An Analysis of the Effectiveness of Block Scheduling at Adams-Friendship High School

by

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Abstract

This study was developed to examine Adam's Friendship High School teachers perceptions on the effectiveness of block scheduling. The questionnaire breaks down questions into three separate areas: the affect on instructional delivery, the affect on student learning, and the affect on the learning environment. What are the advantages and disadvantages of block scheduling, and is block scheduling more effective than traditional schedule. The researcher developed a questionnaire that was placed in school mailbox for all 47 faculty members, of which 35 faculty returned the questionnaire and participated in the study.

The advantages of block scheduling indicated as by participants included "ability to try new teaching strategies, more time to work on certain activities without lose of knowledge, fewer teacher preparations, creation of new elective course offerings, and fewer courses for students to manage.

The disadvantages according to participants were: too many absenseces, students becoming bored and inability to remain focused, some curriculum lose due to compacting, difficulty of placing transfer students in the schedule, class sizes too large, too much wasted time, students not understanding their term one grade was equal to quarter grade, too much wasted time during transfer from class to class, and no study halls for remediation.

Suggestions for modifying the current block schedule included: increasing staff, adding skinnies to the block system, adding electives in all areas, building in more one-on-one time for students in trouble of failing, and going to a tri-semester schedule.

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TABLE OF CONTENTS

Page
Abstracti
Chapter I: Introduction
Background of Study1
Statement of the Problem6
Purpose of the Study7
Research Objectives7
Importance of the Study7
Limitations of the Study10
Assumptions of the Study
Definition of Terms
Chapter II: Literature Review
Advantages of Block Scheduling16
Disadvantages of Block Scheduling19
Implementation
Chapter III: Methodology
Subject Selection and Description27
Instrumentation
Data Collection Procedures28
Data Analysis
Limitations

Chapter IV: Results	30
Item Analysis	31
Chapter V: Discussion	41
Summary4	1 1
Conclusions	42
Recommendations	43
References	45

Chapter I: Introduction

Background for the study

Four years is generally the amount of time that a student spends in high school. During those four years choosing what classes you want and need to take can be a difficult task. When classes are offered and how often the class will be taught is of concern for students, parents, and teachers alike to assure that all students have the opportunity to fulfill their needs. Scheduling of classes in schools is of paramount concern for educators, administrators, and parents, as well as the students themselves. The debate over a traditional eight period day versus block scheduling is occurring in many school districts across the country. Due to rising academic expectations and social needs, schools had to rethink how they were teaching (Grossman, 1998). There are many advantages and disadvantages to each way of scheduling, with strong advocates campaigning for their scheduling preference. The main concern must be to find a scheduling system that best fits the needs for the specific school. According to Canady and Rettig (1995), many teachers have moved away from the traditional format of lecturing and need more time in which to accomplish new instructional strategies. Under block scheduling, students spend less time between classes and can instead use this time engaged in learning (Richmond, 1999). "Frequently, problems start in the hallway during passage between classes and, under a block schedule; students spend less time each day passing through hallways" (Kramer, 1997, p.21).

There are several variations of block scheduling, but the most widely used model it primarily consists of four 90 minute class periods. This is different than the traditional 45 minute class periods. In many cases the schedule change has become a tool for

curriculum improvement (Gerking, 1995). The concern with traditional scheduling is also with the amount of wasted time. Administrative duties can sometimes take up much of the teachable time in each class. Teachers must take roll call and focus the attention of the class on the new subject being taught. With so many tasks to accomplish before the lesson is even to begin, there is not much time left to teach the actual material. On the other hand, some teachers find it very difficult to teach for ninety minute periods. Teachers must come up with new activities and ways of keeping students focused for ninety minute classes. This can be very difficult for older teachers who are used to the traditional system and do not want to move away from it.

Block scheduling was designed so that students are able to take more classes, thereby broadening the scope of their course selection. School districts across the United States began using block scheduling over 30 years ago and have been using variations of it ever since (Smith, 1999). The idea of block scheduling of some sort goes all the way back to 1959. In 1959, the Trump Plan (Queen, 2003) allowed for science classes to meet for extended periods of time, while other classes were shortened in time. This was just the beginning of block scheduling and to this day is still evolving. Still the overall goal of block is to create a "More flexible school learning environment in block scheduling" (Schultz, 2000 p.27).

At the same time teachers are expected to become more creative in their instructional approaches as a result of increased class time. Students on block scheduling are absent from class fewer times compared to an eight period day (Queen, 2003). This is believed to be a result of the amount of information presented in a given class and the increased interaction between teacher and students. Carroll (1994) suggested that the

format change permits students to concentrate on one or two subjects and encourages teachers to focus more on individual students.

School districts are trying to find the best scheduling options to promote a positive and successful school district. First, concerns have been addressed with the teacher's ability to provide the best services for his/her student. According to Talbert and McLaughlin (1993), in the traditional scheduling system, teachers instruct 5 to 7 different classes of generally 25 to 35 students per class. This means that they come in contact with 150 to 200 students daily. It is almost impossible to develop a connection or a rapport with each one of the students and to provide them with the individual attention that each student needs to succeed. Focusing and keeping the students on task is also of extreme importance and concern for teachers and administrators. "Imagine adults going to work each day and having to work for seven or more supervisors, often in eight or more workplaces, in seven or more areas of expertise" (Canady & Rettig, 1995, p. 5).

Block scheduling has been criticized for the loss of content retention from one level of a subject to the next and for the extensive time required for independent study outside of class (Queen, 2003, p.8). Conversely, Lare, Jablonski, and Salvaterra (2002) reported that academic achievement remained constant after implementation of a block schedule. Teaching under block scheduling may be difficult for teachers who are unable or unwilling to change their method of delivery. Different discipline areas perceive the implementation differently. According to (Queen, 2003) classes that provide laboratory or hands-on activities appear to benefit the most from block scheduling. Lecture-based block classes seem to bore students, because they are unable to remain seated for ninety

minutes. The activities that block scheduling provides to students seem to be the same reason that opponents feel that content may be lost in the implementation.

Scheduling in the block format is where administrators and curriculum leaders become involved in the process. Their role is to make sure that course offerings are presented at a particular time and offered on a regular basis to ensure all students the opportunity to take the classes. Scheduling becomes more important as we move from curriculum alignment to instructional alignment in that if the courses are not aligned in the schedule in the right fashion, it will be difficult to implement the desired curriculum.

