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A Case Study: Transitioning From A Five-Day School Week To A Four-Day School Week

Brian Duane Duchscherer

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A CASE STUDY: TRANSITIONING FROM A FIVE-DAY
SCHOOL WEEK TO A FOUR-DAY SCHOOL WEEK

by

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ABSTRACT

For over a century, most PK-12 schools across the United States have been using the same format of five days of school a week for approximately 9 months a year. The discussion of a four-day school week is being considered as many school districts try to balance their budgets each school year. Some schools in the past 30 years have begun changing to a four-day school week. The four-day school week can create controversy within a community, concerns among parents and students, and benefits for the school district as well as for parents and students. The researcher studied one rural school district transitioning from a five-day school week to a four-day school week. The purpose of the study was to identify what made a rural school district decide to transition to a four-day school week, how the school district accomplished this new delivery of PK-12 education, and to identify perceptions regarding this transition.

The case study was completed with one rural Minnesota school district. The researcher conducted on-site interviews with school administration and one school board member, and gathered school district data from the past three years to review and identify how the school district changed to a four-day school week.

The results from the data collected indicated the school district transitioned to a four-day school week because of financial reasons. The school district did not want to reduce educational opportunities for students by eliminating class offerings or cutting teaching positions. The data indicated, after experiencing the four-day school week, most

students, parents, and teachers favored the new four-day school week compared to the previous five-day school week. The main concerns identified by the participants and data reviewed were younger students adapting to the longer school day, extracurricular adjustments, upset classified personnel, how much money would the district save, and tired employees at the end of the four-day week.

CHAPTER I

INTRODUCTION

The discussion of a four-day school week is being considered in states as school districts try to balance their budgets each school year. State legislatures and state education departments across the country are being asked by local school boards and school superintendents for legislation or approval to allow school districts to move from the traditional five-day school week to a four-day school week. Twenty-three states currently do not allow school districts to change to a four-day school week because the law requires students in those states to attend a minimum number of days (“The Four-day School,” 2009). Six states (Delaware, Idaho, Montana, Nebraska, Oregon, and South Dakota) measure instructional time in hours not days (Zaleski & Colasanti, 2008). School districts in 17 states are already running four-day school week schedules. The supporters of changing to a four-day school week from the traditional five-day school week believe the four-day school week will save money, the current school calendar is an outdated schedule from the turn of the 20th century, and current laws do not have to be as restrictive (Hupp, 2008). The four-day school week opponents have concerns that the longer school day will cause students to become fatigued during the day. Opponents also state students with special needs will have difficulty retaining material during the extra day off. “There appears to be concerns for high risk students and students with disabilities” (Juneau, 2009, p. 9). Twenty percent more instructional time is lost when a

student misses school (Gaines, 2008). Parents of young children have concerns about finding childcare on the off days with the four-day schedule. “Christina Long, a mother of three girls, said she will have to rethink her career plan because of the new four day academic calendar” (Gaines, 2008, p. 5).

The change from a traditional five-day school week to a four-day school week is based on a minimum number of school day hours in a school year instead of the number of days in the school year. A student would go to school for 1,038 hours (138.5 days x 7.5 hours per day) per school year, instead of 173 school days equaling 1,038 hours (173 days x 6 hours per day). The 1,038 hours would be covered in fewer days than the current traditional system (Hupp, 2008). The instructional time has stayed the same for decades, while expectations for what students must learn have increased in this same time period (Dillon, 2010).

There is a need to study the four-day school week initiatives because school districts are being asked to do more with less funding (Gaines, 2008). School districts are experiencing increased educational costs with steady or sometimes declining revenue. School districts are cutting jobs, reducing student programs, increasing class sizes, and asking taxpayers for increased funding (Ray, 2003). Also, the four-day workweek is being discussed and utilized within the business sector.

The four-day workweek is becoming popular in the shift work and construction trade due to the economy. For example, the window company Pella is exploring an alternative to layoffs, instead of laying off workers; the manufacturing company is changing to a four-day workweek for about one third of its employees (Kharif & Coy,

2008). Similar to the private sector, school districts are also looking for ways to prevent laying off teachers and creating larger class sizes.

There are three different models of the four-day school week (Donis-Keller & Silvernail, 2009):

1. *4-day week in winter months only*: Closing school on the fifth day allows for additional energy savings during the most energy-intensive (cold) months. This model has been used in some districts in New Mexico, Michigan, and Pennsylvania.
2. *4-day week every other week*: Lengthened instructional days are held for nine consecutive school days with the tenth day off. This model was used in Maine in the early 1970s.
3. *4-day week during the entire school year*: Each week consists of four lengthened instructional days with the fifth day off. This model is used in Minnesota.

Resources on the four-day school week included daily news media, education journals, and internet websites. This case study, based on one rural Minnesota school district, studied the transitioning from the traditional five-day school week to a four-day school week currently being used in 17 states.

The first public school to use a four-day school week in the United States was in South Dakota in the 1930s. The more recent modern era of the four-day school week emerged in the 1970s in Maine and New Mexico primarily because of the cost savings due to the energy crisis (Dixon, 2011). Lean economic times had led local school districts and state legislatures to implement budget cuts toward education spending.

State legislatures are passing funding bills and policies to allow local districts the latitude or flexibility to change their school calendar. Once again, in 2010 with the economic and energy issues similar to 1970s the focus is to explore the cost savings of a four-day school week (Dixon, 2011). The Webster County school district in Kentucky saved more than \$250,000 in the first year of the four-day school week. The savings were in the areas of fuel costs, less substitute teacher pay, and decreased pay for classified personnel (Weldon, 2008).

School districts claim the four-day school week does more than save money. Webster County school district had a decrease in teacher and student absenteeism, fewer disciplinary referrals, and gains in student achievement. From 2003 to 2008, Webster County improved their state ranking from 111th to 53rd on standardized tests. Similar to Webster County, Peach County school district in Georgia also reported lower absenteeism and improvements in student behavior and achievement (Dixon, 2011).

School districts use the money saved using the four-day school week to reinvest back into the school system. The school districts are not having to eliminate educational programs such as all day kindergarten or high school elective classes to balance the budget. School district leaders believe they are not hurting academics, but are saving academics with the four-day school week. School district leaders believe there is another academic benefit by using the off day during the week to hold professional development training and planning sessions for teachers. These sessions can have a positive impact on student achievement (Weldon, 2008).

Most school calendars already have a four-day school week for one third of the school year. The 2011-2012 approved school calendar for the Carrington school district

in Carrington, North Dakota, has 12 possible weeks of four-day weeks for the school. The calendar has 24 weeks of five days of school for the week (*Carrington Public School*, 2010). The majority of parents, teachers, and students like three-day weekends. Parents do not complain about supervision or childcare concerns with the current school breaks that currently create a four-day school week. Expanding this concept to cover the entire year for financial savings to the district is a concept needing to be considered.

Purpose of the Study

For over a century, most PK-12 schools across the United States have been using the same delivery for school with five days of school a week for approximately 9 months a year. Some school districts have begun changing to a four-day school week. The purpose of the study was to identify what made a rural school district decide to change, how the school district accomplished this new delivery of PK-12 education, and to identify views and perceptions of this change. The researcher studied one rural Minnesota school currently transitioning from a five-day school week to a four-day school week. The researcher studied the leaders' decision making process to transition a school district to a four-day school week, and identified their perceptions of the transition to a four-day school week.

Research Questions

The following research questions guided this case study:

1. What were the reasons the school district transitioned from a five-day week to a four-day week?

2. What was the decision making process for this transition, and by identifying the process, how may it help other school districts considering a four-day school week?
3. What were school district leaders' perceptions, regarding the four-day school week, of teachers, classified personnel, parents, and students, as perceived by the North Central superintendent, principals, athletic director, and one board member?
4. What has the school district leadership identified as expected and unexpected outcomes of the change to the four-day school week?

Researcher's Background

The field of education has been the focus of my life for the past 24 years. I have been a classroom teacher for 11 years, high school principal for 2 years, and a superintendent for 11 years. The experiences gained in these years are considered in the analysis and interpretation of the qualitative interviews. As a current administrator, I make decisions daily, regarding school scheduling needs, which may influence my voice in Chapter V. These experiences and views may unintentionally come through in the final description.

As a current school superintendent, I became interested in this topic because of the references to a four-day school week on educational websites and discussion with colleagues. I read articles regarding how school districts were saving money, how the majority of the parents liked the new four-day schedule, and, as a superintendent, I wanted to find out more about this delivery model.

In discussion with a colleague, I discovered a superintendent in a school district who was in the planning stages of changing from a traditional five-day school week to a four-day school week. The colleague arranged for me to contact the superintendent and discuss with the superintendent about his school district's change in education delivery. When asked, the superintendent agreed to work with me regarding how they transitioned from a traditional school calendar to a four-day school calendar.

Significance of the Study

Research on the four-day school week in educational journals has been limited; this case study may add to the limited research available. This case study provides an inside perspective to the decision making process and perceptions on transitioning from a five-day school week to a four-day school week.

States require different minimum amounts of instructional time in days or hours per year. North Dakota has minimum numbers of days required. Minnesota does not have a state required minimum number of days or hours per year (Zaleski & Colasanti, 2008). The state of Minnesota has 11 school districts using the four-day school week with the start of school in the fall of 2010 (Keaton, 2010).

North Dakota currently does not have a K-12 school district using a four-day school week schedule. The Killdeer public school applied to the North Dakota Department of Public Instruction to change to a four-day school week in February 2006. This application was denied by the state because the state Department of Public Instruction did not believe that the Killdeer application met all the legislative requirements (Briggs, 2006).

North Dakota Century Code (2001) addresses the requirements for a North Dakota school district to reconfigure the number of instructional days within a school district in section 15.1-06-04. North Dakota law grants authority to the state superintendent of public instruction to approve a school district's application to reconfigure the required number of instructional days in accordance with the school district meeting requirements set forth by the legislature (*North Dakota Century Code*, 2001).

The North Dakota requirements for approval require:

1. The school district to make available to each elementary student at least nine hundred fifty-one and one half hours of instruction and make available to each high school student at least one thousand thirty-eight hours of instructional time.
2. Encourage innovation.
3. Provides improved educational opportunities or enhanced academic opportunities for the students.
4. Provides for greater flexibility in the use of a school by current students.
5. Provides for greater flexibility in the use of a school by individuals or groups other than current students.
6. Results in significant cost savings for the district.

North Dakota requires a school district to demonstrate how educational opportunities and enhancement for students with a four-day school week would be similar to a five-day school week. North Dakota requires that the student education

program must be improved with the new four-day schedule, and cost savings are secondary in the approval process.

According to the Flexible Learning Year Application Review (Minnesota Department of Education, 2011), a requirement must be met by the school district applying for a four-day school week schedule (see appendix A). The school district, in accordance with Minnesota state statute 124D.124, must hold public hearings before implementation; the state statute reads as follows:

before implementing a flexible learning year program in any facility of the district, the board must negotiate with the teachers, principals, assistant principals, supervisory personnel and employees to the extent required by the Public Employment Labor Relations Act, and must consult with the parents of pupils who would be affected by the change, and with the community at large. These procedures must include at least three informational meetings for which the board has given published notice to the teachers and employees and to the parents of pupils affected.

As school districts struggle to pay for transportation and other energy costs, school districts are looking to reduce expenses of operating the district. Schools are expected to provide the best education product possible at the lowest cost (Streich, 2010). Some schools have seen a decrease in dropout rates, discipline referrals, and improved morale since changing to the four-day school week (Delisio, 2006). Thus, this change may be one cost saving opportunity, while continuing to provide a quality education. The case study identifies the reasons and process, which led one rural Minnesota community

and school district away from the current system that has been operating for over a century.

Delimitations

The study focused on one rural Minnesota school district that recently switched from a five-day school week to a four-day school week. The researcher gathered data from the Minnesota school district as well as the perceptions of the leadership team. The data were limited to interviews, administrator notes, and public documents. Since 1990, research on the four-day school week in educational journals has been limited.

Definitions

The following words and phrases are defined to aid the reader:

Classified personnel – Employees of the district who do not need a teaching license for their position. These employees would include secretaries, custodians, bus drivers, teacher aides, and kitchen personnel.

Four-day school week – Students will be in class four days a week for approximately 145 days per year. Each day has approximately seven and one half hours of instructional time.

Leadership team – Individuals including the school superintendent, high school principal, elementary principal, athletic director, and school board member.

Off day – In a four-day school week, the day of the week when there is no school. This day is usually a Monday or Friday.

School administrators – Individuals including the school superintendent, high school principal, elementary principal, and athletic director and used interchangeably with administration team and administrative team.

Traditional school calendar – Students will be in class five days per week for approximately 175 days per year. Each day has approximately six hours of instructional time.

Acronyms

The following list of acronyms is provided to assist the reader:

AYP – Adequate Yearly Progress

FTE – Full Time Equivalent

MACCRAY – Minnesota school district made up of the cities of Maynard, Clara City, and Raymond

NDCC – North Dakota Century Code

K-12 – Kindergarten through 12th-grade education

PK-12 – Pre-Kindergarten through 12th-grade education

Organization of the Study

The dissertation is organized into five chapters. Chapter I included the introduction and overview of the case study. Chapter II provides the review of literature. Chapter III describes the methodology for the case study. Chapter IV provides the data results, presented by research questions and identified categories emerging from the data. Chapter V includes discussion, summary, conclusions, limitations of the study, and recommendations for educators and suggestions for future research.

CHAPTER II

REVIEW OF LITERATURE

Introduction

This chapter includes different concepts of a school yearly calendar and the effects of using a four-day school week. The four-day school week can create controversy within a community, concerns among parents and students, and benefits for the school district as well as for parents and students. This chapter includes these topics along with the history of the four-day school week and the reasons why school districts across the country have changed to this schedule. The chapter will also address the concerns and benefits of the four-day school week.

Constructive Controversy Theory

Constructive controversy theory describes a process where intellectual conflict is used to create a positive outcome by having conflicts among ideas, theories, or conclusions. This conflict leads to uncertainty and curiosity, which leads to refined conclusions. Constructive controversy can be between individuals, groups, businesses, schools, communities, or any situation where intellectual conversations and conflict can occur (Johnson & Johnson, 2009).

