PERCEIVED EFFECTS OF BLOCK SCHEDULING ON AGRICULTURAL EDUCATION PROGRAMS IN OKLAHOMA

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Submitted to the Faculty of the
Graduate College of
Oklahoma State University
in partial fulfillment of
the requirement for
the Degree of
DOCTOR OF PHILOSOPHY
August, 2002

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ON AGRICULTURAL EDUCATION

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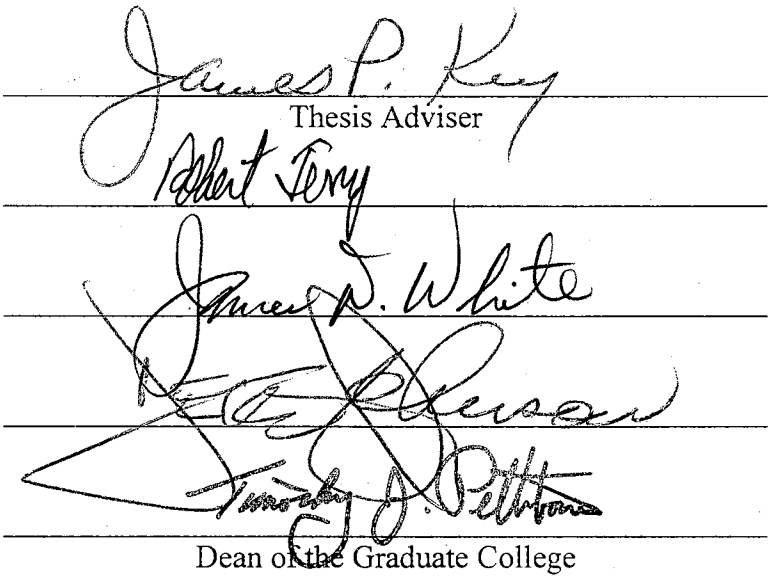
Thesis Approved:



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ACKNOWLEDGMENTS

I wish to express my deep appreciation to Dr. James Key for his patience, guidance, and supervision throughout my studies. My sincere appreciation is also extended to Dr. Robert Terry, Dr. James White, and Dr. Deke Johnson for their support and commitment to seeing me through this project. In addition, I want to thank Dr. James Leising for allowing me to be associated with such outstanding leaders in the field of Agricultural Education.

I would also like to express my gratitude and appreciation to my wife Angela, my two children Jayla, and Jace for their love and patience as I have worked to accomplish my goal of obtaining my doctoral degree. Especially my wife Angela who has served as my support and guidance throughout my college career. To my parents Ron and Martha I want to thank them for supporting me throughout my life. They have always been understanding and supportive in all of my endeavors. I addition, I want to thank my brother, Shawn and Monte for their support in allowing me to be their older brother.

My gratitude is also extended to the Boards of Education, colleagues, and friends of both El Reno Public Schools and Leedey Public Schools for allowing me to pursue my education.

Finally, I want to thank my heavenly father who has served as my guide and my comforter when times were difficult. Only through grace and spiritual guidance have I been able to receive these blessings in my life.

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CHAPTER I

INTRODUCTION

American schools have been going through a transformation. The "Nation at Risk" report indicated that American schools were losing students at both ends of the intelligence spectrum. Students in the upper quartile were bored and under-challegend while students in the lower quartile were not being served and falling through the cracks. In addition, schools were criticized for merely covering material and not producing in-depth inquiry into specific study areas. The "Nation at Risk" report also informed the American public in brief but dramatic terms:

> If an unfriendly power had attempted to impose on America the mediocre educational performance that exists today, we might well have viewed it as an act of War. As it stands, we have allowed this to happen to ourselves. We have even squandered the gains in achievement made in the wake of the Sputnik challenge. Moreover, we have dismantled essential support systems, which helped make those gains possible. We have, in effect, been committing an act of unthinking, unilateral educational disarmament." (National Commission of Excellence in Education, 1983. p.5)

The Commission advanced the following recommendations: 1) Graduation requirements should be strengthened so that all students establish a foundation in five new basics: English, math, science, social studies, and computer science, 2) Schools and colleges should adopt higher and measurable standards for academic performance, 3) The amount of time students spend engaged in learning should be significantly increased, and

4) The teaching profession should be strengthened through higher standards for preparation and professional growth (National Commission of Excellence in Education, 1983).

With the world changing at an extremely fast pace, education has been transformed by a technological revolution and the development of a global economy (Edwards, 1993). With an ever-changing society, both our teachers and students must be prepared for the 21st Century. Over the past few years, restructuring the high school day has received considerable attention across the country. This effort is a consequence of recent changes of graduation requirements and a response to the search for a time arrangement that best benefits student achievement and career exploration (Smith & McNelis, 1996).

One of the changes which has received increased emphasis in recent times is block scheduling. What is block scheduling, and who does it help? Block scheduling is the transition from 45-50 minute classes to 85-90 minute classes. Block scheduling does not change the curriculum, but extends the amount of time spent on the subject matter, plus allowing the teacher to use a variety of teaching methods. This idea offers a challenge to teachers to become more creative and to be better prepared in the delivery of lesson materials. According to Cawalti (1994), the main advantages of block scheduling include: (1) It allows students to accumulate the credits they need for graduation through four periods of 90 minute duration; (2) It affords the flexibility needed to provide appropriate instruction for a student body with diverse needs; (3) It reduces the number of students seen by teachers; (4) It enables teachers to get to know their students better; (5) It affords teachers more time for class preparation; (6) It allows a teacher to vary

instructional activities and (7) enables students to work on projects or seek additional help," (p. 23).

In the block schedule, students take four classes per day rather than the traditional seven period days. According to teachers from Wasson High School in Colorado Springs, Colorado, a 4x4 block schedule allows teachers to focus on core learning and omit less challenging materials from the curriculum (Wilson, 1995). Block scheduling is not a new concept; it has been around for several years. Block scheduling originated in Canada before being introduced into the United States. In Canada, the concept of block scheduling was widely accepted. The advantage of block scheduling allows teachers to concentrate more on the education of individual students. This is a key to providing higher quality instruction and improved student performance. The block schedule cuts by almost half, the number of students a teacher may have, thereby allowing a teacher more one-on-one time with individual students.

Other reasons for changing to block scheduling is to actively engage students in learning activities from start to finish during a class period and to offer additional options. Instead of lecturing for 90 minutes, teachers are encouraged to break up the class period with meaningful learning activities. With the transformation to block scheduling, students have the opportunity to take eight classes per year rather than the traditional six or seven. This allows each student four additional elective options over a four-year period of high school education.

In addition to the advantage of more efficient and innovative use of instructional time, other frequently noted advantages of block scheduling included in the 4x4 plan are (Cawalti, 1994): 1) improved student/teacher morale, 2) improved attendance, 3)

decreased failure and drop-out rates, 4) fewer preparations and additional planning time for teachers, 5) reduced administrative time for teachers who teach fewer students per day, 6) and more interaction and professional growth for teachers, thus expanding opportunities for teaming and interdisciplinary education.

The Agricultural Education program has its own unique problems, and is one example of a subject matter area that would benefit from a block schedule. While no system is free of challenges or capable of curing every ill, the block schedule is helping agricultural education programs increase enrollment, broaden student diversity, extend program offerings, enhance student success, and actually make teaching more fun (FFA Advisors Making a Difference, 1997). If Agricultural Education instructors embrace these changes as a way to make agricultural education a more marketable opportunity for students, they will begin to see a positive transformation in their program and envision new opportunities for their agricultural education students.

The influence of block scheduling in Oklahoma secondary schools is a relatively new concept. Will these changes positively or negatively affect Agricultural Education programs? Agricultural Education programs, like many electives in secondary schools, have experienced many changes over the past few years. As the needs of educating America's youth change, so must Agricultural Education programs be willing to change. Innovative programs are searching for improvement in both classroom teaching and delivery methods, more time on task for student projects, more emphasis on curriculum alignment and integration of core materials. Many programs currently on the traditional schedule are entertaining the idea of transitioning to a form of the block schedule.

Statement of the Problem

The number of Oklahoma secondary schools making the transition to a block schedule as a form of scheduling, is on the rise. These changes suggest the need to study the perceptions of Agricultural Education instructors throughout the state. So far, there have been a limited number of studies concerning scheduling alternatives as they relate to Agricultural Education programs. This study proposes to examine the consequences of block scheduling on Agricultural Education programs and explore strategies for Agricultural Education instructors as they make the transition to block scheduling. This study will provide information to assist instructors in planning and preparing for changes to improve Agricultural Education programs.

Background of the Problem

According to Salvaterra and Adams (1998) as many as 50 percent of the high schools in America are on a block schedule. Therefore, since block scheduling has become an integral format for American secondary schools, it is important to study the perceptions and attitudes of agricultural educators on a block schedule. By studying successful agricultural educators on a block schedule, decision makers in secondary schools can enhance their implementation strategies.

Becky Meyer, agricultural instructor at Elk Mound High School, Elk Mound, Wisconsin, speaks of the block schedule in this way, "I think the block schedule allows a lot more real-world experience." She explained that "the extra class time allows you to extend the classroom beyond the walls of the school." Mrs. Meyer also believes it allows

her to be more creative in both curricula development and presentation (FFA Advisors Making a Difference, 1998. p. 6).

In retrospect, Derek Hallum of Lone Grove High School Lone Grove, Oklahoma, expresses a different view when he stated; "It's not for me, it's not what I think is best for my students." Hallum was expressing his concerns for not having the opportunity to see his students on a daily basis throughout the school year (FFA Advisors Making a Difference, 1998. p.6). He notes that, " even though the schedule opened up more elective opportunities overall, the only students who have enough latitude in their schedules to take agriculture both semesters are students who don't participate in sports or any other extra-curricular activity" (FFA Advisor, 1998. p.6).

Purpose of the Study

The purpose of this study was to determine Oklahoma Agricultural Education teachers' perceptions of block scheduling and to examine its effects on secondary Agricultural Education programs in the state.

Objectives of the Study

To accomplish the purpose, the following research objectives were established: (1) to determine Agricultural Education teachers' attitudes toward block scheduling, (2) to determine perceived impact of instructional strategies in an Agricultural Education program, (3) to determine the perceived impact of block scheduling on the Supervised Agricultural Experience program at the local schools, and (4) to determine the impact of a straight 4X4 block or an alternate A/B block schedule on enrollment in secondary Agricultural Education programs.

Significance of the Study

The significance of this study will be for Agricultural Education instructors, secondary school administrators, district program specialists, Oklahoma Department of Career and Technology Education, and school administrators as they make the transition to block scheduling. Change is difficult for any educational entity. However, if quality information is made available to educational leaders and state educational agencies, the transition can be made easier. Furthermore, with information being made available to all parties involved in changing from a traditional school schedule to a block schedule fewer mistakes will be made because participants are better informed.

Assumptions

For the purpose of this study, the following assumptions were made: 1) that all responses by instructors and interviewers were honest and true, and 2) that this study would not be applicable to agricultural education programs that are in a traditional schedule.

Definition of Terms

For the purpose of this study the following definitions were used as they define different components of this study:

4x4 Block – A straight four period schedule based on the term format. Each class meets for one term and there are four classes per day (Appendix C).

AB or Alternating Block – This schedule allows classes to run concurrently for an entire year. Classes are scheduled for 90 minutes and meet every other day (Appendix C).

Core Classes – These classes consist of the core classes as designated by the Oklahoma State Department of Education Graduation Requirements. They include English, Math, Social Studies, and Science.

Elective Courses – Courses that are not included in the definition of a core class. Such as: Vocal Music, Athletics, Art, Agricultural Education, and Instrumental Music.

Block Period – One class period consists of 85 – 90 minutes.

Semester – 18-week period in which students traditionally complete one-half of the school year.

Traditional Schedule – Classes scheduled for 45-50 minutes per period and normally six to seven periods per day.

Summary

According to Carroll (1994), transition to a block schedule is necessary. Mr. Carroll asserts that, "continuing to rely on the traditional Carnegie structure raises the question of professional malpractice in high schools," p.105. Block scheduling does not replace the curriculum involved in any program. The block schedule merely transforms the delivery method for the instructor and allows for more time on task for the students in that they are provided the opportunity to complete a full laboratory experience from start to finish. Under a traditional schedule, this is not possible due to time constraints.

Students are the main reason to consider changing the traditional format of scheduling. If students can increase their achievement levels under block scheduling, then an important function of secondary schools will have been achieved.

Goals for the student in a block schedule include: 1) improved academic success.

2) exposure to a variety of teaching and learning modes, 3) increased opportunity to experience more in-depth learning, 4) fewer classes to prepare for each day, 5) reduced stress for the students, and 6) declined dropout rate resulting in an increased graduation rate.