Proponents of block scheduling state that traditional teaching methods of lecturing must change. This group goes further and offers that students learn best when given group activities and time to learn on their own (Queen, 2003). Under traditional scheduling this is very hard to accomplish. Block scheduling allows teachers time to complete laboratory experiments and shop activities. Keeping students focused for the entire ninety minute block can be hard for the teacher. If a teacher tries lecturing for the entire ninety minute block without activities students might have difficulty staying focused. According to Reynolds and Muijs (1999), research has indicated that children learn more when taught or supervised directly by the teacher rather than working on their own. Higher pupil achievement has been found where the instructor's time is spent teaching the entire class, rather than on letting children work independently on projects and assignments. Some teachers who either do not want to change or modify from the traditional schedule, they will simply give students assignments to work on for the remaining class period. This seems to be an effective way of instructing their students. On the other hand, some teachers feel that their students are able to get more individual

attention with block scheduling, which is imperative for the success of many students (Veal & Finders, 2001). This individualized interaction is also a benefit to teachers as they can assess the learning levels of the students, allowing them to plan lessons aimed at the current levels of the students (Benton & Kupper, 1999).

Achievement is the goal of education. To make someone more educated about a certain topic. Teaching is a very difficult task for a teacher, just as how learning is for the learner. If the teacher is not fulfilling the needs of the learner than nothing will have been learned, therefore breaking the process of teaching and learning. No-matter what the setup is of your class looks like or how much time is allowed to instruct, the learner must learn. Knowing what will work and what will not work is gained through experience and research.

Of the 425 school districts in Wisconsin currently there are 109 schools using some form of block scheduling. Although some schools are looking at implementing block scheduling to take the place of the traditional system many have not done so yet. When a school goes ahead and does change from the traditional to block the manner of which they do this is vitally important.

Implementation is one of the key elements to whether or not block scheduling will work in a given public school. Schools that have been successful with block scheduling have allowed adequate time for curriculum development, and have constantly evaluated the implementation. Khazzaka (1997-1998) found that 77% of high school teachers surveyed agreed that they had received adequate staff development and implemented a variety of teaching strategies in the block schedule.

Schools need to prepare staff before the implementation actually takes place.

Schools do this by teacher in-service days, school visits, and experiences from other educational staff who have experience with block scheduling. All of these are very good resources that teachers can use in order to ensure that they will be an effective teacher under block scheduling.

Schools districts need to know if changing from the traditional eight-period day to the block system will benefit the entire school as a whole. Block scheduling is a highly debated topic in education and warrants and in depth study to the validity of block scheduling.

Statement of the Problem

School districts are currently struggling with choosing either the traditional or the block system in their high schools that is conductive to learning for all students. Block scheduling has come to the forefront of this debate. A preliminary review of current research and literature indicates that there are many advantages and disadvantages of block scheduling. Adams-Friendship High School is implementing block scheduling during the 2006-2007 school year and its effectiveness has not been determined.

Learning the effects of block scheduling will be done by administering a survey to faculty at Adams-Friendship High School. It is the hope of the researcher that data can be gathered a conclusion formed.

Purpose of the Study

The purpose of this study is to determine the effectiveness of block scheduling at Adams-Friendship High School during the 2006-2007 school year. This research may assist in developing a greater understanding of block scheduling and how is relates to students learning or student success.

Research Objective

The objectives of this study are twofold. First, an in-depth study was completed covering two areas. Research was completed on the advantages and disadvantages of block scheduling, and also is block scheduling more effective when being compared to the traditional scheduling system. The research was critically analyzed to determine the overall idea of block scheduling in the classroom. Second, the results of this study are made available to administrators and educators to aid in determining whether block scheduling is beneficial at Adams-Friendship High School.

Importance of the Study

1. Scheduling concerns have become a major issue for school systems, administrators, and students. There should be a balance between contact minutes with teachers and budget issues. With early graduation, co-op opportunities, and school-to-work students' needs have played a major role in block scheduling issues. Student's perceptions become their reality. If they perceive that block scheduling is going well, then this will be communicated to parents, teachers, administrators, and siblings.

- 2. Block scheduling is one of the newest scheduling models being used in public education. Block scheduling consists of four 90 minute class periods that run for one quarter. This is different from eight 45 minute class periods that last a semester or year long. The idea of block scheduling goes all the way back to 1959, but did not truly take shape until the 1970's, where it was referred to as modular scheduling, and was used in public education, but shortly after disappeared. In the mid 1990's, this type of scheduling reappeared under the name of block scheduling. By 1994, 40% of schools in the United States were using some form of block scheduling (Queen, 2003). There is a growing trend with school districts switching to the block scheduling model and research is needed to see how school districts have been successful with the implantation of block scheduling so that other school districts can follow the same path.
- 3. Administration implemented block as a way to increase interaction between students and teachers and also to eliminate study halls. Giving teachers more time in class allows them to be more effective by varying instructional strategies, thereby engaging students to a higher degree. Boyer (1983) reported, "Just as the arrangement of space is standardized in the American classroom, so is the use of time". Experience shows us that more than 70% of teachers go beyond the lecture approach and use interactive instruction (Queen, Algozzine, & Eaddy, 1997). With more time to deliver the content and allow students to take part in hands on activities, teachers can become more creative and try new things that were not possible under the traditional system.

- 4. Under block scheduling, teachers are given a 90 minute block period to plan as opposed to the 45 minute planning period under a traditional schedule. One of the major concerns for teaching is how to retain the student's attention for ninety-minutes. Teachers would have to use a variety of instructional activities to keep students attentions. The ninety minute block would allow teachers to prepare instructional activities for students. Edwards (1995) cited the advantages of block for teachers: more manageable, schedule by having fewer students at a time, fewer classes to prepare for, and increased planning time.
- 5. The educational community is split on the issue of block scheduling in public education. It has been proven that in block scheduling there is more teacher/student time, attendance is increased, and graduation rates are higher. Some educators still feel block scheduling is not beneficial.
- 6. Budget and staffing concerns are always one of the main topics in a public school. When implementation of block scheduling occurs, schools are faced with needing more money to train the current staff on the implementation of block scheduling. When block scheduling is implemented, most schools find themselves having to hire new teachers. Some schools decide not to add new staff when implementing block scheduling, but with more students in the teacher's class, there is a greater need for more budgets for each teacher.