Constructive controversy can be part of the transitioning to a four-day school week. School leaders hope this conflict does not lead to damaged relationships, hostility, and sometimes distrust (Johnson & Johnson, 2009). Public debate is not always bad if

opposing sides of an issue can be explored. If stakeholders involved remain professional with the discussion, even though they may disagree, one could classify this as constructive controversy. The aim is not to win the debate, but to reach a mutual agreement of being less adversarial and more collaborative (Johnson & Johnson, 2009).

Constructive controversy is a process for learning more about the opposing side's point of view, with the conflict being described as either cooperative or competitive. A cooperative context is an open minded inquiry in the discussion of opposing views. Each side listening to the other's position, willing to hear more about their position and to gain a better understanding of the issue. A competitive context is a closed minded view, with a rejection of the opposing side's ideas and information. There is no moving from one's original position and the person becomes almost an advocate for their argument. A controversy in competitive context can be aggressive and take on a personal tone toward the opposing view (Johnson & Johnson, 2009).

The following diagram (Figure 1) from Stonehouse (2009) shows how controversy in action, when opposing views, can result in new conclusions. Two opposing views had already determined their conclusion to an issue. Using the cooperative context of constructive controversy theory, both sides were open minded and listened to the opposing position and conclusion, thus identifying evidence that was not considered in their own earlier position, which leads to a new conclusion that may be acceptable to both parties.

School administrators sometimes find themselves trying to manage a public meeting with a controversial topic. Administrators need to find ways to keep the public

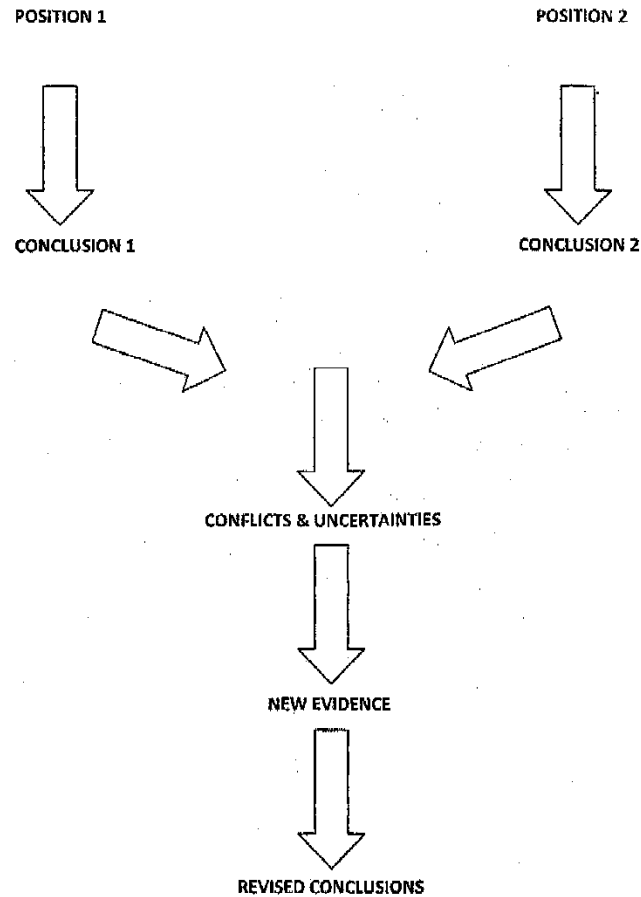


Figure 1. Cooperative context of constructive controversy theory (Stonehouse, 2009).

meeting productive and keep all involved from becoming competitive in their views. Participants need to be reminded it is acceptable to disagree, but it is not acceptable to be disruptive.

Parents, politicians, and educators have questioned why schools continue to follow an agrarian calendar, even though such a small percentage of students attending school are currently needed on a farm (Darden, 2008). With emphasis on educational systems to produce students to compete in a global economy, the need is to have an

educational calendar designed for the 21st century. The current traditional school calendar has no educational advantages than it did many decades ago (Chaika, 2005).

The agricultural need to have students available to help on the farm is not the same as in the past. The vast majority of students in school are not associated with agricultural or the agrarian calendar. The school year could be extended to a 10-month school calendar with more instructional days for students. The calendar could include additional professional development days to help educators stay current with technology and explore different teaching methods to engage and empower the 21st century student.

Today, in the state of Minnesota and 16 other states, there is a discussion about school districts transitioning from school five days a week to having school only four days a week. This change is controversial because it appears to affect children the most. For example, at an April 2010 community meeting in Le Sueur, Minnesota, parents emphasized that further discussion needs to take place in regard to the four-day school week schedule and other options need to be explored before their school board makes a decision to change to a four-day school week for the 2010 school year (Kent, 2010). The change process of transitioning to a new school schedule is difficult and emotional for parents, communities, and school personnel. Individuals will look at how does this change affect their personal situation as an employee or parent. If the change has a negative affect on them, they may be against the idea.

School administrators sometimes do not want to change to a four-day school week, but they believe there is no other option remaining (Spengler, 2011). Administrators and school boards have been cutting their district budgets for years, leading up to the discussion regarding a four-day school week. The school district is at

the point of trying to deliver educational services that are as effective or more effective than in the past (Spengler, 2011). New Ulm, Minnesota, school superintendent Harold Remme summarizes the discussion of a change to a four-day school week by stating, “Personally, I would much prefer moving in the opposite direction of transitioning to a year-round school setting, incorporating more, not less, student days of instruction, but I don’t think that is very feasible at this time” (Spengler, 2011, para. 5-6).

Current economic problems with state and national budgets have placed education and school budgets in a difficult situation. School districts are looking at alternative ways to balance their budgets due to the lack of revenue to support current programs. According to Streich (2010), the following cost cutting measures have been or will be implemented in schools:

- Going to a four-day instructional week
- Laying off teachers and increasing class sizes
- Eliminating planning periods and assigning more classes
- Phasing out foreign language classes
- Consolidating bus transportation routes
- Postponing textbook purchases
- Increasing class sizes

Cost cutting measures are currently being implemented in school districts; a change to a four-day school week is one schedule change option being implemented. School districts have also changed the school week or schedule for reasons other than the four-day school week.

Alternative School Schedules

Year Round

School districts are looking at different ways that schools can operate. Two innovative concepts being explored in the 1970s were the year round school calendar and the four-day school calendar. The year round schedule used a continuous cycle schedule of 45 days of instruction and then 15 days of break. The students still attended the same number of days of instruction as the traditional calendar, the difference being that there is no longer a long summer vacation (Koki, 1992). There are also other year round school schedule patterns, such as 60 days of instruction and 20 days of break for three terms or 60 days of instruction and then 15 days of break for three terms (Dixon, 2011).

The advantage of year round school is you have shorter but more frequent breaks; students and teachers get a three-week break every nine weeks. There is a belief students benefit from the shorter breaks because they do not have to re-learn material after a long three-month summer break. One disadvantage of this schedule is that the school schedule does not coordinate well with other schools on a traditional schedule. The schedule conflict with other school districts may cause problems with sharing interactive television classes between schools, sharing education specialists, and the scheduling of start times for after school sports contests between schools (Whiting, 2010).

The year round school schedule has two types of schedules: a balanced calendar of 45 days on and 15 days off throughout the year or a staggered calendar schedule of different groups of students starting the school year at different sessions of the year when other groups of students are on vacation. There are four groups with each group receiving 180 days of school with individual groups starting at different times. This type

of schedule allows schools to accommodate more students and relieve overcrowding in comparison to a traditional school schedule (“Year-round Schools,” 2007). As of 2005, year round school calendars were being used in 37 states, an increase from 1995 when 29 states reported year round school calendars (Silva, 2007). Technology can also lead to innovative concepts in delivering educational services.

Online School

Recently, school districts have seen the increase in the demand for online classes by students. According to Christensen, Horn, and Johnson (2008), the demand for computer online classes increased from a public education enrollment in online classes of 45,000 in the year 2000 to almost one million today. As graduation requirements increase and school accountability for graduation rates are emphasized, there is a need for another style of education delivery. The online computer based delivery of classes will fill a void in the area of advanced placement in rural and urban schools, credit recovery for students who must retake courses, home school students, and students who have special needs or different learning styles.

According to a University of Michigan professor of education, Elizabeth Birr Moje, “‘there are . . . advantages’ to online high schools, including [learning at] an individualized pace and better access to multimedia content” (Glader, 2009, p. A17). The disadvantage is the student does not learn to work with other people (Glader, 2009). Online schools can also specialize their curriculum or mission. The all-girls Holton-Arms school realized no one was offering a single gender education class online, where only girls could be enrolled for the online class, and thus started online in the fall

of 2009. The National Catholic Schools K12 Virtual was also started in 2009 to offer online Catholic faith based education (Glader, 2009).

Alternative School

Another type of flexible school schedule is used in an alternative school. States are trying to meet the needs of students who are not meeting the desired educational requirements and standards in the traditional education setting. Schools are hoping the alternative school will prevent students from dropping out of school and provide an alternative delivery system than the traditional school setting. Alternative schools are not a new concept; they have been used for over 40 years (Lehr, Lanners, & Lange, 2003). States have different definitions and enrollment criteria for alternative schools, with most alternative schools being in a separate building from the traditional school (Lehr et al., 2003).

Alternative schools are more common in urban or large school districts. School districts with high minority student enrollment and districts located in high poverty areas are more likely than other districts to have alternative schools. Alternative school programs are offered to students in grades 9-12. Few rural school districts have alternative schools (Kleiner, Porch, & Farris, 2002).

There are different types of alternative schools. According to Raywid (1994), there are three types of alternative schools:

1. Popular Innovations: Type I alternatives seek to make school challenging and fulfilling for all involved. Type I alternatives virtually always reflect organizational and administrative departure from tradition. These are today's magnet and charter schools.

2. Last Chance Programs: Type II alternatives are programs to which students are sentenced – usually as one last chance prior to expulsion. Type II programs focus on behavior modification, with little attention to modifying curriculum.
3. Remedial Focus: Type III alternatives are for students who are presumed to need remediation or rehabilitation – academic, social, or both.

History of the Four-day School Week

The first recent example of a school changing to the four-day school week occurred in the early 1970s in the United States (Gaines, 2008). The concept started in the western part of the United States in small rural school districts in the states of New Mexico, Colorado, Oklahoma, Utah, and Oregon. The school districts were looking for a means to reduce energy costs or decrease the amount of time students were riding the bus in a week (Gaines, 2008).

The concept continued to grow and is no longer just a rural western United States idea. During the 1990s, the southern part of the United States started experimenting with the four-day school week. The state of Arkansas passed legislation in 1997 allowing local school boards to establish a four-day school week without having to obtain State Department of Education prior approval. In 1997, Arkansas was the only state in the country to grant such authority to the local community. In June 1997, Saratoga, Arkansas, was the first school district to use the local control option and changed to a four-day school week. Unlike other United States western school districts that changed because of financial savings, Saratoga changed because they wanted to try a new

approach to increase student achievement. The school district believed if you keep doing things the same way you will probably continue getting the same result; thus, the district tried something new (Johnston, 1997).

Beauregard Parish school district in southeast Louisiana, with an enrollment of 6,600 students, established a longer school day to improve student performance. The students would have longer class periods each day, allowing teachers more time to help students or to answer student questions. The school district planned to use its off day as a voluntary tutoring day for students as well as a practice day for standardized tests (Johnston, 1997).

Another academic benefit created by the four-day school week is better attendance by the teachers. The decrease in the need to hire substitute teachers was a financial savings, and fewer substitute teachers had an academic improvement result. Students had their regular classroom teacher more often and this resulted in more teacher-student contact time (Johnston, 1997).

There is one state that goes even further than just allowing local school districts the option of changing; the state of Hawaii mandated the change to a four-day school week. Hawaii has implemented “Furlough Fridays” (Engelhart, 2009). Hawaii has changed all schools to a four-day school week as part of a statewide cost cutting measure. Hawaii now only requires schools to have 163 school days each year. This means the state of Hawaii has the shortest PK-12 academic calendar in the United States. As a result of fewer school days, parents scrambled to find supervision for the 17 days reduced from the school calendar and protested against the controversial school calendar. Hawaii

has a projected deficit of \$1 billion and the parent protest did not change the decision to implement a four-day school week in Hawaii (Engelhart, 2009).

Hawaii is not the norm; generally, most state laws prohibit school districts from implementing a four-day school week because the language is usually stated in a minimum number of instructional days required in a school year. For example, a state may require a school district to have 175 days that would discourage a school district from adjusting their school calendar to a four-day school week (Gaines, 2008). As of 2008, eight states do not set a minimum number of instructional days; the states measure the student instruction in number of minutes (Zaleski & Colasanti, 2008).

The number of minutes in a school year is the focus of the four-day school week, not the number of days. But these minutes need to be well planned and organized. School districts in Utah started to abuse the alternative schedule by adding blocks of minutes in no structured way to the school calendar in an attempt to meet the required yearly minutes. Utah demonstrated time needs to be added to the school day on a structured and consistent basis, to keep the integrity of educational programs (Reeves, 1999).

Along with the western and southern states, Midwest school districts are currently discussing transitioning to a four-day school week or already had changed. In Minnesota, several school districts have already made the change within the last two years. MACCRAY school district, which includes the cities of Maynard, Clara City, and Raymond, made the change three years ago. The school districts of North Central, Ogilvie, and Blackduck made the change in the fall of 2009 (Koumpilova, 2010). As of April 2011, 11 Minnesota school districts are using four-day school week calendars when

the school year started in the fall of 2010 (North Central Superintendent, personal communication, January 17, 2011). Six other Minnesota school districts (Crookston, Norman County East, Rush City, Yellow Medicine East, Le Sueur-Henderson, and Southland) recently studied the idea and decided not to change their current school schedule (Fitzgerald, 2010b).

When a school district starts the discussion about transitioning from a traditional five-day school week, it is almost certain to cause a controversy, not only within the school district but also in the community. One reason for this controversy is the vast majority of the community, parents, students, and teachers have no experience with a four-day school week. The Custer (South Dakota) school district adopted, as a pilot school, the four-day school week in 1995. The district saved money with the move but it was controversial at the time. The controversy settled down within a few years after the state extended the pilot program allowing the school district to continue using a four-day school week (Johnston, 1997).