Agricultural Education programs have had to undergo major transformations over the past few years. As graduation and technology requirements have increased, so has the emphasis on student learning. Very few students stay on the family farm at the completion of their high school career, thereby forcing Agricultural Education instructors to rethink their methods of instructional delivery and course offerings. Block schedules are only a piece in the larger puzzle of guaranteeing student success.

This study was developed to assist in informing Agricultural Education instructors as their schools prepare to move to a form of block scheduling. In addition, the study was designed to assist those schools currently on a block schedule and struggling with delivery methods or other problems that have risen from the transition.

CHAPTER II

REVIEW OF LITERATURE

Introduction

The purpose of this chapter was to provide a framework from current literature available on block scheduling. A compilation of journal articles, dissertations, publications, ERIC documents, and books was utilized to provide a broad spectrum of the review of literature for this study. To provide a comprehensive review, Chapter II was divided into the following sections: (1) Introduction, (2) Historical Overview, (3) Background of Agricultural Education and Traditional Scheduling, (4) Scheduling Initiatives and the Creation of a Quality Learning Environment through Block Scheduling, and (5) Summary.

Historical Overview

Recommendations from the National Education Commission on Time and Learning (1994) report show that learning goals should be fixed and time should become a flexible resource for change. The structure of the six seven or period day has remained for almost seventy-five years. The public high school has not changed its most basic organization or structure - the time frame in which it operates or functions. Basically, the system was to establish equality of learning with seat time. The concept of acquiring

knowledge is based on seat time in a 50-minute period. According to Willis (1993), teachers reported obstacles in the areas of cooperative-learning and hands-on activities in the traditional 45 to 50-minute class.

The National Association of Secondary Principals (NASSP) working with the Carnegie Foundation for Advancement of Teaching stated in their 1996 report, Breaking Ranks: Changing and American Institution, "the manner in which a high school organizes itself and the ways in which it uses time create a framework that affects almost everything about teaching and learning in school" (p. 44).

The manner in which time is utilized in American high schools has received much research and attention over the last quarter of the century. Bloom (1974) stated, "The measures of time have properties that are almost impossible to secure in our conventional measures of academic achievement: a quality of units, an absolute zero, and clear and unambiguous comparisons of individuals" (p. 683-684).

"America has not always maintained such a rigid high school schedule. Prior to 1892 and the work of the National Association's Committee of Ten, high schools many times operated on a schedule that offered subjects on two, three, or four-day per week schedules (Canady, Rettig, 1995, p.13)." On the national initiative that was set off by the Committee of Ten's recommendations, America's schools adopted the system of scheduling that we presently exercise. The "Carnegie Unit" was born out of the recommendations of this committee. They stated that, "every high school should center the work of each student on five or six academic areas in each of the four high school years" (p.114). This initiative led to schedules becoming standardized as Boyer indicated in his summary of the Carnegie Foundations findings:

> The Carnegie Foundation proposed a standard unit to measure high school work based on time. A total of 120 hours in one subject-meeting 4 or 5 times a week, for 40 to 60 minutes, for 36 to 40 weeks each year-earns for the student one "unit" of high school credit. "The Carnegie Unit," became a convenient, mechanical way to measure academic progress throughout the country. And, to this day, this bookkeeping device is the basis on which the school day, and indeed the entire curriculum is organized. And at some schools, adding the Carnegie units seems to be the main objective. (Boyer, 1983b, p. 60)

According to Goodlad (1984), the traditional schedule limits the amount of individualized learning activities, remediation, and enrichment activities. Goodlad (1984) also had concerns about the amount of quality laboratory time that can be devoted to students under a traditional schedule. In 1994, the National Commission on Time and Learning also expressed a concern warning schools to focus more on learning and not just time. This concept leads to the argument of breadth versus depth in the learning experience. Opponents of the block schedule argue that seat time is lost when schools are on a block schedule. Queen (2000), indicated that there has been no significant negative effect on academic achievement based on loss of seat time. According to York (1997), there was no statistical difference in 10^{th} grade mathematics, reading, and writing scores between schools on a traditional schedule as compared to the schools on a block schedule.

Carroll indicated (1994), achievement of changes in time or any other changes in our high schools depends upon fundamental changes in our use of time. As we enter into a new century of the American education system, we must continue to look for more efficient and effective uses of time in our educational system.

Background of Agricultural Education and Traditional Scheduling

Newcomb (1986) addressing an audience of Agricultural Education leaders issued this challenge:

> A profession grows or dies, it changes or it faces atrophy, stagnation, and slow demise. These clearly cannot be viable options. The profession must become the hotbed of experimentation in education, not the guardians of the tombs of bygone success. (Newcomb, 1986)

As trends in traditional schedules and curriculum offerings begin to transition, Newcomb's challenge holds true for all secondary schools and their flexibility in meeting the needs of students. More course offerings become paramount for maintaining enrollment numbers, with block scheduling. With less than three percent of the population of the United States involved in production agriculture (Burton, 1986) it becomes obvious that Agricultural Education programs must prepare to face the future.

Herring and Norris (1987) stressed the need for semester courses that would allow for more specialization in areas of Agricultural Education. Under a block schedule, more courses can be offered in semester blocks which allow for a more specialized plan of study for secondary agricultural students. Newcomb and McCracken (1985) supported this notion by determining that semester block offerings in grades nine and ten will provide a more opportunity for a basic understanding of agricultural science.

In a study by Risenberg and Lierman (1990), two factors were identified as having the most limiting effects on Agricultural Education enrollment: 1) scheduling conflicts, and 2) competition and attitudes toward agricultural education.

Moore, Kirby, and Becton (1997), indicated that student enrollment numbers in Agricultural Education classes increased after schools implemented the block schedule in North Carolina. The study also indicated that even though enrollment numbers increased, membership in FFA did not (Moore, et al. 1997). In Mansfield, Texas a change to block scheduling brought an increase in Agricultural Education enrollment from 200 to 300 students in just five years (FFA Advisors Making a Difference, 1997).

John Sharber a teacher in Sapulpa, Oklahoma stated, "both enrollment and attendance are setting school records since an alternative block schedule was implemented at Sapulpa High School just three years ago" (FFA Advisors Making a Difference 1997. p.B). Marshall Stewart, North Carolina State Agricultural Education Coordinator stated, "Our ultimate goal in Agricultural Education should be increased access to students" (FFA Advisors Making a Difference, 1997 p.B).

In Oklahoma, enrollment numbers have decreased from 26,329 students enrolled in 1996-97 to 23,700 in 1999-00 (Department of Career and Technology Education, 00). These numbers would indicate a decline in Agricultural Education enrollment in the State of Oklahoma. Much of this decrease in enrollment is due to changes in graduation requirements that were implemented with H.B. 1759 (1999). However, a slight decline had already begun prior to the implementation of H.B. 1759 (1999). According to Hoover and Scanlon (1988), in 1976 enrollment in Agricultural Education programs was at an all time high of 697,000 students. However, by 1988 "there had been a decrease of 27 percent to 509,000," (p.2). Knight (1987) identified several factors for this declining enrollment. One of those factors included (Knight 1987) the rise in academic requirements coupled with the competition in scheduling vocational courses.

Scheduling Initiatives and the Creation of a Quality

Learning Environment through Block Scheduling

According to Field, (1995), Nicholas Copernicus' (1473-1543) was from Poland. Copernicus theory in 1513 said the sun (not the earth) was the center of the universe. This theory was widely challenged due to its challenge on the traditional theory and current trends. Joseph M. Carroll (1987) developed the Copernican plan to challenge the current trends in our educational system as it related to time and learning.. The origin was a quiet experiment in the mid 1960's by Carroll while serving as an assistant superintendent in the District of Columbia Public School system (Carroll, 1987). Carroll in his Copernican Plan stated:

> Virtually every high school in this nation can decrease its average class size by twenty percent; increase its course offerings or number of sections by twenty percent, reduce the total number of students with which a teacher must deal by sixty to eighty percent, provide students with regularly scheduled seminars dealing with complex issues, establish a flexible, productive instructional environment which will allow the introduction of effective mastery learning as well as most of the other improved practices recommended by instructional and more effective school research, get students to master about twenty-five to thirty percent more information in addition to what they learn in the seminars, and do all of this within approximately present levels of funding. (Carroll, 1987.p.1)

With these goals in mind, the Copernican Plan has evolved into a trend sweeping the country as schools scramble to meet class size requirements, increased graduation requirements, and additional course offerings. It is estimated since its inception the Copernican Plan, or block schedule, has been implemented in more than 50 percent of the high schools in the United States (Rettig & Canady, 1996).

According to Carroll (1994), "the time the classroom teacher now spends on preparing for five classes can be spent on planning for small groups or even for

individual students within a single class," (p.30). In addition, Carroll (1994) indicated that the heart and soul of more individualized instruction is more effective.

The most common forms of block scheduling are the Alternate Day Schedule and the 4X4 Semester Plan (Rettig & Canady, 1996). Under the alternate plan students will meet each of their classes for 80 to 120 minutes every other day throughout the school year. Alternate day schedules are generally referred to as A/B Schedule.

Under the 4X4 plan, students meet for 80 to 90 minutes in four different courses for one semester. Each semester would then constitute a full year course of study under a traditional schedule. Opponents of the Block Schedule, especially the 4X4 plan, argue that curriculum is being "dumbed down" because less time is spent per source (Rettig & Canady, 1996). Others criticize this schedule because of the lapse of time from course to course which some say would be as much as thirteen months (DRET, Georgia, 1998).

Canady and Rettig (1995) contended, "in our conservative estimates, an alternate day schedule results in an annual increase of 1170 minutes per year (the equivalent of 23 50 minute periods) of "quality instruction time" for each block course in comparison to courses in every day schedules, (p.37).

Quality instruction time was defined by Canady and Rettig (1995) as "nominal minutes in a period or block minus the number of minutes lost to procedures, routines, and interruptions," (p.38). In addition, Seifert and Beck (1984) finalized in their study that 27 minutes of lost instructional time every period because of class openings, closings, and various interruptions.

According to Canady and Rettig (1995) alternate day schedules permits concentrated work in specialized programs. "Vocational schools, schools for the gifted or

talented, and cooperative education programs typically offer half-day programs," (p. 41). Schools would have the opportunity to spend one full day in elective courses and one full day in core related courses. In addition, A/B schedules provide several benefits for students, teachers, and administrators. According to Canady and Rettig (1995), " these programs are relatively easy to implement, with fewer concerns brought forth from teachers and parents than several of the other block schedule plans," (p. 66).

Restructuring of the traditional schedule can bring about fundamental changes in expectations, content, and learning experiences provided in the curriculum (Cawalti, 1994). According to the Georgia Department of Education and the DRET report, the following benefits of the block schedule include:

> a) increased daily instructional time and a decrease in the number of subjects which enable a student to concentrate on just four subjects at a time, b) more depth than breadth as opposed to a traditional schedule of six or seven periods, c) greater opportunity for credits to be earned on a yearly basis, eight credits as opposed to six or seven under a traditional schedule, d) students who fail a course have more opportunities to regain their graduation pace, e) teachers see fewer students on a daily basis, f) fewer textbooks may be required, g) students involved in extra-curricular activities find the decreased load a major benefit, h) more time for teacher-student interaction on subject matter, a more active approach rather than passive, i) more time for labs and advanced topics with motivated students, j) more time for teacher preparation, and k) less time lost in the halls between classes results in fewer discipline problems (1998), p.4).

Cawalti (1994) provided the report concerning *High School Restructuring: A National Study*. In this study an overall picture of the American high school was developed. Cawalti (1994) identified five major components of restructuring: "1) curriculum/teaching, 2) school organization, 3) community outreach, 4) technology, and 5) monetary incentives" (p. 8, 18, 29, 36, & 43). Inclusive in each of these components were 36 specific indicators of restructuring the American high school. Block scheduling

was one of the seven primary indicators discussed as a tool for restructuring. Cawalti (1994) suggested in his report that at least part of the school day be designated for a block of time larger than the traditional 60 minute period.

According to Salvaterra and Adams (1998), the block schedule is even more valuable in the process of improving the teaching and learning process that goes on in the classroom. In addition, improving these opportunities are outlined as 1) integrating learning among subject areas, 2) meeting the individual needs of students, 3) engaging students in critical thinking through a focus on in-depth and authentic learning activities, 4) collaborative learning among students, and 5) whole-task completion within the framework of a single period (Adams & Salvaterra, 1997: Canady, 1995; Carroll, 1994; Salvaterra & Adams, 1996). Furthermore, Salvaterra and Adams (1997) concluded that teachers must begin to change their teaching methods from traditional lecturing, reading, and assigning homework. This transition needs to be more focused on collaborative activities in the classroom. More emphasis on changing learning activities in the classroom on a regular basis leads to a more successful classroom. According to the Georgia Department of Education (1998), for these basic changes to occur in an individual classroom an organization must support changes in policy and provide quality professional development for staff. In addition, changes in resource allocation, technical assistance, and cultural components must be addressed (Georgia Department of Education, 1998). For instance, Pisapia and Westfall (1997) indicated, "Alternative schedules have shown an improvement in schoolwide discipline and do improve student grades. If there is a belief that more student involvement in their learning and more in-depth learning is the standard, they do positively influence those features of teaching and

learning" (p. 28). It is further recommended, by Pisapia and Westfall (1997) "that decision makers should come to a consensus on what they wish to accomplish, what type of educational delivery system they want to support, and then select the scheduling model with features that will advance their goals" (p. 29).

