

Rowan University

Rowan Digital Works

Theses and Dissertations

5-1-2000

The effects of block scheduling on students with special needs

Kimberly C. Seifring
Rowan University

Follow this and additional works at: <https://rdw.rowan.edu/etd>



Part of the [Disability and Equity in Education Commons](#)

Let us know how access to this document benefits you -
share your thoughts on our feedback form.

Recommended Citation

Seifring, Kimberly C., "The effects of block scheduling on students with special needs" (2000). *Theses and Dissertations*. 1741.

<https://rdw.rowan.edu/etd/1741>

This Thesis is brought to you for free and open access by Rowan Digital Works. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of Rowan Digital Works. For more information, please contact LibraryTheses@rowan.edu.

THE EFFECTS OF BLOCK SCHEDULING ON
STUDENTS WITH SPECIAL NEEDS

by
Kimberly C. Seifring

A Thesis

Submitted in partial fulfillment of the
Masters of Arts Degree
Of
The Graduate School
At
Rowan University
May 1, 2000

Approved by _____ Professor

Date Approved May 1, 2000

ABSTRACT

Kimberly C. Seifring

The Effects of Block Scheduling on Students with Special Needs

Spring 2000

Dr. Stanley Urban, Thesis Advisor

Learning Disabilities Teacher Consultant Certification Program

This study surveyed the professionals from two schools in the southern New Jersey area regarding their views of block scheduling as well as their views on the effectiveness of block scheduling among students with special needs. A total of 243 surveys were distributed and 61 were returned. The survey questioned the teachers in regards to the changes they had to incorporate into their daily instructional time upon switching to block scheduling, the advantages and disadvantages of block scheduling, and how to ensure that students with special needs experience success while participating in a block schedule. A majority of the participants enjoy teaching under the block scheduling format. They feel as though the advantages of such a system include the ability to completely cover a topic being presented and the opportunity to use varied instructional

methods. The disadvantages of block scheduling include make up work after absences and transfer students. In regards to students with special needs, the participants did not feel as though retention of material for sequential courses was a problem for these students. Additionally, 39.34% of the participants (a majority for this portion of the survey) indicated that they felt as though block scheduling promotes inclusion.

ABSTRACT

Kimberly C. Seifring
The Effects of Block Scheduling on Students with Special Needs
Spring 2000
Dr. Stanley Urban, Thesis Advisor
Learning Disabilities Teacher Consultant Program

This study surveyed the professionals from two schools in southern New Jersey regarding their views of block scheduling as well as their views on it's effectiveness with students who have special needs. Participants enjoy teaching under the block scheduling format. They stated that retention of material for sequential courses is not a problem for students with special needs. Additionally, 39.34% (a majority for this study) of the participants felt as though block scheduling promotes inclusion.

TABLE OF CONTENTS

	Page
Chapter One: Background.....	1
Theory.....	2
Need for the Study.....	6
Significance of the Study.....	7
Research Questions.....	7
Definitions of Terms.....	7
Limitations.....	8
Chapter Two: Review of the Literature.....	10
Forms of Block Scheduling.....	11
The Advantages of Block Scheduling.....	13
The Disadvantages of Block Scheduling.....	17
Teacher’s Perspective on Block Scheduling.....	20
Student’s Perspective on Block Scheduling.....	22
The Effects of Block Scheduling on Students with Special Needs.....	23
Chapter Three: Methods and Procedures.....	28
Subjects of the Study.....	28
Pilot Study.....	28
Chapter Four: Analysis and Interpretation of Data.....	30
Introduction.....	30
Demographic Characteristics.....	31
Research Question #1.....	32

Research Question #2.....	36
Research Question #3.....	39
Research Question #4.....	39
Chapter Five: Summary, Findings and Conclusions.....	42
Conclusions.....	42
Discussion.....	44
Recommendations.....	46
References.....	48
Appendix A - Block Scheduling Survey.....	50
Appendix B – Survey Cover Letter.....	51

Chapter 1

Background

In 1983 the National Commission on Excellence in Education issued several reports which criticized our nations' school systems, especially those at the secondary level. (Vermillion, 1998) One of these reports was "A Nation At Risk," which stated that in response to a declining student enrollment, limited funds and changes in the United States' social demographics current restructuring and reform were required. (Vermillion, 1998) Additionally, in 1994 the National Education Commission released a report on time and learning which stated, "Schools will have a design flaw as long as their organization is based on the assumption that all students can learn on the same schedule." (Irmsher, 1996) In response to the restructuring and reform mandates set forth in these reports many schools have adopted a new form of scheduling know as block scheduling.