Concern is expected within the community when you change a school calendar. You cannot expect to change a practice that has been going on for over a century and not have parents and other community members concerned. At times, the changing of the school calendar and schedule can even involve state officials, as in 2002, when then Minnesota Governor Jesse Ventura was against the change to a four-day school week by two Minnesota school districts that stated they were exploring the option because of financial difficulties (Angelo, 2002). After exploring the change, the school districts of Elk River and Osseo did not implement the four-day school week. This was largely due to both districts dealing with concerned parents, along with local and state officials who

were against the change (Angelo, 2002). Similar to each constructive controversy, which has its positives and negatives to the issue, the four-day school week has some concerns and benefits to the school schedule.

Concerns of the Four-day School Week

The issues causing most concern with parents are those associated with childcare, younger children having to attend a longer school day, academic concerns, and at risk students. There are also other concerns associated with the four-day school week, such as the current emphasis on increased school time for students and working within union contracts (Donis-Keller & Silvernail, 2009). There are concerns from the business sector about the four-day workweek; packing 40 hours into four days is not efficient or good for the employee (Weiss, 2008). According to superintendent Donna McGee of Lake Arthur School District, in New Mexico, teachers are drained by the end of the school day (Delisio, 2006).

Childcare

Parents are concerned with what to do with young children on the fifth day or off day during the school week. School districts acknowledge this could be a problem, but the school will also counter this issue by training high school students to be babysitters (Donis-Keller & Silvernail, 2009). The finding of childcare is not the only issue parents are upset about; the cost of the extra day of childcare is also a problem for parents (Kingsbury, 2008). A North Branch, Minnesota, parent will reconsider her career plans, due to their school district changing to a four-day school week, and childcare concerns on the off day (Herring, 2011).

For some parents it was about self-interest, rather than their child. It was noted some parents who did not work, or work their own four-day week, did not want to have to share their free day with their children. Parents wanted the day for themselves to catch up on other items by themselves (Reeves, 1999).

School districts that use the four-day school week calendar for several years believe the childcare concern is a non-issue. Parents prefer having to find childcare for one day, instead of childcare every day. The longer school day eliminates the every day childcare need (Donis-Keller & Silvernail, 2009).

Longer School Day

The issue of a longer school day is another concern for parents; parents worry their children will not have the attention span or energy for the longer school day. The concern is an eight-hour school day is too much for young children. A study by Sagness and Salzman (1993) found 42% of students in grades 1-3 believed the school day was too long and they got tired by the end of the school day. The longer school day is a concern of the four-day school week, but at the same time there is also a push for longer school days within the traditional school calendar (Quaid, 2009).

The Obama administration believes students spend too little time in school (Quaid, 2009). President Obama wants longer school days and longer school years. Secretary of Education Arne Duncan uses the same argument proponents of the four-day school week use when discussing changing the school day: “Our school calendar is based upon the agrarian economy and not . . . many . . . [students] are working [in the] fields today” (Quaid, 2009, para. 5).

A concern associated with the longer school day, addressed by parents, is for students participating in extracurricular sports programs after school. These students will now be getting home even later than before from practice, allowing less family time in the evening and less time to complete homework assignments (Swanson, 2010).

Teachers also raised concerns regarding the transition from a five-day schedule to a four-day schedule about the school day being too long. The teachers believed the day would be tiring for younger children. The longer school day did not prove to be a problem (Yarbrough & Gilman, 2006). Many schools previously only ran half-day kindergarten programs, but now it is common to run yearlong, full-day kindergarten programs along with after school programs for the students. The longer school day with the four-day school week schedule has reduced some childcare issues for families after school is dismissed for the day (Yarbrough & Gilman, 2006).

At the primary elementary grade level, teachers need to keep their environment flexible so they can utilize the extra time for a better quality lesson. Most elementary schedules have more breaks and activities in the afternoon (Rouse, 2006). Schools also believe they cover more material with the longer school day. The Custer school district in South Dakota indicated they cover 20% more material with the longer classes, but do not mention if the quality of learning is the same. The quality of the education received with the four-day school week is an unknown (Kingsbury, 2008).

Academic Concerns

Student achievement is one of the main concerns of parents and educators when a school district is discussing the possibility of changing the school schedule. Even with the Custer (South Dakota) school district indicating it covers more academic material,

academic coverage is still a concern for parents and others about the four-day school week (Kingsbury, 2008). School districts are starting to present data identifying that academic concerns from parents may not be a valid concern. A 1990 New Mexico study found the mean test scores, from 10 different school districts using a four-day school week over an eight-year period, were slightly higher than districts with a five-day school week. Even though these scores were not significantly higher, this was a positive sign for supporters of the four-day schedule (Yarbrough & Gilman, 2006).

Even though there are limited studies on the affects of student achievement when using a four-day schedule, one study in 1984 of the Iowa Test of Basics Skills conducted with five rural Colorado school districts (Daly & Richburg, 1984) found there was no affect on student achievement as measured by standardized tests over a two-year span after using a four-day school week. A 2009 report by the Idaho Department of Education indicated there was no evidence recognized by standardized tests that student achievement was affected positively or negatively by the four-day school week (Herring, 2011). A 2006 Colorado Department of Education review of the four-day school week indicated they were also uncertain if student performance was affected by the four-day school week (Herring, 2011).

A study by Hewitt and Denny (2010) of 45 schools in Colorado showed no statistical difference in overall student academic performance between students on a four-day week and students on a five-day week. The study was in the areas of reading, writing, and math at the elementary, middle school, and high school levels. The study did reveal slightly higher student performance in some grades for students on a five-day school week, but the conclusion of the study stated the issue of student academic

performance should not be a concern in the policy decision to implement a four-day school week (Hewitt & Denny, 2010). Another Colorado study in 2009 stated “little difference between four and five day [school] weeks in terms of status as reflected in percent proficient and advanced regardless of content area” (Lefly & Penn, 2009, p. 7).

Teacher preparation is a challenge within the four-day school week. Each day teachers must be prepared to teach a lesson and a half during the four-day week extended class period. Although teachers will have to change their instructional methods to accommodate for the longer classes, it has been shown teachers make the similar adjustments as to teaching on a block schedule of 90-minute periods in the high school (Reeves, 1999). Teachers and students both find they apply themselves more efficiently by staying on task because they realize they have only four days in the week to complete the work or project (Grau & Shaughnessy, 1987). According to superintendent Gary Brogen of Grace School District in Idaho, the change to a four-day school week has kept students in school more; student time in school was a bigger benefit than saving money (Ellis, 2010).

Politics and Community

The state of Minnesota conservative public policy has put some school districts between a rock and a hard place. The policy has been shifting educational cost from the state to the school district for the past seven years (Van Hecke, 2010). According to John Van Hecke, the executive director of *MN2020 Journal*, this trend is slowly sliding Minnesota education to mediocrity of the four-day school week (Van Hecke, 2010). He is critical of the four-day school week: “Cash-strapped school districts are increasingly considering what was, even a couple of years ago, unthinkable. Otherwise intelligent,

talented and skillful school administrators are suddenly rationalizing an educational policy shift undermining the pillars of their professional educator's identity" (para. 6).

The four-day school week is not popular with some individuals; they believe students need to be in school more time or days, not less. Some educators, parents, and politicians believe school should be five days a week and year round (Chen, 2008). There has been some concern by superintendents that the benefits the school districts were expecting to happen with a four-day school week did not materialize. One of the concerns mentioned was the school did not experience additional productive class time and there was no increase in student test scores. The financial savings are not substantial enough or did not meet the project saving anticipated going into the four-day school week. Several schools experienced teacher and student burnout by the end of the day of the longer school day, which created an unproductive learning time. In Arkansas, one district returned to the five day a week schedule after six years of being on the four-day schedule (Delisio, 2006). The disadvantages were outweighing the advantages and the schedule was taking a toll on the students (Delisio, 2006).

Before a school district makes a change in their school schedule, the school needs to have community support. If the district does not have a super majority of 75% of the patrons, then the district should not consider changing from its traditional five-day schedule to a four-day schedule (Delisio, 2006). The school district should spend at least a year of planning to make the change before trying to implement this new schedule. This planning time will allow for community discussion and meeting with all stakeholders affected (Delisio, 2006). The discussion of the change to a four-day school week can divide communities. The emotions can be strong about this issue. Even though

the instructional time in minutes will be the same with either schedule, there is a perception of students and employees not attending school an adequate amount of time. There is a negative reaction to attending fewer days of school, especially when the current political push is for students to attend more days of school (Dam, 2006). The message being sent by shortening the school week is not what some political leaders want happening. The politicians and other educational reformers want to have longer school days and more instructional days in the school calendar (Chamberlin & Plucker, 2003).

One concern from the private sector about a four-day workweek is that working 40 hours in four days is not an efficient way to work, the concern being that the productivity of the employees decreases toward the end of a 10-hour day (Weiss, 2008). The same productivity is a concern for opponents of the four-day school week. Students and teachers will be fatigued and will not productively use the extra time provided each day during the longer school day (Schank & York, 2009).

Benefits of the Four-day School Week

Financial

The switch to a four-day school week is in most cases a financial decision. This financial decision is based on saving school districts money on employee salaries, energy costs, and transportation. With transportation being one of the main issues, the school no longer has to run buses as many days as it previously had to during the five-day school week. With the cost of fuel, bus driver salaries, and repairs to the school buses, this is an actual savings for the district (Yarbrough & Gilman, 2006). The cost of fuel is such a concern; school districts are looking at alternatives to save on fuel costs. Districts have started purchasing buses that use propane instead of diesel fuel. The San Antonio, Texas,

area Northside Independent School District purchased 16 buses, which use propane instead of diesel (Miners, 2008). The busing issue also saves the rural students from having to ride the bus so many hours in a week. If a student rides two hours a day and you reduce the calendar by 30 days, the child has reduced his or her bus riding time by 60 hours a year, which is appreciated by rural parents. The majority of parents, surveyed after they have experienced the use of the four-day schedule, liked the change. The parents believe it gives them more family time on the weekends and children have more time to help with other duties at home (Grau & Shaughnessy, 1987).

Another financial benefit is substitute teacher pay. Since most of the schools using the four-day schedule are rural schools, teachers and students must travel long distances for medical appointments usually resulting in an entire day of school being missed. The off day allows for both teachers and students to schedule appointments and not miss school (Grau & Shaughnessy, 1987). With the four-day school week it has shown there is better work attendance by teachers (Chamberlin & Plucker, 2003). Teacher absences fell by more than 50% in a school district. Teachers are making their personal appointments on the off days and the chance of the teacher being sick on a school day has been reduced by 20% (Reeves, 1999). A Colorado survey found that over 90% of secondary and elementary teachers, using the four-day schedule, favored the new schedule over the traditional schedule (Culbertson, 1982). Teachers liked the schedule for their own personal reason of having an extra weekend day for family and taking care of personal business (Culbertson, 1982).

The financial benefit can also be realized in the use of less energy. If school buildings can reduce the heating temperature of the rooms over three consecutive days, it can save money on this energy expense (Reeves, 1999).

The financial situation in one school district was such a concern; the school board changed to a four-day school week during the middle of the school year. Barnsdall school district in Barnsdall, Oklahoma, a rural school district with 462 students faced with several budget problems, changed to a four-day school week with little planning. The school board voted to change to a four-day school week at a December school board meeting, with the change to start when classes resume at the beginning of January after the holiday break. No parents attended the meeting to express concerns about the change (Gamallo, 2009).

School districts in Montana changed due to financial reasons, but according to a 2008 survey by the Montana Office of Public Instruction, all districts did save money, but not as much as they had anticipated. The school districts did discover other benefits in nonacademic areas, which may help student performance. The survey indicated an improvement in student and staff morale (Montana Office of Public Instruction, 2009). As previously mentioned, the four-day school week was primarily a fiscal savings idea with possible educational benefits.

Educational

Some districts have experienced improved student attendance, decreased student disciplinary referrals, and fewer dropouts. These educational benefits were realized when the schools were primarily concerned about saving money (Yarbrough & Gilman, 2006). In New Mexico, where 18 out of 89 school districts use a four-day schedule, the financial

savings is no longer the main reason the districts use this alternative schedule. The alternative schedule promotes more of an academic focus, with fewer disruptions and most of the sports activities are on the off day and weekends (Delisio, 2006). The schedule has improved student participation in extracurricular activities, because students no longer miss classes due to travel when the event is scheduled on the off day of the four-day week (Durr, 2003). The educational benefit of students missing less school, fewer classroom disruptions due to student-athletes leaving class for an activity, and an increase in students being on task for a long class period has been an unexpected benefit (Marx, 2007).

Some schools in Minnesota are seeing educational benefits of the four-day school week. Parents are providing anecdotal evidence by stating their children's grades are going up since their district has changed to a four-day school week ("4-day Makes Mark," 2011). The MACCRAY school district is reporting less student absenteeism and the school district is making Adequate Yearly Progress (AYP) on the mandated state tests, except in the category of students on free and reduced meals (Schmidt, 2010). The district has saved money and has been able to save program cuts and staff positions (Schmidt, 2010). The MACCRAY school district is having a good experience with the four-day school week with parents telling the school not to go back to the five-day school week schedule ("4-day Makes Mark," 2011).

A 2003 Colorado state education department study found student achievement did no worse on a four-day schedule than on a five-day schedule (Kenworthy, 2004). The same study found students, parents, and teachers were overwhelmingly in favor of the four-day schedule. The research suggests that once a school district changes to a

four-day school week the controversy settles down and the majority supports the change (Kenworthy, 2004). The Victor School District in Montana has been on the four-day school week for three years; the district believes the students have better attendance and most importantly the students are demonstrating better academic performance (Chapman, 2009). The Colton School District in Oregon believes the four-day school week does not hurt a student's academic performance; the district has been on the four-day school calendar for five years, and the student test scores in math, science, and reading are higher than the state average (Chapman, 2009). The school does not acknowledge if the test scores were higher in percentage according to the state average, before the change to the four-day school week. Secondary teachers also believe they could provide more help with a student's homework and they could also assign a more in-depth assignment for over the long weekend (Culbertson, 1982).