Canady and Rettig (1993) suggested that alternate models of instruction are essential for teaching success on a block schedule: a) cooperative learning, b) inquiry, c) group discussion, d) concept development, e) role-playing, and f) seminars. All of these are applicable to any classroom as successful models for instruction. The concern under a traditional schedule is the amount of time available to lead a student through several different instructional strategies. Hottenstein (1998) contended, "Flexible time use is a powerful catalyst that helps place teachers and students in better teaching and learning environments. Longer blocks of time provide more flexibility for different instructional strategies that will accommodate a variety of learning styles," (p.12). In addition, Edwards (1999) asserted that teachers may become more motivated in applying different instructional strategies if longer extended periods are available for instruction. Short and Thayer (1995) theorized that a traditional schedule discouraged different learning strategies and focused more on a teacher-centered methodology. According to Queen (2000), teachers should develop lessons that will change student activities every 10 – 15 minutes. Queen declares, "In most cases a teacher should use a minimum of three instructional strategies during any class period" (p. 221).

Summary

Secondary schools face tremendous pressure and many of the challenges of our educational system. Block scheduling is a trend that has swept through schools in some form or fashion over the last ten years. Schools in Oklahoma have long maintained outstanding agricultural education programs. Today these programs face the challenge of maintaining student enrollment numbers, high school graduation requirements, and the redesigning of courses to meet the needs of the students. Block scheduling may serve as a catalyst in this transition. However, without proper planning and continuous professional development, block scheduling will fail just as many other trends in education have failed. Block scheduling is not a cure-all for secondary education issues. The benefits of more course offerings, lower dropout rates, decreased discipline problems and an increase in student attendance, are only a few of the examples of the advantage offered by block scheduling.

According to Queen (2000), every effort should be made to include all stakeholders in the decision making process including the board of education, students, teachers, parents, administrators, and community organizations. In any effort that is made to restructure or redefine how schools are operated, all stakeholder input is essential to the success of that organization. In addition, Beams (1998) states, "High schools have been the gateways to the future for our young people," (p.24).

As schools transition to new methods of instructional delivery and flexible scheduling, the student must remain the focus of attention. The public school system is under constant scrutiny for better test scores and more college graduates. Change is good

if it will benefit student learning. Schools should not be afraid to embrace change, nor should they be too aggressive to jump on a bandwagon without first doing the proper research and foundation building that will assist in being successful.

CHAPTER III

METHODOLOGY

The purpose of this study was to examine the effects of block scheduling on agricultural education programs and to determine the agricultural education teachers' perceptions of block scheduling.

To achieve the purpose of the study, the researcher established the following objectives:

1. To determine Agricultural Education teachers' attitudes toward block scheduling.
2. To determine the perceived impact of block scheduling on instructional strategies in Agricultural Education programs.
3. To determine the perceived impact of block scheduling on the Supervised Agricultural Experience programs.
4. To determine the impact of a straight 4X4 block or an alternate A/B block schedule on enrollment in Agricultural Education programs.

This chapter outlined and described the procedures used to conduct this study. They were established according to the purpose and objectives outlined above. The following procedures were established to conduct this study.

1. Determine the study population.
2. Design an instrument for data collection.
3. Develop procedures for effective data collection.
4. Select methods for data analysis.

Study Population

The population consisted of all agricultural educators teaching on a block schedule in the State of Oklahoma. The agricultural educators were surveyed and interviewed with the goal of obtaining information to fulfill the purpose and the objectives of the study. A list of these agricultural educators was obtained from the state office of the Career and Technology Department. Names and addresses 51 Agricultural Educators were contained in the list. Telephone numbers and work sites were obtained from the Oklahoma Directory of Education (1999). Five Agricultural Educators were selected from the survey information to be interviewed based on the following: 1) demographics-size of the school and program, 2) agricultural Education supervisory district, and 3) approval or disapproval of the block schedule.

Upon submittal, the Oklahoma State University Institutional Review Board approved the instrument. A copy of the instrument can be found in Appendix A. Federal regulations and Oklahoma State University policy require review and approval of all research studies that involve human subjects before investigators can begin their research. The Oklahoma State University office of University Research Services and the Institutional Review Board conduct this review to protect the rights and welfare of human subjects involved in biomedical and behavioral research. In compliance with the

aforementioned policy, this study received the proper surveillance and was granted permission to continue under approved numbers OSU AG-00-053 (Appendix B).

Development of the Instrument

The questionnaire that was developed for the survey was a two-part design to provide initial information related to the objectives of the study. Part One of the questionnaire contained ten items related to demographics. Part Two of the questionnaire contained thirteen items related to three objectives of the study. Six questions sought to determine the perceptions of agricultural educators concerning the block schedule. Two questions pertained to the staff development and in-service preparation of Agricultural Educators during the transition to block schedule. Two questions were included to identify if there had been an improvement in instructional strategies in the agricultural classroom. One question was included to determine if enrollment had increased in the Agricultural Education courses. One question focused on student SAE's and the impact on the SAE experience. Finally, one question focused on the Agricultural Education instructor's involvement in the implementation process.

A qualitative interview process was used to provide in-depth information to supplement the broader information from the survey. The decision to use the qualitative interview was made because the holistic approach to studying the phenomenon in question would be the most effective method. Rubin & Rubin (1995) identify three major components of interviewing for ascertaining data:

1. Interviews are an intentional way of learning about people's feelings, thoughts, and experiences
2. interviews are held between strangers as well as among acquaintances
3. qualitative interviews are guided by the researcher. (p.2)

The interview process coupled with the survey instrument allowed the research to determine the perceptions and feelings of agricultural educators in State of Oklahoma. Key (1997), suggested that the following five levels of protocol be used during the interview process:

1. The researcher should control his or her reactions; avoid responses that would imply bias.
2. Choose an interview environment that is comfortable and conducive to the interview process.
3. The researcher should avoid "yes" or "no" questions. The researcher should be flexible in his or her approach to the informants.
4. The researcher should consider to what degree the interview question is "recursive." As applied to interviewing, what has been said in an interview is used to determine or define further questioning. (p.124)

According to Glaser & Strauss (1967), interviews help explain what is happening in the terms of those involved in the situation. In addition, McCracken (1988) suggested that interviews allow the respondents to tell their story in their own terms. Glaser & Strauss (1967) went on to say that the interviewees have the ability to talk back and explain their points, not only from an academic perspective, but also for practical implications.

Data Collection

To obtain demographic information, schedule formats, and attitudes of agricultural educators, a survey was mailed to the entire population of agricultural educators whose programs were on a block schedule. The instrument was designed to elicit short answers to specific questions that related to the stated objectives. In the development of the instrument, related literature and instruments were used. Instruments from previous studies were used as a guide to design the survey (Moore, 1997).

The final format of the instrument was completed January 18, 2000. At the time of completion of the instrument, several colleagues had critiqued the instrument, as well as professors in the Department of Agricultural Education, Communications, and 4-H Youth development and the College of Education. The instrument was pilot tested with several agricultural educators who were not a part of the study population

The first questionnaire was mailed on March 19, 2000. The collection of data was completed on December 20, 2000, with the last of five interviews. Initially, 51 surveys were mailed to agricultural educators across the state. Each of the agricultural educators surveyed were on a block schedule, either a 4x4 or an A/B alternating block. Of the 51 initially surveyed, a return rate of 43 percent (22) of the respondents was accomplished with the first mail out. A follow-up survey and letter was mailed to the non-respondents. This effort produced an additional 20 percent (10) of the total responses returned. Finally, direct telephone calls and electronic mail was sent to secure the final 10 percent (6) of the respondents. The final return rate for the surveys was 75 percent (38) of those surveyed.

Framework of the Study

As block scheduling in agricultural education is a relatively new issue, the use of this qualitative study can be used as a springboard into more in-depth research. Combinations of qualitative and quantitative methods were used to determine perceptions of Agricultural Education instructors toward block scheduling. The triangulation method was used to assist in eliminating bias relative to the qualitative nature of the study. According to Worthen, Sanders, and Fitzpatrick (1997), when different methods are used

and similar results can be found, it only adds to the strength of the study. The concept of triangulation was based on the assumption that any bias can be neutralized with a combined study (Jick, 1979). This study used multiple methods referred to as between methods (Jick, 1979). The study method of triangulation was used to compliment and overlap the original survey with an in-depth interview. The literature review of the phenomenon was utilized to establish the understanding of the block scheduling concept. This method allowed the researcher to provide the different facets of the phenomenon allowing these issues to emerge (Creswell, 1994). According to Creswell (1994), this method allowed the study to develop, wherein the first method was used sequentially to help conduct the second method. Creswell (1994. p 177) suggested a "dominant, less dominant" approach to the triangulation method. The major component for the study was the qualitative interview. The less dominate component was a quantitative survey. The literature review served as an overall guide in developing the instrument and obtaining background information regarding block scheduling.

A census of all Career and Technology Education Agricultural Education teachers in the State of Oklahoma currently using block scheduling was conducted. The independent variable in this study was block scheduling. The dependent variables were student enrollment in Agricultural Education programs, attitudes of instructors, use of time, and the effects on the local SAE program. In addition, an interview method was used to take an in-depth look at five different programs using a block schedule.

Credibility

The purpose of using a combined method for gathering information provided credibility to the study. Surveying the entire population and analyzing the survey information produced a broader study, whereas the interviews provided more in-depth information. The survey data provided valuable information, which could be used during the agricultural educators' interviews. The survey questions served as a spring-board for the more in-depth interviews that took place.

To achieve further credibility, five individual interviews were conducted after the initial survey. By surveying the census of the population, a broader view of agricultural educators' perspectives was determined.

The same questions that were on the initial survey were used in the five interviews. Answers that were initially given on the written survey were then used to gather much more in-depth information from the interviewees. The difference between the two methods of information gathering was the more probing nature of the interview.

Transferability

The tradition of qualitative research methods has roots in a holistic and intuitive method of inquiry (Pearsol, 1980). Its philosophical roots lie in phenomenology, which provides a better understanding of the phenomenon through the eyes of an individual's own frame of reference (Bogdan and Taylor, 1975). According to McCracken (1988), qualitative studies are designed to "tell what people think and do, not how many of them think and do it," (p.49). Using survey and interview comparisons in this qualitative study assisted the researcher in achieving some generalizability. According to Stake (1988),

naturalistic generalization is arrived at by recognizing the similarities of objects and issues in and out of context and by sensing the natural covariations of happenings. In this research, generalizability rested in the ability of the reader to generalize the findings.

Summary

The purpose of this study examined the effects of block scheduling on agricultural education programs and determined agricultural education teachers perception of block scheduling. By using qualitative methods of inquiry, a more in-depth look into the phenomenon of block scheduling as it relates to agricultural education was achieved.

CHAPTER IV

DEMOGRAPHICS, SURVEY RESULTS AND INTERVIEW RESULTS

The purpose of this chapter was to describe in detail the information that was received through the use of an open ended survey mailed to 51 Agricultural Education instructors in the State of Oklahoma whose programs were operating on a block schedule. In addition, it reported interviews conducted with five of the respondents in attempt to retrieve a more in-depth view of the Agricultural Educators' perceptions the block schedule. The survey contained questions related to demographic and background information of the Agricultural Education instructors. This chapter presents the information that was collected from both the survey and the interviews (Table I).

The survey responses were broken down into three different demographic areas. They were described as rural, urban, and suburban. Each group of responses was then identified by the four main objectives of this study. These objectives were stated as:

1. To determine Agricultural Education teachers' attitudes toward block scheduling.
2. To determine the perceived impact of block scheduling on instructional strategies in Agricultural Education programs.

3. To determine the perceived impact of block scheduling on the Supervised Agricultural Experience programs.

4. To determine the impact of a straight 4X4 block or an alternate A/B block schedule on enrollment in Agricultural Education programs.