Limitations of the Study

Teacher subjects were limited to Adams-Friendship High School faculty employed during the 2006-2007 school year. Resistance to change is a common byproduct of restructuring. This may cause overly negative reaction to this study. Some teachers at Adams-Friendship have retired or have taken employment elsewhere. This may limit some of the results. Since participation in this study was voluntary, some questionnaires maybe not have been returned. Some questions may have been misunderstood or misinterpreted.

Assumptions

It is assumed that sufficient literature will be available to complete a comprehensive critical analysis to determine the effectiveness of block scheduling at Adams-Friendship High School.

Definitions of Terms

There are three terms that must be identified to aid in understanding of this study.

These are:

Block Scheduling – A 4/4 semester plan in which students enroll in four courses each 90 day semester. Each course meets daily for approximately 90 minutes. A course taught in traditional scheduling system takes one year to complete, where the same class is completed in one semester with the block scheduling system.

Carnegie Unit – 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 40-60 minutes, for 36 to 40 weeks each year-earns for the student on "unit" of high school credit.

Traditional Scheduling – Students participate in 6 to 8 classes per day for 40 to 60 minutes per class period. Each class takes one year to complete.

Chapter II: Literature Review

Education has always come under intense scrutiny from all segments of society.

Looking at how student and teachers spend their time in the classroom is very important in discovering the effectiveness of our educational system.

Prior to the early 1900's schools scheduling was very flexible with two, three, or four day a week schedules offered. Classes were also offered with very flexible schedules.

In 1892, the report of the Committee of Ten was the beginning of the rigidly structures high school schedule of today. It was encouraged that every high school centers the work of each student upon five or six academic areas in each of the four high school years. Each subject would be taught separately by a different teacher (Marshak, 1997).

Soon after in 1906, the Carnegie Foundation for the Advancement of Teaching established what came to be known as the Carnegie Unit. "The development of the "Carnegie Unit" in the 20th century, the every-day-period became standardized.

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 40-60 minutes, for 36 to 40 weeks each year-earns for the student on "unit" of high school credit with the "Carnegie Unit," became a convenient, mechanical way to measure academic progress throughout the century." (Canady & Rettig, 1995).

The Carnegie structure allows schedules to consist of a seven or eight period day with each class lasting approximately fifty minutes. Students must prepare for between five to eight subjects a day and adjust to the same amount of classrooms and teachers. "Students report to a different teacher every fifty minutes and adjust to several different sets of rules and expectation" (Finn, 1997).

School districts across the United States began using block scheduling over 30 years ago and have been using variations of it ever since (Smith, 1999). During the 1960's and 1970's, flexible modular scheduling was the education reform plan. J. Lloyd Trump is credited with the original design of the flexible modular schedule. In 1959 the Trump Plan allowed for science classes to meet for extended periods of time, while other classes where shortened in time. This was just the beginning of block scheduling and to this day is still taking shape. Still the overall goal of block is to create a "More flexible school learning environment in block scheduling (Schultz, 2000). The Trump Plan, consisted of varied class period lengths, for example, some classes would beet 20,40,60, or 80 minutes depending on the need of student and subjects. Students would spend their time in a wide variety of instructional methods; large group, small group, and individual study. It is estimated about 15 percent of American high school were utilizing modular scheduling (Canady & Rettig, 1995). However, most schools returned to traditional schedules because of several problems related to discipline of students. A large portion of time was given each day for students to work on individual projects and independent study. This led to schools returning to the traditional schedules resulting in less discipline problems in schools.

By the late 1980's and early 1990's schools were bombarded with reports on the inefficient and ineffective use of schools time. Again high schools were forced into reexamining their scheduling practices.

A report, entitles, "A Nation at risk" issued by the National Education

Commission in April of 1983 dealt with many topics in high school including the use of
time. The following questions were posed: How do we use time? How do we allocate
time? The Commission pushed for seven hour school days and two hundred and twenty
day school years (Finn, 1997). The report called for a sweeping reform in the nation's
schools. Educators felt time needed to be researched to achieve more effective students
learning experiences (Ellis & Fouts, 1994). Many educators were resistant and suggested
that extension of school time was not necessarily a solution and would be very costly.

Also in 1983, John Goodlad's important book, "A place called School", furnished its widespread readership with a clear and graphic description of curriculum and teaching in American schools. The study involved thirteen school districts and thirty-eight schools. Goodlad pointed out many of the shortcomings of our school system (Ellis & Fouts, 1994). He also offered solutions to those shortcomings such as smaller schools, increased parental involvement, and curricular offerings that led to lifelong learning.

In 1983, Carroll presented "The Copernican plan: A concept paper concerning the restructuring of secondary education at the Masconomet Regional School District: to the staff of the district. The Copernican plan was naked after Nicolaus Copernicus who was a 16th century astronomer. He assumed that the sun, rather than the earth, was the center of the universe. He had a difference in perspective similar to Carroll, who also

saw a difference in perspective and challenged long held beliefs about the high school schedule and how students learn (Finn, 1997).

The Copernican plan proposes that each student enroll in one, four hour class each day for thirty days. The plan also proposes included seminars and classroom work time as a part of the regular school day (Carroll, 1990).

The most recent addition to the school time controversy came in the report issued by the National Education Commission on Time and Learning. On the Commission's recommendations which turned heads was the academic day should be nearly doubled. Other recommendations of that commission included reinventing schools' learning, not time, redesigning education so that time becomes a factor supporting learning, providing additional academic time by reclaiming the school day for academic instruction, and allowing teachers professional time and opportunities to do their jobs better (Ellis & Fourts, 1994). Professionals would agree that time is an issue on the recommendations of the Commission.

Block scheduling is the newest of education reform. Block scheduling is designed to provide students with large blocks of time where classes meet on a consistent basis, so little of any unscheduled time is available for students. Although the use of block scheduling has been increasing, it remains a highly controversial education reform (Slate & Jones, 2000).

The review of literature will examine what literature identifies to be the strengths and weaknesses of block scheduling. The review will take an in-depth review into school districts that have successfully and unsuccessfully implemented block scheduling into their school. Staffing and budget concerns will be another area examined, along with

how block scheduling was implemented into the school. All of these topics will be examined and analyzed throughout the literature review.