The Fort Valley (Georgia) school district made the change to the four-day school week because of the poor financial position of the district, according to school superintendent Susan Clark (Turner, 2010). What they experienced was an unexpected increase in test scores. The district also had an increase in attendance by both the students and the teachers, saving money on having to hire substitute teachers (Turner, 2010). The benefits of a four-day workweek are not only to the school as the employers, there are also benefits to the employees.

Employee

The superintendent of Bear Lake County School District in Idaho, Cliff Walters, believes "the morale in our school district is better because of the four-day school week" (Ellis, 2010, para. 9). Students, parents, and employees love the school schedule (Ellis,

2010). There are personal benefits for employees that were not realized on a traditional workweek. The new schedule allows employees more consecutive days for family time. Employees can plan for three days of leave without having to use a day of personal leave or vacation leave. Employees can also save money because they will have one less day of travel to work and less of other costs associated with the workday. Employees in the private sector are realizing a better work-life balance with a four-day workweek (Parker, 2008). The four-day work schedule is not only in the private sector and K-12 education system; it is now in the post-secondary system.

Two community colleges have also changed to the four-day school week: Brevard Community College in Florida and Southern West Virginia Community and Technical College (Meyer, 2008). The university system does not have to address the K-12 concern of childcare on the off day. The off day is a benefit to both the university student and university employee. The fast pace world seems to have created an extra day of the week. At the university level the biggest surprise has been the improvement in employee morale, according to college president James Drake (Meyer, 2008). The college president has indicated employees at Florida's Brevard Community College have come forward to proclaim their approval and talk about the positive effect it has had in their lives (Meyer, 2008). The college had a decrease in sick days used by employees, a decrease in staff turnover, and an increase in applications for job openings at the college. The college students also liked the schedule with 8 out of 10 students experiencing a positive or no effect toward the four-day week schedule, and the student enrollment increasing since the implement of the schedule (Meyer, 2008).

At Western Carolina University during the summer, employees work four 10-hour days instead of the five 8-hour days. This allows the university to set the thermostat at a higher temperature for three consecutive days and saves on cooling cost. These four-day workweeks also save employee transportation cost by eliminating one travel day per week (Mangan, 2008).

Similar to some private sector businesses, public schools, community colleges, the four-day workweek is also being used by city government. City government is experiencing higher worker morale and productivity when they use the four-day work schedule (Wapshott, 2008).

The state of Utah mandated a four-day workweek for most state employees (Walsh, 2009). The state closed offices on Fridays in an effort to reduce energy cost. The state employees worked four 10-hour days. The state of Utah found it reduced its energy cost by 13% and the response from the state employees was overwhelming in favor of the new four-day week with 82% of the state workers saying they liked the schedules. The state found the new schedules did not lead to worker burnout, and employees used fewer sick days on the new schedules. The private sector business General Motors has also started a four 10-hour day at several of their plants (Walsh, 2009).

The environmental effect with the four-day workweek is also a factor. Traveling to work one day less a week, while the heating and cooling of buildings can also be adjusted, is an important issue for some businesses and employees. Going green and using less energy is an environmental benefit of the four-day schedule. With energy

prices currently being stable, the current reason for businesses is employee morale, productivity, and environmental effects (Catlin, 1997).

Reasons to Change to a Four-day School Week

What factors are causing school districts to consider the four-day school week?

Some of the reasons stated by school administrators and school board members is declining enrollment, flat funding from the state, and failure of the local school district to provide an operating levy (Fitzgerald, 2010a). All three reasons are financial related. The school districts are having difficulty in balancing their budgets even after years of reducing expenditures on transportation, administration, teachers, and para-educators. School boards and administrators believe they can no longer reduce expenditures by cutting back on supplies, maintenance, reducing employees, and eliminating programs. School districts are considering one additional way of reducing expenditures and the four-day school week is one of their choices. The main cause is money, and in most cases the only reason why they are making the change (Fitzgerald, 2010a).

According to superintendent Tamara Usselman of Perham-Dent, Minnesota, school district, “it [four-day school week] works until inflation outgrows it. What do you do then after a four day week, go to a three day week?” (Bergen, 2011, para. 13). With school districts not having many options after years of cutting in most areas, superintendents believe this forces the school district to weigh a new schedule against other options of cutting programs; perhaps the four-day school week is their only option (Bergen, 2011).

For the fiscal year 2010-2011, 42 states are looking at a budget shortfall (Stover, 2010). The state budget shortfall is leading to reduced funding from the state to

the local school districts. Schools are being forced to make decisions such as going to a four-day school week to reduce expenditures or to cut academic course offerings and increase class size. The state of Georgia legislature is considering shortening the school year (Stover, 2010). This could mean school districts might decrease the number of professional development days for teachers so they do not have to decrease the amount of contact days between teachers and students (Stover, 2010).

With most state budgets not being able to increase or sustain the current PK-12 funding levels the past few years, school districts are starting to lay off employees and close school buildings. The Kansas City school district recently decided to close 29 schools (Stover, 2010). The tough times for school districts may even get worse. Many districts used stimulus funds from the federal American Recovery and Reinvestment Act to fund teaching positions and to sustain the current school programs. These stimulus funds were only one-time federal payments to schools and only delayed having to solve the financial budget problems (Stover, 2010).

According to Bruce Hunter, associate executive director for the American Association of School Administrators, during a presentation to the North Dakota Council of Educational Leaders conference in June 2010, 275,000 education jobs are going to be eliminated in the 2010-2011 school year. Hunter's presentation indicated 13% of school districts in the country will be considering a four-day school week due to the lack of school funding, and the education business is going to eliminate student programs, reduce teachers and administrators, reduce the numbers of para-educators, and create larger class sizes due to the lack of funding (B. Hunter, personal communication, June 15, 2010).

The only states not experiencing deficit budget conditions are the energy producing states of Alaska, Wyoming, and North Dakota (McNeil, 2008). The budget problems of the other states are having a serious impact on PK-12 education. Most states are resorting to spending cuts, not tax increases, to solve their budget problems. Almost every state has to make unpopular decisions in regard to funding on PK-12 education (McNeil, 2008).

One reason to change to a four-day school week is because of student activities. This reason is rarely stated as one of the main reasons to change but is a reason given by districts. Rich School District in Utah stated sports and travel is the main reason they changed to the four-day school week (Toomer-Cook, 2007). Superintendent Dale Lamborn reported,

Districtwide, absenteeism decreased by 36 to 46 percent per trimester, and by 70 to 94 percent for those involved in athletics. Third-trimester athletics absenteeism at the high school went from 1,943 last school year [five-day school week] to 110 this year. Overall absenteeism at the same time went from 11,774 districtwide to 6,363, a drop of 46 percent. (para. 11)

The Rich School District also reported coaches/teachers were in the classroom more, not having to miss school due to Friday sports events (Toomer-Cook, 2007).

Due to the limited amount of funds available for schools, lobbying groups are starting to push the agenda of their group. For example, lobbyists are trying to change state laws to require that at least 65% of PK-12 spending goes directly to the classroom (Toppo, 2006). The classroom means spending on teachers, aides, instruction supplies, and activities. The other 35% can be spent on plant operations, transportation,

administration, librarians, and other student support personnel (Agron, 2006). Other options to save money are already happening.

School districts across the country have scaled back summer school, ended programs designed to help struggling elementary students, and are discussing the elimination of after school programs for students. These programs established to help students meet AYP are now being cut due to budget shortfalls (Stover, 2010). Due to school finance problems, schools are searching for new models to deliver educational services.

The model of a four-day school week is working in some areas of the country. Schools are also looking at doing business differently in other areas, such as contracting with outside service providers for non-instructional services. These services can be in the areas of transportation, school financial business office, and custodian services (Stover, 2010).

Reinvestment in Transitioning

The money saved by going to a four-day school week should not be used to just help balance the budget for the coming school year. There are different ways to balance the budget. The money saved by changing the school calendar should be used to save educational programs that would have been cut without the financial savings of a four-day school week. The money saved should accomplish something important for the school district and be reinvested into programs important to students and student achievement. These programs should be what the stakeholders have been asking for but the school was not able to afford unless there were cuts made in other areas (Reeves, 1999).

Conclusion

Controversy within a school district is sometimes necessary to explore change that is expected to benefit students. The issue of a four-day school week has not only created discussion within the school, but it has also created discussion within the community. Four-day school weeks have been working for a small number of school districts for over 30 years (Cook, 2008). Presently, the interest in the four-day school week has been increasing in school districts across Minnesota; along with this interest has come controversy within these districts. Minnesota school districts are having financial difficulties and are looking to change to a four-day school week to help save money (Spengler, 2010). The issue is not if the four-day school week can be used as a school schedule to reduce expenditures, because it has been implemented for over 30 years, but the question is whether the four-day school week can be the right cost saving move for their district.

CHAPTER III

METHODOLOGY

Chapter III is the study methods for this research. The researcher used a qualitative research approach, following Merriam (1998):

Qualitative research is an umbrella concept covering several forms of inquiry that help us understand and explain the meaning of social phenomenon with as little disruption of the natural setting as possible. The researcher is the primary instrument used to conduct the study and the focus being on the process, meaning, and understanding. (p. 5)

This qualitative research study used a case study approach, which is a study of an issue explored through one or more cases in a bounded system (Creswell, 2007).

Identifying reasons leading one rural school district to move to a four-day school week, and the decision making process used to accomplish this change, was the purpose of this study. According to Merriam (1998),

[the case study design] is employed to gain an in-depth understanding of the situation and meaning for those involved. The interest is in a process rather than outcomes, in context rather than a specific variable, in discovery rather than confirmation. Insights gleaned from case studies can directly influence policy, practice, and future research. Case studies help us to understand processes of

events, projects, and programs and to discover context characteristics that will shed light on an issue. (p. 19)

This research may provide insight regarding the decision making process and reasons for implementations of the four-day school week established in the North Central school district.

Subjects

The school district for the case study will be identified as the North Central school district, protecting the anonymity of the school district that was studied. The five subjects interviewed were the North Central school superintendent, high school principal, elementary principal, athletic director, and one school board member. The five subjects were chosen because they had direct involvement in developing the transition process and were the decision makers in the implementation procedures for the four-day school week. The researcher gathered school leaders' perceptions and did not directly interview students, parents, and employees of the district. These perceptions were the school leaders' thoughts and opinions. Each school district and community has its own special circumstances. With these circumstances the decision making process will need to adapt or change according to each district. The researcher obtained the subject perceptions during on-site interviews.

Within the data analysis the five interviewees were identified as A, B, C, D, and E. The school administrators have a combined 60 years of experience ranging from 2 years to 40 years. The school administrators are Minnesota state credentialed and hold a Master's degree or more educational training. Subject A is the elementary principal of the North Central school district. He is in his 12th year at the school district. He has a

total of 40 years of educational experience, with an extensive background in special education to go along with his administrative experience. Subject B is the high school principal, grades 7-12, of the North Central school district. He is in his second year as high school principal, his 23rd year at the school district, has a principal's 6th year licensure, K-12, and also has a superintendent's licensure. Subject C is the activities director and community education director for the North Central school district. He has been with the school district for 23 years, the last five years as the activities and community education director. Subject D is the school board president of the North Central school district. He has been on the school board for nine years and is in his first year as the school board president. Subject E is the superintendent of the North Central school district. He has been with the North Central school district for 16 years and is in his fifth year as the superintendent (North Central Superintendent, personal communication, February 4, 2011).

The North Central School District

The North Central school district has a rich history of academic achievement. The district has an enrollment of 1,100 students and a graduation rate of 93%. The high school makes available over 30 college credits with the district's College-In-The-High School program. The district also operates an Alternative Learning Center for non-traditional students and the Early Childhood Family Education program to help prepare future students for kindergarten. The North Central district and community demonstrate commitment to students by providing an outstanding college scholarship program that has provided over \$3 million to graduating seniors over the past three years (North Central Superintendent, personal communication, October 4, 2011).

The district has 59 full time equivalent (FTE) licensed teacher personnel to provide educational services to their students and a total of 76 licensed FTEs when counting other special services provided to students. This gives the school district an overall 14 to 1 student to licensed staff ratio. All teaching staff meets federal requirements for highly qualified and 79% of the teachers have 10 years or more of teaching experience. The teaching staff has 31% of the teachers with a Master's degree (*North Central Public, 2010*).

The North Central school district provides many extracurricular programs for student participation. These programs include art, band and choir, baseball, basketball, hockey, track, cross-country, football, swimming, one-act play, softball, speech, volleyball, and knowledge bowl. Over 65% of the student body is active in extracurricular programs (*North Central Public, 2010*).

Data Collection Method

The researcher brought the idea to his advisor and discussed the concept as a dissertation topic. The topic was then presented to his doctoral committee for approval and was approved by the Institutional Review Board (IRB) on December 2, 2010.

After securing written permission from subjects, using the approved University IRB informed consent form (see Appendix B), the researcher conducted personal interviews at the North Central school district. While at North Central the researcher used a digital recorder as well as took notes during the interview. Each interview lasted approximately 45 minutes. Each subject was asked the same set of questions (see pp. 48 and 49). The interviews were transcribed locally by an independent transcriber. The

transcribed interviews were sent to each of the North Central interviewees and feedback was given to the researcher. There was only one minor correction.

The researcher obtained available public information regarding the transition to a four-day school week. Public information included, but was not limited to, newsletters, bulletins, school board minutes, meeting agendas, meeting notes, and public presentations.

Reliability

According to Merriam (1998), “ensuring validity and reliability in qualitative research involves conducting the investigation in an ethical manner. Reliability concerns can be approached through careful attention in the way in which the data was collected, analyzed, and interpreted” (pp. 198-199).

The data were collected by the researcher with on-site interviews and through a review of public documents of the school district. The interviewees received an informative letter, a consent form, and the interview questions prior to being interviewed. All subjects had the opportunity to withdraw from the study at any time. The school district involved approved of the study and cooperated in all manners to support the researcher. The data for this case study were analyzed and categorized according to the codes that emerged from the interviews.