Demographics

TABLE I

A SUMMARY OF THE STUDY RESPONDENTS BY SELECTED DEMOGRAPHIC CHARACTERISTICS

Demographic Characteristics	Range	Mean
Years experience	1-31 years of experience	14.82
Age	25-59 years of age	37.86
Number of Agricultural Educators in the program	1-3 agricultural educators	1.78
Current Enrollment	50-350 students	136.84
# of periods taught prior to a block schedule	3-6 periods	4.61
# of Years on a block Schedule	2-8 years	4.72

The mean years of experience of all agricultural educators surveyed was 14.82 years and the mean age was 37.86. The average enrollment in the agricultural education programs was 136.84 students. Twenty-eight of the programs were on a straight 4X4 block schedule. There were block schedule schools in nineteen rural districts, twelve suburban districts, and seven urban districts.

TABLE II

A DISTRIBUTION OF STUDY RESPONDENTS
BY LEVEL OF FORMAL EDUCATION

Level of Formal Education	Frequency (N=38)	Percent (%)
Bachelor of Science Degree	27	71.05
Master of Science Degree	11	28.95
Total	38	100.00

Interview Results

Interviews served as the primary source of in-depth information retrieval. The interviews were taped and transcribed for analysis. The instructors interviewed were selected based on their responses to the initial survey. Specifically, the instructors were chosen based on their responses to either favoring a block schedule or not favoring a block schedule. Also taken into account were the number of students enrolled in the program, location of the district, and demographic area in which the district was located. Two of the districts classified themselves urban, two suburban, and one rural. There was an average students enrollment in each program of 179.40 students. The researcher was looking for a balanced sample to interview based on their response to the initial survey.

Personal and Professional Profiles of Interviewees

The average age of the instructors interviewed was forty-two years old. Four of the five held Bachelors Degrees with only one holding a Masters Degree. The average number of years experience was 15.4 years of service. All but one of the instructors had

indicated they were on a straight 4X4 block schedule. The remaining instructors indicated they were on an A/B block schedule. Fictitious names were given to each instructor to be used throughout the remainder of the study.

Jan was in her early 30s and has two years experience as an agricultural educator. She was an instructor in an urban district. Jan's initial reaction on the written survey was positive toward a block schedule.

Mark was in his early fifties and has 30 years experience as an agricultural educator. He was an instructor in an average size urban district. Mark's initial reaction on the written survey was positive toward a block schedule.

Dan was in his early 40s and has 18 years experience as an agricultural educator. He was an instructor in a suburban district. Dan's initial reaction on the written survey was neutral toward a block schedule.

Bob was in his late 40s and has 13 years experience as an agricultural educator. He was an instructor in a suburban district. Bob's initial reaction on the written survey was negative toward a block schedule.

Donna was in her late 30s and has 14 years experience as an agricultural educator. She was an instructor in a rural district. Donna's initial reaction on the written survey was negative toward a block schedule.

Survey Findings

The findings in this section are reported as they related to each stated objective.

Objective One

To Determine Agricultural Education Teachers' Attitudes Toward Block Scheduling

TABLE III

AGRICULTURAL EDUCATORS' ATTITUDES AND PERCEPTIONS TOWARD BLOCK SCHEDULING

Question	Response % (n=38)		
	Yes	No	Non-Response
As an agricultural education instructor, were you involved in the block schedule implementation process?	34.21% (13)	63.15% (24)	2.63% (1)
Favorable was your initial response to the block scheduling?	28.94% (11)	55.26% (21)	15.78% (6)
Favorable is your current attitude toward the block schedule?	52.63% (20)	28.94% (11)	18.42% (7)
Have parents perceptions toward block scheduling been positive?	52.63% (20)	21.05% (8)	26.31% (10)
Is teaching the subject matter a more enjoyable experience with the block schedule?	47.36% (18)	39.47% (15)	13.15% (5)
Would you return to a traditional schedule, if possible?	42.10% (16)	52.63% (20)	5.26% (2)

The survey indicated that there had been very little involvement from the Agricultural Educators in the implementation of the block schedule. There were 63% of those surveyed that were not involved in the implementation process. This could explain why 55% of the respondents were not in favor of a block schedule. In addition, over 15% did not indicate either a favorable or an unfavorable attitude toward the block schedule.

Current attitudes had changed to a 52% acceptance of the block schedule However, this 52% favorable rating, coupled with 18% undecided, leaves almost a 50 –50 split in acceptance. These percentage numbers and the percentages of participants indicating they would remain on a block schedule are very closely related.

Parents' perception had the highest percentage of undecided or other responses with 26% showing neither a positive nor a negative opinion. There were 52% of the agricultural educators that stated the block schedule had been positive with the parents of students enrolled in their programs.

Forty-seven percent of the instructors indicated the subject matter was more enjoyable to teach on a block schedule. However, with almost 40% of the respondents indicating the subject matter was not more enjoyable to teach on a block schedule, again there is a very close response rate of those favorable to teaching on the block schedule and those unfavorable to teaching on the block scheduling.

Short answer responses from the survey concerning agricultural educators' attitudes toward block scheduling are reported in Table IV.

TABLE IV

SHORT ANSWER SURVEY RESULTS

Question	Response
As an agriculture education instructor, were you involved in the block schedule implementation process?	1) Consulted and voted. 2) No Input from vocational staff. 3) Served as a committee member 4) We had discussion groups & site visits. 5) I am serving on a committee to implement the trimester schedule 6) It was a Superintendent and Board of Education Decision. 7) Just told of implementation at fall in-service.
What was your initial response to the block scheduling?	1) Not in favor. 2) While at another school we researched the concept and decided not to go to on a block schedule. 3) I wanted the AB block schedule. 4) Liked it, activity classes would benefit. 5) Reluctant, concerned about not having students all year. 6) Great. 7) Block scheduling allows more time to prepare for less. 8) I liked it when I taught in a large school. Not working so well in a smaller district.
What is your current attitude toward the block schedule?	1) Still opposed, can't be as effective. 2) Good for classroom instruction hurts FFA and SAE projects. 3) Don't like it because I don't see my students all year. 4) I like parts of it. 5) Every other day AB may be better for FFA. 6) I would not want to change. 7) I enjoy the AB. I would not prefer the straight block 8) I feel it has hurt my program. I lost quality for quantity.

TABLE IV - Continued

Question	Response
Have parent's perceptions' toward Block Scheduling been positive?	1) Yes and no, community is split. 2) Yes, they like it, there are more choices for their children. 3) Yes, we telephoned more than 1,000 parents and found a high percentage as positive. 4) No, attitudes have not been positive. 5) Yes, grades and ACT score have improved. 6) No, less contact with their children.
Is teaching the subject matter a more enjoyable experience with the block schedule?	1) Yes, more variety of classes. I must mix teaching styles in a 90 minute class. 2) Yes not time restricted. 3) No, it's hard to keep the students involved for 85 minutes, especially freshman. 4) No, tend to be difficult to cover a years worth of material in a semester.
Would you return to a traditional schedule, if possible?	1) Yes, to stabilize record keeping, SAE supervision, and seasonal activities. 2) No, my program would suffer, less kids, less variety, and fewer opportunities. 3) Yes, to keep contact with my students all year. 4) No, I am just starting to feel comfortable. A positive attitude makes it work. 5) No, I would like an AB block.

Interview Responses

As an Agricultural Education Instructor, Were You Involved in the Block Schedule Implementation Process? To What Extent? Jan was not involved in the implementation process. She had moved to her school district after a block schedule had already been implemented. She did comment though, that she had worked in another

district that was on a traditional schedule, and she much preferred the A/B block where she is currently employed.

Mark was not positive about his involvement in the implementation process. When asked, he merely commented, "Oh, they asked teachers about it. It is like anything else on the block schedule; if a teacher can go to three preparations per day rather than six, it is an easy decision for him." There were only two on his staff that voted against the block scheduling. He and the other agricultural educator were the two dissenting votes.

"We were asked what we thought about it before it was implemented" was Dan's response. "We were never opposed to it." Dan commented that they were willing to try. He later stated, "It's been all right." When asked if he had reservations, he expressed that not only he and the other teachers, but also the state agency that oversaw their programs had concerns. "I think that the block scheduling in this size of school is certainly not a problem as opposed to smaller schools where they might have some concern. We have three teachers here, so we can offer whatever we need." He spoke of the opportunities to offer more agricultural education courses that allowed the program to maintain students and many times in a yearlong program.

Bob and Donna both indicated they were not involved in the implementation process. Bob shared his school had teachers involved in the process. However, he and the other instructor in his program were not involved. Donna was at another school when her current district made the transition. Donna did indicate that the staff was merely told we are going to a block schedule with no input.

What Was Your Initial Response Toward the Block Schedule? Jan was somewhat scared because 90 minutes or 85 minutes requires more preparation than a 50-minute class. When she taught in a previous district, she taught on a 50-minute class schedule. "Yes, there is a big difference in those 20 to 30 minutes with your students." Jan stated that, "You can't lecture all hour, you have to be prepared; and, you have them for a longer amount of time, but only for two or three days per week." She commented that a teacher must be prepared. Her exact comment was, "You can't wing it, and it can be disastrous if you are not willing to offer a variety of ways to teach to the students." The opportunities for laboratory classes were a real selling point for Jan. Jan has a greenhouse as a part of her horticulture program, and she expressed that with the block schedule there was adequate time for an introduction, the actual laboratory, and then adequate time for evaluation and processing. She felt that it was also great for projects and other activities that are associated with the FFA program such as parliamentary procedure and other speech activities.

Mark's comments were still hinging on the fear factor associated with change. "We were afraid that we didn't have enough course offerings." Mark commented that another of his fears was "How can they implement this program, because on a system like ours, students come in their ninth grade year, and they would not have enough courses to offer those students throughout their high school experience?" Mark stated that, "Fortunately, our junior high didn't go to the block schedule. They remained on a traditional schedule, and when they came to us, they were enrolled for the entire year."

Dan commented that initially he thought an eighty-minute class period was too long for any student, and he had reservations for that reason.

Bob's concerns stemmed from the fact that he was not able to keep his students for a full year. He felt that the personal contact in the classroom and after school everyday was vital to the success of an agricultural education program. "I don't care how good students are; you put them in the block schedule, and they are not in your class each semester; then, they are out of sight and out of mind." Bob added that he had a student on a state winning poultry team. Bob was going to Oklahoma City for a poultry judging contest and almost forgot the student because he had not seen him in two weeks. Bob stated that, "It's hard to maintain that one on one contact when you do not see the students all year."

Donna was adamantly opposed to the block schedule and still is. She did see a positive in the schedule, especially for laboratory classes. Donna has had a tough time adjusting. She did not feel that students were receptive to a ninety-minute block schedule class.

What Is Your Current Attitude Toward the Block Schedule? Jan had very few comments on this question other than that she would not want to go back to a typical six or seven period day.

"We are adjusting," were Mark's comments. He was somewhat relieved that they had been able to add courses that allowed more students to participate on a continual basis.

Dan was also pleased that with additional course offerings they were able to keep more students enrolled. The teachers had the opportunity to see their students and stay in contact with them. Many of the early apprehensions that he had felt were now gone. He

stated that, "With a school our size, the block schedule works well." This comment was also referenced earlier when he said that he would have concerns if he were in a smaller school.

Bob stated, "Schedules are a problem. You learn to deal with it a little bit better so it does not become as big of a problem as it was when we started." One of Bob's major concerns was the fact that he and the other agricultural educator both lost their SAE supervision period. There was evident resentment about the coaches only teaching two courses and then getting a preparation period before athletics. The agricultural educators taught three courses and then had a combined preparation/supervision period. "You basically take on the same schedule as an English teacher," Bob stated. "As an Agricultural teacher I should be on the same schedule." He expressed that he could not go on that schedule because if he did, he would lose a class and that would hurt his program. This also severely hampered his ability to reach kids.

Donna did comment that she had seen some opportunities for students on a block schedule. These opportunities included better laboratory settings and more opportunities for students to gain credits. Gaining more credits was also listed as a negative because seniors are able to graduate early, and many times, they would be gone from her program in the spring of their senior year.

Have Parents Perceptions Toward the Bock Schedule Been Positive? Jan felt that parents perceptions had been positive. She followed that with the comment that she had not been at this school when the block schedule had been originally implemented. She stated that she had heard that parents were not in favor of the schedule at first. Jan

commented that her feelings depended on "your perception of what parents are making the pitch." She stated, "In a smaller school, I think your local population has a definite impact on what you do." She felt that they were a much larger district, and the local university dictated many of their changes and programs. The only negative thing she could think of was that the students don't get to take more electives.

Mark commented that most of the parents liked the schedule. He did state, "It becomes a problem when you miss one class period. On this schedule it's like missing two periods on the traditional schedule." He did share that there was some concern when students transfer in from another district that may not have been on a block. This is a problem because they cover so much more information on a block schedule, and parents sometimes see students overwhelmed when there is a school change. "because you have so much time and it's just a lot of information to pick-up if you miss." Mark did comment, "It is almost too much to make up unless they come from a school that was on the block."

