 2008; Salvaterra & Adams, 1998; Silva, 2007).

Aside from some increase in academic achievement, research showed that social gains were achieved by using block scheduling, as well (Fager, 1997). The extended classes gave teachers and students more time to interact and foster more meaningful relationships (Fager, 2007). Many schools utilizing a block schedule reported positive changes in overall school culture and climate (Hale, 2007; Rettig & Canady, 1996). Students were more likely to be fully engaged in content and became more deeply involved in projects when given longer blocks of learning time (Salvaterra & Adams, 1998). In addition, teachers indicated they felt empowered to implement more engaging

and interactive teaching strategies with the use of block scheduling because of the amount of seat time available (DiRocco, 1999).

The 4-Day Week

4-day schedule in the public sector. The 4-day school week was partially influenced by the 4-day workweek in the business sector. As the Industrial Revolution began, work hours were reduced due to the introduction of new machinery and the use of labor unions (Poor, 2010). Workers and labor unions worked together to introduce new schedules and regulations for employers. In 1800, the average employee worked over 70 hours per week compared to just 40 hours per week for the average employee in 1950 (Poor, 2010). These changes did not come easily or quickly. Workers and unions fought for over 150 years to have laws and regulations enacted and enforced (Poor, 2010).

By the 1970s, many companies were already experimenting with alternative scheduling throughout the world. Private companies in Germany introduced flexible work time officially in 1968 and the United States was not far behind (Liechty & Anderson, 2007). Many industries considered alternative scheduling to be a viable way to cut costs and, therefore, increase profits. The trucking industry found that the 4/40 schedule, or four 10-hour days, was a reasonable solution, thus it became widely used in this industry (Poor, 2010). Though the 4/40 schedule was popular, other configurations of a compressed workweek were implemented including a 4/32 schedule, four 8-hour days, as well as 4 days on, 4 days off (Poor, 2010).

Flexible scheduling became a government focus in the United States in 1978 with the Federal Employees Flexible and Compressed Work Schedules Act of 1978 and with the implementation of PL 95-390. It began as a 3-year experimental bill that was focused

on decreasing traffic congestion in the Washington, DC area by allowing federal entities to offer flexible schedules to its employees (Liechty & Anderson, 2007). Another goal was to conserve energy in light of the energy crisis affecting the nation at that time (Liechty & Anderson, 2007; Poor, 2010). In addition, when considering the history of work scheduling, the federal government focused on being more efficient in a world where business was becoming more global and constant (Liechty & Anderson, 2007; Poor, 2010). This act allowed federal entities to negotiate the number of hours per week, number of days per week, start times, and end times with their employees (Gore, 1997). The act was so favorable that it was renewed in 1982 before it was passed into permanent law in 1985 (Liechty & Anderson, 2007). Many companies have decreased overhead costs by providing the supplies needed for telework and the strategy for employees to work from home using advanced technology to communicate with clients and coworkers (Poor, 2010). Though teleworking became popular, the compressed work schedule was another tool used in American businesses to reduce costs and maximize efficiency.

The main idea behind Federal Employees Flexible and Compressed Work Schedules Act of 1978 was to use the schedule as a management tool to tailor the work schedule to the mission of the agency or business and to the employees, instead of "haphazardly fitting work and people into a standard schedule that may suit neither of them" (Poor, 2010, p. 1052). Not only did a flexible work schedule increase employees' satisfaction in their jobs, the free time was frequently used to pursue higher education or research in jobs, which further increased their productivity (Poor, 2010). In addition, the extra time was also spent doing leisure activities, volunteering, and developing deeper personal connections with family and friends, which also enhanced the personal well

being of each individual. Overall, time for further professional learning and personal development made the organization more productive and successful. These points were also influential in the recruitment and retention of employees (Haser & Nasser, 2005; Poor, 2010).

4-day schedule in the school week. Similar to the way managers suggested the 4-day schedule in the workforce to make fund allocation more efficient, school leaders examined how their schedules could mirror these changes to make children's schedules more cohesive with those of their adult counterparts while saving money (Duchscherer, 2011; Hale, 2007). Upon examining school schedules, many district leaders noticed that they were already on a 4-day week for almost half of the year. Due to federal holidays, in-service days, and other reasons for dismissal, many schools were already missing at least one day of school in up to 18 out of the 36 weeks (MacLeod, 2002). Upon deciding to officially implement a 4-day week, schools typically chose one day of the week, usually Monday or Friday, to release classes (Leiseth, 2008). Mondays were often chosen because 5 of 10 federal holidays take place on Mondays while Fridays were selected to reduce absenteeism due to extracurricular activities and nonattendance for personal reasons (Leiseth, 2008; Roeth, 1985; Wilmoth, 1995). The instructional hours from the non-school day were generally made up by adding 60 to 90 minutes of instructional time to the remaining days (Hale, 2007; Plucker et al., 2012).

While many people considered a 4-day week to be lessening the amount of learning time, it sometimes had the opposite effect. The typical day had only about four hours of instructional time due to nonacademic requirements such as transition times, review time, clerical tasks, and lunch (Kordosky, 2011). When at least an hour was added

onto each day in the 4-day week, the time spent at school on a Friday was easily made up, and even surpassed (Kordosky, 2011). Kordosky (2011) suggested adding 25 minutes to the beginning of the day and 45 minutes to the end of the day, which essentially increased instructional hours by over 200 throughout the year.

Though most districts excluded Mondays or Fridays by adding time on the remaining 4 days, there were many other adjustments that were unique to specific districts. Some smaller districts only implemented the 4-day school week during the winter to save extra money on utility costs (Plucker et al., 2012; Donnis-Keller & Silvernail, 2009). Other districts opted to implement a 4-day week for the majority of the year but added additional school days on Monday before standardized testing to serve as a boot camp for test preparation (Plucker et al., 2012; Weldon, 2008). In addition, remediation was sometimes added on the fifth day to provide additional reinforcement for struggling students (Chmelynski, 2003). Other districts have used part or all of the fifth day for professional development and collaboration (Leiseith, 2008).

Causes for a 4-day week. Over time, there have been three major waves of implementation of the 4-day school week. One happened in the 1930s, the next in the 1970s and the most recent in the early 2000s (Duchscherer, 2011). Each wave of implementation had its own set of factors that caused the change in schedule. Some of these factors included financial causes, government mandates, and stakeholder needs.

Financial. Economic shock, no matter how large or small, has eventually trickled down to affect education financially (Johnson, 2013). As changes in the amount of money a district received decreased, administrators were forced to find a way to balance the budget. Changes in the economy affected different districts in unique ways because of

contextual factors like location, industry, and district size (Lin, 2008). For example, the earliest use of the 4-day school week was documented in Madison, South Dakota in the 1931-1932 school year (Donnis-Keller & Silvernail, 2009; Leiseth, 2008; Tharp, 2014). This schedule was implemented in the rural, South Dakota community of Madison to help reduce high transportation costs caused by the large area of the district and, as a side effect, reduced the amount of time students spent being transported to and from school each week (Donnis-Keller & Silvernail, 2009; Tharp, 2014). Transportation was often the department in which districts intended to save money as it was as much as 5% of a district's budget (Ahearn, Kilkenny, & Low, 2009). Therefore, cutting an entire day of transportation saved the district between .1% and 2.5% of its budget on average, as well as conserving other natural resources that were used to heat and light the school buildings (Griffith, 2011). By 2008, 15% of superintendents in the country were considering a move to a 4-day schedule to relieve financial distress and to cut costs while 3% of the superintendents had already implemented a four-day week to save money (Donnis-Keller & Silvernail, 2009).

***Government mandates*.** Government activity affected public school districts and the choices of district leaders in a variety of ways. In the 1970s, the Arab Oil Embargo Act deregulated natural gas (Leiseth, 2008). This resulted in higher natural gas prices in homes and businesses. The Emergency Conservation Act of 1979 gave the president the right to enforce conservation plans across the nation (Leiseth, 2008). However, these conservation plans and the high cost of natural gas caused schools to look for a way to save money by reducing these costs. The second wave of implementation of the 4-day school week was led by a 3-year study in Maine, which began in the 1971-1972 school

year, as a direct result of the Arab Oil Embargo Act (Donnis-Keller & Silvernail, 2009; Feaster 2002; Roeth, 1985). In addition to the 3-year study in Maine, districts in New Mexico, Colorado, Oklahoma, Utah, and Oregon also used a 4-day school week to reduce the amount of money being spent on fuel as a result of this federal act (Dixon, 2011; Duchscherer, 2011; Gaines, 2008). Rural districts that utilized a great amount of fuel to transport students for over an hour each way every day of the week noticed a great increase in the amount of transportation funding needed. In response to this crisis, district leaders sought ways to reduce the use of petroleum at a district level to save programs from being cut as a result of the high prices (Duchscherer, 2011; Leiseth, 2008; Reeves, 1999).

The last and most recent wave of implementation was caused by the No Child Left Behind (NCLB) Act of 2001. In this act, student performance, measured through Adequate Yearly Progress (AYP), determined the amount of funding a school received from the federal government. These budget cuts caused district leaders to look toward innovative scheduling, like the 4-day week, which allowed teachers to continue instruction that maintained student achievement despite having fewer financial resources. These issues hit rural towns especially hard and many decided to implement a 4-day week to save valuable programs that would otherwise have been suspended (National Education Commission on Time and Learning, 2000; Leiseth, 2008; Reeves, 1999).

Public schools in Oklahoma also began using a 4-day schedule in response to government activity. On April 27, 2009, the governor of Oklahoma, Brad Henry, signed House Bill 1864. This bill allowed school districts to measure learning time in hours instead of days (National Conference of State Legislatures, 2017). Immediately following

the signing of HB 1864, schools were required to provide 1,080 hours of instruction instead of the 180 days previously required (Dixon, 2011; McNutt, 2009). Since the signing of HB 1864, an increasing number of districts have utilized the 4-day schedule. As of the 2017-2018 school year, 95 out of the state's approximately 500 districts were on a 4-day schedule. Despite the popularity of the 4-day week, not all stakeholders were supportive. In February 2017, House Bill 1684 was introduced to limit the ability of districts to use a 4-day week. As a result of this bill being passed by the Oklahoma House of Representatives in March 2017 and the Oklahoma Senate in April 2017, districts can only implement 4-day weeks for 20% of the school year unless they submit a detailed plan for approval by the State Board of Education which outlines an explanation of financial benefits for the school district (HB 1684, 2017).

Stakeholder needs. Aside from government and district causes, district leaders carefully considered the needs of the community. Not only did cutting a day's worth of travel cut costs spent on gas and maintenance of buses, it also reduced travel time for students. In rural districts, some students spent an average of 3 hours per day being transported to and from school, which translated to 10 hours out of the home altogether on average for rural students (Hale, 2007). According to a superintendent from a rural district, attendance was sometimes poor on Mondays and Fridays because parents did not always bother to wake their children for school (Hale, 2007).

A 4-day week was also an attractive way to recruit new staff members as the fifth day could be used for personal appointments and planning or preparation for the upcoming week (Delisio, 2004; Fager, 1997; Hale, 2007; Johnson, 2013; Reeves, 1999). Teachers often use their personal time to prepare materials and engage in professional

development (National Education Commission on Time and Learning, 2000). Presser (1999) noted that nontraditional hours, such as weekend and evening work outside of contracted hours, added undue stress to personal and professional relationships. The use of a 4-day week was an attractive recruitment factor for school districts (Hale, 2007). The addition of the fifth day allowed teachers the option to make personal appointments on the fifth day to prevent having substitute teachers instruct their students (Fager, 1997; Grau & Shaughnessy, 1987; Hale, 2007; Johnson, 2013). In addition, some districts provided teachers with professional development and preparation time to offset the large amount of time teachers had previously spent on their work outside of contracted time (Delisio, 2004; Reeves, 1999).

Implementation of a 4-day week. The implementation of the 4-day week gained support from stakeholders like students, teachers, administrators, parents, and community members in a variety of rural districts. The attendance of students and teachers alike was higher when using a 4-day week than when using a 5-day week in several districts (Anderson & Walker, 2015; Chamberlain et al., 2012; Donnis-Keller & Silvernail, 2009; Johnston, R., 1997; Montana Office of Public Instruction, 2009, 2011; Sagness & Salzman, 1993; Yarbrough & Gilman, 2006). In addition to better attendance and preparation for instructional hours, students in Custer, South Dakota, and many other 4-day week districts, became increasingly more involved in school activities (Delisio, 2004). While students felt more involved, there were no data to support an increase in academic achievement under a 4-day week. However, supporters of a 4-day week have noted that there is no reason to avoid a 4-day week due to lack of evidence of negative

impact on student achievement (Anderson & Walker, 2015; Beesley & Anderson, 2007; Donnis-Keller & Silvernail, 2009; Yarbrough & Gilman, 2006).

While there have been many positive results of a 4-day week, there have also been many challenges brought to the attention of district and building leaders considering the implementation of a 4-day schedule. One main concern was the amount of transition time required by all stakeholders to make this schedule run smoothly. Not only did students and teachers need time to adjust to the new schedule, teachers also had to transition curriculum to fit the needs of a 4-day week instead of a 5-day week (Hale, 2007). Reeves (1999) noted that many teachers made this transition in a similar way to the transition to block scheduling. One elementary principal involved in Hale's (2007) study noted that district leaders should give themselves at least three years to pilot a new schedule and make an informed decision (2007).

Financial. Energy costs tended to be a large portion of a school district's budget. During the 2006-2007 school year, one district's energy bills were consistently between $6,000,000,000 and $8,000,000,000, which was only second to the portion of the budget spent on staff salaries (Tharp, 2014). Cutting an entire day of travel and energy needed to heat, cool, and light the building saved districts, especially smaller districts with significantly smaller budgets, a large amount of money (Reeves, 1999).

Though financial savings were not usually as high as expected when a 4-day week was implemented, they were sometimes enough to save certain programs in smaller school districts (Duchscherer, 2011; Kordosky, 2011; Reeves, 1999). One school district in Kentucky experienced savings of $250,000 in the first year of implementation of the 4-day schedule (Duchscherer, 2011). If the building was not used on the fifth day, the

district experienced limited savings on utilities including natural gas (Leiseth, 2008). Savings on utilities usually averaged between 12% and 14% (Kordosky, 2011). District administrators also expected a large amount of savings on transportation costs. If buses were not used on the fifth day at all, districts anticipated up to 20% savings on fuel and maintenance as 20% of their use is eliminated each week (Kordosky, 2011). However, many districts found that buses were still being used on the fifth day for sporting events and other activities so savings were less than 20% of non reimbursed rates (Kordosky, 2011). Overall, altering the length of the school day allowed more flexibility with transportation, which created methods for financial savings for districts (Owens, J. et al., 2014).

One way districts took advantage of the 4-day schedule was by scheduling sporting events on the off day. This method was mainly used to stagger several sporting events with schools that required extensive travel time on Fridays and for schools that required less travel time on weeknights (Kordosky, 2011). For example, when a high school varsity football team, junior varsity football team, and volleyball team shared a bus to sporting events scheduled on the same night, the financial savings were spent on classroom needs as both travel and classroom expenses came out of the general fund (Kordosky, 2011). This kind of piggyback or staggered scheduling also made it more likely for parents to be able to attend sporting events, especially if they had more than one student-athlete.