Advantages of Block Scheduling

For teachers, one of the greatest advantages of using block scheduling is that teachers have more time to plan and prepare for classes under the block. They become more effective by using different instructional and teaching methods, thereby increasing students' activity and engage students to a higher degree. Also, due to the greater length of the classes, students are appropriated more time to study the subjects and explore more in depth. Experience shows us that more than 70% of teachers go beyond the lecture approach and use interactive instruction (Queen, Algozzine, & Eaddy, 1997). Most teachers believe that the increased planning time has allowed them to be more creative and effective in the classroom (Wilson & Stokes, 1999). The success of block scheduling depends greatly upon the delivery of materials, and teachers appear to be benefiting from the increased planning time to make their delivery more creative.

In Wilson and Stokes, (1999) teachers involved in block scheduling believed that block scheduling is more effective than traditional scheduling due to more time on task, a more positive school atmosphere, and improved feeling toward their school.

Powell, (2000) stated that when a school employs a model of block scheduling that aligns with student needs, staff strengths, and curriculum demands, many benefits will be realized. The advantages fall into the following categories: Student involvement, teacher planning, instructional methodology, curricular demands, assessment, academic achievement, management issues, affective consideration and school climate.

Longer blocks of time are used to promise involvement in their own learning. Strategies include activities that encourage discovery learning, cooperative projects, and a variety of interactive processes (Powell, 2000). In a school day with only four classes, students have fewer adjustments to make and the opportunity to experience things rather than be told.

Block scheduling also provides its teachers with the opportunity for more planning time, thus more prepared and challenging lesson plans. Teachers have time to plan for longer classes and create more imaginative ways to learn.

Instructional methodology appears to benefit the most. Implementation is the key to making block successful. Research suggests (Reid, 1996) that administrators seek input from parents, teachers, and students prior to implementing block scheduling into their school.

With the flexibility of block scheduling, curricular needs may be more easily met.

Larger blocks of time promote a more complete cycle of teaching and learning (Powell,

2000). It is possible to teach a concept, lead students into topic on related problems,

conduct a lab, and then discuss the results.

In evaluating academic achievement, teachers are given more opportunity to observe student progress, evaluate it, and give appropriate feedback to the student. There is also more time for students to begin homework assignments (Powell, 2000).

A major advantage cited by many educators is student discipline. "Frequently, problems start in the hallway during passage between classes and, under a block schedule; students spend less time each day passing through hallways" (Kramer, 1997, p.21).

Block scheduling also creates stronger students-teacher relationships. Gerking (1995), a science teacher states that on a block schedule, there are not as many contact minutes with the students over the entire semester but that the learning is far more intense and there is time available for group work and cooperative learning.

When students are involved in their own learning, when teachers plan active lessons based on creatively designed curriculum, discipline problems are kept to a minimum, student-teacher relationships grow; school climate will increase.

In one study, 31% of high school students found that classes were more productive under block scheduling. Students also believed that they were more actively involved in their learning (Slate & Jones, 1999). Nearly 50% of the same students reported that their teachers were using multiple teaching strategies in the classroom and felt that it enhanced their learning. Block scheduling also provides gifted and talented students with a pace conductive to their learning abilities, rather than allowing them to become bogged down with the slow pace of a traditional class (Schultz, 2000).

According to Queen (2000), less time is wasted in class changes and students are able to immerse themselves into each subject far greater due to only having three or four courses. Students under block scheduling have reported greater involvement in activities and better study habits (Knight & DeLeon, 1999).

Even though students are taking fewer classes each semester, the number of classes a student can take each year has increased along with the total number of credits. With block scheduling, four traditional year long classes are completed in one semester which allows students to take eight courses per year. This allows students an opportunity to take more electives of their choice. Course offerings and options are more flexible

with block scheduling (Schultz, 2000). Block scheduling is very favorable in regards to the ability to offer more courses (Hannaford, Fouraker, & Dickerson, 2000). Due to the changes in scheduling, it is possible to increase the number of courses offered, giving students more choices in classes from which to pick. Students can utilize this time to master college-level content and acquire skills to begin to prepare for careers (Phillips, 1997).

Disadvantages of Block Scheduling

Despite the advantages of block scheduling and increased planning time, the allocation of funds still drives many public schools in America. The implementation of block scheduling has cost every district an additional 45 minutes of instruction, which results in more full time employment positions. In most states, teacher contracts and legislation requires that teachers receive a minimum amount of planning time, which is generally equivalent to about one class period or forty-five minutes. However, some states are passing new laws which require planning time per week. For example, Texas has recently passed a law requiring teachers to receive 270 minutes of planning time per week (Smith, 1999). This has allowed the districts in Texas to give teachers three days with a ninety minute planning period and two days without any. This appears to be very difficult for teachers who do not have a planning period for these two days (Smith, 1999). Smith feels that this may be the downfall of block scheduling, as teachers will no longer be able to prepare more creatively and therefore become less successful with block scheduling.

According to Evans, Tokarczyk, Rice, and McCray (2002), teachers were concerned about providing enough material for a substitute teacher for the extended

period of time as well as additional activities for students who finish assignments early. This is a greater concern for teachers who must utilize substitute teachers for an extended period of time. The question arises whether a substitute teacher would be able to teach a more complex course, such as Physics, for a longer time period (Cromwell, 1997). Students will have twice as much information to learn, making it much more difficult for them to catch up with the other students if they are gone for a day of school. A week long absence for a student means they will miss two weeks worth of lessons, making it extremely difficult for the student to make up the work (Cromwell, 1997).

Implementation

The review of literature shows that there are many advantages of school districts using block scheduling. It also shows that districts are sometimes having problems implementing block scheduling into their school districts. Whether block scheduling works or not lies in the transition of how school districts change from traditional scheduling to block scheduling. Many school districts have found that they experience many problems during the first year of block scheduling. In fact, many veteran teachers felt dissatisfied with block scheduling because they felt like first year teachers again (Hackman, 1998). This feeling makes many teachers feel negative about block scheduling. This initial dissatisfaction has given many teachers a negative attitude towards block scheduling.

When switching from traditional scheduling to block scheduling, the research shows that there needs to be input from many sources and training before block scheduling is actually implemented. The research suggests that administrators seek input from parents, teachers, and students prior to implementing block scheduling (Reid, 1996).

Reid indicated that without input from other sources, block scheduling is next to impossible to implement and be successful. Reid also indicated that keeping the staff informed and giving them new ideas throughout the process of implementing block scheduling is also extremely important.

Curriculum development needs to be addressed prior to the implementation of block scheduling. School districts must examine current courses offered, and decide on possibly expanding course offerings, giving students more choices to pick from which. Many school districts take advantage of course offerings such as advanced placement classes or "classes that take place off school grounds such as university opportunities for students" (DiBiase & Queen, 1999, p. 377). Doing this allows students to gain college credit and prepare them more for those students going on to college. Many school districts have found that they cannot cover the same material under block scheduling as they could under traditional scheduling. This is to be expected and school must design the curriculum accordingly.