Dan had heard a little of both, positive and negative. "At first, like anything that is changed, people are against it. Our nature is to be against it. We heard many things like 'that is ridiculous.'" The only problems that he had heard about were not agricultural problems but more of a course offering problem. Students may have a math class in the fall and not have math again until spring of the next year. "That could be an excuse too, in my opinion." He felt that the perception is, if the agricultural teachers support it and make it work, then the parents are going to support it.

Bob commented that the feeling was 50-50. Some really like it, and some don't. "I don't think any parents have just really got down on the block scheduling." Bob felt

that some of the positive incentives for going to a block schedule had not panned out. One of those positives was a reduced ineligibility list. Bob concluded that he had not seen this happen. He did say that it had been reduced somewhat, but not to the extent that it was promised. Overall, he did not really see the parents' perception as a real issue with the block schedule.

Donna mentioned that parents' perceptions had been negative. Her comments indicated there had been problems communicating with parents as well as students. Donna stated that, "Communication was her real issue and this was exemplified with the parents of students on a block schedule."

Is Teaching the Subject Matter a More Enjoyable Experience with the Block Schedule? Jan felt that there was more time to present, and go into more in-depth activities. In addition, there was more time for hands-on activities and active involvement. "It allows us to demonstrate and allows students to participate." Jan also commented that there was more time for summary and evaluation. In addition, a positive Jan commented on was the opportunity to meet the needs of all learners. "I am tired of all of the traditional stigmas in agricultural education. We do not see as many progressive changes in instruction." Jan commented that change is inevitable; there was a need to make the changes to promote a more positive agricultural education program. "I feel that we must get on the outer edge in agricultural education." She expressed concern that there did not seem to be much support sometimes for change from her supervising state agency.

Mark also commented that there was more time to go in-depth than before. He was concerned how he could cover all the required material to get everything in during a single semester. He stated, "Sometimes this is difficult." Mark did comment that the quality of the material is better now than it used to be. He had a year or two to adjust to the new delivery method. Prior to the block schedule, he was used to teaching many content units and not necessarily going as in-depth. Overall, his comments concerning the teaching on the block were positive.

When asked if he enjoyed teaching the subject matter, Dan said, "Personally, I like seeing where I am." He referenced this statement to his ability to introduce a lesson and provide the agricultural experience, whether it is in the classroom, laboratory, shop, or out on a farm site. Then there is an opportunity to bring the students back to the classroom, process the information and evaluate the lesson. Dan expressed that he liked all the kids whether they are heavily involved in FFA or just a kid that comes in and takes an agricultural education class. His attitude has not really changed about the students whether it is on a block schedule or a traditional schedule.

Bob expressed that he did not enjoy teaching the subject matter more on a block schedule as opposed to a traditional schedule. He did not feel that the classroom instruction was better due to the length of time that the students were in the classroom. Bob expressed the need for having active learning activities going on in the classroom as a real need. He stated, "If you don't have a hands-on activity within the hour, you waste half of your time. He did comment that the laboratory sections were better.

Donna commented, like Bob, that the classroom experience was not more enjoyable. However, her laboratory classes had improved. She commented that she

enjoyed teaching on either schedule. Donna did go on and say that there was less stress related to instruction from the vantage point of fewer preparations and longer planning periods.

Would You Return to a Traditional Schedule If Possible? Jan's comments on returning to a traditional schedule were, "If I could, I would prefer not to." "I would if I changed jobs and that was the way they were set up." If she had her choice, she would prefer the A/B block. She appreciates the A/B block schedule because teachers get to keep their students all year and are still able to meet the needs of the learners in the classroom. Jan made mention of the three-circle model, time in FFA and SAE. The A/B block lends itself to meet student needs. She felt that under a block schedule the needs of all three could be met. Jan did comment that under the straight block, you would have to add more classes. "I know other instructors on a straight block, and they have worked to add the needed courses to keep students all year." She enjoys the continuity of keeping students all year. She believes that the A/B provides more of an opportunity for students to learn responsibility as they prepare for college. Jan did comment on change. She stated, "Attitude toward change is what you make it; your perception is also a key. You can give kids the opportunities to take a 4 x 4 curriculum." While on a block schedule she indicated that there is still time for electives and the core curriculum. "In our situation, it would be impossible to go back due to busing and sharing of students from two sites."

"Since it is not a question, there would not be anyone in our school system return or vote to go back." This was Mark's comment when asked about going back to a

traditional schedule. "It's one of those deals where you do what you have to do to make the best of it." He did see that over the long haul, the traditional schedule may allow them to pick-up a few more students. Mark's most significant concern was, "Are we going to be able to keep the quality and the amount of students that we need for the program?" He characterized this statement by commenting that there is "safety in numbers." In his two-teacher program, they must maintain the proper numbers to justify two teachers. They were currently taking eighth graders that are pre-approved. "We stay selective with eighth graders and take all ninth graders. Both of their instructors have a common planning period that is scheduled for the last period of the day.

Dan stated that, "I personally don't want to return to a traditional schedule." His reason was that it is very refreshing for a teacher to begin anew after Christmas. "I think that after remembering back after years and years of teaching, it is always hard to teach from April thru May." Every year he had many seniors who became harder to keep focused during this time span. The students were returning from spring break and they are ready to get out of school. His concerns were, "I am teaching an elective class and they are hard to get a hand on. I have had trouble with that every year." However, he stated that he had much more trouble with this situation when he had them from September through May. "We were all getting tired of each other under a traditional schedule." He indicated that under a block schedule they have lots of fun in the classroom. They utilize the technology associated with syn-farm and other activities that were designed to spark the students interests. "I think if you come in and test my horticulture class and evaluate them, they can demonstrate what they have learned. I evaluate myself by what they have learned." Quizzes are used continually to see where

the students are, and he is willing to adjust to the needs of the students based on those evaluations. "I don't want the students saying this is an easy agricultural elective class. Therefore, I try to get into their head and find out what they have learned about specific topics like stems and roots." Students are asked to recall the information from prior weeks, and then Dan knows that they are starting to gain the knowledge that is required. "As far as block scheduling, honestly I like block scheduling and one of the benefits on a block schedule is that you can see an end point to a class a little quicker." He thought that on a block schedule, teachers can accomplish what they want to accomplish. To Dan the longer periods did not seem to drag on as much. Dan did not feel that the A/B block schedule was for him. He prefaced his comments by stating that,

> I am not for the A/B at all. My opinion of the SAE and leadership activities whether it be CDE's, or livestock judging, my opinion of that is going to be the responsibility of the ag teacher and the students to make those work. Whether you are sitting in the summer time, block scheduling, traditional schedule, or whether it is the weekend, you are going to have to work at those activities to make it work.

Dan felt that the students must be willing to give something up to make the activities work.

"You know I don't know, there are some parts, yeah I might do that." These were Bob's comments when asked about returning to a traditional schedule. The major benefit that he could see would be to have his students all year. Bob did comment that, "I think it, (A/B block schedule), would be more beneficial to us." Some of his concerns about the straight block schedule were that he was on a schedule where students could go six or

eight months without the same courses. This can cause some trouble. He stated, "We are doing all that we can do as far as student numbers are concerned. We can't go recruit a lot because we do not have the space or room. It is not a priority for the system."

Donna commented that she would return to a traditional schedule if the option were presented. However, she did see the benefits of an A/B block schedule. "This would allow me to see my students all year long." She also commented that she could see more students all year and maintain that needed communication. The communication area was a concern for Donna. She did not feel that there were adequate channels of communication between her students, parents, and the school district. She attributed this problem to the straight block schedule.

Abridgement

This objective brought out the strongest feelings from the interviewees. There were definite feelings both for and against the block schedule when attitudes were evaluated. Two of the five were adamantly opposed to their current situations. A third instructor was wavering on which way he stood concerning the block schedule. However, the third did appear to be working through his situation with some reservations for his program. The two instructors who favored the block schedule seemed to appreciate the benefits while working through many of the issues with which the others seemed to be dealing. There was a distinct commitment from these two instructors to make their current assignments and programs a success.

One theme that became apparent was the difference in administrative support for the programs. The two teachers that seemed to favor their current situation appeared to

have the needed support to produce changes. There appeared to be a lack of support from the administration for two of the three of the agricultural educators. Issues from communication problems to losing an extra period without compensation seemed to be key issues in the lack of success with the block schedule in these programs. There did not appear to be enough support with either of these instructors for the addition of more course offerings. There would be a need for additional staff members in these programs and that did not surface as an option for any of the three instructors.

Objective Two

To Determine the Perceived Impact of Block Scheduling on Instructional Strategies in an Agricultural Education Program

TABLE V

CHANGES IN INSTRUCTIONAL STRATEGIES IN AGRICULTURAL EDUCATION PROGRAMS AS A RESULT OF BLOCK SCHEDULING

Question	Response % (n=38)		
	Yes	No	Non-Response
Was staff development an option for teachers in the transition from a 45-50 minute class period to a 85-90 minute class period?	42.10% (16)	44.73% (17)	13.15% (5)
Is staff development training an ongoing benefit for faculty members in your school?	68.42% (26)	21.05% (8)	10.52% (4)
Have active learning activities in the classroom increased since the adoption of block scheduling?	73.98% (28)	13.15% (5)	13.15% (5)
Has the block schedule improved your laboratory classes?	86.84% (33)	2.63% (1)	10.52% (4)
As an agricultural educator, have you incorporated more evaluation techniques with the block schedule?	65.78% (25)	31.57% (12)	2.63% (1)

This objective contained five questions that focused on instructional strategies in an agricultural education program. The surveys indicated that only 42 percent of the instructors were provided staff development that would prepare them for the transition to the block schedule. With only 44 percent either receiving some initial training, and 13 percent of the respondents providing a no response or had other comments, it would appear that staff development was not a priority. However, 68 percent of the respondents indicated they were receiving staff development training on an annual basis.

The remaining three questions were directed at classroom strategies, specifically, focusing on hands-on activities, improved laboratory classes, and addition of evaluation techniques. The responses in this section of objective two indicated the most significant changes that were effected by the block schedule. There were 73 percent of the respondents indicating an increase in active learning activities. In addition, 86 percent of the respondents experienced an increase in improved laboratory classes. Sixty-five percent of the respondents were incorporating more evaluation techniques in their classroom activities.

Short answer responses from the survey concerning changes in instructional strategies in agricultural education programs as a result of block scheduling are reported in Table VI.

TABLE VI

SHORT ANSWER SURVEY RESULTS

Question	Response
Was staff development an option for teachers in the transition from a 45-50 minute class period to a 85-90 minute class period?	1) No, we adapted on our own. 2) Yes, many opportunities were provided. 3) Yes, some time management courses. 4) Yes, but very little. 5) No, I don't remember any time being spent on the transition to 90 minutes. 6) No, none dealing with such a change.
Is staff development training an ongoing benefit for faculty members in your school?	1) Yes, all year long, professional days, and after school sessions. 2) Yes, very extensive in our district. 3) Yes, but staff development is just a day away from kids. I learn nothing. 4) Not pertaining to block scheduling. 5) No, none at all.
Have active learning activities in the classroom increased since the adoption of block scheduling?	1) Yes, allows for more hands-on activities. 2) No, you have to cover two times as much material in each period. 3) Yes, more time for "hands-on" activities, computer activities, and on site job experiences. 4) Yes, you have more time for field trips and experiments.
Has the block schedule improved your lab classes?	1) Yes, more time on projects and experiments. 2) Yes, much more. Because of more time when can run a lab from start to finish. 3) Yes/No, students have more time but get bored with all of the time available. 4) Yes, able to get more done. Very positive about the block schedule. 5) Yes/No more time is only for half of the year.
As an agricultural educator, have you incorporated more evaluation techniques with the block schedule?	1) No, it has stayed the same. 2) Yes, alternative assessments are used and team teaching. 3) Yes, there is more opportunity for evaluations to be assessed. 4) Yes, use more verbal evaluations.

Interview Responses

Was Staff Development an Option for Teachers in the Transition from a 45-50 Minute Class Period to a 85-90 Minute Class Period? Jan was not in the school in which she is currently teaching when the block schedule was implemented. Jan did comment that, "I would say that they had quite a bit of transitional training and feedback on the block schedule. This was to insure the success of the schedule change." In addition, she did comment that her school district was heavily committed to staff development. Much of their staff development is based on researched practices that not only complemented the block schedule but also other programs they may have. She referenced this comment with the fact they were located in a "university community." She attributed much of the research coming from the university setting to assist the school district in implementing the best possible educational practices. Jan went on to elaborate on "horror stories" the first year. These were due to a two-high school program trying to manipulate two different schedules and one school agriculture program. The location of the original high school is where they decided to house the agricultural education program; therefore, students from the other site had to be bused. Jan did say that, "Without a block schedule, we could have never made the program work."