Many district financial leaders noted additional savings in staff salaries (Hale, 2007). Because teachers still typically worked 40-hour weeks, it was rare to find a district that could cut back on certified staff salaries. However, substitute costs were reduced if

teacher attendance improved (Kordosky, 2011; Turner, 2010). The real savings were realized when considering classified staff. These staff members, who were typically paid by the hour, worked 20% fewer hours if they were not expected to attend training or meetings on the fifth day.

Student achievement. One of the most prevalent concerns for a school district outside of the welfare of children is the quality of instruction and student achievement. Because districts, buildings, and personnel were evaluated based on student performance on standardized tests, it was undesirable to make a change that would negatively impact these measures. Data from several different assessments, including the ACT, PLAN, PSAT, D STEP, and district-level writing assessments, showed that some districts implementing a 4-day week experienced an increase in student achievement (Hale, 2007; Leiseth, 2008; Steiguer, 2002; Tharp, 2014).

While there have not been any conclusive data to show that the 4-day schedule either positively or negatively impacted student achievement, some individual schools saw growth after the implementation of a 4-day schedule (Anderson & Walker, 2015; Dixon, 2011; Duchscherer, 2011; Leiseth, 2008; Weldon, 2008). A district in New Orleans, Louisiana, and a district in Minnesota reported higher standardized test scores and grade point averages following the implementation of a 4-day week (Duchscherer, 2011; Steiguer, 2002). Students in a Montana district experienced initial growth with more growth noticed in reading than math or science (Tharp, 2014).

Overall, many districts saw initial improvements in the first 2 years before a ceiling effect occurred and performance plateaued (Hewitt & Denny, 2011; Mitchell, D., 2006). The only significant finding concerning student achievement was that the 4-day

week did not negatively impact student achievement (Daly & Richburg, 1984; Herring 2010; Yarbrough & Gilman, 2006). Though district administrators might be concerned about student achievement data, Hewitt and Denny (2011) warned that concern over student achievement should not keep a district from implementing a 4-day week as the positive and negative changes in data were not statistically significant and depended on a combination of factors beyond the schedule used by the school. Anderson and Walker (2015) also suggested research be completed using the appropriate econometric and panel data to truly understand the impact of the 4-day week on academic achievement.

Aside from initial growth in student achievement during the school hours in districts implementing a 4-day schedule, additional benefits were experienced during the fifth day. Some districts offered remediation on the fifth day to provide more frequent review for struggling students (Johnston, R., 1997). When the fifth day was used for remediation, students were motivated to be more productive during the 4 days so they could enjoy their day off with the rest of their peers (Chmelynski, 2003). Even if students did not have the opportunity or requirement to attend school on the fifth day, they still had a good chance of receiving some academic benefit from childcare facilities or time spent with parents and other adults (Anderson & Walker, 2015). The factor that showed a positive impact on student achievement was time on task (Hale, 2007; National Education Commission on Time and Learning, 2000) Hale (2007) noted that the 4-day school week allowed for less interruptions in instructional time, which helped students and teachers stay on task and focus on academic behavior. District data also showed schools reduced the amount of nonacademic time, such as transitions and breaks, which

resulted in fewer discipline problems (Duchscherer, 2011; Geranios, 2006; Litke, 1994; Parker, 1998).

Stakeholders had concerns about students retaining content knowledge when a 4-day week was implemented (Anderson & Walker, 2015; Gaines, 2008; Hale, 2007). Not only did students have the same extended breaks in the summer as in they would in a traditional schedule, they also had longer breaks over the weekend. This concern was well founded; research showed younger students and students receiving special services often required additional support to remember content and procedures on the first day of the school week after a 3-day weekend (Hale, 2007; Montana Office of Public Instruction, 2009; Wilmoth, 1995).

Implications for teachers, staff, and students. While Liechty and Anderson (2007) warned that changes should not make worker convenience a priority of over efficiency, there are important considerations to be included when considering school schedules. While student achievement was an important factor, school leaders also considered the impact of the change from the teacher, staff, and community point of view. There are several factors that affect a variety of stakeholders, including morale, fatigue, student and staff attendance, and student involvement.

Morale and attitude. Research showed positive stakeholder morale helped schools reach their goals. Student morale increased in the limited studies on the topic of the impact of a 4-day week on morale (Duchscherer, 2011; Johnson, 2013). In addition, parents were satisfied with the consistent schedule supported by a 4-day week after implementation occurred (Duchscherer, 2011; Johnson, 2013). Both students and families felt more stable in this schedule (Kordosky, 2011; La Valle, Arthur, Millward, Scott, &

Clayden, 2002). In fact, the majority of community members in areas with a 4-day school week supported the schedule and were happy with the changes (Hale, 2007; Plucker et al., 2012). In addition to student, parent, and community support, staff morale showed an increase as well (Duchscherer, 2011; Johnson, 2013; Kordosky, 2011). Many staff members preferred the 4-day week over a 5-day week (Dam, 2006; Duchscherer, 2011; Durr, 2003; Featherstone, 1991; Kordosky, 2011; Rouse, 2006). This increase in morale made recruitment easier and was linked to an increase in teacher retention (Ferak, 2006; Koki, 1992; Kordosky, 2011; Rouse, 2006). Though patterns suggested that workers were happier with flexible scheduling, their feelings could have been due to secondary effects like more time with family and for leisure activities, not actually from their work (McGuire & Liro, 1986).

Overextension. Approximately two thirds of adults in the United States worked during weekend or evening hours (Presser, 1999). Ironically, Presser (1999) did not include teachers in this number even though teachers had access to resources that allowed them to frequently spend evening and weekend hours on school-related work. When adults felt the need to work on the weekends, it eroded their mental health because it prevented them from spending quality time with their partner and having leisure time to recharge for the upcoming week (Strazdins, Clements, Korda, Broom, & D'Souza, 2006). Weekend work also had a negative impact on family interactions and was linked to divorce, depression, and ineffective parenting (Strazdins et al., 2006), so having the opportunity to have a week day to complete necessary work was key to positive family relationships for teachers.

Having an extra day to prepare each week also led to improved mental health (McGuire & Liro, 1986; Schultz & Hoffman, 2006). The introduction of a 4-day schedule also allowed teachers the option to use the fifth day to prepare lesson plans and complete grading, while providing a weekend for personal use (Delisio, 2004; Reeves, 1999). When teachers used the off day for personal appointments, they avoided the need to prepare for a substitute teacher (Fager, 1997; Johnson, 2013; Hale, 2007). A secondary principal noted teachers were more willing to stay on task during contracted time because they knew they had a longer break in the near future (Grau & Shaughnessy, 1987; Hale, 2007). Hale (2007) also noted that reducing the amount of overextension for teachers was attractive for recruitment.

While some classified staff hours were cut by 20%, others were rearranged to take advantage of the extra time without students. For example, custodians took advantage of time without students to complete tasks that were more time consuming and difficult to complete with students present. These tasks, like deep cleaning, painting, and landscaping took place on the fifth day instead of being prolonged and completed over the summer (Kordosky, 2011). More frequent cleaning, maintenance, and building updates resulted in less wear and tear on school buildings and materials, which helped prolong the lifespan of these physical resources (Poor, 2010). Similarly, custodians used their time more effectively when students were present. By reducing the number of days, the amount of time spent setting up and tearing down for meals was reduced (Poor, 2010). The same was true for cleaning up messes created during the learning process and throughout the normal school day.

Staff fatigue during the school day and week was another concern when transitioning to the 4-day school week (Anderson & Walker, 2015). With longer days and more uninterrupted instructional time, teachers typically did not receive an extended or proportional amount of break time and collaboration time compared to break and collaboration time in a 5-day week (Duchscherer, 2011; Hale, 2007). Kindergarten teachers were excited about the longer days but some teachers reported exhaustion (Hale, 2007). Twenty-four percent of teachers in one study reported increased fatigue and stress due to longer days (Sagness & Salzman, 1993). Some elementary teachers even described their exhaustion as feeling "whipped" (Hale, 2007, p. 92) by Friday.

Student overextension and fatigue were among the biggest concerns of parents and teachers when transitioning to a 4-day school week as the school days were lengthened to accommodate the new schedule (Beesley & Anderson, 2007). In one school that transitioned to a 4-day schedule, 42% of parents noticed their children were fatigued by the end of the extended school day (Sagness & Salzman, 1993). It was also noted that students with extended school days were less productive in the afternoon hours due to drowsiness or fatigue (Delisio, 2004; Guignon, 1998; Plucker et al., 2012). Yarbrough and Gilman (2006), on the other hand, did not notice any adverse effects from fatigue. Part of these statistics can be attributed to the lack of patterned sleep on weekends and non school days (Kordosky, 2011).

Being sleep deprived leaves American children "…at risk for… impairments in mood, affect regulation, attention, memory, behavior control, executive function and impulse control" (Owens, J. et al., 2014, p. 182). In addition, sleep deprivation has been shown to have a role in the increase of absenteeism, tardiness, and motivation, all which

affected student achievement and health (Curcio, Ferrara, & De Gennaro, 2006; Owens, J. et al., 2014; Wolfson & Carskadon, 2003). Perhaps one of the most concerning factors is the direct relationship between sleep deprivation and weight gain and obesity (Cappuccio et al., 2008). Exhaustion-related sports injuries and accidents caused by drowsy driving are another pair of serious concerns for older and more active students (Owens, J. et al., 2014). To combat student fatigue, and its many possible side effects, schools have tested different options. Some districts decreased annual seat hours to reduce the intensity of the school year (Kordosky, 2011).

Attendance. Having teachers present to foster positive relationships with students and clarify instruction and expectations benefitted student achievement and attitudes toward school (Johnston, R., 1997). According to Hattie (2009), teacher-student relationship and teacher clarity have a large impact on student achievement with a .72 and a .75 impact respectively. Increased teacher attendance also helped reduce turnover (Anderson & Walker, 2015; Chamberlain & Plucker, 2003; Dam, 2006; Sagness & Salzman, 1993; Yarbrough & Gilman, 2006). For this reason, it is optimal to have teachers in the classroom as much as possible. Studies showed that teacher absenteeism decreased up to 20% during instructional time when the 4-day week was implemented (Chamberlin & Plucker, 2003; Dixon, 2011; Duchscherer, 2011; Kordosky, 2011; Reeves, 1999).

Student attendance increased as much as 10% with the implementation of a 4-day school week (Anderson & Walker, 2015; Hale, 2007; Hewitt & Denny, 2011). Though this sounds like a significant improvement, most data on attendance with a 4-day week were not statistically significant (Anderson & Walker, 2015). Kordosky (2011) attributed

improvement in attendance to students who were worried about missing a significant amount of instruction due to the 4-day schedule. It was also noted that parents were more likely to commit to their child's education 4 days per week instead of 5 days by scheduling appointments and family trips on the fifth day (Fager, 1997; Grau & Shaughnessy, 1987; Hale, 2007; Johnson, 2013). This reduction in student absences increased the overall number of instructional hours for students, specifically for athletes whose games were moved to off days (Anderson & Walker, 2015). Overall, attendance for students increased with a 4-day schedule, as well (Anderson & Walker, 2015; Donnis-Keller & Silvernail, 2009; Johnston, J., 1987; Montana Office of Public Instruction, 2009, 2011; Plucker et al., 2012; Sagness & Salzman, 1993; Yarbrough & Gilman, 2006).

The impact of absenteeism changed as the 4-day schedules were implemented. If students missed one day of instruction due to illness, they missed 20% more instruction than if they missed one day of school in a 5-day schedule (Gaines, 2008). This led stakeholders to be concerned about students falling behind more quickly when using a 4-day schedule than they would if they were using a 5-day schedule (Hale, 2007). While many researchers speculated about the benefits of a 4-day schedule on absenteeism and student engagement, studies have not produced significant data for attendance or student dropout rates in regard to the 4-day schedule (Hale, 2007; Leiseth, 2008).

Student involvement. Student involvement in extracurricular activities increased by 24% in the Custer School District in South Dakota when a 4-day schedule was implemented (Hewitt & Denny, 2011). While this increase was not typical, several other districts noticed an increase in student involvement in extracurricular activities despite the later release time (Hewitt & Denny, 2011; Owens, J. et al., 2014). Delisio (2004)

noted that this increase was due to a feeling of more free time on the part of students. Some districts that used Friday as the fifth day arranged for extracurricular activities that required long trips to be on Fridays or Saturdays so students did not have to miss school throughout the week (Hale, 2007). Because extracurricular events were planned up to 3 years in advance, Hale (2007) noted the importance of planting the seeds of change by aligning extracurricular schedules with the new schedule prior to implementation.

Students were also more likely to become involved in their community with the implementation of a 4-day school week. The Red Cross in several communities offered babysitting and First Aid courses for high school (Donnis-Keller & Silvernail, 2009). This allowed students to be marketable as babysitters in the community to help parents that would otherwise not have affordable child care for their children (Plucker et al., 2012; Kordosky, 2011). Students had the opportunity to work jobs and be involved in internships to better prepare themselves for the future (Plucker et al., 2012). Hale (2007) noted that some students also became student tutors when the fifth day was used for remediation. Not only did this benefit the tutor, this provided opportunities for students needing extra help to have one on one remediation with an older student and assisted the classroom teacher (Hale, 2007).

Implications for the school community. Educational change caused discomfort for all stakeholders involved if not approached properly (Kordosky, 2011). Without appropriate parent and community input, the implementation of a 4-day school week lacked the support of these groups that were vital to a successful implementation (Beesley & Anderson, 2007; Plucker et al., 2012). Delisio (2004) suggested that districts with less than 75% approval from the community for a 4-day week stay with a 5-day

schedule. Upper administration worked with all stakeholders to create a program that met the needs of the community in successful cases of implementation of the 4-day week (Hale, 2007).

One of the biggest factors that caused resistance toward a 4-day schedule was child care for the fifth day (Keen, 2007; Kordosky, 2011). Single parents or parents that work full time often relied on the school for childcare and mentioned they would have to rethink their career paths if a 4-day week were implemented (Gaines, 2008; Herring, 2010). In addition, the cost of childcare for the fifth day caused concern among working parents (Kingsbury, 2008). Without careful discussions, planning, and reflection regarding child care for the fifth-day, community members showed some opposition to the extra work and cost associated with the transition to a 4-day school week (Plucker et al., 2012; Johnson, 2013; Hale, 2007).

Another concern was the availability of food for students receiving free/reduced lunch and breakfast at school. Cutting one day of school each week meant potentially taking away three meals from these students right before the weekend (Callahan, 2011; Plucker et al., 2012; Weldon, 2008). Teachers voiced concern about students receiving free/reduced lunch benefits, but Kordosky (2011) noted that volunteers from some communities came together to provide lunches and extra backpacks filled with food for the children to take home over the long weekend. Parents did not express these same concerns (Kordosky, 2011).