Data Analysis

There was a triangulation of data gathered from interviews, public presentation documents and minutes, administrator notes, and school board meeting minutes. The recorded interviews were transcribed by an external transcriber. The researcher provided a copy of each transcribed interview to his advisor and a third reviewer. The interview

transcripts were analyzed by the researcher, the researcher's advisor, and an outside reviewer by coding the subjects' responses from the transcriptions. Each reviewer individually color coded the subjects' responses to each question. The researcher then reviewed and tabulated the codes to identify categories for each of the 14 interview questions and created a table format for each interview question and the main categories identified for each question. The researcher then compared and aligned the emerging categories with literature review, presentation documents, and school board meeting minutes. The researcher finally identified common categories from the triangulation of data and two categories emerged.

The researcher used the core category approach as described in *Educational Research* by John W. Creswell (2007). The researcher reviewed the coded transcripts and identified two core categories to each question and listed quotes from the subjects in the data analysis. The researcher analyzed the interview transcripts for consistency and aligning categories, including school board minutes of discussion of the four-day school week, committee meeting documents for planning process, articles from local newspapers, and other public documents available.

The researcher reviewed transcripts of the required three public meetings held during the transition process of the North Central school district. A sample of public questions asked of the school administration during the transition period is found in Chapter IV. The researcher also reviewed public school board minutes to analyze the number of times four-day school week was discussed by the school board and administration at public meetings.

Setting

The study was conducted in the school district of North Central (Minnesota). The North Central public school district has a K-12 enrollment of 1,100 students. The school district was established in 1912 and consists of 946 square miles. The district has three educational buildings they are currently using. One building houses students in grades K-2, another building houses grades 3-6, and one building has students in grades 7-12. The district has 150 employees and has 14 bus routes. The district has an annual budget of approximately \$12 million and had to cut \$1.1 million from the budget in the last two years (North Central Superintendent, personal communication, February 2, 2011).

Interview Questions

With qualitative research one method of collecting data is with personal interviews. Merriam (1998) states, "Interviews can be defined as a conversation, but a conversation with a purpose. The main purpose of an interview is to obtain a special kind of information. The researcher wants to find out what is in and on someone else's mind" (p. 71). After reviewing educational journal articles and newspaper articles about the four-day school week, talking with colleagues, and meeting with the researcher's advisor, the researcher composed the following interview questions:

1. What do you believe led the district to transition to a four-day school week?
2. What was the decision making process for your district to transition from a five-day school schedule to a four-day school schedule?
3. What was different during the transition than what your research indicated to you?
4. Describe the teachers' response to the change.

5. Describe the classified personnel response to the change.
6. Describe the parents' response to the change.
7. Describe the students' response to the change.
8. What unexpected problems have developed that you were not anticipating?
9. Describe the unexpected benefits or positive experiences that you were not anticipating.
10. If you could, what would you do differently throughout the transition process?
11. What would you recommend to other school districts contemplating this move to a four-day school week?
12. Have you thought about returning to a five-day school week and why?
13. What were the resources used to guide your transition?
14. What curriculum changes were made?

These interview questions were also approved by the researcher's committee and the University of North Dakota Institutional Review Board (IRB-201012-134). Each subject answered all 14 questions and described their perceptions of the four-day school week. All five of the subjects selected to be interviewed participated in the case study. The researcher conducted one-on-one digitally recorded interviews at the district's central office, which was located at the high school building. The interviews took place within a conference room located in the administrative office area of the high school. An outside person transcribed the interviews; the researcher reviewed each transcript for accuracy and emailed a copy of the transcript to the subjects to verify for accuracy. One subject made minor changes in his interview answers.

CHAPTER IV

DATA RESULTS

Chapter IV includes the data analysis and results. The data are presented in the format in which the interview questions were asked of the subjects. The categories, which emerged from the subjects' answers, are listed in table format following the question.

The researcher and two outside reviewers coded transcripts. Each reviewer read, reviewed, and color coded each transcript separately, from each subject's responses to the 14 interview questions. Once the three reviewers completed the color coding of the transcripts, the researcher compiled the three responses and identified two categories per interview question, which aligned with the literature review.

Analysis of Interview Data

The data, presented in table format, correspond with each interview question. The 14 tables list the categories that emerged from the subjects' responses. The interviewees are identified as A, B, C, D, and E and are identified vertically on the tables. The researcher identified two core categories for each interview question which are listed in the table. The researcher placed an "X" on the table for each subject who mentioned one of the main categories that emerged for each question.

Table 1. Interview Question #1: What do you believe led the district to transition to a four-day school week?

Subjects	Categories	
	Finances	Minimal affect on learning
A	X	
B	X	X
C	X	X
D	X	X
E	X	X

All five subjects indicated the school district’s main reason to transition to a four-day school week was the district’s financial condition. The subjects believed a four-day week would save money, have a minimal affect on learning compared to other options, save teaching positions that would otherwise have to be eliminated, and maintain the current academic programs. Subject B stated, “We were looking at about a million dollars in cuts and we were looking for any possible way to find large dollar cuts.” Subject E stated, “We tried to look at how we make significant cuts without hurting the education of students.”

The subjects indicated the transition started with school administrators discussing the four-day school week concept within their administrative meetings. The administration presented the concept to the school board, which after several months of discussion approved the administration to apply to the state department for approval.

The subjects indicated the four-day school week initiative started with administrators discussing the idea within their administrative meetings. Subject B stated,

Table 2. Interview Question #2: What was the decision making process for your district to transition from a five-day school schedule to a four-day school schedule?

Subjects	Categories	
	Administration discussions	Communication with employees and public
A	X	X
B		X
C	X	X
D	X	X
E	X	X

“As I recall, it was started at the administrative level. I can’t remember, but I think it was another principal that brought up the four-day week.” All five subjects interviewed indicated the importance of communicating with employees and the public during the decision making process. Subject D stated, “Early on we started to talk about if we are going to seriously consider this, we are going to have to start thinking about how we are going to engage with various groups, including public forums, where we can both provide information and receive input from the public and from the employees.”

The subjects indicated the North Central school district did not experience many unanticipated issues than what the administrators’ personal four-day school week research indicated would happen during a transition. The leadership team did indicate having difficulty with some teachers and union contracts. Three out of five subjects indicated there was resistance to change from teachers and classified employees. These two categories were different than what the North Central school district had researched in regard to changing to a four-day school week. Subject A stated, “Our staff was really

against it . . . change is hard for us.” One subject indicated the school should have communicated with the union earlier in the process. Subject E stated, “Get the unions in right up front. Absolutely lay it right out on the line . . . how can we do this so it is the right thing and good for everybody?”.

Table 3. Interview Question #3: What was different during the transition than what your research indicated to you?

Subjects	Categories	
	Dealing with teachers & union	Change is difficult
A	X	X
B	X	X
C		
D		X
E	X	

Four of the five subjects indicated the teachers’ response to change was of initial apprehension. The teachers were concerned about the younger students adjusting to longer school days. Subject C stated, “A lot of instructors at the lower age level just didn’t think it would work or could work.” The teachers also had a positive response to longer class periods to cover more material and personally liked the four-day workweek after the change occurred. All five subjects indicated after the first year of the new schedule, the majority of the teachers supported the new four-day school week. Subject C stated, “Now I would say almost all of our teachers and faculty would be in favor of the four-day week.”

Table 4. Interview Question #4: Describe the teachers' response to the change.

Subjects	Categories	
	Younger student concerns	Liked four-day workweek
A	X	X
B		X
C	X	X
D	X	X
E	X	X

All five subjects indicated the classified personnel were upset or angry about the change to a four-day workweek. Subject A stated, "Anger, lots of anger, most of them lost hours." Subject C stated, "It definitely is the hardest and remains to be the hardest on them [classified personnel] because financially they are the ones that took the hit." The classified personnel did not like the loss in pay they would have to accept. The findings from the interviews confirmed the classified personnel were upset and angry about the change to a four-day school week.

Table 5. Interview Question #5: Describe the classified personnel response to the change.

Subjects	Categories	
	Upset and angry	Loss of pay
A	X	X
B	X	X
C	X	X
D	X	X
E	X	X

Four of the five subjects indicated the parents were cautious and apprehensive about the change. The parents were concerned about young students, similar to concerns being expressed from the lower elementary teachers. Subject B stated, “The parents were very, very nervous, extremely nervous.” Subject D stated, “The parent’s response initially was also pretty cautious. There was a lot of concern about younger children and longer days.” After experiencing the new schedule, parents have few if any concerns about the four-day school week.

Table 6. Interview Question #6: Describe the parents’ response to the change.

Subjects	Categories	
	Cautious and apprehensive	Young children concerns
A		
B	X	
C	X	X
D	X	X
E	X	

Table 7. Interview Question #7: Describe the students’ response to the change.

Subjects	Categories	
	Liked the change	Liked extra time and flexibility
A	X	X
B	X	X
C	X	X
D	X	X
E	X	

All five subjects indicated they all believed the students liked the change to the new four-day school week. The students adapted well to the new schedule and enjoyed the flexibility and extra time they had on each three-day weekend. Subject A stated, “The kids love it, no behavior problems, the kids are more refreshed.” This was also the main statement from Subject B: “Overall the students love it because they have that extra day to find a job, to use it for study or to relax.” Subject E stated, “I would say nine out of ten of the students like it.”

Table 8. Interview Question #8: What unexpected problems have developed that you were not anticipating?

Subjects	Categories	
	None	Time adjustments and activities
A	X	
B	X	
C		X
D	X	
E	X	X

Four out of five subjects indicated they did not believe there was any unexpected problem that was not anticipated. Subject B stated, “You know I honestly don’t know if I have or can think of anything that was an unexpected problem.” Subject C stated, “We had to change all of the start times for home junior high games. We used to start at 4:30 PM and we had to move everything back just because we didn’t get out of school as early. We also have to reduce our practice time a little bit in the winter when we have

back to back practices.” Two out of five subjects identified time adjustments for extracurricular activities as an unexpected problem.

Table 9. Interview Question # 9: Describe the unexpected benefits or positive experiences that you were not anticipating.

Subjects	Categories	
	Teachers covered more material	Flexibility for activities
A	X	
B	X	
C		X
D		X
E		X

Two out of five subjects indicated the teachers covered more curriculum material with the new schedule compared to the previous five-day school week schedule. Subject B stated, “The teachers actually would come in and tell me that they got more accomplished in four days than they did in a five day week and they got through more

Table 10. Interview Question #10: If you could, what would you do differently throughout the transition process?

Subjects	Categories	
	Improve communication	Start process earlier
A	X	
B	X	
C	X	
D		X
E		X

material.” Three out of five subjects also indicated the benefits of having a flexible schedule for student activities and three-day personal weekend trips. Subject E stated, “The positive we have heard from parents is the extra family time, every weekend they have something.”

Three out of five subjects indicated the need to improve communication at all levels of the transition. Subject B stated, “The biggest thing is communication, the public has to be involved. Subject A stated, “Their needs to be one person giving the public answers and that needs to be the superintendent and the staff needs to understand that.” The administrative team also indicated the need to start earlier in the transition; the administrators believed the process was rushed and they needed more time to make the needed adjustments before the start of school in the fall. Subject E stated, “If we could do things different, I probably would have started the whole process a little earlier. Whenever you have several people involved in the decision making . . . the more time you give them, I think the better off you are.”

Table 11. Interview Question #11: What would you recommend to other school districts contemplating this move to a four-day school week?

Subjects	Categories	
	Communicating with public	Research other schools
A	X	X
B	X	
C		X
D	X	X
E		X

The subjects indicated the need to communicate with the public during the transition process to address the public concerns. Subject E stated, “Community involvement is critical, the process requires it, so it is not something you can avoid, but you best embrace it and do it well, because that will be critical.” The subjects indicated the need to work with the teachers and the union earlier during the transition. The subjects indicated to talk with other school districts using a four-day school week to gain needed insight. Subject A stated, “Visit other schools that have done it and have a one on one conversation with them.”

Table 12. Interview Question #12: Have you thought about returning to a five-day school week and why?

Subjects	Categories	
	No	Yes, due to political reasons
A	X	
B	X	
C		X
D		X
E		X

Two out of five subjects indicated they are not thinking about returning to a five-day school week. They indicated the change has been made and the students, parents, and teachers like the four-day school week.” Subject A stated, “I don’t get the feeling that the teachers want to return to a five-day school week, the classified staff, yeah, of course they would like to go back to a five-day week.” Three of the subjects indicated they think the political process at the state or local level may change the district back to a five-day school week. Subject C stated, “I think eventually we will go back to a

five-day school week . . . if funding changes in the state of Minnesota so that we can financially afford it, I am sure we will go back to the traditional five-day week, but again I think the why part would be because everybody else is.”

Table 13. Interview Question #13: What were the resources used to guide your transition?

Subjects	Categories	
	MACCRAY school district	Internet
A	X	
B	X	X
C	X	X
D	X	
E	X	X

All five subjects indicated the MACCRAY school district was a main resource during the transition period. The subjects also mentioned contacting other districts using the four-day school week as resources. The internet also was a resource used to help guide their transition. Subject E stated, “We found just a ton of material on line. There were just all kinds of resources on line with different information.”

All five subjects indicated the category of teachers adapting to 144 days of school instead of the previous 168 days. The subjects indicated a need for teachers to re-evaluate their curriculum and design a new 144 days scope and sequence for their classes. Subject B stated, “We didn’t change any of our curriculum, the teachers just adapted their curriculum as they saw fit.” The subjects also mentioned teachers were covering more curriculum material with the four-day school week than they covered the

Table 14. Interview Question #14: What curriculum changes were made?

Subjects	Categories	
	Adapting to 144 days	Covered more curriculum
A	X	
B	X	
C	X	X
D	X	
E	X	X

previous year with a traditional five-day school week. Subject E stated, “Just about every teacher I talked to at the end of last year said they were further ahead in the material than they had been in seven to ten years. We are much more productive and much more student centered than we have been for quite some time.”