Mark stated, "Yes, we had a lot of staff development. He indicated that many of the staff members were worried that if they were having a hard time keeping students busy for forty-five minutes, what were they going to do for ninety-minutes?" Mark stated that his feelings were a little different. "Our deal it really worked out better because, on a traditional schedule, our instruction would just get started when it would be time to quit,

especially in agriculture mechanics." Mark did feel that previous to block scheduling they had been hindered in this area because students were spending up to twenty minutes of the period either preparing for class or cleaning up before the bell. Mark did not indicate how much time was allotted for staff training, just that, "they had plenty."

Dan indicated that there was not too much training when they made the transition. "The biggest thing that we were told, and it holds true; you cannot stand and lecture for ninety-minutes, nor can you give questions and answers for ninety-minutes." Teachers were instructed to keep activities in classrooms changing during the ninety-minute period. Dan did go on to say that, "I think that is one advantage to the agricultural education program teachers over a regular classroom teacher."

Dan has a shop area and a greenhouse that he was able to utilize during his class periods. "I can do a lesson in horticulture on propagation and cutting, whether it last 30 minutes or 45 minutes and then go to the greenhouse." Dan did indicate that he felt that the in-service the teachers received was pertinent to successful teaching on the block schedule.

Bob also indicated that staff development was provided. He indicated that they had quite a bit of training while the transition in schedules was made. Bob felt that it takes a year or two to really prepare for the transition. He indicated that there was a real advantage to the laboratory classes and agricultural experience activities. "Other than some of the laboratory classes, such as agricultural mechanics, ninety percent of the time it is a real advantage, because there is so much more that can be accomplished." Bob also indicated that he had access to a greenhouse for his horticulture class. "Block scheduling

has a real advantage compared to a traditional schedule. We can make a presentation, have the laboratory experience, clean-up, and provide closure for the class."

Donna again indicated that there was little support from the administration. Just as in Jan's situation, she was not at the school site when the transition was made. She spoke of things that she had been told by the other teachers about how the administration said, "This is what we are going to do," and that is what the staff was required to follow.

Is Staff Development Training an Ongoing Benefit for Faculty Members in Your School? Jan indicated that her school involved in a consortium called High Schools That Work. This program provides the needed staff development that assists the faculty in being successful. This consortium was looking at the block schedule and evaluating its success. The focus was to determine if the district was meeting the needs of not only the agricultural education program, but also the district. Jan stated that, "Ninth graders are not adjusting well to the block schedule." This problem is also a focus of staff training, "How can we meet the needs of these students as they make the transition to our high school schedule? These students are not ready for an A/B schedule that meets every other day. If they make it through their freshman year, they seem to do fine."

Mark stated that the district is still offering staff development every year. Dan commented, "That really has not taken place." Dan did not think that his district had done enough as far as recommending changes in the classroom. "Maybe there is not a problem. I think the teachers that I know who are on block scheduling in agricultural education programs have made the adjustments." Dan indicated that he thought most of the teachers he knew had realized there are problems, and they are trying to find ways to

solve them. "The teachers with whom I am acquainted, are people in like-sized schools, and they went on the block several years ago. These teachers have made the needed adjustments."

Bob indicated that they were receiving one or two sessions per year on the block schedule. On the contrary, Donna stated that, " No, nothing about the block schedule has been addressed; more on anger management."

In this next section, two of the questions were reported together. Have Active Learning Activities in the Classroom Increased since the Adoption of the Block Schedule? Has the Block Schedule Improved Your Laboratory Classes?

"Definitely," was Jan's comment. She works with her students to develop their own lesson plans and then present that lesson to the class. Her students get a first hand experience of what needs to happen in the class, especially when it comes to a full ninety-minute class. "As a teacher, you can find out what interests the students or find an opportunity to see what they know." Agriculture is such a broad area Jan stated, "They would never teach every student all that there is to know in agriculture." Students also have the opportunity to develop their own business and market a product. Jan felt that the block schedule worked well with these types of activities because there was more time for group activities and feedback from other students. Jan indicated that the teacher must provide an introduction of the subject matter, then move into an activity, and then come back with follow-up or evaluations. She indicated that sometimes there was a struggle within her department because her co-teacher was much more traditional and spent the majority of the classroom experience in lecture activities. "The students really struggle with the differences in our teaching styles."

Dan stated, "I think this was one of the things that hurts that question (Have active learning activities in the classroom increased since the adoption of the block schedule?)." Dan was commenting that he had taught horticulture for many years. However, he did not have a greenhouse in his previous years. He was able to add a greenhouse the same year that the block schedule was implemented. "Before, I did not have a greenhouse; now, I have a greenhouse that has been very beneficial." Dan indicated that he thought the block schedule period could be too long for some of his eighth grade sections. "As students get into high school, I think an instructor will find enough activities to make it work."

Mark and Bob both indicated that they had seen an increase in hands-on or active learning projects since moving to a block schedule. Mark stated, "I think it gives you a lot more time to be creative. You can have guest speakers or more hands-on projects. In our area, it works well." Bob also indicated that more activities were available. "I think it's easier, and you can go over a new topic, then go into the laboratory or shop, and provide the opportunity to experience a hands-on activity. That is one experience on the block schedule that I do like."

Donna also stated, "Yes, not a lot, but some have introduced minimal activities." Dona was still not giving very positive feedback with any aspects of the block schedule. She did indicate that this was one of the brighter spots of having a block schedule.

<u>As an Agricultural Educator, Have You Incorporated More Evaluation Techniques with the Block Schedule?</u> Jan indicated that she was heavy into evaluation. She used the example of their school-based business the students operated. They used many different

evaluation techniques to monitor their success. She requires the students to monitor and evaluate their production, sales, and expenses. She also stated that, "Planning and documentation are required in our district to develop new programs." Students in her class learn that there is always a process to achieve success. She also indicated that success is not always tied to grades or sales. Students have many opportunities to achieve and evaluate.

Dan indicated that he had increased opportunities to evaluate. "In the first part of the class period, we have a current events activity in horticulture. This is a good opportunity to get to know the students. We then go to an assignment from the horticulture book." Dan uses this activity primarily for quieting the students down and getting them to focus on horticulture. After this introduction, there is a discussion concerning the assignment, and there is some type of quiz given to the students. "Then we move into the greenhouse to provide hands-on activities." Dan comments that this provides another opportunity for an evaluation of what they have learned. The students may be planting plugs, watering in the greenhouse, or fertilizing. "On a daily basis, we have added more opportunities to evaluate. In my grade book we will grade three activities on a daily basis." Dan was very emphatic about his opportunities to evaluate his students. He indicated that due to the length of the class period this made the flow of the class much smoother as opposed to the traditional schedule.

Mark and Donna both indicated they had not seen an increase in evaluation techniques. Donna did go on to mention that she utilized many evaluation techniques prior to transitioning to a block schedule. Mark had not seen any increase. Bob, on the other hand, thought that maybe he had added a few. His comments, when asked the

question were, "Yes, kind of I guess. A lot of it stays the same. It is just in a different format."

Objective Three

To Determine the Perceived Impact of Block Scheduling on the Supervised Agricultural Experience Programs

TABLE VII

IMPACTS OF BLOCK SCHEDULING ON THE SAE PROGRAM IN AGRICULTURAL EDUCATION

Question	Response % (n=38)		
	Positive	Negative	Non-Response
Since moving to a block schedule, what has been the impact on students' SAEs?	18.42% (7)	63.15% (24)	18.42% (7)

Objective Three looked at the impact on the Supervised Agricultural Experience (SAE) as it relates to the block schedule. This area was heavily impacted in a negative manner due to the block schedule. Many of the problems stemmed from the fact that students were not able to be in an agricultural education class all year long. This resulted in a negative impact on the SAE's.

Sixty-three percent of the respondents on the survey indicated they had seen a significant decrease in their students' SAE projects. Eighteen percent indicated a positive effect and eighteen percent with no indication of an increase or a decrease. Even with a

large percentage of respondents indicating no to this question 63% (or 24) respondents is still a significant decrease in SAE projects.

Short answer responses from the survey concerning the perceived impact of block scheduling on the Supervised Agricultural Experience programs are reported in Table VIII.

TABLE VIII

SHORT ANSWER SURVEY RESULTS

Question	Response
Since moving to a block schedule, what has been the impact on students' SAE's?	1) Declined, it is difficult to maintain an adequate SAE without regular student supervision. 2) Agricultural Educator must find students who are currently enrolled in other classes. 3) The number of projects has dropped. 4) More time is available. The number of quality SAE's has increased. 5) Record books are more difficult to manage. However, with better management it can be accomplished. 6) Harder to supervise and keep students' interest. 7) It has increased the ability to work on specialized SAE's such as horticulture. 8) Zero impact, my SAE's may even be better.

Interview Responses

Since Moving to a Block Schedule, What Has Been the Impact on Students' SAE's? Jan stated that, "It is getting more difficult with the addition of a greenhouse and

the school farm." They are trying to build a barn with the assistance of the local university. Under the block schedule, the number of students showing cattle has increased from one student to ten students. The program's sheep projects have increased while the swine projects have stayed about the same. Her program has also seen an increase in the number of job placement students. Her school also runs a school based business that is ran out of the agricultural building. There are seven other departments also involved in the business. Jan commented that they are the production side, which means that everything ultimately falls on the agricultural education department to keep the other entities informed of what is going on. "We could easily have another teacher, if not two more." She prefaced that comment with, "We also need math and science teachers." Jan's program includes two high schools, and they have trouble agreeing on everything. The district will not implement anything unless both schools agree. Jan also indicated that within two to three years, some of their agricultural education courses would count for a science credit. "We have a very rigid curriculum department." This makes it more difficult for the addition of science courses in the agricultural education department. In addition, Jan did comment that the block schedule makes it tougher to monitor the SAE's. "There is a higher academic standard required to maintain under a block schedule. Teachers have to balance the time or do more scheduling." Many of their SAE's are job placements; "You know, you are supposed to check on them on the job site. You may do that indirectly or offhand. It is very hard since we each have 110 kids to keep track of." She went on to say that there are only about thirty students involved in exploratory SAE's. With only thirty involved in exploratory SAE's, that means that the other eighty are either job placement or in an entrepreneurship. "The majority of our students are in

job placement. So, I think it makes is more challenging." She felt that their challenge was the time factor. This was indicated by her serving two different high schools and trying to coordinate with two different administrations and staffs.

Mark indicated that he actually lost a few students and SAE projects due to the block schedule. His comments centered on students taking other electives which makes it more difficult to take an agriculture class and be involved in an SAE project. "Therefore, we might lose them, so I don't think the SAE's are better, especially, in the other instructor's class where it is strictly horticulture." "They'll have an SAE and that class literally changes every semester." This causes the other instructor to bring in a completely new group of students every semester. With this type of constraint, Mark felt that it is somewhat difficult to maintain a strong SAE in that type of program.

Dan commented that,

> To keep your officers or any student that wants to be active in leadership opportunities, I think that we are going to have to spread them out throughout the year. I think that with the time we are living in now, block scheduling or anything regular schedule are an excuse or the main factor that cause problems with SAE's or leadership activities.

Dan felt the problems at his school are the jobs and family activities that those students have now. He did not indicate that the root of the problem was a block schedule, rather a host of other interferences in which students are involved.

> These students are busy with so many activities. I don't think the block scheduling has any effect on SAE's. I feel that it is an activity promoted

by the agricultural education instructor, whether it is a horticulture project, horse project, or a show project.

Dan indicated that the kids who are interested in any type of SAE are going to be active in it, and the agricultural instructor found a way to get them to the competition or have an SAE project. "Therefore, I don't think block scheduling has affected SAE's in any way."

"I don't really see the block schedule having a real negative impact of any kind," were Bob's comments. He indicated that it was "neutral." Bob stated that, he is not set up with the facilities, nor does he have the personnel to see a real impact on SAE's regardless of the schedule. There are animal science and equine science sections taught with an additional two sections of horticulture. "Just offering what we do, we have a full class load. We would have to have another teacher to offer more courses." Bob felt that they could easily take on another instructor and increase not only their enrollment, but also their SAE projects.

Donna indicated that she had seen a little of both positive and negative in reference to the SAE's. Donna also felt that parent driven projects suffer under the block schedule. She did, however, indicate that they had seen an increase in entrepreneurship. However, they had witnessed a decline in the traditional agricultural education.

Abridgement

According to the interviewees, this objective did not appear to be overly affected by the block schedule. One instructor did indicate that they had witnessed a decline due to the block schedule. This was the result of students taking other elective courses and not being as involved in the agricultural experience. There was some indication from

another teacher or instructor that there had been some decline in the traditional agricultural projects with an increase in other agricultural experiences.