Though the availability and cost of childcare for students was a concern for parents of younger students, many community members were also concerned about the actions of older students on the fifth day of a 4-day schedule. With students out of school

one extra day per week, community members frequently worried that these students would cause problems within the community on their day off. Few studies have actually considered the impact of a 4-day week on crime rates. Kordosky (2011) noticed no change in crime rates but noted more research must be done to fully understand the impact of this schedule change.

Kordosky (2011) found that at least 16 of the 37 weeks in an average school year were not full day weeks due to professional development and holidays, creating a lack of consistency for parents, especially those of younger students as child care or after-school care was more expensive and harder to find (Strazdins et al., 2006). Parents were able to find more consistent childcare when a 4-day schedule was implemented compared to when a 5-day schedule was implemented (Johnson, 2013; Kordosky, 2011, National Education Commission on Time and Learning, 1994). This also helped childcare providers staff their businesses accordingly for the fifth day. In some communities, organizations like YMCA and 4H planned special events for the fifth day of the week for families that only needed childcare on this day of the week (Plucker et al., 2012). Instead of sending students home for workdays sporadically throughout the month, it made more sense to bring teachers in for professional development on a set day each week so parents had a consistent schedule (Kordosky, 2011).

In addition to supporting a consistent schedule for parents, the extended days in a 4-day school week also reduced the amount of time students were home alone after school (Kordosky, 2011; Colorado State Department of Education, 1999; Leiseth, 2008; National Education Commission on Time and Learning, 2000). A child's well being depends on the quality of his or her family's relationship (Cummings, 1994; Repetti,

Taylor, & Seeman, 2002; Strazdins et al., 2006). Giving students more time with their parents in the evening, instead of at a childcare facility or at home alone, allowed children and parents to maintain their relationships (National Education Commission on Time and Learning, 2000).

Change process and transition. Owens, J. et al. (2014) and Kordosky (2011) noted the importance of informing and engaging all stakeholders, including staff members, in the change process early on to provide feedback for potential concerns. Owens, J. et al. (2014) also noted that it was effective for community members, partner organizations that use district facilities, and other businesses that provide services for students to be informed, as well. Johnson (2013) noted that the transition received full buy-in from the community when administrators publicly supported the process. Once the community members understood the process of the alternative schedule, they were much more likely to make changes to support the new schedule and rally together to provide for those in need (Plucker et al., 2012). The implementation of a transition period also helped ease family members and perhaps, most importantly, staff, into the process. In addition, Wagner (1994) noted that the transition process was most seamlessly implemented when the core values of the community were emphasized in the change process.

Another challenge in the transition process was transitioning school curriculum to fit a 4-day schedule. Typically, curriculum is structured for a 5-day schedule, especially at the elementary level (Kordosky, 2011). Teachers and district administrators worked together to determine if the current curriculum could be adjusted appropriately or if a new path of instruction was needed (Leiseth, 2008). One accommodation some school districts made was to teach 2 days of content on the final day of the week to stay on pace

with a 5-day schedule (Kordosky, 2011). Depending on the district, building, and leadership style of the administration, more flexibility led to more managerial problems (McGuire & Liro, 1986) and more stress (Liechty & Anderson, 2007). There was not a one-size-fits-all solution to this problem and districts were forced to carefully consider what would be the best for their students and stakeholders (Owens, J. et al., 2014).

Use of Time in the School Setting

While the school calendar has not been altered in several centuries, the amount of non academic topics and activities teachers are required to add to the school day has increased (Dillon, 2010). During the 1993-1994 school year; elementary students spent only 68% of their time on core subjects (Bobbitt, Perie, Baker, & Bobbitt, 1997). Secondary students spent about three hours on core subjects as a result of nonacademic activities such as pep rallies, lunch, and passing periods (National Education Commission on Time and Learning, 2000). Extracurricular activities were usually held after school but resulted in the loss of about seven academic days per year per for each students involved in an extracurricular activity (National Education Commission on Time and Learning, 2000).

Little to no relationship between time in school and student achievement has been found (Zimmerman & Schunk, 2001). However, Zimmerman and Schunk (2001) and Marzano (2003) noted there seems to be some relationship between the amount of time students are engaged and student achievement, and even more relationship between specified academic learning time and student achievement. Other countries clearly distinguished between the academic day and the school day and were sure to avoid using any of the academic day to do nonacademic activities (National Education Commission

on Time and Learning, 2000). In addition, school leaders in these countries gave students time to learn outside of the school setting (National Education Commission on Time and Learning, 2000). Germany and Japan, two high-achieving countries, allowed for twice as much core instruction as schools in the United States (National Education Commission on Time and Learning, 2000). Students in these countries received twice the amount of time to learn the same content American students learned. According to the National Education Commission on Time and Learning (2000) and Dixon (2010), the amount of academic and nonacademic content increased in American schools while the amount of time spent at school remained the same. Overall, student achievement was most closely related to the quality of the instructional time (Hale, 2007). An effective teacher yielded better results despite the amount of time spent on subject. However, when a teacher utilized both effective instruction and classroom management, time was found to be an important component of student achievement (Leiseth, 2008).

School Culture

The second focus of this study is the importance of the 4-day week on school culture. Individuals in or affected by a specific organization, specifically leaders of organizations like educational administrators, have a vested interest in better understanding the culture of that organization to anticipate the response to change (Schein, 2017). School culture is a phenomenon that does not have one formal definition but has been called "software for the mind" by Hofstede, Hofstede, and Minkov in their 2010 work with the same name, a social indoctrination of beliefs (Schein, 1992) or, most simply, "the way we do things around here" (Deal & Kennedy, 1982, p. 4). Perhaps one of the more dynamic definitions defines group culture as

> ... the accumulated shared learning of that group as it solves its problems of external adaptation and internal integration; which has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, feel and behave in relation to those problems. This accumulated learning is a pattern or system of beliefs, values, and behavioural norms that come to be take for granted as basic assumptions and eventually drop out of awareness. (Schein, 2017, p. 6)

Culture controls everything from what one wears to who is promoted. It is developed based on the needs of the most important groups within the organization (Schein, 2017). While the most important group in schools should be students, sometimes a group of teachers, parents, and/or business leaders have had more influence in creating the culture of a school or school district (Fullan, 2001). In other scenarios, factors within the local environment had a bigger impact on the culture of the school. Socioeconomic status and needs of the community, among other factors, work together to determine the greatest needs of the community and help teachers understand what the product of the school must be (Schein, 2017).

The term *culture* was originally developed by anthropologists as a way to differentiate between different tribes and nationalities (Deal & Peterson, 2016). Anthropologists have noticed that people band together to meet the innate need of making sense of their surroundings (Schein, 2017; Trice & Byer, 1993; Weick, 1995). As individuals band together to better understand their surroundings, they begin to adopt the same expectations and views on issues and pass these down from generation to generation (Gruenert, 2008). Individuals even begin to internalize group norms and act

according to them, in an action coined *sociocentric thinking,* without adequately questioning the integrity of either the beliefs or the actions (Elder & Paul, 2012). Despite the long history of school culture, there is still much that is not understood regarding this phenomenon.

Though culture can be equated with branding for the school, it is not always intentional or as straightforward as branding in the marketing world. Members of a culture have been likened to a fish that is the last creature on Earth to discover water as it is so completely immersed that it does not recognize the differences in its own surroundings (Barth, 2002; Schein, 2017). Similarly, guests in the building, such as substitute teachers and student teachers, can sense the culture of the building much better than staff members because staff members are immersed in the culture daily and most likely have had a role in creating the culture of the organization (Gruenert, 2008). Because culture is derived from the values individuals in the group share, it is hard to determine the subtle nuances of the culture (Barth, 2002; Schein, 2017).

Culture is sometimes confused or used synonymously with climate. While culture is broad, encompassing, and enduring, climate can change with much less thought and intention. For example, when a snow day is announced midday, the school's climate changes rapidly while the school's culture remains the same (Gruenert & Whitaker, 2015). This study examines the deeper lying values, beliefs, and perceptions that impact culture, rather than the day-by-day or year-by-year feelings that influence climate.

Types of school cultures. While all groups have a culture, or a set of actions, words, and thoughts that are expected from the members, not all cultures were found to be the same or as effective in the educational setting. Some classifications of culture,

listed from most effective to least effective, are collaborative, comfortable-collaborative, contrived-collegial, balkanized, fragmented, and toxic (Deal & Kennedy, 1999; Fullan & Hargreaves, 1996; Gruenert & Whitaker, 2015). Research on school culture suggested a collaborative culture was also the most effective for student achievement (Chance, Cummins, & Wood, 1996; Deal & Kennedy, 1999; Deal & Peterson, 2016; Fullan & Hargreaves, 1996; Gruenert, 1998; Hargreaves, 1991; Kain, 1996; Little, 1982; Lortie, 1975; Newmann & Wehlage, 1995; Rosenholtz, 1989; Sarason, 1996; Schein, 2017; Schlechty, 1997; Wagner, 1994). The presence of a collaborative culture also had a strong relationship with student motivation, achievement, and learning (Demirtas, 2010; Gligorović, Nikolić, Terek, Glušac, & Tasić, 2016; Louis & Wahlstrom, 2011). Strong and effective school culture not only affected student performance, it also enhanced the experience of teachers. Cheng (1993) noted that effective, collaborative school cultures consisted of shared participation, charismatic leadership, and intimacy, and led to higher teacher job satisfaction and increased productivity.

Impact of school culture. While it is hard to measure school culture, or even determine what a good culture looks like, understanding the impact of culture is necessary for any leader wishing to have teachers that positively impact student achievement and productivity (Leithwood & Louis, 1998; Leithwood, Louis, Wahlstrom, & Anderson, 2004; Levine & Lezotte, 1990; Newmann, 1996; Purkey & Smith, 1983). School culture has more influence on student performance than any stakeholder, including the superintendent (Barth, 2002). A positive school culture improves collegiality, communication, and problem solving between all stakeholders and students (DuFour, 2007; Fullan, 2011; Kruse & Louis, 1997; Little, 1982; Peterson & Brietzke,

1994). Additionally, research showed that school culture is difficult to measure, but much easier to feel (Schein, 2017). For example, school culture helped individuals understand how much of their personality or personal life they should reveal to their coworkers (Schein, 2016, 2017). Understanding how they fit into their work community helped individuals determine their basic identity and defined the values that provide self-esteem (Hatch & Schultz, 2004; Schein, 2017). Culture also dictated how members of the group thought, acted, and responded to different initiatives, like the introduction of a 4-day school week, or other stimuli, if they wanted to be considered part of the group (Schein, 2017). The Hawthorne studies revealed that culture even had the power to influence individuals to take economic losses to remain part of the culture (Homans, 1950; Roethlisberger & Dickson, 1939; Schein, 2017). Being part of the group built commitment and kindled motivation (Fullan, 2011; Schein, 2017). It also amplified the energy, vitality, and trust within the group (Tschannen-Moran, 2014).

Impact of culture for educational leaders. Research showed that culture impacted every aspect of the school (Deal & Peterson, 2016). For this reason, one of the most significant roles of a leader was to develop and manage the culture of the organization (Deal & Peterson, 2016; Schein, 1985). It was determined there was a strong relationship between the interactions of principals and teachers and the overall culture within a district or building (Bulach, Boothe, & Pickett, 2006). A positive school culture was a factor in positive work environments characterized by openness, professionalism, trust, commitment, pride, a sense of collegiality, and academic excellence (Gruenert, 1998; Hoy, Tarter, & Kottkamp, 1991).

Anderman, Belzer, and Smith (1991) found that school culture was highly predictive of teacher satisfaction and commitment to the profession. In addition to school culture, environmental factors like administrative control and actions were also directly related to teacher satisfaction (Chen & Sun, 1994; Gligorivić et al., 2016; Ma & MacMillan, 1999). Zappos founder, Tony Sieh, advised, "If you deliver happiness to employees they'll do the same for customers" (Deal & Peterson, 2016, p. 2). If teachers were happy, the students were much more likely to be happy and productive, as well (Deal & Peterson, 2016). When school leaders understood the relationship between teacher satisfaction and school culture, they could begin to make changes to improve the culture, which ultimately had a positive impact on student performance (Gligorović et al., 2016).

Though leaders may not always be focused on building or analyzing culture, their actions continuously set the tone for their district and/or building. What leaders praised, ignored, rewarded, or responded to in anyway became ingrained in the culture (Schein, 2017). In fact, informal messages or rituals set by the leaders were much more powerful than direct instruction including both teaching and coaching (Schein, 2017). While leaders established the culture, eventually the culture established the role of the leader (Deal & Peterson, 2016; Schein, 2017). For example, as leaders developed collaborative leadership within the organization, the leader eventually had less of a managerial or administrative role and became more of a support system for his or her staff members.

Impact of culture on change. In the field of education, strong cultures were found to be stable and hard to change, which is counterintuitive to a system that is continually in a state of change (Schein, 2017). However, having a strong, stable culture

strengthened organizations throughout difficult change processes, as culture trumped other factors like a strong vision and mission (Gruenert, 2008). Understanding the norms, rituals, and beliefs of the group helped leaders predict outcomes and helped individuals make sense of change in a meaningful way (Schein, 2017).

A positive school culture provided the framework for teachers to overcome challenges within the workplace and gave them the energy, commitment, and loyalty required to complete difficult tasks (Owens, R., 2004). Culture also dictated how members in the group related and reacted to newcomers and new ideas based on the collective perceptions of behaviors in the school (Barley & Kunda, 2001; Hoy & Miskel, 2008; Kunda, 1992). Positive school culture promoted innovation and improvement (Deal & Peterson, 1990; Fullan, 2001, 2011; Kruse & Louis, 1997; Little, 1982; Louis & Miles, 1990; Smylie, 2009; Waters, Marzano, & McNulty, 2004). This included changes in the use of time within the district, such as the implementation of a 4-day schedule. School culture played a large role in the reality of this time use and how individuals acted in regard to alterations to time (Hall, 1959, 1966). This reaction to change was influenced by the focus on what was important and valued, as defined by the school culture (Deal & Kennedy, 1982; Fullan, 2011; Schein, 1985).

Research suggested teacher attitudes should be considered prior to implementation of any initiative to ensure support from staff members (Owens, J. et al., 2014). While successful cultures highlighted change and made it a positive (Deal & Peterson, 2016), Kordosky (2011) noted, "consensus is overrated. Not everyone is going to agree, but a majority of stakeholders should" (p. 85). In fact, it was suggested that administrators have buy-in from 90-95% of staff before implementing any change

initiative (Hewitt & Denny, 2011; Richburg & Wood, 1982). Culture served as a guardrail that prevented change from happening at too liberal of a pace (Schein, 2017). This created a positive outlook on the process and provided comfort to those who believed that the old way was the best way. Understanding how to assess and analyze culture helped leaders effectively introduce new initiatives.