The research has found planning models that have resulted in a successful implantation of block scheduling (Queen, 1997; Canady & Rettig, 1995; Carrol, 1994). The first step is to choose a model of block scheduling that meets the needs of students and teachers. A number of models exist, but they all allow for flexible programs based on the needs of schools. There are several variations of block scheduling to examine. The standard 4x4 model consists of 4 ninety-minute classes, which last one quarter. The A/B model provides eight classes over one semester and rotates every other day. Periods 1-4 will be given on A days and periods 5-8 will be given on B days. Combination models also exist where students are offered both forty-five minute classes and ninety-

minute classes at the same time. Many schools have utilized this scheduling model to accommodate teacher preference and subject matter accommodations.

Curriculum development also needs to be addressed prior to implementation. School districts must examine the possibilities of expanding course offerings. Many districts have taken advantage of course offerings that take place off school grounds such as university or technical college opportunities (Queen & DiBiase, 1999). The opportunity allows many students to receive college credit and credit towards graduation at the same time. Many schools have found that they cannot cover the same material under the block-scheduling model. This is to be expected and schools must design the curriculum accordingly.

Administration also plays an important role in the implementation process.

Principles must provide teachers with adequate staff development time on effective block scheduling processes and monitor teachers to ensure that they are using pacing guides and varying instruction.

Elective models also suggest scheduling implications for both teachers and students. Research has indicated that students do not do well when they have four required courses in one quarter. It is recommended that they be offered at least one elective course during each quarter. Also, teachers who are given more than two classes to prepare for each quarter have difficulty preparing for classes. Pacing guides are available for teachers to inform them of the amount of time that they should spend on each topic during instruction. This has helped many teachers manage their time and provide quality instruction to their students. These pacing guides reinforce activities for teachers to utilize. Many teachers have been surprised by the fast pace that block

scheduling provides within the classroom. Pacing guides recommend having additional lessons and activities readily available for students. Having pacing guides available to staff has been an effective resource for teachers during the implementation of block scheduling.

Salvaterra and Adams (1996) collected data from four high schools in central and northern Pennsylvania. Their surveys investigated how Block Scheduling affected five areas of teacher instructional behavior: the incorporation of new instructional activities in class, use of cooperative learning strategies, use of library material and service, changes in student assessment procedures, and changes in teacher preparation time. The results indicated that the majority of teachers in all four schools stated that Block Scheduling enhanced their ability to develop and include new activities in the classroom. Some teachers voiced concerns that students could not maintain attention for the longer time, and discipline problems and warning motivation inhibited the positive effects of new activities.

The teachers in all four schools reported that they were using more cooperative learning strategies. The authors warned that these activities should be evaluated for promoting learning and should not be merely time fillers (Salvaterra & Adams, 1996).

Teachers perceived that Block Scheduling would open the door to new types of assessments, but some teacher felt limited to "cover the book" and were giving tests more frequently. Others reported investigating portfolio types of assessments. This are need more study (Salvaterra & Adams, 1996).

The teachers perceived an increased use of library materials and services. The librarians concurred with this and reported noticeable increases in the use of the library

by the math and science classes, particularly for investigation of topics by individual students. More requests for materials not available in the library cause an increased workload in obtaining materials through interlibrary loan (Salvaterra & Adams, 1996).

Teachers experience a need for more preparation time especially in the implementation of Block Scheduling. Some teachers stated that they could not be absent even when they were sick. Others felt that the prep time was no greater, just different. Extra preparation time for longer periods was offset by having fewer classes to prepare for.

The majority of teachers in all four schools favored Block Scheduling to the traditional schedule and cited these reasons: ability to do group work and projects, opportunities to cover material more comprehensively, time to complete and entire lesson in a single period, and fewer interruptions resulting in more time on task (Salvaterra & Adams, 1996).

Liu and Dye (1998) conducted a survey with teachers as part of a study of small rural school districts in southeast Alabama. This school had implemented an eight block semester and students enrolled in four classes each term. The teachers were very optimistic about the impact of the new schedule upon student learning, but a third of the teachers were uncertain whether they had fewer or more behavior problems.

The teachers were positive about the opportunity within the block schedule to improve instruction practices. Seventy-seven percent of the teachers participated in the survey and among the participating teachers, 57% used more peer tutoring; 62% used more hands-on activities; 63% increased the use of small group activity; and 72% varied their teaching strategies. Forty-eight percent of teachers reported that they tested students

more. In responding to the effect of block scheduling upon their professional development, 73.3% of the teachers reported favoring the longer periods of time available for preparing lesson plans, and 51% expected more opportunities to work for interdisciplinary teaching. The responding teachers also expressed the need for professional training - 46% for training in varying teaching strategies and 41% for maintaining student interest during the longer class periods (Liu & Dye, 1998 p. 2). The teachers cited positive traits of block scheduling as:

- 1. Improved teaching
- 2. Opportunity for contact with more students over the course of the year
- 3. Opportunity for a new beginning each year
- 4. The need to develop fewer lesson plans during each term
- 5. Increased student time on task
- 6. Opportunity for students to focus more on their subjects
- 7. Increased learning from students
- 8. Reduction in student traffic in the hallways

Teachers also expressed concerns. Some wondered if changing from lecture to more active involvement and collaboration might be viewed in negative ways by parents and administrators. Teachers might have to deal with discipline problems for a longer time. Some teachers who changed from one course to another between terms might have more course preparation. Teachers also concerned with long-term retention of skills and concepts and elapsed time between related courses. Many cited that maintaining student interest for longer time periods could be a problem. Absences might mean more makeup work. Many felt that more elective courses need to be available to the students. Finally,

many teachers expressed the need to assess the effect of the block schedule upon student learning (Liu & Dye, 1998).

Queen, Algozzine, and Eaddy (1996) provided a look at the success of the 4x4 block in social studies in North Carolina. Positives from their studies included flexibility in the classroom instruction, longer planning periods for teachers, greater course offering for students, one or two class preparations for teacher, and more time each day for indepth study. Negatives included loss of retention from one level of a course to the next, too much independent study needed outside of class, students transferring from schools not using the block schedule, a limited number of new electives being offered, and continued use of the lecture method in the classroom (Queen, Algozzine, & Eaddy, 1996).