In other comments, it appeared that there might be other issues as to why there was a decline in SAE's. First, comments were made about students involved in many other activities not associated with the block schedule. Secondly, there appeared to be a need for additional instructors in two of the programs. If more offerings were available, and instructors were not as stretched time wise, they indicated that they might have more participation.

Objective Four

To Determine the Impact of a Straight 4x4 Block or an Alternate A/B Block Schedule on Enrollment in Agricultural Education Programs

TABLE IX

SUMMARY OF THE IMPACT OF BLOCK SCHEDULING ON ENROLLMENT IN SECONDARY AGRICULTURAL EDUCATION PROGRAMS

Increase in Enrollment since Going to a Block Schedule	Response (N=38)		Percent (%)
	Yes	23	60.52
	No	12	31.59
	Other	3	7.89
	Total	38	100.00

According to the survey instrument, over 60 percent of those surveyed indicated that they had seen an increase in enrollment since their program had moved to a block schedule. With over 31 percent stating there had been no increase or, even in some instances, a decrease in enrollment.

Based on the information received from this research, increases in student enrollment in agriculturally related courses were almost a two-to-one ratio. Based on the survey information, many of the smaller rural districts did not indicate an increase. In fact, several indicated, just as the one instructor that was interviewed, they had seen reductions. This reduction in many cases was because there had been increases in graduation requirements and not enough agricultural education classes were added to offset the loss of students' choices. There were more increases in enrollment with many of the suburban and urban agricultural educators. In addition, many of these were two teacher programs. This situation indicated there was more flexibility in these programs.

Short answer responses from the survey concerning the impact of block scheduling on enrollment in secondary agricultural education programs are reported in Table X.

TABLE X

TABLE X

SHORT ANSWER SURVEY RESULTS

Question	Response
Has enrollment in your program increased since going to a block schedule?	1) Stayed about the same. A larger number of students are double enrolled. 2) No, not at all. 3) Yes, enrollment numbers have doubled. 4) Yes, as much as 75 percent. 5) No, enrollment was not affected. Too many classes are locked in without flexibility. 6) Yes, students have more flexibility in scheduling. 7) No, with new graduation requirements I look for class numbers to decline.

Interview Results

Has Enrollment in Your Program Increased since Going to a Block Schedule?

Jan indicated that block scheduling has become very beneficial; it is hard to say what it was before. It was a two teacher program prior to the implementation of block scheduling. I would say in two years our enrollment has increased due to adding a variety of courses. Jan also indicated that they needed to teach progressive classes. You can't teach four agricultural technologies.

> With most classes you have to shift your dynamics, you must change it up, if you are offering more classes for repeat students like seniors, you must have change methods of presentations. Typically, I have two agricultural science classes and two Horticulture I classes.

Again, you are getting another area in that you typically wouldn't. Next year they are looking at adding Horticulture III and adding Agriculture Power Technology III. "By having one of each of these classes, we are trying to get more of our kids at the junior and senior level prepared for the Career Tech Center." Their goal is to get the students into the fields of study that they need. "We are trying to get them more in line with career objectives, so that has helped."

Dan stated that with the block schedule he had seen increases in his program enrollment. Dan indicated that much of their program enrollment increases were due to the ability under the block schedule to provide more eighth grade courses.

> We were teaching five hours with 375 students when we incorporated block scheduling. We teach a split block backed up to Family and Consumer Sciences. This allows us to see more students in the program. I think the program enrollment would have been comparable if we had not gone to a split block on the eighth grade as far as the total number of students. Now we are seeing 200 eighth graders each year. They are not in for a full year, but we are seeing all of the eighth graders. Without a block schedule we would not have been able to achieve this increase.

The flexibility of the block schedule is what Dan believed to cause the increases.

When Bob was asked if he had seen an increase in enrollment, he indicated that they had. However, he also felt that there were limitations placed on some of his students that caused him to lose some of his better students. He attributed this loss of higher-level students due to limitations in choices in other more academically designed courses. Bob shared that they had to make changes in their program that allowed students to enroll in

agricultural education courses in which they would not have traditionally been enrolled. He referenced the loss of some students "due to other interferences."

Mark, on the other hand, indicated that his enrollment had not increased. He shared that his problem was that they were not able to offer more courses due to the restriction of a two-teacher program. "When we first went to the block, the State Department did not have enough offerings for students. Now we do have more offerings. However, to get them in class for a full year it is still very hard the way they are scheduling."

Donna was very critical of the block schedule. She indicated that their numbers had decreased by almost 40 percent. Donna is located in a small rural district where there are a limited number of course offerings and students are required to choose other courses. She also indicated that there had been little support from the administration to add agricultural education courses to offset this problem.

Abridgement

All but one of the schools had seen an increase in enrollment for their respective agricultural education programs. Two of the interviewees, Jan and Dan expressed a positive attitude toward the block schedule and the opportunities that they had experienced with the new program.

Contrary to the written survey Mark was not as positive about the changes. He indicated that since they had received the support from their administration to add more courses, they were able to keep students in some type of agricultural education program

all year. Through his determination to keep his program alive and growing, he felt that he had made the proper changes to sustain an exemplary program.

Bob and Donna were not at all positive about their changes when it came to enrollment. Donna's loss was much more significant due to the small school setting. Bob had seen the numbers increase, but was not as impressed with the changes. The interviewer noticed a never ceasing resentment toward the administration and the changes that had been forced on his program. Bob indicated that he had to sacrifice "quality for quantity" when it came to his enrollment numbers.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary of the Study

The purpose of this study was to determine Oklahoma Agricultural Education teachers' perceptions of block scheduling and to examine its effects on secondary Agricultural Education programs in the state.

Objectives of the Study

In order to accomplish the purpose, the following objectives were derived:

1. To determine Agricultural Education teachers' attitudes toward block scheduling.
2. To determine the perceived impact of block scheduling on instructional strategies in Agricultural Education programs.
3. To determine the perceived impact of block scheduling on the Supervised Agricultural Experience programs.
4. To determine the impact of a straight 4X4 block or an alternate A/B block schedule on enrollment in Agricultural Education programs.

Data Collection

To address the objectives outlined for this study a combination of survey and interview methods were used. A survey instrument was utilized to obtain demographic information, yes-no answers and short answers concerning attitudes of agricultural educators toward block scheduling. A survey was designed and mailed to the entire population of agricultural educators operating on a block schedule. Instruments from previous studies were used as a guide to design the survey (Moore, 1997).

The study population consisted of 51 agricultural educators in the State of Okalahoma. Of the 51 surveyed, 38 responded for a participation rate of 75 percent. Twenty-eight (74 percent) of the respondents were on a straight 4x4 block schedule, while the remaining 10 (25 percent) were either on an A/B or a modified block.

The survey was followed by a qualitative interview of five of the survey respondents. These five instructors were selected based on specific demographics identified from the initial survey. This criteria were: 1) size of the school and program, 2) Agricultural Education supervisory district, and 3) approval or disapproval of the block schedule.

Data Analysis

A combination of quantitative and qualitative methods were used to determine attitudes of Agricultural Education instructors toward block scheduling. The initial survey provided a broader scale of perceptions for the study, which could be compared to the more in-depth perceptions obtained from the teachers interviewed. In addition, the triangulation method was used to assist in eliminating bias related to the qualitative

nature of the study. According to Worthen, Sanders and Fitzpatrick (1997), when different methods are used and similar results can be found, it only adds to the strength of the study.

Major Findings

Demographic Information

The mean age of the Agricultural Educators surveyed was 38 years of age. Of the thirty-eight educators surveyed, each had an average of 137 students enrolled in their program. The mean number of years in service as an agricultural educator was 15 years. Eleven of the 38 respondents had completed Master of Science degrees, while the remaining twenty-seven held a Bachelor of Science degree.

Of the survey respondents, fifteen were from the Central District, eight from the Southwest District, nine from the Northeast District, four from the Southeast District, and two from the Northwest District. There were nineteen districts identified as rural, twelve suburban, and seven urban. Two of the Agricultural Educators interviewed were from a suburban district while two were located in an urban district and one in a rural district. Four of those interviewed were on a straight block schedule with the remaining district operating on an A/B block schedule.

Objective One

To Determine Agricultural Education Teachers' Attitudes Toward Block Scheduling.

The perception and attitudes section of the survey revealed the strongest feelings for or against the block schedule. Initially, fifty-five percent of the respondents indicated they were opposed to the block schedule. This initial response shifted to fifty-three percent agricultural instructors indicating they favored the block schedule over a traditional schedule, after experiencing the block schedule. Only forty-seven percent indicated they enjoyed teaching their subject matter more on the block schedule. Two of the five interviewed appeared to fully support their current schedule. One main theme arose from the other three interviewees, who did not support the block schedule. Lack of administrative support appeared to play a major role in their responses.

Objective Two

To Determine the Perceived Impact of Block Scheduling on Instructional Strategies In Agricultural Education Programs.

A lack of proper training and staff development was revealed by survey respondents (43 percent). Thirteen percent did not respond properly or had no response to this question. There appeared to be a lack of commitment from school administrators in offering meaningful and essential staff development. There were similar responses from the agricultural educators who were interviewed.

The final series of inquiries focused on classroom strategies. These strategies included hands-on activities, improved laboratory classes, and additional evaluation techniques. As a result, the most significant impact of the block schedule impacted the teaching strategies of Agricultural Educators. According to those interviewed, four out of five indicated they had adjusted their teaching styles to a more activity-based style of instruction. Three of the five indicated they were also utilizing more evaluation techniques in their daily instruction.

Objective Three

To Determine the Perceived Impact of Block Scheduling on the Supervised Agricultural Experience Programs.

Survey responses indicated the block schedule had caused a negative impact on student SAE projects. According to survey results, twenty-four respondents had experienced a decrease in traditional SAE projects. However, the interviews neither supported a positive nor a negative impact. Responses from the interviewees indicated other factors were involved in the decline of student SAE projects. Two of the five interviewed indicated they had worked to move students toward less traditional SAE projects. This move had resulted in increased student participation in their programs.

Objective Four

To Determine the Impact of a Straight 4x4 Block or an Alternate A/B Block Schedule on Enrollment in Agricultural Education Programs.

Based on the survey information twenty-three (60 percent) of the programs had an increase in enrollment. In addition, four of the five Agricultural Educators interviewed indicated an increase in student enrollment. One instructor interviewed had seen an increase in enrollment their loss was due to the fact she was in a small school and more students were forced to make choices based on the availability of courses.

Conclusions

Impact on Enrollment

With such a large number of respondents indicating they had enrollment increases, it was concluded that the block schedule does not limit agricultural education enrollment. However, efforts should be made to work with instructors to offer the proper number of courses to offset those on a 4X4 block schedule. Those schools that are operating on an A/B block schedule have the opportunity to keep their students in the program all year long. Assistance is given to instructors on the alternate block through scheduling leadership conferences, SAE projects, and other activities. The one teacher programs appeared to suffer on the block schedule. It becomes much more difficult to schedule more classes if there is only one instructor. Therefore, it could be concluded that the more agricultural educators there are in a program, the easier it is to maintain student enrollment.

Attitudes

Agricultural educators attitudes toward the block schedule shifted from negative in the beginning to positive after experiencing it. Originally, only twenty-nine percent

eleven indicated they were receptive to the new schedule. However, when asked if they would return to a traditional schedule, fifty-three percent indicated they would prefer to remain on the block schedule. It could be concluded that as instructors became more familiar with the block schedule and its possibilities, the more positive they became. Expanded possibilities were identified in the literature review chapter as 1) integrating learning among subject areas, 2) meeting the individual needs of students, 3) engaging students in critical thinking through a focus on in-depth and authentic learning activities, 4) collaborative learning among students, and 5) whole-task completion within the framework of a single period (Adams& Salvaterra, 1997: Canady, 1995; Carroll, 1994; Salvaterra & Adams, 1996).

Impact of the SAE

The impact on the SAE program had the greatest negative response from those surveyed. Many factors associated with the block schedule could impede on the SAE program. First, if a school is on a straight block schedule it is difficult to keep students in the program all year. One agricultural educator interviewed stated "out of sight out of mind." This would be true in smaller programs that were not able to offer the adequate number of courses to compete with other school programs. In addition, if schools do not allow the agricultural program to count for at least one or two core classes, students will be forced to choose. In several of the schools, at least one science credit could be counted toward graduation. This assisted the Agricultural Educator to maintain contact with their respective students.

Classroom Instruction

The number of increased classroom opportunities was greatly enhanced by the block schedule. It was concluded that as instructors became more familiar with the new schedule they began to utilize more varied classroom strategies. These strategies would become necessary as instructors transitioned from 50 to 90 minute classes. The impact on the classroom instruction could be considered a positive side effect of the block schedule. The enhancement of opportunities for students is the basic premise for transition to a block schedule. Attitudes and perceptions toward change sometimes make it difficult for educators to change. However, if student achievement is our ultimate goal, then change becomes necessary for education.