Impact of toxic culture on organization. While a collaborative culture had many positive results, toxic cultures can cripple an organization and remove all meaning from belonging to a group (Deal & Peterson, 2016). In the worst circumstances, mistrust and revenge damaged any emerging signs of collaboration and reversed any progress that had been made (Tschannen-Moran, 2004). A toxic culture sometimes resulted in an increase in absenteeism and mobility of staff, as well as lower academic performance, less trust, and an overall negative environment (Deal & Peterson, 2016). Not only did a toxic culture bring negativity into the organization, the champions of this culture tended to drive the positive, pleasant, and successful staff members out of the building, removing any hope for a peaceful change in culture (Deal & Peterson, 2016).

Six elements of a positive, collaborative school culture. Research showed that a collaborative culture was the most effective culture for an educational organization (Deal & Kennedy, 1999; Deal & Peterson, 2016; Fullan & Hargreaves, 1996; Gruenert, 1998; Schein, 2017). It has been noted that the loss of collaboration time within a culture led to members just "going through the motions of teaching" (Schein, 2017, p. 209) instead of engaging in reflective processes of their practice. Overall, culture was most successful when it was collaborative in nature so the mindset of the group did not become fixed and complacent as in the comfortable-collaborative culture (Dweck, 2007; Greunert &

Whitaker, 2015). To build and maintain a collaborative culture, an organization must have six components: collaborative leadership, teacher collaboration, professional development, collegial support, unity of purpose, and learning partnership (Gruenert & Whitaker, 2015).

Collaborative leadership. In the educational setting, the role and importance of collaboration is determined, either directly or indirectly, by the leaders within a school district (Schein, 2017). To create a collaborative culture, leaders created conditions where satisfaction and productivity occurred (Gruenert, 2008). This included the ways in which members of the organization worked with each other and the ways they worked with other leaders (Gruenert & Whitaker, 2015). One way a culture of satisfaction and collaboration was maintained was to allow members of the organization to be involved in the leadership process. This enhanced trust between the members of the organization and between the members and the leader (Deal & Peterson, 2016). While it was highly effective to include organizational members in the leadership process, successful leadership situations were carefully created using knowledge of the organizational goals of the system and the strengths and weaknesses of the individuals who were given leadership roles (Bolman & Deal, 2008). It was also important for leaders to consider the amount of power being given to organizational members. If the culture, or a subgroup, controlled the organization, then the leader only managed, not doing his or her job effectively (Gruenert, 2008). Organizations are most successful when the administrator was still the leader of the group and director of the vision, even if leadership roles were shared among members of the group.

Teacher collaboration. Teacher collaboration promoted constructive dialogue, which helped teachers feel like part of a community (Gruenert, 2008). Gruenert (2008) also noted that the sharing of ideas and teaching strategies helped to further the vision and mission of the district by ensuring more teachers were using effective strategies and methods. In addition to creating a positive environment for teachers, schools that fostered positive social and professional relations among teachers and other staff members reported higher student achievement (Heck & Marcoulides, 1996). No teacher exists in isolation so in most schools, teachers were given time to work, plan, and reflect collaboratively (Schein, 2017). If collaboration was not allowed and encouraged, great ideas that were developed in one part of the organization were not shared with other members of the school community (Schein, 2017).

Teacher collaboration, if monitored and guided appropriately, was a factor in improving morale, preventing the culture from becoming toxic and furthering the vision and mission of the school (Gruenert, 2008). In contrast, schools that did not encourage and support teacher collaboration slipped into a pattern of meaningless collaboration and experienced a lack of motivation, commitment, and loyalty to the vision and mission of the school district (Deal & Peterson, 2016; Gruenert, 2008). The same issues that plagued the teachers in a toxic culture were also experienced within the subcultures of students, parents, and, perhaps most worrisome, administrators (Deal & Peterson, 2016; Gruenert, 2008). Overall, positive cultures had cohesion, passion, commitment, and extensive interactions between teachers (Deal & Peterson, 2016).

Professional development. In order to be effective and conducive to the development of a collaborative culture, professional development was most effective

when it focused on continuous personal development, as well as school-wide improvement (Gruenert, 2008; Senge, 1990). The development of a positive, collaborative culture was directly related to planning and problem solving, which were developed through effective professional development (Deal & Peterson, 2016). One way schools prevented the complacency caused by the fixed mindset in a comfortable-collaborative culture was through professional development (Dweck, 2007; Gruenert, 2008). When partnered with teacher collaboration, professional development created a team-learning process that helped individuals become more effective with the support of their peers (Edmondson, 2012; Schein, 2017; Senge, 1990). Professional development helped build a collaborative culture when it was used to truly grow the staff based on student needs.

Unity of purpose. Teachers, as a subculture, have always had a common purpose. This purpose was developed through many experiences teachers go through such as teacher training programs, professional development, parent-teacher relationships, and community support (Schein, 2017). However, other macro cultures such as nationality, ethnicity, and religion also had an impact on culture and affected the purpose individuals felt for teaching (Schein, 2017). At the organizational level, Senge (1990) noted that a shared vision was necessary within a functional organization. Ensuring each individual within the organization had a clear personal vision led to more success in developing an organizational vision (Barth, 2002). Self-understanding was important to a shared vision because it helped individuals understand their role in achieving the mission and how that aligned with their personal priorities. Finally, the personal visions were paired with a

strong collective vision that made teachers feel as though their work was important (Barth, 2002; Senge, 1990).

In successful cultures, the unity of purpose, or a shared vision, also extended to the community. Cavanagh, MacNeill, and Reynolds (2004) noted that schools with collaborative cultures that established their common beliefs and values surrounding student learning and used them to create a common vision or mission that guided decision-making typically had a stronger culture with greater student success. When the community shared the purpose and vision of the organization, members were involved in the dreaming of and planning for the future of the organization (Deal & Peterson, 2016). This planning process was supported by publicly announced principles, espoused values, and formal philosophies that helped stakeholders understand the beliefs and direction of the district (Schein, 2017). As the community became involved in the development of the organization, the culture adapted to reflect the values of the community by respecting and building on strengths and improving weaknesses (Deal & Peterson, 2016). Eventually, students became involved in this process, as well (Deal & Peterson, 2016).

Collegial support. Collaborative planning and sharing were necessary in a positive culture (Deal & Peterson, 2016). However, a sense of community beyond the workplace also helped teachers feel more comfortable within the organization. Good leaders understood the impact of a powerful subculture combined with the leader's faith in that subculture (Gruenert, 2008; Schein, 1992). While subcultures gained support for the organization, successful leaders were careful because empowering the wrong subculture led to resistance of all change (Gruenert, 2008).

Collegial support had both a positive and negative impact on culture depending on the actions of the leader. The interaction of colleagues established the beliefs, values, and behavior patterns that led to success within the culture as well as the beliefs, values, and behavior patterns that led to failure (Schein, 2017). The members of an organization, more than the leaders, established the acceptable behaviors and beliefs within a group. Positive collegial support helped develop a sense of group efficacy, which led to an increased energy that resulted in improvements being made to the system (Goddard, Hoy, & Hoy, 2004; Tschannen-Moran, 2014).

Learning partnership. In true learning partnerships, stakeholders moved beyond simply sharing a purpose with the organization and became active members of the organization itself. Not only did the community support the schools financially, it was essential that they cooperated with and responded to the deeper needs of the school for it to truly be successful (Gruenert, 2008). However, it was not the sole responsibility of the community to accommodate the school district. Effective district leaders understood that they must make alterations to their current practice to support the community, as well (National Education Commission on Time and Learning, 2000). Another benefit of creating partnerships with community members and organizational members was understanding and developing the role of parents in the education process. When parents and teachers used punitive measures to motivate learning, such as threats and removal of desired privileges, the school partnered in a collaborative way to change the culture. When all parties worked together to separate learning from punishment and allowed students to learn out of interest and creativity, much more meaningful learning occurred (Barth, 2002).

Summary

Chapter Two reviewed existing literature and research about concepts related to the 4-day week. Traditional schedules and additional alternative schedules, like the year-round schedule and the block schedule, were also examined to better understand the context in which alternative schedules may be implemented. The history of the 4-day week in Oklahoma was also examined. This chapter concluded by reviewing research and information related to school culture.

Chapter Three will describe the method and tools used to collect data concerning teachers' perceptions of school culture. Chapter Four will give an overview of the findings from the study described in Chapter Three. Chapter Five will provide a summary of this study, give recommendations, and outline implications for any educational leaders considering a 4-day schedule or educational researchers looking to further this study.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

Anderson and Walker (2015) noted that most research completed on 4-day weeks examines the impact on student achievement or financial savings. However, Schein (2017) notes the importance of school culture in further success of the school, especially when considering student achievement. The researcher elected to complete this study to understand teachers' perceptions of the impact of a 4-day week on school culture to add to the body of research and address a gap in research. Schein (2017) also noted that school culture is most easily accessed through the use of qualitative data. However, the use of a qualitative study limits the number of participants that can be included in a study. The researcher chose a quantitative approach to this study to broaden the scope of participation.

A detailed overview of the research process established for this study will be reviewed in this chapter. It includes the method for selecting the participants included in the sample, the research procedures, and the research design. This chapter will also outline the tool used to collect data and the appropriateness, validity, and reliability of the tool. Chapter Three will also include information regarding how data were collected and kept confidential and secure throughout the research process.

Participants

Participants were selected based on the criteria of the schedule used within their building and the size of their school district. To identify potential participants, the researcher located enrollment and schedule information from Oklahoma's Department of Education Web site. Participants in the state of Oklahoma were selected because of the

relatively large number of schools implementing a 4-day week compared to neighboring states. Kindergarten through 12th grade teachers from 213 public schools utilizing a 4-day week in the 2017-2018 school year were included in this study.

The researcher used a purposive sampling to select participants using a 5-day school week to be included in this study. The definition of purposive sampling is "the process of selecting a sample that is believed to be representative of a given population" (Gay, Mills, & Airasian, 2009, p. 134). A purposive sampling was necessary because there were more schools utilizing a 5-day school week than a 4-day school week. In order to have an accurate sampling, schools implementing a 5-day school week were qualified to be part of the sampling pool if they had a student enrollment within the boundaries for this study. Based on this purposive sampling, kindergarten through 12th grade teachers from 213 public schools utilizing a 5-day week in the 2017-2018 school year were included in this study.

In accordance with the guidelines of Southwest Baptist University concerning the protection of human participants, a request for review was submitted to the Research Review Board (RRB) for approval to distribute and collect the surveys. When the RRB approval was received, district leaders were contacted to begin the data collection process. Because this study provided participant confidentiality, no harm to participants was predicted. Teachers provided consent through completion of the online survey. The surveys were offered online. After two weeks, the researcher contacted all participants and reminded them to complete the survey.

Research Question and Hypothesis

The purpose of this study was to understand teachers' perceptions of the impact of a 4-day week on school culture. The researcher identified schools implementing a 4-day school week and comparable schools using the more traditional 5-day week. The researcher used the School Culture Survey (SCS) to collect data concerning teacher attitudes about culture in schools implementing both 4-day and 5-day weeks (Gruenert, 2008). The following research question was addressed: What are the differences in the perception of school culture between teachers using a 4-day school week and those using a 5-day school week? For the purpose of this study, the null hypothesis was used. The hypothesis was as follows: There will be no significant differences in the perceptions of school culture between teachers using a 4-day week and teachers using a 5-day week.

Research Procedures

The procedures for this study were created with the purpose of better understanding teachers' perceptions of a 4-day week on school culture. Data for the quantitative survey were collected from teacher responses to the SCS. The SCS provided information related to teachers' perceptions of school culture using a Likert-scale. Each question in the survey is aligned to one of the six categories of a collaborative culture: collaborative leadership, teacher collaboration, professional development, unity of purpose, collegial support, and learning partnership. Procedures for data sampling, collection, and analysis followed accepted research criteria.

Research design. The goal of this study was to examine the impact of a 4-day week on teachers' perceptions of school culture. The researcher selected a quantitative approach to include a larger number of participants than in a qualitative study. The study utilized data collected from teachers in districts utilizing a 4-day or 5-day schedule in the

state of Oklahoma. The SCS was used to collect data. The survey method of research allowed the researcher to consider the perceptions of teachers immersed in a 4-day schedule and compare them to the perceptions of teachers utilizing a 5-day schedule. It also allowed for the researcher to quantify school culture data by assigning values to each answer (Mitchell, B., 2008). Data collected from each group, as defined by the research question, were compiled to gain a better understanding of how a 4-day schedule impacts attitudes, perceptions and, eventually, school culture.

Sampling. Participants were selected based on their involvement in a public school district utilizing a 4-day or 5-day schedule in the state of Oklahoma. The researcher utilized Oklahoma's Department of Education Web site to determine the public schools in Oklahoma that met the criteria of the study. For the 2017-2018 school year, 213 sites were implementing a 4-day week. The range of enrollment in schools that were implementing 4-day weeks was between 37 and 2,860. This range provided the boundaries for the study. It was determined that there were 938 sites in 382 public school districts that used a traditional 5-day week and met the criteria for the boundaries of the study. A purposive random sampling was used to select the 213 sites that used a traditional schedule because the number of districts implementing a 5-day school week was greater than the number of districts implementing a 4-day week. To find the schools implementing a 5-day school week that would be used for this study, the researcher randomly selected 213 of these sites using Microsoft Excel.

Data collection. The researcher contacted the superintendent of each school district that met the criteria of the study and permission was granted to distribute the surveys. The surveys were distributed electronically through e-mail to each participant.

An initial e-mail was sent to participants outlining the study and teachers were given a link to the survey using the Question Pro platform. An additional e-mail was sent after a period of 2 weeks to remind participants of the survey.

Data analysis. All data were input into the Statistical Package for the Social Sciences (SPSS) for analysis. The data were sorted into two groups: those implementing a 4-day schedule and those implementing a 5-day schedule. The six categories addressed by the SCS included collaborative leadership, teacher collaboration, professional development, unity of purpose, collegial support, and learning partnership (Gruenert, 1998). A Multi-Factor Analysis of Variance (MANOVA) was selected for this study because it allowed the researcher to compare one independent variable with multiple categories and the interactions between the sets of data (Pellham, 2013). The MANOVA was also selected because it is used to test for statistical significance among the independent and dependent variables. The researcher looked for mean differences that were significant at the .05 level. The data were also sorted based on the demographic questions to examine further trends in school culture perceptions among teachers implementing a 4-day and a 5-day school week.

Significant MANOVA require a follow-up analysis through the use of post hoc procedures to find the dependent variables that are responsible for the statistical significance (Stevens, 2002). The data were analyzed to confirm all assumptions associated with a MANOVA, including the normal distribution of results and the possibility of error, and were considered before further analysis occurred (Warne, 2014). The researcher then completed an ANOVA for all relationships found to be significant in

the MANOVA. The results of the ANOVA were used to determine which dependent variable(s) caused the data to be significant.

To promote transparency and accuracy of answers, the confidentiality of all participants was protected through the addition of the demographic questions, which allowed teachers to remain anonymous. Teachers were not asked to identify which specific district or building in which they taught, but were only asked to provide the type of schedule they used during the 2017-2018 school year and how the fifth day was used. The anonymity of the participants was further protected through the use of coding. Using the Question Pro platform, participant demographic information is automatically coded for anonymity.