The researchers used observations, conferences, and surveys over a three-year period to prioritize the most important teaching skills. The most important was the ability to develop a pacing guide for the course over a nine week period and also for semester, weekly, and daily planning. Next was the ability to use several instructional strategies effectively. Then came the skill to design and maintain an environment that allows for flexibility and creativity. Next was the desire and skill to be an effective classroom manager. The last was the freedom to share the ownership of teaching and learning with the students (Queen, Algozzine, & Eaddy, 1996).

Chapter III: Methodology

Introduction

Knowing how the faculty feels about teaching in block scheduling will benefit administrators and other faculty. Teachers concerns and thoughts about block scheduling could go to further the success of block. This was a qualitative study to examine the themes from teacher perceptions of adjusting to block scheduling. Responses were organized by departments in order to check for any resulting themes.

Subject Selection and Description

The study involved 47 teachers who were employed at Adams-Friendship High School in Friendship, Wisconsin. A questionnaire was sent via school mailbox to the teachers. Instructions were given to return the completed questionnaire to the researcher's mailbox within ten days.

Instrumentation

Teacher's perceptions of advantages and disadvantages of block scheduling, and their perceptions about adaptations made to accommodate block scheduling were recorded by the researcher-developed questionnaire. The questionnaire included items about what gender the teacher was, and overall effectiveness. The next item asked teachers to evaluate a series of questions dealing with the effectiveness on: instructional delivery, student learning, and learning environment. It then asked teachers to describe the advantages and disadvantages of block schedule within their departments. The last item asked teachers to describe why or why not they think block scheduling is more effective than the traditional scheduling.

Data Collection and Analysis

A cover letter was included with each questionnaire. It explained the purpose of the study along with an anonymous consent statement that the participants were asked to read. The instrument was two additional pages and participants were asked to return the questionnaire by a given date.

Limitations

A major concern was receiving an appropriate number of returned questionnaires from the teachers so that themes could be analyzed. To ensure that a high percentage of teachers responded to the survey a great deal of time was spend beforehand telling teachers that a block scheduling survey was going to be administered and a great deal of data will be gathered from the results. Administration also was very supportive with setting time aside telling teachers that the data that will be gathered, will be used in the following years in-service days so that all teachers can analyze the results and gather own thoughts on the results.

Another concern was that the teacher biases could interfere with genuine block scheduling perceptions. Some teachers are so stuck on the traditional scheduling that even if block scheduling worked out better in some areas teachers still reflected badly on block scheduling even if they benefited from it. There is no way to control the way someone feels about block scheduling, but telling the teachers to answer respectively and truthfully, for their answers will reflect when the data is addressed.

Also of concern was that the responses would not be detailed enough to provide an analysis of themes for interpretation. Asking each teacher to take the time to fill in the data completely and fully was very important so that there was no room for questioning

or guessing on any answer. Telling teachers how long the survey will take to complete was very important so that teachers did not start the survey and think of it as an assignment, but think of it as a learning tool.

Chapter IV: Results

The purpose of this study was to investigate teacher's perceptions of the block schedule at Adam's Friendship High School. The study focused on the areas regarding teacher's perceptions of block scheduling regarding the advantages and disadvantages of block scheduling, and also is block scheduling more effective when being compared to the traditional scheduling system. The data was gathered during the 2006-2007 school year.

There were 47 questionnaires delivered to Adams-Friendship High School Staff.

There were 35 questionnaires returned. The surveys were separated by male and female.

There was a 74% return rate on all questionnaires distributed. The participation was voluntary.

The following is the results of Adams-Friendship High School questionnaires from the 2006-2007 school year reported by female and male.

The research questions for this study were:

- 1. What are teacher's perceptions on the effectiveness of block scheduling?
- 2. What are the advantages and disadvantages of block scheduling?
- 3. Is block scheduling more effective than traditional schedule?

Demographic Information

The data was collected for this study from Adams-Friendship High School

Teachers teaching in a block schedule identified the similarities and differences in
teacher's perceptions toward the effectiveness of block scheduling in relationship to
gender. With 35 of a possible 47 teachers participating in the study, the response rate

was seventy-four percent. This data will now be reported and discussed in Table 1.A.

Gender Information on Adams-Friendship Education Instructors

Table 1.A

Gender	Frequency	Percentage
Male	21	60%
Female	14	40%

Gender

Table 1.A indicated the gender of the participants in the study. Of the 35 participants in this study, 60% were males and 40% were females.

Research Question 1

Three main areas were looked at when determining the overall effectiveness of the block schedule system those areas are: the effect on instructional delivery, the affect on student learning, and the affect on learning environment. The following issues were considered when considering the affect on instructional delivery as pertained to block scheduling:

Affect on Instructional Delivery

- 1. Increased instructional preparation time for classes.
- 2. Improved teaching effectiveness.
- 3. Improved on task time.
- 4. Increase in cramming content for instructional delivery.
- 5. Increased attention to individual students.
- 6. Improved use of daily teacher planning.

- 7. Improved use of hands-on activities.
- 8. Improved use of multi-activity lessons in on block.

The following results in regards to teacher's responses to the above items are presented in Table 2.

Teacher's perceptions of the Effectiveness of Block Scheduling

Table 2.A

Questions 1-8	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
	N %	N %	N %	N %	N %	
Increased instructor Preparation time for classes	4 11%	5 14%	10 29%	10 29%	6 17%	
2. Improved teaching Effectiveness	3 9%	6 17%	13 37%	10 29%	3 9%	
3. Improved on task time	4 11%	7 20%	5 14%	10 29%	9 26%	
4. Increase in Cramming content for Instructional delivery	6 17%	5 14%	10 29%	4 11%	10 29%	
5. Increased Attention to Individual Students	5 14%	4 11%	10 29%	6. 17%	10 29%	
6. Improved use of Daily Teacher Planning	6 17%	3 9%	13 37%	10 29%	3 9%	
7. Improved use of Handson Activities	7 20%	5 14%	9 26%	10 29%	4 11%	
8. Improved Use of Multi- activity lessons in one block	13 37%	3 9%	3 9%	10 29%	6 17%	

When asked if teachers increased instructor preparation time for their classes approximately 46% or 16 of the participants agreed or strongly agreed, while roughly

29% or 10 were neutral on the issue, and 26% or 9 either disagreed or strongly disagreed.

One comment a teacher states, "Block scheduling allows me to have more time to prepare for my classes".