Analysis of Public Documents

The researcher also collected internal school district data. The data consisted of questions asked by the public during meetings, regular and special school board minutes, superintendent notes, and PowerPoint presentation. These internal data were collected during the site visit, requested by the researcher, supplied by the North Central superintendent, and/or obtained from the North Central school district website.

Analysis of Public Meeting Questions

According to the minutes of the public meetings, the school administration responded to the following questions from community members in regard to changing the school district to a four-day school week calendar (“Public Meeting Minutes,” personal communication, March, 2009):

Why are you looking at this?

What day are you thinking about taking off?

How early will students have to get on the bus?

Would teachers have to change presentation of curriculum?

Have you contacted other schools to see how their students reacted to a four-day week?

Day care will be an additional burden to parents and additional cost.

If this has been around since the 1970's why aren't more schools doing this?

Do we know what our annual current cost for athletics/activities is?

As a group, are the teachers in favor of this?

Is the school year going to be shorter?

Do we have anything showing how children attending five days vs. four days do when attending college?

If we go to a four-day week, will we be preparing students to go into a five-day workweek?

Will students be burned out by the end of a longer day? How will this affect student learning?

On the off day, would there be a possibility of tutoring available for students?

After the three meetings, who decide what happens next?

How and why are we having financial problems?

Extended day and church on Wednesday – how will four-day schedule impact this day?

How would you work a four-day week with a holiday during the week?

Parents have a different day off than their child, could lead to absenteeism?

If you go to a four-day week do you have the ability to go back to a five-day week?

Have you looked at cutting an administrator to save money?

The North Central parents, employees, and community members attended three public meetings held by the North Central school district. The North Central school district community concerns were similar to concerns found in the literature review by school districts discussing the possible change to a four-day school week in other states.

The school administration was asked questions about childcare by community members. The parents were concerned about the additional childcare cost placed on them for childcare for the off day during the four-day school week. North Central school district parents and parents within the literature review are aligned with their beliefs and do not appreciate school districts placing additional costs for families to cut costs at the school.

The concern of longer school days was an issue within the literature review and the public meetings at North Central. The parents asked questions in regard to how early will the first children get on the bus in the morning? Will the buses have to travel in the dark for longer periods of time? The administration stated these issues would happen because of school starting earlier and dismissing later. The longer school day was one of the main concerns of the public, with parents commenting that younger students would need extra breaks, additional snacks, and recess to break up the longer school day. The administration stated during meetings that the school would try to incorporate more breaks for the younger students.

Academic concerns were evident in both the North Central public meetings and the literature review concerns. During the North Central public meetings, parents asked if there would be more homework over the three-day weekend. Parents asked if the school had statistics in regard to how students attending a five-day school week vs. a four-day school week performed when attending college. The North Central administration responded by indicating they did not have statistics and did not know the answer. The academic achievement impact on students was a question within the literature review. The literature review did not reveal a scientifically research based study to answer this question.

The public meeting documents showed several questions in regard to school finances. The administrator stated the reason for the move to a four-day week was a financial decision and the public asked if they had considered other options. The administration stated if the district does not go to a four-day week there will be cuts in secretaries, administration, teachers, high school college programs, and other student programs. There were also several questions in regard to student activities and athletics. The parents wanted to know how the longer school day will affect practice schedules after school. The administrator stated the practices would probably have to be shorter. There were not many questions about cutting expenses in athletics. There were several questions about the kindergarten program because the district was implementing full-day every day kindergarten. This was a plan before the four-day school week discussion started, and the district was committed to expanding from a half-day to a full-day kindergarten program. Many of the same concerns were discussed at the North Central meetings as were discussed as concerns in the literature review.

Analysis of Public School Board Meeting Minutes

The researcher analyzed the school board minutes of the North Central school district from October 2008 through November 2010. The regular and special school board meetings during this time were held at the same time period of the transition of the North Central school district from a five-day school week to a four-day school week. The researcher identified each occurrence the topic of the four-day school week was discussed within the meeting. During this time period, there were 26 regular school board meetings and 14 special school board meetings. The topic of the four-day school week appeared on 14 regular meeting minutes and three special school board minutes. Within the minutes of the school board meetings the four-day week discussion appears in the administrator's report to the school board.

The first appearance of the four-day school week was in the February 9, 2009, regular school board minutes report. At the March 30, 2009, special school board meeting the school board approved a motion to move ahead with the application process for a four-day school week in 2009-2010, with a roll call vote of five in favor of the motion and one against the motion. On June 8, 2009, the school board approved the four-day school week calendar for the 2009-2010 school year, changing the school district from a traditional five-day school week calendar to a new four-day school week calendar. The roll call vote on this motion was five in favor and one against the new calendar.

Analysis of Administrator Documents

The researcher obtained and reviewed meeting notes of the superintendent of the North Central school district. The data revealed the administration was looking forward

to anticipate fund balances for upcoming school years. Within the notes there was reference to future fund balances of one year, two years, and five years into the future. The notes also revealed personal notes in regard to other four-day school week concerns in the areas of childcare, breakfast program, policy concerns, and extracurricular items (North Central Superintendent, personal communication, March 6, 2009).

The researcher obtained a draft timeline, created by the superintendent of the North Central school district, to transition the school district to a four-day school week. The timeline started the week of April 13, 2009, and had a five-step plan of accomplishing concerns and topics regarding a four-day school week. Step one addressed school calendar, parent-teacher conferences, holidays, lunch break, and kindergarten. Step two addressed employee schedules and bus routes. Step three addressed breakfast, lunch, and snacks, facility maintenance, and sports scheduling and practice time. Step four addressed public and staff meetings, and Step 5 addressed curriculum (North Central Superintendent, personal communication, March 6, 2009).

The researcher also obtained a copy of the PowerPoint presentation used during the required public meetings. The PowerPoint information addressed the following items (“Four Day Week,” 2009):

- Other school districts were also making budget cuts.
- Options to deal with budget shortfall.
- What is a four-day school week?
- Brief history of the four-day school week.
- Comparison of education time between five-day vs. four-day school week.
- Comparison of teacher time between five-day vs. four-day workweek.

- Potential benefits to the four-day school week.
- Potential challenges to the four-day school week.
- Areas of cost savings.

The superintendent's PowerPoint presentation to the public was used to set the stage for the public discussion. The superintendent wanted to provide information early on to help reduce the number of questions about the four-day school week. The superintendent addressed how several other Minnesota schools were also dealing with budget shortfalls. The superintendent provided the historical foundation of a four-day school week, and how the four-day school week would look for the North Central school district.

The superintendent analyzed the education time for students using a four-day vs. a five-day school week and shared with the public that the students would be receiving slightly more minutes (160) of education per year than in the past. He also addressed the topic of the teacher workday, showing the public and teachers that the workday will be the same hours per week as with a five-day school week.

The superintendent addressed the potential benefits of a four-day school week as saving on fuel, utilities, and some employee salaries; longer blocks of time to present lessons at the high school level; fewer days of riding a bus; lower substitute teacher costs; and possible fewer discipline referrals. The superintendent also addressed potential challenges of a four-day school week as childcare on off days, length of school day for young children, the extended focus required of students during the longer school day, more instructional time lost when student is home sick, and the perceptions of giving students and teachers an extra day off each week.

Chapter V contains the summary, discussion, conclusions, limitations, and recommendations.

CHAPTER V
SUMMARY, DISCUSSION, CONCLUSIONS, LIMITATIONS,
AND RECOMMENDATIONS

Summary

The researcher found the main reason the North Central school district transitioned to a four-day school week was because of the need to reduce expenditures within the current budget. The school district had previously reduced the budget by \$1.1 million over the past few year, (North Central Superintendent, personal communication, February 2, 2011). The school district had made financial cuts and no longer wanted to reduce teaching positions or reduce any educational programs. To keep all teaching staff and educational programs the same, the district leadership team decided to save money by reducing school by one day per week, and making the other four days longer to compensate for the one less day per week to meet state requirements.

The researcher found the idea of a four-day school week originated at an administration meeting between the superintendent, high school principal, and elementary principal. The administrators discussed and researched the idea before designing a plan to present to the school board. The majority of the school board was receptive to the idea and approved the administration to continue working on a four-day school week schedule for the North Central school district. After several months of school board meetings and public meetings, the school board gave formal approval for

the superintendent to apply to the state department of education for approval to change their school district schedule from a five-day school week to a four-day school week.

The researcher found the North Central school district's transition to a four-day school week had many of the same concerns identified in the literature review: (a) longer school day for young students, (b) loss of academic achievement, (c) off day concerns with students, (d) childcare concerns, and (e) extracurricular concerns. The North Central school district addressed the concerns of the parents and community in three public meetings, which were held prior to the beginning of the school year. The research also found the North Central school district is having a positive experience with the new schedule; this finding is similar to other school districts across the country, which was supported in the literature review as well.

Discussion

The researcher interviewed five members of the school's leadership team. The research data indicated the five subjects' responses were similar in regard to the 14 interview questions. Many of the categories identified by the researcher from the interviews also appeared in the literature review. The interview subjects also responded by stating within the interview that their transition concerns and questions were very similar to concerns and questions they had found while researching the concept of a four-day school week.

The researcher found the data support the reason the school district transitioned to a four-day school week was because of financial difficulties within the yearly budgets. The leadership team transitioned the district by having individual meetings, group meetings, three required public meetings, and public school board meetings. The

leadership team addressed most concerns during the transition period. The current perceptions of students, parents, and teachers are mostly positive about the four-day school week, with some unexpected benefits for the district.

Four research questions guided this study and the conclusions follow:

Research Question #1. What were the reasons the school district transitioned from a five-day week to a four-day week?

All five interviewees answered with a similar response. The main reasons the North Central school district changed from a five-day school week to a four-day school week were (a) five out of five stated to reduce expenses, and (b) two out of five stated to save educational programs. The school district had been making budget cuts in the previous years leading up to the 2009-2010 school year, and the administrative team, including the school board member, believed they could no longer reduce expenditures in the same way without hurting the education of the students.

Research Question #2. What was the decision making process for this transition, and by identifying the process, how may it help other school districts considering a four-day school week?

The decision making process for the four-day school week started at the administrative level in late fall of the 2008-2009 school year. One of the school administrators brought up the idea of the four-day school week during an administrative team meeting about how to save money for the upcoming school year. The administration started researching the four-day school week after the meeting. The North Central superintendent believed “as an administrative team we had to buy into it and understand it and research it” (personal communication, January 17, 2011). The

superintendent mentioned the idea to the school board at their next monthly meeting. The superintendent was given permission to continue researching the proposed four-day school week. The administrative team gave monthly updates and presented material at school board meetings. Within a couple of months, the school board gave permission to move forward with starting the state required process of implementing a four-day school week.

The school administration followed the state required process of implementing a four-day school week. The state required several different types of public meetings and meetings with employee groups. The North Central superintendent stated, “Information was sent home, put in the newspaper, we had it on the website, we actually used our instant alert type process for public meetings so that people were aware of the meetings” (personal communication, January 17, 2011).

The North Central school board discussed the four-day school week concept at each monthly meeting from February 2009 through August 2009, also in October 2009, March 2010, April 2010, May 2010, and July 2010. All of these meetings were open to the public and employees of the school district. The school district superintendent stated within our interview “that we had to make sure that everyone was aware of what this was going to look like” (personal communication, January 17, 2011).

The North Central school district held three public meetings at the high school mini theater on Tuesday, March 17, 2009, at 7:00 PM; Tuesday, March 24, 2009, at 11:00 AM; and Tuesday, March 24, 2009, at 7:00 PM (North Central Superintendent, personal communication, January 17, 2011).

Research Question #3. What were school district leaders' perceptions, regarding the four-day school week, of teachers, classified personnel, parents, and students, as perceived by the North Central superintendent, principals, athletic director, and one board member?

Teachers

The schedule change for teachers was not well received when the idea was first discussed. The teachers working in the lower elementary had the most concerns. The lower elementary teachers were concerned about the affect the longer school day would have on younger students. The teachers expressed concerns and apprehension to the district administrators. The remaining teacher apprehension was an overall union contract concern between the teachers and the school district. Once the details were discussed the school district addressed most of the concerns. After experiencing a four-day schedule the teachers liked the four-day school week, and believed they covered more curriculum material than they had in the past. The teachers also like having the extra day during the week to prepare for their classes or for their own personal reasons of having a three-day weekend.

Classified Personnel

The classified personnel were not happy about the transition to a four-day school week. The classified personnel were the employees who were going to take a cut in work hours and a cut in wages. This group of employees is where the school district was going to save money in the transition to a four-day school week. With one fewer workday there would be one day fewer of having to compensate bus drivers, custodians, and cooks. The classified employees believed they were the only employees being asked to take a

pay cut to help the district save money. And, weren't they? After experiencing the four-day workweek, the administrators believed the classified personnel like the four-day workweek but were still unhappy about the loss of money.

Parents

The parents were nervous and apprehensive when they first heard the idea of a four-day school week. The parents had concerns about childcare and the personal cost to their family budget. The parents were concerned if academic standards were still going to be met with a four-day school week. After the public meetings were held most of the concerns were discussed with the school district leadership team and most of the apprehension faded. Currently, the school district is hearing more positives than negatives from the parents and the parents like having three-day weekends with their children.

Students

The students had some concerns in regard to academic standards still being met with a four-day school week. Some students did not like the longer school days at first and were tired when they got home at night. As the students adapted to the schedule, they now like the four-day school week. The superintendent perceived at least 90% of the students support the new schedule because it gives them a three-day weekend to either work or to have short family trips. The students also prefer not missing class due to scheduled extracurricular activities on Fridays. Previously, students would be dismissed early from school and would not be in class due to having to leave school to travel long distances for athletic events.

Research Question #4. What has the school district leadership identified as expected and unexpected outcomes from the four-day school week?

Expected Outcomes

One of the expected outcomes acknowledged by the school administration was the concerns about childcare and younger students adjusting to longer school days. The administration also expected some employees not to be in favor of the four-day school week. The administration did expect these issues because the research they conducted informed them these would be concerns.