Instrumentation

The SCS was created by Stephen Gruenert in 1998. Previous research had noted that school reform experts typically studied the characteristics of effective schools instead of the underlying culture that creates these positive characteristics (Evans, 1996; Gruenert, 1998; Johnston, J., 1987). Gruenert chose to develop a tool that could help future researchers better understand the collaborative culture of a school without having to be immersed in the school. In the early 1990s, it was thought that the study of school culture was only accessible through a qualitative study (Owens, R., 1994). Several researchers have noted that it is hard to understand the subtleties of culture through quantitative tools (Schein, 1992; Trice & Beyer, 1993; Wilkens & Dyer, 1988). However, Gruenert (1998) utilized the works of other survey developers and his research on culture to develop a tool that could help administrators assess the culture of their school based on the six elements of a collaborative school culture.

Based upon his research, Gruenert (1998) created a list of 79 questions relating to school culture. He then gave these questions to 632 teachers and used statistical analysis to decrease the number of questions to only those that were valid and reliable. To ensure reliability, Gruenert first completed an item analysis to obtain descriptive statistics. All questions with a standard deviation below .6 were removed, as there was too much variance among answers in the test group. Based on standard deviations, one question was deleted. To further analyze reliability, Gruenert used the FACTOR procedure to find factors with eigenvalues greater than 1.00, then plotted the remaining questions on a scree test. It was determined that there were 13 factors that should be considered.

Following the FACTOR procedure, a varimax rotation was applied. Factors that had a loading of .5 or higher, cross-loading items with a difference of .15 or higher, resulted in a minimum of three items per factor being retained. While a 12-, 11- and 10-factor varimax rotations were performed due to the results of the scree test, the 10-factor solution was the most beneficial. Three factors were dropped due to a lack of items and the remaining 10 factors were put through a seven-factor run. This run included 45 questions but narrowed it down to the final 35 questions and six categories. Finally, internal correlations of .2 or higher and Chronbach's alphas were compared to find reliability. The internal correlations of the final items ranged from .414 to .721.

To ensure validity, Gruenert (1998) did an initial review of the 78 questions remaining after the examination of the standard deviation. Two questions were removed because they did not measure intraorganizational collaboration and focused, instead, on work with outside agencies. Validity was also considered at the very end of the process as items were reviewed in their final factor groupings. To determine if the items in a factor

contributed to the intended idea of the factor, items were only retained if they had a factor loading of .5 or higher and a cross-loading difference of .15 or higher. If an item had at least three items that met these criteria, it was retained and became a part of the final SCS. The final 35 questions were then arranged into a random order, as seen in Appendix A. The Likert-type scale ranged from 1 *strongly disagree* to 5 *strongly agree* (Gruenert, 1998). The questions were put into a random order to allow teachers and faculty to consider their own thoughts and opinions instead of looking for trends or patterns that could impact the end results (Gruenert, 1998; Gruenert & Whitaker, 2015).

Gruenert (1998) used over 600 participants in testing his survey. It has also been used in other studies to give a quantitative value to school culture (Gruenert, 1998; Gumuseli & Eryilmaz, 2011; Mitchell, B., 2008, Ohlson, 2009). Because this tool measured school culture, which the researcher is also measuring, and has been proven valid and reliable, the researcher determined this survey would be appropriate for this study. Permission to use the SCS was granted by Dr. Gruenert in the fall of 2017.

The SCS was selected for this study because the tool matched the purpose of the study. The researcher studied teachers' perceptions of school culture in schools implementing a 4-day week compared to the teachers' perceptions of school culture in schools implementing a 5-day week. This short survey has been used to identify the characteristics of the culture in six different categories, as well as to develop an overall understanding of the collaborative culture of a school. With the creation of such a valuable tool, researchers are able to build upon the work of Gruenert (1998).

The researcher added demographic questions to the existing survey. These questions were selected response questions that allowed for further analysis of the data.

The demographic data collected were schedule, use of fifth day, gender, number of years in education, and number of years using a four-day schedule. The demographic questions did not need to be tested to ensure validity and reliability as they were only used to group teachers into subgroups that could then be compared.

Summary

The intent of this study was to determine how the use or implementation of the 4-day week impacts the perceptions of teachers on school culture. This chapter provided the research procedures and design for the completion of this study. It also described the method and tools used to collect data concerning teachers' perceptions and school culture. Participants were selected based on their involvement in a public school district utilizing a 4-day or 5-day schedule in the state of Oklahoma. A purposive sample was used to select the participants using a 5-day schedule. A purposive sampling was necessary because there were more schools utilizing a 5-day school week than a 4-day school week. The SCS was utilized to collect data regarding teachers' perceptions of school culture in the participating schools. Chapter Four contains an overview of the findings from the study described in Chapter Three. Chapter Five will provide a summary of this study, give recommendations, and outline implications for further this study.

CHAPTER FOUR

ANALYSIS OF DATA

The purpose of this study was to understand teachers' perceptions of the impact of a 4-day schedule on school culture. The body of knowledge on the 4-day school week was primarily limited to its impact on student achievement and the financial savings for the school district (Anderson & Walker, 2015). The researcher chose to look at the impact on school culture because of the importance of school culture in the overall success of the organization, including student achievement (Leithwood & Louis, 1998; Leithwood, Louis, Wahlstrom, & Anderson, 2004; Levine & Lezotte, 1990; Newmann, 1996; Purkey & Smith, 1983; Schein, 2017). Many researchers agree the most effective type of school culture is a collaborative culture (Deal & Kennedy, 1999; Deal & Peterson, 2016; Fullan & Hargreaves, 1996; Gruenert, 1998; Schein, 2017). For this reason, the researcher examined the perceptions of teachers utilizing a 4-day week compared to those utilizing a 5-day week according to the six factors of collaborative cultures identified in the Gruenert's (1998) School Culture Survey (Appendix A). The following research question was addressed in this study: What are the differences in the perceptions of school culture between teachers using a 4-day school week and those using a 5-day school week?

Chapter Four gives a detailed analysis of the data collected from the School Culture Survey for this group of participants. The data from teachers implementing a 4-day week are compared to the data of those implementing a 5-day week. To better understand the data, each group is also compared based on the characteristics of a collaborative culture: collaborative leadership, teacher collaboration, professional

development, unity of purpose, collegial support, and learning partnership. The statistical significance of the data will also be analyzed and discussed.

Sample Statistics

The researcher chose to limit the participants to teachers in one state. This allowed for minimal differences between the two groups, aside from the independent variable. Many states had already been the focus of studies on 4-day weeks including Colorado, South Dakota, Idaho, and New Mexico (Dam, 2006). The researcher selected to survey participants from the state of Oklahoma due to the state's high number of schools utilizing a 4-day week and the lack of research that had been completed on the topic of the 4-day schools week in the state. Out of the 520 public school districts in Oklahoma, 95, or almost one fifth of all districts, utilized a 4-day schedule.

The researcher received approval from all participants' superintendents through the Recruitment Document (Appendix B) before distributing the survey with the informed consent document (Appendix C). After receiving approval, the researcher e-mailed the School Culture Survey to each full time educator (FTE) in the school district. After 2 weeks, the researcher sent a follow-up e-mail to remind participants to take the survey. Using the QuestionPro platform, all participants remained anonymous. However, teachers did answer demographic questions, as seen in Appendix D, that were used for further analysis.

By the end of the survey period, 316 participants had completed the survey so data from all surveys were used in the study. Of the 316 participants, 242 individuals using a 4-day week responded and 74 individuals using a 5-day week responded. These data represent a 23% response rate for the 4-day school week and a 9% response rate for

the 5-day school week. The return rate was dependent upon superintendents approving the survey for their district. Several districts either declined to participate or did not respond. Some superintendents opted to personally send the e-mail to their staff while in some districts, the e-mail addresses were not provided and were located by the researcher. Several superintendents noted that response rates could be impacted due to budget cuts causing teachers to have additional responsibilities. In some cases, the e-mail addresses listed online were not accurate, which also impacted the return rate.

Ensuring Robustness

Box's Test was evaluated prior to any further data analysis to ensure robustness within each of the two groups. Box's Test assesses the homogeneity of variance-covariance within the groups of participants. With a significance value of $p = .582$, the Box's Test showed no statistical significance. This finding upheld one of the assumptions of a multivariate analysis of variance (MANOVA) by showing enough variance among each group to be considered robust. Though the groups were uneven, with 74 participants from the 5-day school week and 242 from the 4-day school week, the data within each category were varied enough with no outliers to be considered a normal distribution. Therefore, no data transformations were needed to remove outliers to ensure validity and robustness.

Analysis of Research Question

Results of the survey were analyzed to gain insight into the research question. After ensuring robustness through Box's Test and assuming equal variance, a one-way MANOVA was used to determine if there was statistical significance between the responses of teachers utilizing a 4-day week and teachers utilizing a 5-day week (see

Table 1) For the purpose of this study, Wilks' Lambda was used to report the significance of the MANOVA. Wilks' Lambda was selected because it is the most commonly reported statistic when analyzing a MANOVA (Mertler & Vannatta, 2005). In addition, all other tests including Pillai's Trace, Hotelling's Trace, and Roy's Largest Root showed the same level of significance as Wilks' Lambda with the given data because there was only one independent variable with two categories. Wilks' Lambda showed a significance of $p = .037$. Because the value of $p < .05$, it was assumed that the data were significant with more than 95% confidence. Wilks' Lambda, with a statistical significance of .037, showed that the data related to school culture was significantly related to week length.

Table 1

Multivariate Tests

Effect	Value	*F*	Hypothesis *df*	Error *df*	Sig.
Pillai's Trace	.042	2.263	6.000	309.000	.037*
Wilks' Lambda	.958	2.263	6.000	309.000	.037*
Hotelling's Trace	.044	2.263	6.000	309.000	.037*
Roy's Largest Root	.044	2.263	6.000	309.000	.037*

* $p < .05$

Data collected from each question were used to develop averages for each schedule tested. Based on the statistical significance of the MANOVA at a value of $p = .037$, additional tests were required to find the specific causes of statistical significance. While the research question referred to school culture in general, the researcher utilized the School Culture Survey, which could be divided to analyze six different components of collaborative school culture (see Table 2). Questions relating to each component were

interspersed throughout the survey to prevent participants from answering questions according to the larger theme and to promote honest responses (Gruenert, 1998). Reporting on the categories specified within the School Culture Survey allowed the results of this study to be more detailed and allowed the researcher to find specific areas that were significantly different between teachers who utilized a 4-day week and teachers who utilized a 5-day week.

Table 2

Category and Question Number Correlation

Category	Correlating Survey Question Numbers
Collaborative Leadership	2, 7, 11, 14, 18, 20, 22, 26, 28, 32, 34
Teacher Collaboration	3, 8, 15, 23, 29, 33
Professional Development	1, 9, 16, 24, 30
Unity of Purpose	5, 12, 19, 27, 31
Collegial Support	4, 10, 17, 25
Learning Partnership	6, 13, 21, 35

Following the analysis of the MANOVA, a univariate analysis of variance (ANOVA) was performed on each subgroup, the 4-day week and the 5-day week, as shown in Table 3. The ANOVA was used to determine the differences between each group for all six subcategories: collaborative leadership, teacher collaboration, professional development, unity of purpose, collegial support, and learning partnership. Once the data were grouped according to the categories, an average was found for each participant's response for each category. These averages were used in the follow up

ANOVA to understand the overall impact of schedule on school culture. The ANOVA further specified which areas had statistical significance. This provided further insight into the areas of school culture that differ when nontraditional schedules are implemented. Upon analyzing the *p* values, or levels of significance, for each category, the researcher determined that the data for collaborative leadership, teacher collaboration, and learning partnership were statistically significant with 95% confidence. Professional development, unity of purpose, and collegial support were not statistically significant at the $p < .05$ level.

Table 3

Tests of Between-Subject Effects

Dependent Variable	*F*	Significance
Collaborative Leadership	6.376	.012
Teacher Collaboration	7.344	.007
Professional Development	3.754	.054
Unity of Purpose	3.496	.062
Collegial Support	3.045	.082
Learning Partnership	10.357	.001

Collaborative leadership. The difference between teachers' perceptions of collaborative leadership in a 4-day and a 5-day week was statistically significant ($p = 0.012$). However, when examining the means for each group there was not a large difference between the two. The mean for the 4-day school week was 3.780 with a 0.056 standard error and the mean for the 5-day school week is 3.486 with a 0.102 standard error, as seen in Table 4. The data for collaborative leadership in a 4-day week was less deviated from the mean than the data for collaborative leadership in a 5-day week.

Teacher collaboration. The data for teacher collaboration was also statistically significant ($p = 0.07$). The overall difference in means between the two groups had much less of an impact on overall scores than in collaborative leadership. The mean for teachers in a 4-day week was 3.350 with a standard error of 0.057 and the mean for teachers in a 4-day week was 3.032 with a standard error of 0.103, as seen in Table 4. Data for the 4-day week was much less deviated from the mean than the data for the 5-day week.

Learning partnership. The difference in means for learning partnership was the greatest among any of the categories that were statistically significant. The mean for teachers in a 4-day data was 3.476 with a standard error of .050 and the mean for the 5-day data was 3.142 with a standard error of .091, as seen in Table 4. Data for the 4-day week were much less deviated from the mean than that of the 5-day week.

Table 4

Estimated Marginal Means

Dependent Variable	Week Length	Mean	Std. Error	Lower Bound	Upper Bound
Collaborative Leadership	4-Day	3.780	0.056	3.669	3.891
	5-Day	3.486	0.102	3.286	3.687
Teacher Collaboration	4-Day	3.350	0.057	3.238	3.462
	5-Day	3.032	0.103	2.829	3.234
Professional Development	4-Day	3.826	0.050	3.727	3.926
	5-Day	3.624	0.091	3.445	3.804
Unity of Purpose	4-Day	3.960	0.056	3.850	4.071
	5-Day	3.743	.102	3.543	3.943
Collegial Support	4-Day	3.990	0.052	3.887	4.093
	5-Day	3.801	0.095	3.614	3.987
Learning Partnership	4-Day	3.476	0.050	3.377	3.575
	5-Day	3.142	0.091	2.963	3.321

Note. The Lower and Upper bounds were determined with 95% confidence level.

Summary of research question findings. The research question utilized in this study was: What are the differences in the perceptions of school culture between teachers using a 4-day school week and those using a 5-day school week? A MANOVA showed statistical significance between the 4-day and 5-day week in the areas of collaborative leadership, teacher collaboration, and learning partnership, therefore the null hypothesis was rejected. While each of these areas showed statistical significance, there may be limited practical significance. In each case, data for the 4-day week were much less deviated from the mean than the data for the 5-day week.