More than one third 37% or 13 of the 35 teachers were neutral on the issue of improved teaching effectiveness. Thirty-seven percent or 13 either agreed or strongly agreed. While 26% or 9 either disagreed or strongly disagreed that block scheduling improved teaching effeteness.

More than half of all teachers 55% thought that block improved on task time. While five participants thought it was the same as traditional schedule. Thirty-one percent disagreed or strongly disagreed that block improved on task time.

When it came to how teachers felt about increase in cramming content for instructional delivery 40% or 14 agreed or strongly agreed that they felt rushed. While 29% or 10 felt there was no change, and 31 or 11 either strongly disagreed or disagreed.

Nearly half, 46% or 16 of teachers believed there was an increase in attention to individual students, while 29% or 10 felt neutral, and 26% or 9 either agreed or strongly agreed that there was an increase in attention to individual students.

Thirty-seven percent or 13 of the teachers felt neutral about improved use of daily teacher planning, while 37% or 13 either agreed or strongly agreed. Twenty-six percent or 9 felt that it had not improved when it came to teacher planning.

Improved use of hands-on activity brought in 66% or 23 of all teachers either feeling neutral or agreeing. Forty-six percent or 16 felt in disagreement with being able to use hands on activities more.

Improved use of multi-activity lessons on one block saw 46% or 16 of teachers disagreeing or strongly disagreeing, while 9% or 3 felt neutral and 46% or 16 either agreeing or strongly agreeing with the improvement.

Affect on Student Learning

- 1. Improved Learning in Classroom
- 2. Improved class discussions
- 3. Improved student Participation
- 4. Increase in Student Failure
- 5. Increased student Productivity
- 6. Increased Attention Span
- 7. Improved Student Grades

Table 2.B Teacher's perceptions of the Effectiveness of Block Scheduling

Questions 9-15	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
	N o %	N %	N %	N %	N %	
9. Improved Learning in Classroom	5 14%	3 9%	13 37%	9 26%	5 14%	
10. Improved class discussions	1 3%	4 11%	5 14%	8 23%	17 49%	
11. Improved student Participation	6 17%	3 9%	13 37%	10 29%	3 9%	
12. Increase in Student Participation	6 17%	3 9%	9 26%	13 37%	4 11%	
13. Increased student Productivity	5 14%	3 9%	9 26%	13 37%	5 14%	
14. Increased Attention Span	13 37%	9 26%	4 11%	6 17%	3 9%	
15. Improved Student Grades	13 37%	5 14%	3 9%	9 26%	5 14%	

When asked if student learning improved in your classroom fourteen percent 14.3% or 5 of all teachers strongly disagreed, nine percent 8.6% or 3 disagreed with it. Thirty-seven percent 37.1% or 13 of all teachers felt that student learning had remained the same, and forty percent 40% or 14 said student learning had improved in their classroom.

Class discussions showed a great increase in the amount of teachers that felt their classroom had better discussions with seventy-two percent 71.5% or 24 either agreeing or strongly agree. Fourteen percent 14.3% or 5 teachers said they felt no change, and fourteen percent 14.3% or 5 either strongly disagree or disagree.

Student participation was pretty even with 37% or 13 teachers saying that it was the same. Thirty-seven or 13 of all teachers agree and strongly agreed. With 29% or 10 strongly disagree or disagree.

Student participation increased with 49% or 17 agreeing and strongly agreeing with the increased in student participation. Twenty-six percent or 9 staying neutral, and 26% or 9 either saying they strongly disagree or disagree with increased student participation.

Student productivity saw more than half of all teachers strongly agree or agreeing that it had increased at 51% or 18, and 26% or 9 staying neutral. Twenty-three percent or 8 disagreed or strongly disagreed.

Student attention span seemed to be low with nearly 63% or 22 of all teachers strongly disagreeing or disagree. Eleven percent or 4 stayed neutral, and 26% or 9 agreeing or strongly agreeing.

Forty percent or 14 of all teachers agreed or strongly agreed that student's grades improved. Nine-percent or 3 teachers were neutral and 51% or 18 of teachers disagreed or strongly disagreed.

Affect on Learning Environment

- 1. Improved Knowledge of students
- 2. Increased Student Involvement
- 3. Increased instrumental delivery techniques utilized per period
- 4. Improved Classroom Atmosphere
- 5. Increased time spend on Lab Activities
- 6. Increase in class size
- 7. Increased Behavioral Problems in Class
- 8. Increased Instructional Time
- 9. Increased student academic interest
- 10. Increased days of student absent

Teacher's Perceptions of the Effectiveness of Block Scheduling

Table 2.C

Questions 16-25	Strongly		Disagree		Neutral		Agree		Strongly	
	N	isagree %	N	%	N	%	N	%	A N	gree %
16. Improved Knowledge of students	4	11%	6	17%	8	23%	9	26%	8	23%
17. Increased Student Involvement	1	3%	4	11%	5	14%	8	23%	17	49%
18. Increased instrumental delivery techniques utilized per class period	6	17%	9	26%	4	11%	8	23%	8	23%
19. Improved Classroom Atmosphere	6	17%	3	9%	9	26%	13	37%	4	11%
20. Increased time spent on Lab Activities	6	17%	5	14%	3	9%	9	26%	13	37%
21. Increase in class size	3	9%	0	0%	3	9%	9	26%	20	57%
22. Increased Behavioral Problems in Class	3	9%	5	14%	9	26%	13	37%	5	14%
23. Increased Instruction time	1	3%	5	14%	8	23%	17	49%	4	11%
24. Increased student academic interest	9	26%	6	17%	8	23%	4	11%	8	23%
25. Increased days of student absent	3	9%	5	14%	6	17%	8	23%	13	37%

Nearly half of all the staff, 49% or 17 teachers, agreed they had better knowledge of the students in their class. Twenty-three percent or 8 felt that they did not gain any extra knowledge about students. Twenty-nine percent or 10 felt that they did not get to know the students as much as if they were in traditional scheduling.

Nearly two thirds of all teachers believe that student involvement was increased. Seventy-two percent or 25 teachers agree and strongly agreed. Fourteen-percent or 5 felt that nothing had changed, and 14% or 5 of the faculty disagreed and strongly disagreed.

Nearly forty-three percent or 15 disagreed when it came to being able to use more delivery techniques per class period. Eleven-percent or 4 felt neutral, and 46% or 16 agreed and strongly agreed that they were able to use more techniques to teach students.