The school district did expect and experienced financial savings in the first year of the four-day school week. The financial savings after one year were as follows:

- Transportation salaries decreased by \$39,080
- Transportation fuel cost decreased by \$4,249
- Building fuel cost decreased by \$84,081
- Utilities cost decreased by \$15,673
- Paraprofessional salaries decreased by \$82,975

The North Central school district had a total decrease in yearly expenses of over \$226,000 after changing to a four-day school week (“Four Day Week,” n.d.).

Unexpected Outcomes

With the change of the school calendar, and the change of the starting and ending times of the school day, there were going to be some problems and benefits that were unexpected.

Unexpected Problems

The district administration team identified several unexpected problems with the change to a four-day school week schedule. Early in the school year the elementary school faculty noticed students and teachers were tired by the middle of the school week. The school district addressed this by having more movement activities in the afternoon to help students and staff stay focused.

Another unexpected outcome was with extracurricular activities. With the new schedule the students would miss more class time on Monday, Tuesday, and Thursday for activities if the student athletes had to travel for away games. This occurred because the students would leave at similar times as in the past, but with the longer school day the students would miss more of the school day. Another student activity outcome was the need to reduce the length of practice time in the winter due to the longer school day if a facility was being used back to back. Besides the previous mentioned items, the administrators all indicated there were no other unexpected problems. Currently, the loss of school time, due to extracurricular travel, has not been resolved.

Unexpected Benefits

The district administration identified several benefits of the four-day school week schedule. The district experienced an increase in test scores in the district's required state testing. The increase in test scores was an unexpected benefit because academic standards were a concern going into the four-day school week. The school administrators did not identify if they had implemented any other strategies to improve test scores during this same time period. The teachers were also experiencing the benefit of being able to cover more curriculum material than they had covered before with a five-day

schedule. The students were much more on task and classrooms were student centered with the new schedule.

Another benefit was an increase in student and teacher attendance with the new schedule compared to the previous schedule. This unexpected outcome led to a financial savings for the school district due to having to hire fewer substitute teachers than in the past. With both the teachers and students missing less school this may have supported improved academic performance.

Conclusions

The researcher has made the following conclusions related to the four research questions proposed in the case study:

1. The data supported reasons the school district transitioned from a five-day school week to a four-day school week. The main reason was to save money and to save academic programs from being eliminated. The school district's leadership team did not want to continue cutting staff and academic programs, but still needed a way to save money. The implementation of a four-day school week addressed both issues.
2. The decision making process for this change was a leadership position decision process. The idea was discussed with employees, parents, and the community, but ultimately the school board made the final decision. The decision was not given to the public for a special election decision process. State law required for public input meetings, but did not require a school district vote on the issue.

3. According to the leadership team, the public perception has been positive to the change in the school schedule. At the beginning of the discussions there was some apprehension by teachers, parents, and students who would be impacted by the change in the schedule. The majority of the impacted groups like the new four-day school week. The administration currently believes the impacted groups would not want to go back to a five-day schedule.
4. There is one exception: The classified personnel do not like the change and would be in favor of changing back to the five-day schedule. The classified personnel lost wages with the schedule change and have been negatively impacted more than others.
5. The school leadership identified several unexpected outcomes from the four-day schedule change: (a) The student and teacher attendance improved with the new schedule, (b) the student test scores improved, and (c) the teachers believe they were able to cover more material with the new schedule.

Limitations

The limitations of the case study are as follows:

1. The explanations and description of the decision making process are from the decision makers themselves. These district leaders described a process they experienced and the perceptions of others who were experiencing the new schedule.
2. The data reference to improved test scores was identified from the first year of the new schedule. Only one year of test scores was used. The data would be

more reliable if the test scores improved for three or more consecutive years with the new schedule.

3. Another case study on this same topic may or may not provide similar results, due to the individual differences within each school district and community, not because of the reliability of the procedures.

Recommendations for Educators

The transition from a five-day school schedule, which has been used for generations within a community, to a four-day school schedule is a challenging endeavor.

The researcher recommends the following actions:

1. A school district should plan for at least a full school year of discussions and public meetings for the transition from a five-day school week to a four-day school week.
2. A school district should involve students in the meetings and discussion processes to address their concerns about the change in the school schedule.
3. A school district should meet with the union leaders early in the discussions and notify them about this possible change, and hear their concerns and input from the transition's early stages.

Recommendations for Further Study

1. There should be a longitudinal study done on academic achievement of a four-day school week in comparison to a five-day school week.
2. There should be more research in regard to academic achievement in the area of special education.

3. There should be research on training for teachers to change to a longer school day and longer high school class periods, and training for teachers to adapt to teaching less school days in a year and adjusting their scope and sequence due to this change.
4. There should be school board member training or education on the four-day school week.
5. There should be a study regarding the minimum amount of time a school district should study and plan for a transition before allowing a change to a four-day school week.

APPENDICES

Appendix A
Department of Education Application Requirements

Initials

Sup.

Initials

Chair Relevant MN Law Legal Requirement

MDE

Review

124D.123 District assures no discrimination based on “race, color, creed, religion, marital status, status with regard to public assistance, sex or national origin.

124D.124 District assures that the board has negotiated with all school staff covered under the Public Employment Labor Relations Act.

124D.124 District assures that the board has negotiated with parents of the pupils who would be affected by the change.

124D.124 District assures that the board has negotiated with the community at large.

124D.124 District has conducted, at minimum, three community meetings with published notice to the teachers, employees and to the parents of pupils affected. (District has attached copy of the notices, approximate number of attendees, and minutes from meetings).

124D.125 If program is not district-wide, districts include description of how teachers were assigned to the program. (District attaches documentation.)

124D.125 District assures that a full-time teacher’s total work hours must be equivalent to those preceding implementation of the program unless the teacher has signed written approval.

124D.125 District assures that a teacher’s contract rights are not lost or impaired because of implementation of the program.

124D.125 District assures that probationary teachers at the end of the preceding school year must acquire full contract rights in year of adoption.

124D.125 District assures that a teacher who has not been discharged or advised of a refusal to renew the teacher's contract by the applicable date, as specified in section 122A.40 or 122A.41, in the year in which the teacher will complete the requisite number of days for securing a continuing contract must have a continuing full learning year contract with the district.

124D.125 District assures that continuing contract rights established pursuant to this section must not be impaired or lost by the termination of a flexible learning year program.

124D.126 District assures compliance with Improved Learning Statute.

124D.127 District assures that the district's responsibilities with respect to compulsory instruction are met.

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District provides evidence that district staff, pupils, and parents who would be affected will participate in the annual review of the program. (Attach documentation.)

124D.125 District assures that there will be one contract for teachers employed in the program.

124D.125 District assures that if individual teachers teacher's contract to teach less than a period of 175 days during a learning year, each 175 days of employment accrued during any five-year period after the adoption of a flexible learning year program must be deemed consecutive and constitutes a full year's employment for purposes of establishing and retaining continuing contract rights to a full learning year position.

Minnesota Department of Education
Flexible Learning Year Application

District Name: _____ District Number: _____

Flexible Program Year Name: _____

Assurances of Compliance

Page 1 of 2

We certify that the application submitted to the Minnesota Department of Education for a Flexible School Year for our school district program complies with the provisions described in this document and related Minnesota Statutes. Documentation is attached to this document as requested by the Minnesota Department of Education.

DISTRICT NAME

DISTRICT #

FLEXIBLE PROGRAM NAME

SUPERINTENDENT NAME

SUPERINTENDENT SIGNATURE

BOARD CHAIR

BOARD CHAIR SIGNATURE

Appendix B
Informed Consent

TITLE: A Case Study: Transitioning from a 5-day school week to a 4-day school week

PROJECT DIRECTOR: Brian Duchscherer

PHONE NUMBER: 701-652-3136

DEPARTMENT: Educational Leadership

You are invited to be in a research case study about the transition from a 5-day school week to a 4-day school week, because you are currently going through this project at your current school.

A person who is to participate in the research must give his or her informed consent to such participation. This consent must be based on an understanding of the nature and risks of the research. This document provides information that is important for this understanding. Research projects include only subjects who choose to take part. Please take your time in making your decision as to whether to participate.

The purpose of this research study is to study the reasons why your school district decided to pursue the 4-day school week and the process to a successful transition.

Approximately 5 people will take part in this study at the University of North Dakota. Your participation in the study will last approximately 45 to 60 minutes and you will allow the researcher to visit your school district to conduct interviews.

The case study will entail the researcher gathering data and other information from your school district to document the reasons why you made the switch to a 4-day school week. The researcher will also gather documents and applications used to present and request the change to a 4-day school week. The researcher also plans to make a site visit and interview you, and if possible other decision makers in regard to the transition. The interview will take place in a conference room within your school district and will be recorded as well as the researcher will be taking personal notes. These notes and the recording will be kept securely in my office and all identities will be kept confidential. During the interview the subject is free to skip any question that they prefer not to answer. The researcher will be requesting materials and data that were used to inform the patrons and staff about the transition.

I do not see any foreseeable risks in participating in this case study. You may not benefit personally from being in the study. However, we hope that, in the future, other people might benefit from this study because of the information that you have shared. You will not have any costs for being in this research study, and will not be paid for being in this

study. The University of North Dakota and this researcher are receiving no payments from other agencies, organizations, or companies to conduct this research study.

The records of this study will be kept private. In any report about this study that might be published, you will not be identified. Your study records may be reviewed by Government agencies, and the University of North Dakota Institutional Review Board. Any information that is obtained in this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Confidentiality will be maintained by means of safeguarding data by locking up all interview data in my office. Your school identity as well as your identity will not be revealed without your consent.

If we write a report or article about this study, we will describe the study results in a summarized manner so that you cannot be identified. You have the right to review/edit the interview recording. I will keep the recording for 3 years and then I will erase the recording.

Your participation is voluntary. You may choose not to participate or you may discontinue your participation at any time without penalty. Your decision whether or not to participate will not affect your current or future relations with the University of North Dakota.

The researcher conducting this study is Brian Duchscherer. You may ask any question you have now by contacting me at 701-321-5719 or email me at Brian.Duchscherer@und.nodak.edu. If you later have questions, concerns, or complaints about the research please contact Dr. Sherryl Houdek at the University of North Dakota at 701-777-2394.

If you have questions regarding your rights as a research subject, or if you have any concerns or complaints about the research, you may contact the University of North Dakota Institutional Review Board at 701-777-4279.

Your signature indicates that this research study has been explained to you, that your questions have been answered, and that you agree to take part in this study. You will receive a copy of this form.

Subject's Name: _____

Signature of Subject

Date

REFERENCES

- Agron, J. (2006). The 65% solution. *American School & University*. Retrieved from Academic Search Premier database
- Angelo, J. M. (2002). Minnesota districts drop plans for a four-day school week. *District Administration*, 38(2), 8. Retrieved from <http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com.ezproxy.library.und.edu/login.aspx?direct=true&db=aph&AN=5988421&site=ehost-live&scope=site>
- Bergen, A. (2011, February 23). Options for potential Perham-Dent school cuts revealed. *East Otter Tail Focus*. Retrieved from www.eotfocus.com/event/article/id/17431
- Briggs, S. (2006, April 13). Plan gets a “no.” *The Dickinson Press*, pp. 1-2. *Carrington public school calendar 2011-2012*. (2010, December 14). Retrieved from www.carrington.k12.nd.us
- Catlin, C. (1997). Four-day work week improves environment. *Journal of Environmental Health*, 59(7), 12. Retrieved from Academic Search Premier database
- Chaika, G. (2005). Alternative school calendars: Smart idea or senseless experiment? *Education World*. Retrieved from http://www.educationworld.com/a_issues/issues/issues056.shtml

- Chamberlin, M., & Plucker, J. (2003). The four-day school week. *Education Policy Briefs*, 1(2). Retrieved from www.buenabands.org/4-day/articles/chamberlain-indiana4day_procon.pdf
- Chapman, L. (2009, January 28). Many US schools consider four-day school week. *Finding Dulcinea*. Retrieved from <http://www.findingdulcinea.com/nes/Americas/2009/jan/Many-US-Schools-Consider-Four-Day-School-Week.html>
- Chen, D. (2008). Schools debate a four-day week. *Parade*. Retrieved from <http://www.parade.com/hot-topics/0808/schools-debate-four-day-week>
- Christensen, C. M., Horn, M. B., & Johnson, C. W. (2008). *Disrupting class: How disruptive innovation will change the way the world learns*. New York: McGraw Hill.
- Cook, G. (2008). September 2008 up front: Soaring costs, cutting budgets. *American School Board Journal*. Retrieved from <http://www.asbj.com/MainMenuCategory/Archive/2008/September2008UpFront.aspx>
- Creswell, J. W. (2007). *Qualitative inquiry & research design: Choosing among five approaches*. Thousand Oaks, CA: Sage Publications.
- Culbertson, J. (1982). *Four day school week for small rural schools*. Las Cruces, NM: ERIC Clearinghouse on Rural Education and Small Schools. (ERIC Document Reproduction Service No. ED 232799)
- Daly, J. L., & Richburg, R. W. (1984). *Student achievement in the four-day school week*. Fort Collins: Office of Rural Education, Colorado State University.
- Dam, A. (2006). *The 4 day school week*. Retrieved from <http://www.cde.state.co.us/cdeedserv/download/pdf/4dayweek06.pdf>