Summary

The purpose of this study was to understand the teachers' perceptions of the impact of a 4-day schedule on school culture. The researcher surveyed 316 participants using the School Culture Survey developed by Steve Gruenert (1998) to understand the teachers' perceptions of school culture. Differences were statistically significant in the areas of collaborative leadership, teacher collaboration, and learning partnerships. Chapter Five includes the presentation of conclusions drawn from the analysis of the MANOVA and the post hoc tests and the recommendations for further study related to the impact of a 4-day school week.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

In the past 4 decades, many school districts have implemented nontraditional schedules as just one of the many ways to mitigate the stress of budget cuts and academic crises (National Education Commission on Time and Learning, 2000). Most research on the topic of a 4-day week focuses on student achievement and financial savings (Anderson & Walker, 2015). To add to this body of knowledge, the researcher designed a study to understand teachers' perceptions of the impact of a 4-day week on school culture. Participants were selected from Oklahoma as little research had been completed in this state regarding the 4-day school week despite the large number of school districts implementing the schedule. The researcher gained approval from superintendents of school districts utilizing 4-day school weeks and superintendents of school districts with similar enrollment utilizing a 5-day school week. Upon receiving approval from superintendents, the researcher distributed the School Culture Survey (Gruenert, 1998). The data were collected using the QuestionPro platform and raw data were put into SPSS for further analysis. Overall, the data represented 316 participants from Oklahoma.

Findings and Interpretations

The following research question was addressed in this study: What are the differences in the perceptions of school culture between teachers using a 4-day school week and those using a 5-day school week? Based on the data presented in Chapter Four, the null hypothesis was rejected as 3 of the 6 categories showed statistical significance between the data from teachers utilizing a 4-day school week and the data from teachers utilizing a 5-day week. The 4-day school week differed from the 5-day school week as

teachers in a 4-day week had perceptions of better collaborative leadership, teacher collaboration, and learning partnership.

The data showed statistical significance in areas that the leader had direct control over. For example, collaborative leadership and teacher collaboration are both things that are directly impacted by the way time is allocated by the leader. In addition, learning partnership also requires strategic planning by the leader in a building or district as the connections formed with the community are developed and furthered through the actions of the leader of the school.

Conclusions

The statistical significance in the areas of collaborative leadership, teacher collaboration, and learning partnership could have happened for a variety of reasons. Teachers could have a positive view of school culture in the 4-day setting because they had a longer weekend to spend with their friends and families. Additionally, the experience of going through a change as dramatic as the implementation of a new schedule could have drawn the school community closer together, which resulted in a higher regard for building and district leaders, community partnerships, and teacher collaboration. However, when the results of the data were studied in light of the research on school culture and change in the educational settings, three factors became apparent. The current literature available in these areas led the researcher to conclude the statistical significance could have been due to the implementation process, the use of the fifth day, and the leadership style at a building and district level.

In conversation with superintendents while getting approval for the study, a common theme was several school districts implemented a 4-day week quickly due to

emergency budget restrictions. They alluded to the fact that they did not have time to gain support and build capacity for the change in schedule. The fact that teachers in the 4-day schools showed significance in the area of collaborative leadership over teachers in the 5-day schools suggests that the leadership skills in implementing change, such as the 4-day week, outweighed the challenging impact change can bring. The data and research suggest the change process may have brought teachers together to collaborate not only about instruction, but also the new schedule itself, thus enhancing the teachers' perceptions of teacher collaboration and collaborative leadership. Additionally, the data suggest that leaders could have utilized suggestions made in relevant literature on change and school culture as they included the community in this process.

The second factor associated with the statistical significance in collaborative leadership, teacher collaboration, and learning partnership was the use of the fifth day. In most school district represented in the data from this survey, teachers were not contracted on the fifth day. Some teachers accepted additional contracts, such as coaching, which required them to be present on the school's campus for the fifth day. It is reasonable to suggest that teachers have more time to either engage in school-related work or planning when they have a day each week without students present. Teachers could also collaborate digitally with colleagues to improve their craft. The opportunity for collaboration provided by a full day with no students each week could be a reason teachers utilizing a 4-day week perceived better collaboration with their peers. By having an additional day each week to use at their discretion, perceptions of collaborative leadership could have increased. Partnerships formed with the community through

childcare, student internships, tutoring, or work-learning experiences for students on the fifth day could have also impacted the perceived increase in learning partnership.

While the other two factors most likely played a large role in the statistical significance in collaborative leadership, teacher collaboration, and learning partnership; the most important factor in determining a positive culture is the leadership style used by the building administrator. Ultimately, the complex concept of school culture is in the hands of the leaders. How leaders in the schools included in the study chose to implement a new schedule and how they chose to use the fifth day depended on their leadership style. The research noted that thoughtful and strategic planning and implementation were key to the success of any initiative (Beesley & Anderson, 2007; Delisio, 2004; Johnson, 2013; Kordosky, 2011; Owens, J. et al., 2014; Plucker et al., 2012). If leaders chose to involve the staff and stakeholders in the planning and implementation of a 4-day schedule, teachers' perceptions of the culture could have been positively impacted. The most important conclusion that can be drawn from the combination of the research and the data is that while changing to a 4-day week showed statistical significance in areas of teacher collaboration and learning partnership, collaborative leadership of the school administrator is a key element of the culture. Involving teachers in the decision-making process and design of the time spent at school can help teachers perceive a stronger culture.

It is important to take into consideration the political climate in Oklahoma at the time of the study when interpreting the data from the SCS. Shortly after data had been collected on school culture from districts within the state, many teachers chose to strike to protest what they deemed to be a lack of financial support at the state level. The unrest

associated with teacher strikes and lack of financial support was one of the many factors that could have contributed to overall school culture at the time of this survey. It is not possible to understand exactly how this unrest affected the data for this study, however, it is important to note the underlying conflict brewing throughout the state could have had an impact on the results.

Implications for Practice

It is important to note that school culture is often very hard to determine. While the School Culture Survey was designed to measure school culture on a quantitative level and is very useful when trying to determine school culture for a large group of participants, it is important for administrators to use additional methods to provide more data about the school culture in their district and building prior to implementing a schedule change, including teachers' perceptions of the 4-day school week. Interviews, focus groups, and conversations, as well as input from newcomers, should all be assessed when determining the strengths and weaknesses of an organization's culture according to teachers' perceptions. Subgroups of teachers can also play a role in school culture.

In addition to studying school culture prior to implementing any kind of change, administrators should also research the impact of the change they are making on other organizations. They should strive to understand how it impacts a variety of factors within the school and larger organization. Site visits and interviews should be conducted to better understand how this change has impacted other organizations and predict how the change will impact their own organization. It is also suggested that district administrators plan the implementation process very carefully. Pilot programs and community meetings can help administrators share their plans and troubleshoot prior to implementation.

Finally, upon reviewing the existing literature and the data from this study, it is necessary for school leaders to understand the impact they have on school culture. Implementing a new initiative will not improve school culture, in fact, it may do just the opposite if too many initiatives are introduced. Instead, school leaders must consider the research on successful planning and implementation and understand how a collaborative culture can enhance this process. By including teachers and other stakeholders in the process from the early stages, teachers may begin to have more positive perceptions of collaborative leadership, teacher collaboration, and learning partnership. The leader, whether at a district or a building level, holds the power to improve school culture by making the change process more collaborative.

Future Research

The researcher suggests that this study be replicated with additional demographic questions that could guide the interpretation of the data. The first suggested demographic question is the use of the fifth day. While the researcher did include this as a demographic question in this study, it is advisable to focus on the various uses of the fifth day and study the implications on school culture. It would be advisable for future research around this topic to focus only on a 4-day school week and not collect data from teachers utilizing a 5-day school week, allowing the researcher to focus on the variety of schedules within this model.

The researcher also suggests the addition of a demographic question regarding the size of the school district could be included. Most 4-day schedules occur in small, rural districts (Duchscherer, 2011; Leiseth, 2008; National Education Commission on Time and Learning, 2000; Reeves, 1999). The enrollment for schools utilizing a 4-day week in

Oklahoma ranged from 37 students to 2,860 students. It would be of interest to determine if there is a relationship between the size of enrollment and the school culture within each building. Additionally, the scope of participants can be widened to examine the perceived impact of a 4-day week on school culture among other stakeholders, including administrators, students, parents, and other community members. Part of the complexity of school culture is that it involves all kinds of groups of individuals.

Finally, to better understand the impact of a 4-day week on school culture, the researcher suggests a qualitative or mixed-methods approach could be used to better understand the subtleties of school culture. Schein (2017) noted that qualitative methods are the best way to fully understand school culture. The reality of a culture can be somewhat hidden from those closest to it, and mediative questions in a qualitative study can uncover feelings, biases and perceptions that exist in the minds of stakeholders. Qualitative data can give details that quantitative data are unable to provide.

Summary

The findings of this study made an important addition to the body of research regarding the impact of a 4-day school week. Previous research was limited to the impact of a 4-day week on student achievement or financial savings. This study provides a starting point for other researchers to investigate the impact of a 4-day week on school culture. Further research was suggested including the addition of demographic questions that would allow the researcher to further understand the perceptions of specific groups of teachers utilizing a 4-day schedule, especially those using a different types of 4-day weeks. The researcher also highly suggested the use of qualitative data to better understand the specific aspects of a collaborative culture.

REFERENCES

Ahearn, M.C., Kilkenny, M., & Low, S. (2009). Trends and volatility in school finance. *American Journal of Agricultural Economics, 91*(5), 1201-1208.

Anderman, E. M., Belzer, S., & Smith, J. (1991, April). *Teacher commitment and job satisfaction: The role of school culture and principal leadership.* Paper presented at the meeting of the American Educational Research Association, Chicago, IL.

Anderson, D., & Walker, M. (2015). Does shortening the school week impact student performance? Evidence from the four-day school week. *Education Finance and Policy*, *10*(3), 314-349.

Ballinger, C. (1995, November). Prisoners no more. *Educational Leadership, 53*(30) 28-30.

Barley, S.R., & Kunda, G. (2001). Bringing work back in. *Organization Science*, *12*, 76-95.

Barth, R.S. (2002). The culture builder. *Educational Leadership, 59*(8), 6-11.

Beesley, A.D., & Anderson, C. (2007). The four day school week: Information and recommendations. *The Rural Educator*, *29*(1), 48-54.

Bobbitt, S.A., Perie, M., Baker, D.P., & Bobbitt, S. (1997). *Time spent teaching core academic subjects in elementary schools: Comparisons across community, school, teacher, and student characteristics* (NCES 97-293). Washington, DC: National Center for Education Statistics.

Bolman, L.G., & Deal, T.E. (2008). *Reframing organizations: Artistry, choice and leadership* (4th ed.). San Francisco, CA: Jossey-Bass.

Bulach, C., Boothe, D., & Pickett, W. (2006). Analyzing the leadership behavior of school principals. Retrieved from http://cnx.org/content/m13813/latest/

Callahan, J. (2011, June 18). How does the four-day school week work elsewhere? *Ocala Star Banner.* Retrieved from http://www.ocala.com/article/20110618/ARTICLES/110619694

Cappuccio, F., Taggart, F.M., Kandala, N. B., Currie, A., Peile, E., Stranges, S., & Miller, M. A. (2008). Meta-analysis of short sleep duration and obesity in children and adults. *Sleep, 31*(5), 619-626.

Cavanagh, R. F., MacNeill, N., & Reynolds, P. (2004). School culture: Connections and disconnections. *Practising Administrator,* 26(3), 30-33.

Chaika, G. (2005). Alternative school calendars: Smart idea or senseless experiment? *Education World, 56.* Retrieved from http://www.educationworld.com/a_issues/issues/issues056.shtml

Chamberlin, M., & Plucker, J. (2003). The four day school week. *Indiana Education Policy Center, 1*(2).

Chance, E. W., Cummins, C., & Wood, F. (1996). A middle school's approach to developing an effective school work culture. *NASSP Bulletin*, *80*(576), 43-49.

Chen, Y., & Sun, S. (1994). A measurement study of teachers' job satisfaction. *Psychological Science*, 17(3), 146- 149.

Cheng, Y. C. (1993). Profiles of organizational culture and effective schools. *School Effectiveness and School Improvement*, *4*(2), 85-110.

Chmelynski, C. (2003). Four-Day School Weeks? Only If They Fit. *Education Digest*, *68*(5), 58.

Cohen, J., McCabe, E. M., Michelli, N. M., & Pickeral, T. (2009). School climate: Research, policy, practice, and teacher education. *Teachers College Record*, *111*(1), 180-213.

Coleman, R. W., & Freehorn C. L. (February, 1993). *A comparative study of multi-track year-round education and the use of relocatables.* Paper presented at the annual meeting of National Association for Year-Round Education, San Diego, CA.

Colorado Department of Education. (1999). The four-day school week. Revised. Denver: Colorado State Department o f Education.

Cooper, H., Nye, B., Charlton, K., Lindsay, J., & Greathouse, S. (1996). The effects of summer vacation on achievement test scores: A narrative and meta-analytic review. *Review of Educational Research, 66*(3) 227-268.

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.

Council, V. S. (2010). *An investigation on teacher retention and teachers' perceptions of cultural leadership in selected North Carolina year round and traditional elementary schools* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3577756)

Cuban, L. (2008). The perennial reform: Fixing school time. *Phi Delta Kappan*, *90*(4), 240-251.

Cummings, E.M. (1994). Marital conflict and children's functioning. *Social Development, 3*(1) *,* 16-36.

Curcio, G., Ferrara, M., & De Gennaro, L. (2006). Sleep loss, learning capacity and academic performance. *Sleep Medicine Reviews, 10*, 323-337.

Daly, J. L., & Richburg, R. W. (1984). *Student achievement in the four-day school week.* Fort Collins, CO: Office of Rural Education, Colorado State University.

Dam, A. (2006). *The 4 day school week.* Denver, CO: Colorado Department of Education.

Deal, T. E., & Kennedy, A.A. (1982). *Corporate cultures*. Reading, MA: Addison-Wesley.

Deal, T. E., & Kennedy, A. A. (1999). *The new corporate cultures: Revitalizing the workplace after downsizing, mergers and reengineering.* New York, NY: Perseus.

Deal, T.E., & Peterson, K.D. (1990). *The principal's role in shaping school culture*. Washington, DC: U.S. Department of Education.

Deal, T. E., & Peterson, K. (2016). *Shaping school culture* (3rd ed.). San Francisco, CA: Jossey-Bass.

Delisio, E.R. (2004). Could four-day weeks work for you? *Education World*. Retrieved from http://www.educationworld.com/a_admin/admin/admin279.shtml

Demirtas, Z. (2010). The relationship between school culture and student achievement. *Egitim Ve Bilim-Education and Science*, *35*(158), 3-13.

Denison, D. R. (1996). What is the difference between organizational culture and organizational climate? A native's point of view on a decade of paradigm wars. *Academy of Management Review*, *21*(3), 619-654.

Dillon, N. (2010). Saving money on student transportation. *American School Board Journal, 197*(6), 20-22.

DiRocco, M. D. (1999). How an Alternating-day schedule empowers teachers. *Educational Leadership*, *56*(4), 82-84.