Forty-nine percent or 17 agreed that their classroom atmosphere had improved in the block schedule. Twenty-six teachers felt that nothing had changed, and 26% or nine felt that their classroom was worse off.

Sixty-three percent or 22 agree and strongly agree that students have more time for lab activities. Nine percent or 3 teachers were neutral, and 31% or 11 of all teachers disagreed with that students got more time in the lab.

Class size is a main concern with 82% or 29 of all teachers in agreince with that.

Nine percent or 3 teachers saw no increase, and 9% or 3 saw their number of students go down.

Increase in class size behavior becomes and issue with 51% or 18 of all teachers agreeing with this. Twenty-six percent or 9 teachers are neutral and 23% or 8 disagree and strongly disagree.

Sixty percent or 21 feel that they have increased instructional time. Twenty-three percent or 8 were neutral on the topic and 17% or 6 disagree and strongly disagree with have and increase in instructional time.

Seeing an increase in student interest teachers felt that there was not a big increase with 66% or 23 disagreeing or neutral on the topic. Thirty-four percent or 12 teachers agree and strongly agree that there has been an increase in student interest.

In block scheduling 60% or 21 of teachers felt that students are absent more. Seventeen percent or 6 teachers were neutral on the topic, and 23% or 8 disagreed and strongly disagreed.

Research Question 2

Research question number two was a two-fold question with the first part asking teachers what advantages they had experienced in block scheduling. The second part of the question was asking teachers to comment on what disadvantages they had experienced in block scheduling. Both parts to question number two were open-ended so teachers could comment on whatever they felt and thought.

The advantages that were indicated included: ability to try new teaching strategies, more time to work on certain activities without lose of knowledge, fewer teacher preparations, creation of new elective course offerings, and fewer courses for students to manage.

The disadvantages indicated included: too many absent students, students becoming bored and inability to remain focused, some curriculum loss due to compacting, difficulty of placing transfer students in the schedule, class sizes too large, too much wasted time, students not understanding their term one grade was equal too quarter grade, to much wasted time during transfer from class to class, and lack of study halls for remediation

Research Question 3

The teaching faculty at Adams-Friendship High School is split on the topic of whether or not block scheduling is more effective than traditional scheduling. Both sides have their own reasons why each type of scheduling is better.

Some of the responses for the reason block scheduling is better are: there is a lot more time for student/teacher interaction, less homework for students outside of class, less material for teachers to prepare for each day, more time to cover material in class, more time to complete labs, less clean-up time, and more time to deal with students.

Some of the responses for the reason block scheduling is not better than traditional are: attention spans are very short and difficult to handle during a ninety minute block, increased absences, decreased amount of make-up work completed, lots of wasted time, there is too much school work, very poorly implemented, and bad planning.

Chapter V: Summary, Conclusions, & Recommendations

An overview of the finding of this study will be provided. A summary of the purpose, along with conclusions, limitation, and recommendations for future study are included.

Summary

This study was developed to investigate teacher's perceptions of the effectiveness of block scheduling, the advantages and disadvantages of block scheduling, and is block scheduling more effective than traditional schedule. The researcher developed a questionnaire and was placed in each Adams-Friendship High School faculty school mail box, with a response of thirty-five teachers participating in the study.

The questionnaire was divided into three parts with three main questions. The first part was a series of 25 questions broke into three parts: Affect on Instructional Delivery, Affect on Student Learning, and Affect on Learning Environment.

Respondent's answers varied very much in the three areas, but as the data states for the most part teachers have accepted block scheduling as the new schedule.

The second research question was asking teachers what are their perceptions of the advantages and disadvantages they have experienced as a result of block scheduling. The teacher's responses indicated that teachers are split with whether or not they like block scheduling.

The advantages identified by respondents: ability to try new teaching strategies, more time to work on certain activities without lose of knowledge, fewer teacher preparations, creation of new elective course offerings, and fewer courses for students to manage.

The disadvantages indicated included: too many absenseces, students becoming bored and inability to remain focused, some curriculum loss due to compacting, difficulty of placing transfer students in the schedule, class sizes too large, too much wasted time, students not understanding their term one grade was equal to quarter grade, too much wasted time during transfer from class to class, and lack of study halls for remediation.

The last research question asked teachers is they felt that block scheduling as a whole was more effective than traditional scheduling. More than half of the respondents felt that block scheduling was more effective than traditional scheduling and were happy that they were teaching in the block. When it came to student involvement 86% or 30 respondents said involvement had increased. Respondents that did not like the block gave many reasons why and offered suggestions for of improving the block so that they can be more effective at teaching. Respondent felt that class sizes increased with 86% or 30 respondent saying classes had increased.

Both block and traditional scheduling have their positive and negative attributes. As stated before, there are advantages and disadvantages to block scheduling, but as a type of scheduling block has many more positive attributes than negative. Teachers at Adams-Friendship High School as a group have taken to block scheduling and will continue to work with it to make it better.

Conclusions

This study supports previous studies concerning the effectiveness of block scheduling. According to Canady and Rettig (1995), many teachers have moved away from the traditional format of lecturing and need more time in which to accomplish new instructional strategies. Teachers are taken to block scheduling and find there is much

more flexibility and opportunity to teach students. These themes were also cited by the majority of the Adams-Friendship High School respondents in this study.

The research has found planning models that have resulted in a successful implementation of block scheduling (Queen, 1997, Canady & Rettig, 1995, Carrol, 1994). The first step is to choose a model of block scheduling that meets the needs of students and teachers. With so many different types of block picking one that will fit your school is important. Adams-Friendship 4x4 block scheduling well suited the school and staff.

Liu & Dye (1998) reported that teachers perceived the block schedule as more opportunity for students to focus on their subjects, but also voiced concerns about long-term retention and elapses time between related courses. These themes were also cited by the majority of the Adams-Friendship High School respondents in this study.

Recommendations

The following recommendations were made for the research done for this study.

- 1. Consider conducting research in other schools for a comparative study.
- 2. Define the type of block scheduling for the research. There are many different types of block scheduling one needs to define which one is to be analyzed.
- 3. Read other studies that deal with other schools that are using block scheduling to learn if something that they are doing something different that is making them succeed or fail.
- 4. Examine the effect of block scheduling on actual student performances and compare that with student performance for those who have traditional school day schedules. This will give administration and teachers a better idea of whether or

not block scheduling is more beneficial than the traditional scheduling in a particular school setting.

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