Recommendations

The following recommendations are based on survey results and information received from the interviews. Each recommendation was correlated with the stated objectives of this study.

1. It is recommended that schools and Agricultural Education programs take a hard look at what courses they can count toward high school graduation and make needed adjustments. With the graduation requirements that are set by the Oklahoma State Legislature and the Department of Education, students are required to make difficult choices when elective classes were chosen. While looking at the adjustments in course offerings that were made by the larger districts involved in this study, more courses were added to offset loss of student numbers. If additional agricultural related courses are not offered as substitutes for core classes, such as science, then students' fields of

opportunity for course selection is greatly narrowed. What this research identified was that schools with more than one instructor have more opportunity to build these types of classes into a schedule. Smaller schools and programs must ensure the integrity of their program by considering these changes.

2. It is also be recommended that more input be sought from Agricultural Educators when a transition to a block schedule is being considered. Support for improvement is vital to the success of any organization. If schools want to continue to "think outside the box", there must be a commitment of support for the needed changes. Many times in education, we have a tendency to jump on "bandwagons" when it comes to implementing change. Districts that successfully implement change and push their levels of expectations to higher levels are districts that involve their staff, students, and community in making administrative changes, such as block scheduling. Those that were supportive indicated they had been involved in making the transition to a block schedule. The instructors who were opposed initially appeared to have had very little or no involvement. It is very important in the process of change to seek input from all staff members. Many times when new programs are introduced, they seem to meet with adversity if they are issued as a directive or without consulting all of the stakeholders.

3. Better communication between Agricultural Educators, students, parents, and school administrators will be needed if SAE programs are to be successful. The results of the SAE question indicated one of the highest levels of negative impact in this study. The survey indicated a high number of respondents reported a negative impact on the SAE (63 percent). There were also a high number of respondents that showed neither a positive nor a negative affect. In contrast, those interviewed reported little impact on the

SAE program due to the block schedule. Three of the five instructors who were interviewed shared other factors they felt were involved in the decline of SAE projects.

The block schedule does impede on the SAE project if other measures are not taken to keep students on task. Students and instructors assuming only traditional methods of SAE will have difficulty. However, two of the instructors interviewed had overcome the changes in traditional methods by looking for new approaches to providing the agricultural experience for their respective students. They embraced the challenges and worked through the problems of not seeing their students on a continual basis. It should be noted that both of these programs were at least two instructor programs. This appears to be a significant disadvantage to a one instructor program. Programs that were limited to only one instructor appeared to be overwhelmed with the challenge of meeting the needs of their students. As schools look to make the transition to a block schedule the number of instructors in the agricultural education program should be considered.

The A/B block schedule should be considered as an alternative for smaller schools or schools with one Agricultural Educator. One issue with many of the respondents appeared to be a communication problem in the SAE program. Coupled with the problem of communication was the issue of not seeing the students all year. The A/B block schedule would allow students to be in Agricultural Education classes every other day throughout the entire school year.

4. More initial training before making the transition to a block schedule is recommended. The positive effects on instructional strategies appeared to be the most positive area of consideration in this study. However, embedded in this objective was the issue of staff development before making the transition to a block schedule. Less than

half of those surveyed indicated they received little or no staff development for teaching on a 90-minute block schedule. These instructors were from schools that had traditionally been on a six or seven period day. To make a transition to a 90-minute period from a 45 or 50 minute period requires much training and professional development. Success of the transition hinged on the quality of involvement with professional development and training.

The positive activities included improved laboratory experiences, more hands-on teaching activities, and additional evaluation techniques. These findings would indicate that more opportunities for learning were taking place in these classrooms due to the expansion of time allotted for the class periods. Also as a result, instructors who were involving more teaching techniques in their classrooms appeared to enjoy teaching the subject matter at a higher level. Instructors appeared to adjust and become more acquainted with the benefits of the block schedule and the opportunities that could be provided due to the additional time.

Recommendations for Future Research

This study produced several recommendations that could be used for future studies.

One of those would be to study more schools in rural settings concerning opportunities for operating under a block schedule. There were many of those surveyed in this study; however, the majority of these instructors expressed a negative perception of the block schedule.

In addition, future studies should address the issue of administrative support. Many of the agricultural educators indicated they received little administrative support during the transition.

A closer look at the A/B block schedule should be considered as a possible alternative for smaller schools or schools with only a one teacher program.

Finally, a recommendation should be made to study how schools could include more core courses in their Agricultural Education program.

Implications

The focus of this study was on the perceptions and attitudes of Agricultural Educators on a block schedule. There were many strong feelings, either for or against the block schedule. Agricultural Educators should begin to look at their programs and the possibilities that can be provided through a more flexible amount of time. This was apparent in the amount of increased instructional strategies that were provided for the students. The problems with the block schedule and SAE program can be overcome through organized and efficient means of communication and planning. The A/B block schedule could prove to be very beneficial as school districts evaluate their elective and activity based courses. The A/B schedule would also provide a better stream of communication in the SAE program.

Several of the interviewees indicated they were working hard to make their programs successful. This researcher felt that they would have successful programs regardless of the schedule. A positive attitude toward change and restructuring must be adopted if successful programs are going to flourish. Otherwise, programs will continue

to do things the way they have always done. School administrators must also be willing to provide the needed time and support for these programs. It is not the sole responsibility of the Agricultural Educator to make a program a success. It should be a united effort to see that students are successful.

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APPENDIXES

APPENDIX A

COVER LETTER AND

QUESTIONNAIRE

JEFF MILLS
PO Box 26
Leedey, OK 73654
580-488-3864
E-mail: leedey1@leedey.k12.ok.us

Dear Oklahoma Agriculture Education Teacher:

Thank you for your dedication and commitment to the students, parents, and communities of Oklahoma. We appreciate your willingness to allow us to gather information about you and your program. Your willingness to take a few moments of your time to provide ideas on the enclosed questionnaire will help establish a foundation for schools either considering a Block Schedule or currently on a Block Schedule.

The information you provide on this questionnaire will be used as part of a collective effort to gather the perceptions of agriculture education teachers from across the state of Oklahoma and will be used only by the researchers. There will be five schools selected from the initial questionnaire for a further in-depth study. Questionnaires will be coded, and after completion of the study, all confidential information will be destroyed. No information will be provided to supervisors or employers that would be of a confidential nature. At no time in the writing of the thesis will you or your program be identified by name.

If you have any questions concerning this research, you may contact any of the researchers at the addresses or telephone numbers listed below, or Gay Clarkson, the Oklahoma State University Institutional Review Board Executive Secretary at 305 Whitehurst, Oklahoma State University, Stillwater, Oklahoma 74078, or by telephone at (405) 744-5700.

Please remember that any risk involved in this research will be minimal. Again, thank you for taking the time to provide information, which will be very valuable for the future directions of agriculture education programs in Oklahoma.

Sincerely,

Jeff Mills
Superintendent of Schools
Leedey Public Schools
Leedey, Oklahoma

Researchers:

Dr. James Key
Professor, OSU
448 Agriculture Hall
Oklahoma State University
Stillwater, OK 74078
(405) 744-8139

Mr. Jeff Mills
PO Box 26
Leedey, OK 73654
(580) 488-3864

Confidential Block Scheduling Survey for Agricultural Educators

This survey is designed to gather some preliminary information from Oklahoma agricultural educators concerning their perceptions on block scheduling and the effects on the agriculture education programs in Oklahoma's secondary schools. Your thoughts and perceptions are very important to this study and this issue. Please complete the survey truthfully and accurately. Thank you. Your cooperation is appreciated.

Years experience as an agricultural educator _____ Age _____

Agricultural Education district _____

The Current Total Program Enrollment is _____

Number of agriculture educators in your program ___ Your Highest Degree Earned ____

In what type of demographic area is your school? Urban Suburban Rural

Block Scheduling has been in your school for _____ years.

Are you on a straight 4x4 block (please circle)? Yes NO Other

If other, what type of block schedule are you on? _____

How many periods per day did you teach before you went to a block schedule? _____

Please complete the following items answering with a yes or no then elaborating on your answer. All questions in this section are designed to elicit a response of more than just one-word answers. Your cooperation is greatly appreciated.

1. Has enrollment in your program increased since going to a block schedule? _____, To what extent? _____

_____

_____

2. As an agriculture education instructor, were you involved in the block schedule implementation process? _____, To what extent? _____

_____

_____

3. What was your initial response to the block scheduling? _____

_____

_____

4. What is your current attitude toward the block schedule? _____

_____

_____

5. Since moving to a block schedule, what has been the impact on students' SAE's?

_____

_____

_____

6. Was staff development an option for teachers in the transition from a 45-50 minute class period to a 85-90 minute class period? _____ To what extent? _____

_____

_____

7. Is staff development training an ongoing benefit for faculty members in your school? _____ To what extent? _____

_____

_____

8. Have active learning activities in the classroom increased since the adoption of block scheduling? _____ To what extent? _____

_____

_____

9. Have parent's perceptions' toward Block Scheduling been positive? _____ To what extent? _____

_____

10. Has the block schedule improved your lab classes? _____ To what extent?

_____

_____

11. As an agricultural educator, have you incorporated more evaluation techniques with the block schedule? _____ To what extent? _____

_____

_____

12. Is teaching the subject matter a more enjoyable experience with the block schedule? _____To what extent? _____

_____

_____

13. Would you return to a traditional schedule, if possible? _____ Why?

_____

_____

APPENDIX B

INSTITUTIONAL REVIEW BOARD

APPROVAL FORM

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD

Date:	January 18, 2000	IRB #:	AG-00-053
Proposal Title:	"DOES BLOCK SCHEDULING ENHANCE OR IMPEDE VOCATIONAL AGRICULTURAL PROGRAMS IN OKLAHOMA"		
Principal Investigator(s):	James Key Jeff Mills		
Reviewed and Processed as:	Exempt		

Approval Status Recommended by Reviewer(s): Approved

Signature:

Carol Olson, Director of University Research Compliance

January 18, 2000
Date

Approvals are valid for one calendar year, after which time a request for continuation must be submitted. Any modification to the research project approved by the IRB must be submitted for approval with the advisor's signature. The IRB office MUST be notified in writing when a project is complete. Approved projects are subject to monitoring by the IRB. Expedited and exempt projects may be reviewed by the full Institutional Review Board.

APPENDIX C

EXAMPLES OF 4X4 AND AB OR

ALTERNATING BLOCK

4 X 4

Term One	Term Two
Period One – English	Period One – American History
Period Two – Math	Period Two - Biology
Period Three – Animal Science	Period Three - Horticulture
Period Four - Athletics	Period Four – Computer Applications

AB OR ALTERNATING BLOCK

Term One		Term Two	
Period One	Period Two	Period Three	Period Four
Day One – Math	American History	Computer App.	Athletics
Day Two – Biology	Horticulture	English	Athletics
Day Three –Math	American History	Computer App.	Athletics
Day Four – Biology	Horticulture	English	Athletics
Day Five – Math	American History	Computer App.	Athletics

Note: The rotation would continue the next week and continue throughout the school year for 175 days.

VITA 2

Jeffrey Brian Mills

Candidate for the Degree of

Doctor of Philosophy

Thesis: PERCEIVED EFFECTS OF BLOCK SCHEDULING ON AGRICULTURAL EDUCATION PROGRAMS IN OKLAHOMA

Major Field: Agricultural Education

Biographical:

Personal Data: Born in Oklahoma City, Oklahoma, April 18, 1965, the son of Ronnie D. and Martha M. Mills. Married on January 3, 1987 to Angela Denise Ward, Children: Jayla Breann and Jace Michael.

Education: Graduate from Hinton High School, Hinton, Oklahoma in May, 1983; received Bachelor of Science Degree in Education from Northwestern Oklahoma State University, Alva, Oklahoma 1987; received Master of Education in Educational Administration from Southwestern Oklahoma State University, Weatherford, Oklahoma, 1989; completed requirements for the Doctor of Philosophy Degree at Oklahoma State University, Stillwater, Oklahoma in August, 2002..

Professional Experience: Superintendent of El Reno Public Schools, 2000-Present; Superintendent of Leedey Public Schools, 1998-2000; High School Principal, El Reno Public Schools, 1995-1998; Elementary Principal, El Reno Public Schools, 1992-1995;Interim Instructor, Southwestern Oklahoma State University, 1994; K-8 Principal Snyder Public Schools, Snyder, OK, 1991-1992; Head Football & Head Wrestling Coach, Snyder Public Schools, Snyder, OK, 1989-1992; Graduate Assistant Football Coach, Southwestern Oklahoma State University, 1987-89.