Dixon, A. (2011). *Focus on the alternative school calendar: Year-round school programs and update on the four-day school week.* Retrieved from Southern Regional Education Board website: https://www.sreb.org/publication/focus-alternative-school-calendar-year-round-school-programs-and-update-four-day-school

Donnis-Keller, C., & Silvernail, D. L. (2009). *Research brief: A review of the evidence on the four-day school week.* Portland, ME: University of Southern Maine.

Duchscherer, B. (2011). *A case study: Transitioning from a five-day school week to a four-day school week*. (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3503447).

DuFour, R. (2007). Professional learning communities: A bandwagon, an idea worth considering, or our best hope for high levels of learning? *Middle School Journal, 39*(1), 4-8.

Durr, G. (2003). Four-day school week? *State Legislatures, 29*(5), 21.

Dweck, C. (2007). *Mindset: The new psychology of success*. New York, NY: Random House.

Edmondson, A. C. (2012). *Teaming: How organizations learn, innovate, and compete in the knowledge economy*. San Francisco, CA: Jossey-Bass.

Elder, L., & Paul, R. (2012). *30 days to better thinking and better living through critical thinking: A guide for improving every aspect of your life.* Upper Saddle River, NJ: FT Press.

Evans, R. (1996). *The human side of school change.* San Francisco, CA: Jossey-Bass.

Fager, J. (1997). *Scheduling alternatives: Options for student success*. Portland, OR: Northwest Regional Educational Laboratory.

Feaster, R. A. (2002). *The effects of the four-day school week in Cluster, South Dakota* (Doctoral dissertation). Retrieved from ProQuest Digital Dissertations (UMI No. 3055138).

Featherstone, H. (1991). The rewards of a four-day school week. *Principal, 71*(1), 28-30.

Ferak, J. (2006, October 2). Four-day week makes the grade. *Omaha World-Herald*, 01B.

French, R. (2013, December). Forgoing Summer Vacation, Parents Swamp Year-Round School. *Education Digest, 79*(4), 28-30.

Fullan, M. (2001). *Leading in a culture of change.* San Francisco, CA: Jossey-Bass.

Fullan, M. (2011). *Change leader: Learning to do what matters most.* San Francisco, CA: Jossey-Bass.

Fullan, M.G., & Hargreaves, A. (1996). *What's worth fighting for in your school?* New York, NY: Teachers College Press.

Gaines, G. F. (2008). *Focus on the school calendar: The four-day school week*. Retrieved from the Southern Regional Education Board website: https://www.sreb.org/publication/focus-school-calendar-four-day-school-week

Gay, L.R., Mills, G.E., & Airasian, P. (2009). *Educational research: Competencies for analysis and application.* Upper Saddle River, NJ: Pearson.

Geertz, C. (1973). *The interpretation of cultures.* New York: Basic Books.

Geertz, C.M. (1987). Interpretive anthropology. In H. Applebaum (Ed.), *Perspectives in cultural anthropology,* (pp. 520-524*).* Albany, NY: State University of New York Press.

Geranios, N.K. (2006, November 6). Monday is the new Tuesday for Boundary Country students. *Salt Lake City Tribune.* Retrieved from http://archive.sltrib.com/article.php?id=4610479&itype=NGPSID

Gligorović, B. B., Nikolić, M., Terek, E., Glušac, D., & Tasić I. (2016). The impact of school culture on serbian primary teachers job satisfaction. (Turkish). *Hacettepe University Journal of Education*, *31*(2), 231-248. doi:10.16986/HUJE.2016015184

Goddard, R.D., Hoy, W.K., & Hoy A.W. (2004). Collective efficacy beliefs: Theoretical developments, empirical evidence, and future directions. *Educational Researcher, 33*(3), 3-13.

Goodenough, W. H. (1981). *Culture, language and society* (2nd ed.).. Menlo Park, CA: Benjamin/Cummings.

Gore, A. (1997). *Turning the key: Unlocking human potential in the family-friendly federal workplace.* Washington, DC: U.S. Government Printing Office.

Grau, E., & Shaughnessy, M. F. (1987). *The four day school week: An investigation and analysis*. Portales, NM: Eastern New Mexico University, Psychology Department.

Griffith, M. (2011, May). *What savings are produced by switching to a four-day school week?* Denver, CO: Education Commission of the States. Retrieved from http://files.eric.ed.gov/fulltext/ED520160.pdf

Gruenert, S. (1998). *Development of a school culture survey* (Doctoral dissertation). Retrieved from ProQuest Dissertation and Theses database. (UMI No. 9901237).

Gruenert, S. (2008). School culture, school climate: They are not the same thing. *Principal-Arlington, 87*(4), 56-59.

Gruenert, S., & Whitaker, T. (2015). *School culture rewired: How to define, assess and reform it*. Alexandria, VA: Association for Supervision and Curriculum Development.

Guignon, A. (1998). Is the four-day school week coming your way? *Education World*. Retrieved from http://www.educationworld.com/a_admin/admin/admin073.shtml

Gumuseli, A. I., & Eryilmaz, A. (2011). The measurement of collaborative school culture (CSC) on Turkish schools. *New Horizons in Education*, *59*(2), 13-26.

Hale, R. R. M. (2007). *A case study of the four-day school week in five South Dakota pre-kindergarten-12 public schools* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3269556)

Hall, E.T. (1959). *The silent language*. New York, NY: Doubleday.

Hall, E.T. (1966). *The hidden dimension*. New York, NY: Doubleday.

Hargreaves, A. (1991). Contrived collegiality: The micro-politics of teacher collaboration. In J. Blase (Ed.), *The politics of life in schools* (pp. 46-72). Newberry Park, CA: Sage.

Haser, S.G., & Nasser, I. (2005). *Year-round education: Change and choice for schools and teachers.* Lanham, MD: Scarecrow Education.

Hatch, M.J., & Schultz, M. (Eds.). (2004). *Organizational identity: A reader.* Oxford UK: Oxford University Press.

Hattie, J. A. (2009). *Visible learning: A synthesis of 800+ meta-analyses relating to achievement.* London, England*:* Routledge.

HB 1684, 56th Oklahoma State Legislature. (2017).

Heck, R.H., & Marcoulides, G.A. (1996). School culture and performance: Testing the invariance of an organizational model. *School Effectiveness and School Improvement, 7*(1), 76-95.

Henstrand, J. L. (2006). Seeking an understanding of school culture: Using theory as a framework for observation and analysis. In V. A. Anfara, Jr. & N. T. Mertz (Eds.), *Theoretical frameworks in qualitative research* (pp. 1-22). Los Angeles, CA: SAGE.

Herring, C. (2010, March 8). Schools' new math: The four-day week. *The Wall Street Journal*. Retrieved from https://www.wsj.com/articles/SB10001424052748704869304575104124088312524

Hewitt, P.M., & Denny G.S. (2011). The four-day school week: Impact on student academic performance. *Rural Educator*, *32*(2), 23-31.

Hofstede, G., Hofstede, G.J., & Minkov, M. (2010). *Cultures and organizations: Software of the mind.* New York, NY: McGraw-Hill.

Hoge, D. R., Smit, E. K., & Hanson, S. L. (1990). School experiences predicting changes in self-esteem of sixth- and seventh-grade students. *Journal of Educational Psychology, 82*, 117–127.

Homans, G. (1950). *The human group*. New York, NY: Harcourt Brace Jovanovich.

Hopkins, G. (2009). The school calendar: It's time to make time for learning! *Education World*. Retrieved from http://www.educationworld.com/a_admin/admin/admin066.shtml

Hoy & Miskel, 2008 (culture)

Hoy, W., Tarter, C., & Kottkamp, R. (1991). *Open schools/healthy schools: Measuring organizational climate.* Newbury Park, CA: Sage.

Jenkins, E., Queen, A., & Algozzine, B. (2002). To block or not to block: That's not the question. *The Journal of Educational Research, 95*(4), 196-202.

Johnson, C. (2013). *The four day school week: A case study examining three stages of implementation* (Doctoral dissertation). Retrieved from ProQuest Dissertation and Theses database. (UMI No. 10180819).

Johnston, J. (1987). Values, culture and the effective school. *NASSP Bulletin*, *71*(467), 97-103.

Johnston, R. C. (1997). A matter of time: Schools try four-day weeks. *Education Week, 17*(13), 1, 10-11.

Kain, D. (1996). Looking beneath the surface: Teacher collaboration through the lens of grading practices. *Teacher College Record, 97*(4), 569-587.

Kasen, S. N., Johnson, J., & Cohen, P. N. (1990). The impact of social emotional climate on student psychopathology. *Journal of Abnormal Child Psychology, 18,* 165–177.

Katz, D. (1960). The functional approach to the study of attitudes. *The Public Opinion Quarterly*, *24*(2), 163–204. Retrieved from http://www.jstor.org/stable/2746402

Keen, R. (2007, January 21). Area districts mulling four-day school week: Impact on parents, students, staff among considerations. *Aberdeen American News.* Retrieved from http://nl.newsbank.com/nl-search/we/Archives?p_action=doc&p_docid=117754A47A617EE0&p_docnum=1&s_accountid=AC01171017160931149 23&s_orderid=NB01171017160834104

35&s_dlid=DL01171017160941149 83&s_ecproduct=DOC&s_ecprodtype=NORENEW&s_trackval=AB&s_siteloc=&s_referrer=&s_username=alv117&s_accountid=AC01171017160931149 23&s_upgradeable=no

Kingsbury, K. (2008). Four-day school weeks. *Time Magazine.* Retrieved from http://content.time.com/time/magazine/article/0,9171,1832864,00.html

Kneese, C. (2000). *Year round learning: A research synthesis relating to student achievement*. San Diego, CA: National Association of Year Round Education.

Koki, S. (1992). *Modified school schedules: A look at the research and the Pacific.* Honolulu, HI: Pacific Region Educational Laboratory.

Kordosky, D. L. (2011). *The four day school week: Less is more*. Indianapolis, IN: Dog Ear.

Kruse, S.D., & Louis, K.S. (1997). Teacher teaming in middle schools: Dilemmas for a schoolwide community. *Educational Administration Quarterly, 33*(3), 261-289.

Kunda, G. (1992). *Engineering culture*. Philadelphia, PA: Temple University Press.

La Valle, I., Arthur, S., Millward, C., Scott, J., & Clayden, M. (2002). *Happy families? Atypical work and its influence on family life.* Bristol, UK: Policy Press.

Leiseth, B. J. (2008). *A case study of the four-day school week: An alternative schedule for public schools (*Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3320532).

Leithwood, K.S., & Louis, K.S. (Eds.). (1998). *Organizational learning in schools.* Lisse, The Netherlands: Swets and Zeitlinger.

Leithwood, K.S., Louis, K.S., Wahlstrom, K., & Anderson, S. (2004). *How leadership influences student learning.* New York, NY: The Wallace Foundation.

Levine, D.U., & Lezotte, L.W. (1990). *Unusually effective schools: A review and analysis of research and practice.* Madison, WI: National Center for Effective Schools Research and Development.

Liechty, J. M., & Anderson, E. A. (2007). Flexible workplace policies: Lessons from the Federal Alternative Work Schedules Act. *Family Relations*, *56*, 304-317.

Lin, J.Y. (2008). The impact of the financial crisis on developing countries. Retrieved from http://siteresources.worldbank.org/ROMANIAEXTN/Resources/Oct_31_JustinLin_KDI_remarks.pdf

Litke, C.D. (1994). Implementing the modified four-day school week. *Alberta Journal of Educational Research, 40*(3), 271-281.

Little, J.W. (1982). Norms of collegiality and experimentation: Workplace conditions of school success. *American Educational Research Journal, 19*(3), 325-340.

Lortie, D.C. (1975). *Schoolteacher.* Chicago, IL: University of Chicago Press.

Louis, K.S., & Miles, M.B. (1990). *Improving the urban high school: What works and why.* New York, NY: Teachers College Press.

Louis, K.S., & Wahlstrom, K. (2011). Principals as cultural leaders. *Phi Delta Kappan, 92*(5), 52-56.

Ma, X.,& MacMillan, R.B. (1999). Influences of workplace conditions on teachers' job satisfaction. *The Journal of Educational Research, 93*(1), 39-47.

MacLeod, I. (2002, June 15). How a four-day week improves schools: Cash strapped districts in the U.S. cut Friday classes in a bid to save money. But the benefits have gone far beyond the bottom line. *The Ottawa Citizen*, p. 1.

Mann, H. M. & Filler, L. (1965). *Horace Mann on the crisis in education,* Yellow Springs, OH: Antioch Press.

Marzano, R. J. (2003). *What works in schools: Translating research into action*. Alexandria, VA: Association for Supervision and Curriculum Development.

McGuire, J. B., & Liro, J. R. (1986). Flexible work schedules, work attitudes and perceptions of productivity. *Public Personnel Management*, *15*(1), 65-73.

McMillen, B. J. (2001). A statewide evaluation of academic achievement in year-round schools. *Journal of Educational Research, 95*(2), 67-74.

McNutt, M. (2009, April 27). New laws affect Oklahoma adoptions, schools. *The Oklahoman*. Retrieved from http://newsok.com/new-laws-affect-oklahoma-adoptions-schools/article/3364724?custom_click=pod_headline_oklahoma-city-news

Mertler, C. A. & Vannatta, R.A. (2005). *Advanced and multivariate statistical methods: Practical application and interpretation*. (3rd ed.). Glendale, CA: Pyrczak.

Mitchell, B. D. (2008). *A quantitative study on positive school culture and student achievement on a criterion-referenced competency test* (Unpublished doctoral dissertation). University of Phoenix, Tempe, AZ.

Mitchell, D.J. (2006, December 24). Schools count on a 4-day week. *The Advocate*, p. 1.

National Conference of State Legislatures. (2017). Four-day school weeks. Retrieved from http://www.ncsl.org/research/education/school-calendar-four-day-school-week-overview.aspx

Montana Office of Public Instruction. (2009). *Four-day school week report in Montana Public Schools: October 2009*. Helena, MT: Montana Office of Public Instruction.

Montana Office of Public Instruction. (2011). *Four-day school week report in Montana Public Schools: October 2011*. Helena, MT: Montana Office of Public Instruction.

National Education Commission on Time and Learning. (1994). *Prisoners of time: Report of the National Education Commission on Time and Learning*. Retrieved from https://www2.ed.gov/pubs/PrisonersOfTime/index.html

National Education Commission on Time and Learning. (2000). *Prisoners of time: Too much to teach, not enough time to teach it.* Peterborough, NH: Crystal Springs Books.

Newmann, F.M. (1996). *Authentic instruction: Restructuring schools for intellectual quality.* San Francisco, CA: Jossey-Bass.

Newmann, F., & Wehlage, G. (1995). *Successful school restructuring.* Madison, WI: University of Wisconsin-Madison: Center on Organization and Restructuring of Schools.

Ohlson, M. (2009). Examining instructional leadership: A study of school culture and teacher quality characteristics influencing student outcomes. *Florida Journal of Educational Administration & Policy*, *2*(2), 102-124.

Owens, J., Drobnich, D., Baylor, A., & Lewin, D. (2014). School start time change: An in-depth examination of school districts in the United States. *Mind, Brain, and Education*, *8*(4), 182-213.