- Darden, E. C. (2008). The four-day school week: A fuel's paradise? *Forecast*, 6(3).
Retrieved from [http://www.docstoc.com/docs/4913017/
NEW-YORK-STATE-SCHOOL-BOARDS-ASSOCIATION-Century-Hill-Drive](http://www.docstoc.com/docs/4913017/NEW-YORK-STATE-SCHOOL-BOARDS-ASSOCIATION-Century-Hill-Drive)
- Delisio, E. (2006). Could four-day weeks work for you? *Education World*. Retrieved
from http://www.educationworld.com/a_admin/admin/admin279.shtml
- Dillon, N. (2010). More time for learning: Extending the school day and year remains a
controversial—and costly—undertaking. *American School Board Journal*, 197(6),
20-22.
- Dixon, A. (2011). Focus on the alternative school calendar: Year-round school programs
and update on the four-day school week. *Southern Regional Education Board
Focus Series*. Retrieved from http://www.sreb.org/page/1174/focus_reports.html
- Donis-Keller, C., & Silvernail, D. (2009). *Research brief: A review of the evidence on
the four-day school week*. Retrieved from [http://usm.maine.edu/cepare/pdf/
CEPARE%20Brief%20on%20the%204-day%20school%20week%202.10.pdf](http://usm.maine.edu/cepare/pdf/CEPARE%20Brief%20on%20the%204-day%20school%20week%202.10.pdf)
- Durr, G. (2003). Four-day school week? *State Legislatures*, 29(5). Retrieved from
Academic Search Premier database
- Ellis, S. (2010, June 24). Shorter week gains traction. *Idaho State Journal*. Retrieved
from [http://www.idahostatejournal.com/news/local/article_abae7f3a-7fbd-11df-
94e8-001cc4c002e0.html](http://www.idahostatejournal.com/news/local/article_abae7f3a-7fbd-11df-94e8-001cc4c002e0.html)
- Engelhart, K. (2009). Hawaii starts “furlough Fridays.” *Maclean's*, 122(44), 35.
Retrieved from [http://ezproxy.library.und.edu/login?url=http://search
.ebscohost.com/ezproxy.library.und.edu/login.aspx?direct=true&db=aph&AN=45
430978&site=ehost-live&scope=site](http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com/ezproxy.library.und.edu/login.aspx?direct=true&db=aph&AN=45430978&site=ehost-live&scope=site)

- Fitzgerald, J. (2010a, February 23). North Branch parents, it's time to get mad. *Minnesota 2020 Journal*. Retrieved from http://www.mn2020.org/index.asp?Type=B_BASIC&SEC={DE29027A-005D-4BDF-B49D-3321760FF075}&DE=
- Fitzgerald, J. (2010b, July 16). One school district eyes four-day week, wrestles with it. *Minnesota 2020 Journal*. Retrieved from <http://mn2020hindsight.org/view/one-school-district-eyes-four-day-week-another-wrestles-with-it>
- 4-day makes mark in state. (2011). *Lake County News Chronicle*. Retrieved from www.twoharborsmn.com/event/article/id/21836/group/Schools/
- Four day week 2009-10. (2009, March 17). Unpublished handout.
- Four day week savings. (n.d.). Unpublished document.
- Gaines, G. F. (2008). Focus on the school calendar: The four-day school week. *Southern Regional Education Board Focus Series*. Retrieved from http://www.sreb.org/page/1174/focus_reports.html
- Gamallo, M. (2009). Barnsdall schools to begin four-day school week in 2010. *Tulsa World*. Retrieved from http://www.tulsaworld.com/site/printerfriendlystory.aspx?articleid=20091208_11_0_BARNSD704217
- Glader, P. (2009, September 24). Online high schools test students' social skills. *The Wall Street Journal*. Retrieved from <http://online.wsj.com/article/SB125374569191035579.html>
- Grau, E., & Shaughnessy, M. F. (1987). *The four day school week: An investigation and analysis*. Portales: Eastern New Mexico University, Psychology Department.

- Herring, C. (2011). Schools' new math: The four-day week. *The Wall Street Journal*. Retrieved from <http://online.wsj.com/article/SB100001424052748704869304575104124088312524.html>
- Hewitt, P. M., & Denny, G. S. (2010, August). *The four-day school week: Impact on student academic performance*. Paper presented at the National Council of Professors of Educational Administration Annual Summer Conference, Washington, DC.
- Hupp, S. (2008). Interest grows in 4-day week for Iowa schools. *Des Moines Register*. Retrieved from <http://www.districtadministration.com/newssummary.aspx?news=yes&postid=50956>
- Johnson, D. W., & Johnson, R. T. (2009). Energizing learning: The instructional power of conflict. *Research News and Comment*, 38(1), 37-51. Retrieved from <http://edr.sagepub.com/cgi/content/abstract/38/1/37>
- Johnston, R. C. (1997). A matter of time: Schools try four-day weeks. *Education Week*, 17(13), 1. Retrieved from <http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com.ezproxy.library.und.edu/login.aspx?direct=true&db=aph&AN=9711300517&site=ehost-live&scope=site>
- Juneau, D. (2009, October). *Four-day school week in Montana public schools*. Helena: Montana Office of Public Instruction.
- Keaton, S. (2010, July 21). Pelican Rapids parents mixed on four-day school week. *InForum*. Retrieved from <http://www.inforum.com/event/article/id/285483/>

- Kent, T. (2010, April 8). LHS four-day school plan resisted. *Mankatofreepres.com*. Retrieved from <http://mankatofreepress.com/local/x993452447/LSH-four-day-school-plan-resisted/print>
- Kenworthy, T. (2004, June 14). Colo. schools give high score to 4-day weeks. *USA Today*. Retrieved from <http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com.ezproxy.library.und.edu/login.aspx?direct=true&db=aph&AN=J0E158396390204&site=ehost-live&scope=site>
- Kharif, O., & Coy, P. (2008). Chopping hours, not heads. *BusinessWeek*, (4114), 85. Retrieved from <http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com.ezproxy.library.und.edu/login.aspx?direct=true&db=aph&AN=35819899&site=ehost-live&scope=site>
- Kingsbury, K. (2008). Four-day school weeks. *Time*, 172(8), 49-50. Retrieved from <http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com.ezproxy.library.und.edu/login.aspx?direct=true&db=aph&AN=33923020&site=ehost-live&scope=site>
- Kleiner, B., Porch, R., & Farris, E. (2002). *Public alternative schools and programs for students at risk of education failure: 2000-01*. Retrieved from <http://nces.ed.gov/pubs2002/2002004.pdf>
- Koki, S. (1992). *Modified school schedules: A look at the research and the Pacific*. Honolulu, HI: Pacific Region Educational Laboratory. (ERIC Document Reproduction Service No. ED 354630)

- Koumpilova, M. (2010, March 6). Norman County East school district ponders four-day school week. *GrandForksHerald.com*. Retrieved from <http://www.grandforksherald.com/event/article/id/153504/>
- Lefly, D., & Penn, J. (2009). *A comparison of Colorado school districts operating on four-day and five-day calendars*. Denver: Colorado Department of Education. Retrieved from http://www.cde.state.co.us/cdeassess/documents/res_eval/2009_Colorado_districts_4day_school_week.pdf
- Lehr, C., Lanners, E., & Lange, C. (2003). *Alternative schools: Policy and legislation across the United States* (Research Report 1). Retrieved from http://ici.umn.edu/alternativeschools/publications/Legislative_Report.pdf
- Mangan, K. (2008, May 30). Longer days and shorter weeks as colleges cope with soaring energy costs. *The Chronicle of Higher Education*, 54(38), A16. Retrieved from Academic Search Premier database
- Marx, G. (2007). Research brief: Four-day week schedule. *The Principals Partnership*. Retrieved from <http://www.principalspartnership.com/fourdayweek.pdf>
- McNeil, M. (2008). State fiscal woes start to put squeeze on K-12 budgets. *Education Week*, 27(36), 16-17. Retrieved from Academic Search Premier database
- Merriam, S. B. (1998). *Qualitative research and case study application in education*. San Francisco: Jossey-Bass.
- Meyer, H. (2008). Condensed calendar, added benefits. *Community College Week*, 21(6), 6-8. Retrieved from <http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com.ezproxy.library.und.edu/login.aspx?direct=true&db=aph&AN=35218055&site=ehost-live&scope=site>

- Miners, Z. (2008). Schools tighten fuel budget belt. *District Administration*, 44(10), 18-20. Retrieved from Academic Search Premier database
- Minnesota Department of Education. (2011). *Flexible learning year application review*. Retrieved from http://www.swsc.org/1633101019152847203/lib/1633101019152847203/Flexible_Learning_Year_Assurances_of_Compliance.pdf
- Montana Office of Public Instruction. (2009). *Four-day school week report in Montana public schools*. Retrieved from http://opi.mt.gov/pdf/superintendent/09Nov4_day_school.pdf
- North Central public schools website*. (2010). Retrieved from [www.\[northcentral\].k12.mn.us](http://www.[northcentral].k12.mn.us)
- North Dakota century code*. (2001). Charlottesville, VA: LEXIS Law Publishing.
- Parker, G. (2008). Less time on the job but greater productivity. *Black Enterprise*, 39(5), 64. Retrieved from Academic Search Premier database
- Quaid, L. (2009, September 28). More school: Obama would curtail summer vacation. *The Associated Press*. Retrieved from <http://www.ajc.com/news/nation-world/more-school-obama-would-148652.html>
- Ray, J. (2003). Americans resist idea of four-day school week. *Gallup*. Retrieved from <http://www.gallup.com/poll/9256/Americans-Resist-Idea-FourDay-School-Week.aspx>

- Raywid, M. A. (1994). The new alternative schools. Synthesis of research/alternative schools: The state of the art. *Educational Leadership*, 52(1), 26-31. Retrieved from <http://www.ascd.org/publications/educational-leadership/sept94/vol52/num01/Synthesis-of-Research---Alternative-Schools@-The-State-of-the-Art.aspx>
- Reeves, K. (1999). The four-day school week. *School Administrator*. Retrieved from http://findarticles.com/p/articles/mi_m0JSD/is_3_56/ai_77204690/
- Rouse, K. (2006). 4-day school week gaining. *denver post.com*. Retrieved from http://www.denverpost.com/headlines/ci_4900495
- Sagness R. L., & Salzman, S. A. (1993, October). *Evaluation of the four-day school week in Idaho suburban schools*. Paper presented at the annual meeting of the Northern Rocky Mountain Educational Research Association, Jackson, WY.
- Schank, S. K., & York, P. (2009). Should schools adopt four-day schedules? *American Teacher*. Retrieved from http://findarticles.com/p/articles/mi_qa5369/is_200905/ai_n31964951/
- Schmidt, G. (2010, March 18). *Four-day school week: What we've learned*. Presentation at the MASA/MASE Spring Conference, Brooklyn Park, MN.
- Silva, E. (2007). On the clock: Rethinking the way schools use time. *Education Sector Reports*. Retrieved from http://www.educationsector.org/usr_doc/OntheClock.pdf
- Spengler, K. (2010). District 88 budget. *New Ulm Journal*. Retrieved from <http://www.nujournal.com/page/content.detail/id/512351.html?nav=5098>

- Spengler, K. (2011, February 25). 4-day week discussion advancing. *New Ulm Journal*.
Retrieved from [www.nujournal.com/page/content.detail.id/522930/
4-day-week-discuss](http://www.nujournal.com/page/content.detail.id/522930/4-day-week-discuss)
- Stonehouse, P. (2009). *Cooperative context of constructive controversy theory*.
Unpublished handout.
- Stover, D. (2010). Uncharted territory. *American School Board Journal*, 197(5), 19-23.
Retrieved from Academic Search Premier database
- Streich, M. (2010, March 9). How the recession will affect education: Budget cuts will
further weaken the ability of graduates to compete. *Suite101.com*. Retrieved
from [http://www.suite101.com/content/how-the-recession-will-affect-education-
a211365](http://www.suite101.com/content/how-the-recession-will-affect-education-a211365)
- Swanson, M. (2010). Rush City takes a look at the four-day week. *ECM Post Review*.
Retrieved from [http://ecmpostreview.com/index.php?option=com_content&task
=view&id=4899&Itemid=1](http://ecmpostreview.com/index.php?option=com_content&task=view&id=4899&Itemid=1)
- The four-day school week. (2009). *State Legislatures*, 35(3), 8. Retrieved from
Academic Search Premier database
- Toomer-Cook, J. (2007, June 11). Schools call 4-day week a success. *Deseret News*.
Retrieved from [http://www.deseretnews.com/article/665192622/Schools-call-4-
day-week-a-success.html](http://www.deseretnews.com/article/665192622/Schools-call-4-day-week-a-success.html)
- Toppo, G. (2006, April 10). State sign on to 65% solution for funding schools. *USA Today*. Retrieved from [http://www.usatoday.com/news/education/2006-04-10-
65-percent-solution_x.htm](http://www.usatoday.com/news/education/2006-04-10-65-percent-solution_x.htm)

- Turner, D. (2010, June 4). No class: 4-day school weeks gain popularity nationwide. *USA Today*. Retrieved from http://www.usatoday.com/news/education/2010-06-04-shorter-school-week_N.htm
- Van Hecke, J. (2010, February 26). The four-day school week is failure triumphant. *MN2020 Journal*. Retrieved from <http://www.mn2020.org/issues-that-matter/journal/mn2020-journal-the-four-day-school-week-is-failure-triumphant>
- Walsh, B. (2009, September 7). The four-day workweek is winning fans. *Time*. Retrieved from <http://www.time.com/time/printout/0,8816,1919162,00.html>
- Wapshott, N. (2008, September 1). Monday to Thursday. *New Statesman*, 137(4911), 17. Retrieved from <http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com.ezproxy.library.und.edu/login.aspx?direct=true&db=aph&AN=34049803&site=ehost-live&scope=site>
- Weiss, T. (2008). Why a four-day work week doesn't work. *Forbes.com*. Retrieved from http://www.forbes.com/2008/08/18/careers-leadership-work-leadership-cs_tw_0818workweek_print.html
- Weldon, T. (2008). *Dark days at school: Some states allow school districts to shorten week to cut costs*. Retrieved from <http://www.csg.org>
- Whiting, B. (2010). Stay-at-home parents. Year round school: Pros and cons. *About.com*. Retrieved from <http://homeparents.about.com/cs/backtoschool/a/yearroundschool.htm>

- Yarbrough, R., & Gilman, D. A. (2006). From five days to four. *Educational Leadership*, 64(2), 80-85. Retrieved from <http://ezproxy.library.und.edu/login?url=http://search.ebscohost.com.ezproxy.library.und.edu/login.aspx?direct=true&db=aph&AN=22711500&site=ehost-live&scope=site>
- Year-round schools don't boost learning, study finds. *ScienceDaily.com*. Retrieved from <http://www.sciencedaily.com/releases/2007/08/070811151449.htm>
- Zaleski, A., & Colasanti, M. (2008). *Scheduling/length of school year: Number of instructional days/hours in the school year*. Retrieved from <http://ecs.org/clearinghouse/78/24/7824.pdf>