Owens, R.G. (2004). *Organizational behavior in education: Adaptive leadership and school reform* (8th ed.). Boston, MA: Allyn and Bacon.

Parker, S. (1998). School gives high marks to a four-day week. *Christian Science Monitor, 90(*61). Retrieved from https://www.csmonitor.com/1998/0224/022498.feat.learning.1.html

Pelham, B. W. (2013). *Intermediate statistics: A conceptual course*. Thousand Oaks, CA: SAGE.

Peterson, K.D., & Brietzke, R. (1994). *Building collaborative cultures: Seeking ways to reshape urban schools.* Oak Brook, IL: North Central Regional Educational Laboratory.

Plucker, J. A., Cierniak, K., & Chamberlin, M. (2012). The four-day school week: Nine years later. *Center for Evaluation and Education Policy*, *10*(6), 1-8.

Poor, R. (2010). How and why flexible workweeks came about. *Connecticut Law Review*, *42*(4), 1047-1057.

Presser, H.B. (1999). Toward a 24 hour economy. *Science, 284*(5421), 1778-1779.

Purkey, S.C., & Smith, M.S. (1983). Effective schools: A review. *Elementary School Journal, 83*(4), 427-452.

Reeves, K. (1999). The four-day school week. *The School Administrator 56*(3), 30-34.

Repetti, R.L., Taylor, S.E., & Seeman, T.E. (2002). Risky families: Family social environments and the mental and physical health of offspring. *Psychological Bulletin, 128,* 330-366.

Rettig, M. D.,& Canady, R. I. (1996). All around the block: The benefits and challenges of a non-traditional school schedule. *The School Administrator, 53*(8), 8-14.

Richburg, R., & Wood, L. (1982). *An administrative guide for implementing the four-day school week.* Fort Collins, CO: Colorado State University. Department of Rural Education.

Roby, D. (1995, Winter). Comparison of a year-round school and a traditional school: Reading and mathematics achievement. *ERS. Spectrum, 13*(1), 7-10.

Roeth, J.E. (1985). *Implementing the four-day school week into the elementary and secondary public schools* (Doctoral dissertation). Available from Proquest Dissertations and Theses database. (UMI No. 8606835)

Roethlisberger, F.J., & Dickson, W.J. (1939). *Management and the worker*. Cambridge, MA: Harvard University Press.

Rosenholtz, S. (1989). *Teacher's workplace: The social organization of schools.* New York, NY: Longman.

Rouse, K. (2006, December 25). 4-day school week gaining. *The Denver Post*, 2.

Sagness, R. L., & Salzman, S. (1993, October). *Evaluation of the four-day school week in Idaho suburban schools.* Paper presented at the meeting of the Northern Rocky Mountain Educational Research Association, Jackson WY.

Salvaterra, M. E., & Adams, D. C. (1998, April). *Implementing block scheduling: A concern-based model of change.* Paper presented at the meeting of American Education Association of Research, San Diego, CA.

Sarason, S. (1996). *Revisiting "The school and the problem of change".* New York, NY: Teachers College Press.

Schein, E. (1985). *Organizational culture and leadership*. San Francisco, CA: Jossey-Bass.

Schein, E. (1992). *Organizational culture and leadership* (2nd ed.). San Francisco, CA: Jossey-Bass.

Schein, E. (2016). *Humble consulting: How to provide real help faster.* Oakland, CA: Berrett-Koehler.

Schein, E. (with Schein, P.). (2017). *Organizational culture and leadership* (5th ed.). Hoboken, NJ: John Wiley and Sons.

Schlechty, P. (1997). *Inventing better schools: An action plan for educational reform.* San Francisco, CA: Jossey-Bass.

Schultz, V., & Hoffman, A. (2006). The need for a reduced workweek in the United States. In J. Fudge & R. Owens (Eds.), *Precarious work, women, and the new economy: The challenge to legal norms* (pp. 131-151). Oxford, England: Hart.

Senge, P.M. (1990). *The fifth discipline: The art and practice of the learning organization*. New York, NY: Doubleday Currency.

Sexton, M. B. (2003). *A case study of the effect of year round education on attendance, academic performance, and behavior patterns* (Unpublished doctoral dissertation). Virginia Polytechnic Institute and State University, Blacksburg, VA.

Silva, E. (2007). *On the clock: Rethinking the way schools use time. An education sector report.* Retrieved from https://www.air.org/sites/default/files/publications/OntheClock.pdf

Six, L. (1993). *A review of recent studies relating to the achievement of students enrolled in year-round education programs.* San Diego, CA: National Association for Year-Round Education.

Smylie, M. (2009). *Continuous school improvement.* Thousand Oaks, CA: Sage.

Steiguer, J. D. (2002). Revisiting the four-day school week. *Council Newsletter, 22*(2).

Stevens, J. P. (2002). *Applied multivariate statistics for the social sciences.* Mahwah, NJ: Lawrence Erlbaum.

Strazdins, L., Clements, M. S., Korda, R. J., Broom, D. H., & D'Souza, R. M. (2006). Unsociable work? Nonstandard work schedules, family relationships, and children's well-being. *Journal of Marriage and Family*, *68*(2), 394-410.

Tharp, T. W. (2014). *A comparison of student achievement in rural schools with four and five day weeks* (Unpublished doctoral dissertation). The University of Montana, Missoula, MT.

Trice, H., & Beyer, J. (1993). *The cultures of work organizations.* Englewood Cliffs, NJ: Prentice-Hall.

Tschannen-Moran, M. (2004). *Trust matters: Leadership for successful schools.* San Francisco, CA: Jossey-Bass.

Tschannen-Moran, M. (2014). *Trust matters: Leadership for successful schools* (2nd ed.). San Francisco, CA: Jossey-Bass.

Turner, D. (2010, June 4). No class: 4-day school weeks gain popularity nationwide. *USA Today*. Retrieved from https://usatoday30.usatoday.com/news/education/2010-06-04-shorter-school-week_N.htm

Tyler, S. (1969). *Cognitive anthropology.* New York, NY: Holt, Rinehard & Winston.

Wagner, T. (1994). *How schools change.* Boston, MA: Beacon Press.

Wall, B. E. (1994). *Principals' perceptions about the transition from traditional to year round education in North Carolina* (Unpublished doctoral dissertation). Virginia Polytechnic Institute and State University, Blacksburg, VA.

Warne, R. T. (2014). A primer on multivariate analysis of variance (MANOVA) for behavioral scientists. *Practical Assessment, Research & Evaluation*, *19*(13-18), 1-10.

Waters, J.T., Marzano, R.J., & McNulty, B. (2004). Leadership that sparks learning. *Educational Leadership, 61*(7), 48-51.

Weick, K. (1995). *Sensemaking in organizations*. Thousand Oaks, CA: Sage.

Weldon, T. (2008). Dark days at school: Some states allow school districts to shorten week to cut costs. *State News, 50*(10), 30-33.

Wildman, L., Arambula, W., Bryson, D., Bryson, T., Campbell, K., Dominguez, T., … Watkins, M.R. (1999). The effect of year-round schooling on administrators. *Education, 119*(3), 465-472.

Wilkens, A., & Dyer, W. (1988). Toward culturally sensitive theories of culture change. *Academy of Management Review, 13*(4), 522-533.

Wilmoth, S.E. (1995). *The four-day school week and how it affects student achievement* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 9536045)

Winter, E.C. (2005). A modified school year: Perspectives from the early years. *Child Care in Practice*, *11*(4), 399-413.

Wolfson, A.R., & Carskadon, M.A. (2003). Understanding adolescents' sleep patterns and school performance: A critical appraisal. *Sleep Medicine Review,* 7(6) 491-506.

Yarbrough, R., & Gilman, D. A. (2006). From five days to four. *Educational Leadership*, *64*(2), 80-85.

Zepeda, S.J., & Mayers, R.S. (2006) An analysis of research on block scheduling. *Review of Educational Research, 76*(1), 137-170.

Zimmerman, B. J., & Schunk, D. H. (Eds.). (2001). *Self-regulated learning and academic achievement: Theoretical perspectives*. Mahwah, NJ: Lawrence Erlbaum Associates.

APPENDICES

APPENDIX A

School Culture Survey

Directions: Please indicate the degree to which each statement describes conditions in your school using the following scale:

1= Strongly Agree 2= Disagree 3=Undecided 4=Agree 5=Strongly Agree	1	2	3	4	5
1. Teachers utilize professional networks to obtain information and resources for the classroom.					
2. Leaders value teachers' ideas.					
3. Teachers have opportunities for dialogue and planning across grades and subjects					
4. Teachers trust each other.					
5. Teachers support the mission of the school.					
6. Teachers and parents have common expectations for student performance					
7. Leaders in the school trust the professional judgments of teachers.					
8. Teachers spend considerable time planning together.					
9. Teachers regularly seek ideas from seminars, colleagues and conferences.					
10. Teachers are willing to help out whenever there is a problem.					
11. Leaders take time to praise teachers who perform well.					
12. The school mission provides a clear sense of direction for teachers.					
13. Parents trust teachers' professional judgment.					
14. Teachers are involved in the decision-making process.					
15. Teachers take time to observe each other teaching.					
16. Professional development is valued by the faculty.					
17. Teachers' ideas are valued by other teachers.					
18. Leaders in the school facilitate teachers working together.					

19. Teachers understand the mission of the school.					
20. Teachers are kept informed on current issues in the school.					
21. Teachers and parents communicate frequently about student performance					
22. Teacher involvement in policy or decision making is taken seriously.					
23. Teachers are generally aware of what other teachers are teaching.					
24. Teachers maintain a current knowledge base about the learning process.					
25. Teachers work cooperatively in groups.					
26. Teachers are rewarded for experimenting with new ideas and techniques.					
27. The school mission statement reflects the values of the community.					
28. Leaders support risk taking and innovation in teaching.					
29. Teachers work together to develop and evaluate programs and projects.					
30. The faculty values school improvement.					
31. Teaching performance reflects the mission of the school.					
32. Administrators protect instruction and planning time.					
33. Disagreements over instructional practice are voiced openly and discussed.					
34. Teachers are encouraged to share ideas.					
35. Students generally accept responsibility for their schooling, for example by being mentally engaged in class and completing homework assignments.					

APPENDIX B

Recruitment Document

Dear Superintendent,

My name is Alison Vernon and I am an instructional coach in Camdenton, MO. As a doctoral student at Southwest Baptist University, I am conducting research to add to the limited body of research that exists on the impact of a 4-day week on school culture as seen in the perceptions of teachers. I am surveying all full time educators (K-12) in Oklahoma public schools utilizing a 4-day school week. In addition, I am surveying a selection of teachers in public schools in Oklahoma utilizing a 5-day week to compare the two groups. Teachers in your district fall into one of the categories of this study so I would like to request permission to send a survey to each full-time educator in your school district. I realize that this is a busy time of year, especially for teachers. This survey should take no more than 30 minutes for each teacher to complete. The survey is completely confidential. It will ask for demographic information and opinions of school culture within the school building but will not require any identifying information.

Teacher privacy is important to me to ensure honest responses. The answers will be combined with other participants and reported in aggregate form. Information reported will not indicate individual participants, schools or school districts. There is no penalty if teachers choose not to participate or answer all of the questions. The completion and submission of the survey will indicate consent to participate and permission to use the information provided in my study.

Before teachers make their final decision about participating in this study, they will be asked to read the following statements about how their responses will be used and how their rights as a participant will be protected:

- Participation in the study is voluntary. You may stop participating at any point without penalty.
- You are not required to answer all of the questions.
- Your answers will be kept confidential. Results will be presented to others in summary form only, without names, school names or any other identifying information.
- The anticipated time required for this survey is 30 minutes. During this time you will answer questions about how you perceive school culture in your building.

This project was reviewed and approved by the RRB Committee at Southwest Baptist University. The committee believes that the research procedures sufficiently safeguard the subjects' privacy, welfare, civil liberties and rights.

You may contact me at 816.286.7379 if you have questions or concerns about the participation of your full time educators. If you would like a copy of the results of this study you may contact me via E-mail at alisonvernon88@gmail.com. Please respond to this E-mail either confirming or denying your approval for your district's participation in this study. Thank you for your consideration and your time.

Sincerely,

Alison Vernon

APPENDIX C

Informed Consent

Dear Colleague,

My name is Alison Vernon and I am an instructional coach in Camdenton, MO. As a doctoral student at Southwest Baptist University, I am conducting research to add to the limited body of research that exists on teachers' perception of the impact of a 4-day week on school culture. I am surveying all full time educators (K-12) in Oklahoma public schools utilizing a 4-day school week. In addition, I am surveying an equal number of teachers in public schools in Oklahoma utilizing a 5-day week to compare the two groups. Since you are a teacher in one of the two groups represented in this study, I would like to ask for your participation. I realize that this is a busy time of year, especially for teachers. This survey should take no more than 30 minutes of your time to complete. The survey is completely confidential. It will ask for your demographic information and your opinions of school culture within your current school building but will not require any identifying information.

Your privacy is important to me. Your answers will be combined with other participants and reported in aggregate form. Information reported will not indicate individual participants, schools or school districts. There is no penalty if you choose not to participate or answer all of the questions. Your completion and submission of the survey will indicate your consent to participate and permission to use the information that you have provided in my study.

Before you make your final decision about participating in this study, please read the following statements about how your responses will be used and how your rights as a participant will be protected:

- Participation in the study is voluntary. You may stop participating at any point without penalty.
- You are not required to answer all of the questions.
- Your answers will be kept confidential. Results will be presented to others in summary form only, without names, school names or any other identifying information.
- The anticipated time required for this survey is 30 minutes. During this time you will answer questions about how you perceive school culture in your building.

This project was reviewed and approved by the RRB Committee at Southwest Baptist University. The committee believes that the research procedures sufficiently safeguard the subjects' privacy, welfare, civil liberties and rights.

You may contact me at 816.286.7379 if you have questions or concerns about your participation. If you would like a copy of the results of this study you may contact me via E-mail at alisonvernon88@gmail.com. Thank you for your consideration and your time.

Sincerely,

Alison Vernon

APPENDIX D

Demographic Questions

1. Which statement best describes the schedule utilized in your building?
    a. Five-day schedule
    b. Blended schedule with more five-day weeks than four-day weeks
    c. Blended schedule with more four-day weeks than five-day weeks
    d. Four-day schedule
2. Which statement best describes the use of the fifth day in your district?

. All students present for normal school day
a. Only students below grade level present for special instruction
b. Only teachers present every fifth day
c. Only teachers present for some fifth days
d. No teachers or students present for any fifth days

3. What is your gender

. Female
a. Male
b. Prefer not to answer

4. How many years have you been a full-time educator

. 1-10 years
a. 11-20 years
b. 21-30 years
c. more than 30 years

5. If currently using a four-day schedule, how long have you been in a school implementing this schedule?

. N/A- in a school using a five-day schedule
a. 1-3 years
b. 4-7 years
c. 8-10 years
d. more than 10 years