Block scheduling could be considered a new term for flexible scheduling, a popular system employed in the 1960's. (Bowman 1998) Analysis of this form of scheduling in the 1960's showed that 80-90% of the faculty and students preferred this type of scheduling to the traditional system. (Bowman 1998) However, a decade later only 2% of the schools in America were still utilizing this approach in terms of scheduling. (Bowman, 1998) In 1972, Van Mondfrans, Schott, and French compared the effects of block scheduling and traditional scheduling on student achievement and student attitude toward school. They concluded that achievement and attitude scores were not affected by the two forms of scheduling except for high school seniors. (Bowman, 1998)

These researchers attributed the difference between the students in their first three years and their final year of high school is one of maturity. (Bowman, 1998). They believed that maturity was a necessity in order to profit from the learning requirements associated with block scheduling such as: self-control, self-direction and self-motivation.

(Bowman, 1998)

Block scheduling in present day educational facilities is defined by Gordon Cawelti as follows: "At least part of the daily schedule is organized into larger blocks of time (more than sixty minutes) to allow flexibility for a diversity of instructional activities." (Irmsher, 1996) Experts say that large numbers of schools in North Carolina, Florida, Texas, and Colorado are all experimenting with block scheduling. (O'Neil, 1995) In the literature, this form of scheduling is referred to as intensive scheduling or alternative scheduling. (www.netaxs.com/~twin/)

Theory

The key component to block scheduling is the provision of longer class periods. (O'Neil, 1995) Joseph Carroll, developer of the Copernican Plan (a form of block scheduling), states that there are two problems with the traditional schedule: teachers do not teach well and students do not learn well. (O'Neil, 1995) Carroll feels as though these problems cause the instructional environment to be hectic, impersonal and inefficient for today's youth. (Irmsher, 1996) Additional problems cited in the literature with the traditional schedule include: a grueling pace, not providing adequate time to

probe ideas in depth or vary learning activities, and not allowing for an opportunity to individualize instruction to student's needs. (Irmsher, 1996)

Michael Rettig, an assistant professor at James Madison University and Robert Lynn Canady, an education professor at the University of Virginia, could be considered experts in the field of block scheduling. (O'Neil, 1995) Rettig and Canady state that there are several factors that are motivating schools across the United States to adopt block scheduling. (www.education-world.com/a_admin/admin029.shtml) These factors include the following: instruction can be fragmented when students attend eight short classes in one day; schools made of one short period after another create a hectic assembly line environment; releasing thousands of adolescents into hallways six to eight times a day for four to five minutes of noise and chaotic movement may cause several discipline problems; and teachers benefit from more useable instructional time each day because less time is lost with beginning and ending classes. (www.education-world.com/a_admin/admin029.shtml) Rettig and Canady also state that block scheduling helps to create a better school climate, provides varying learning times and improves the quality of learning time for students. (Vermillion, 1998)

A review of the literature shows that there is a set of consistent desired outcomes that can be expected once block scheduling is implemented at a school. (www.coled.umn.edu/CAREIwww/BlockScheduling/research/reports.htm) These desired outcomes include giving the teachers an ability to build rapport with their students, and increasing the positive feeling for a student about his high school experience. (www.coled.umn.edu/CAREIwww/BlockScheduling/research/reports.htm) Additionally, it appears as though once block scheduling is implemented, several positive

effects appear. (O'Neil, 1995) These include an increase in: daily attendance, percentage of students on the honor roll, percentage of students going on to a four year college after high school, and the number of course credits earned by students. (O'Neil, 1995)

Advocates of block scheduling acknowledge that this system does not add more minutes to a day, but state that it can improve the educational experience of American youth and increase the possibility of students becoming literate participants in society because of the above advantages. (Vermillion, 1998)

It has been noted that scheduling changes are usually linked to a decrease in reliance on the standard lecture format often observed in high school classrooms. (Irmsher, 1996). It is also believed that the decrease in lecture format leads to an increase in individualization and creative teaching strategies. (Irmsher, 1996) The creative strategies that teachers can incorporate into their instructional techniques to enhance a student's quality of learning include: cooperative learning, interdisciplinary instruction, and multi-intelligence instruction. (Buckman et al, 1995) These skills are considered beneficial to the students, because, in the future, when they are in the workplace, it will be essential that they use teamwork, cooperation, interact effectively to solve complex problems and communicate clearly in order to be considered an asset in their work environment. (Vermillion, 1998) It is believed that block scheduling will prepare our students of today for these challenges which they will face in the future.

In addition to documenting the theoretical benefits of using block scheduling to prepare students for the workplace, advocates of this system have also documented how the traditional scheduling system fails to prepare students for their future endeavors. Buckman et al (1995) state that having to report to a different boss every 50 minutes

while adjusting to several different sets of rules and expectations is not conducive to preparing students for the future. Additionally, Buckman et al (1995) state that the average 50 minute period under the traditional scheduling system does not provide students with an opportunity to develop higher level thinking and problem solving skills. These skills are required if students are expected to be successful when they leave high school.

There have been additional criticisms made of the traditional scheduling system by the advocates of block scheduling. It is these disagreements in theory that allow the advocates of block scheduling to believe that a change in the traditional system is required. These disagreements are as follows: low achievement scores on tests of basic skills; the impersonal environment that large high schools create; outdated teaching material; and curriculum fragmentation devoid of real-world application. (Buckman et al, 1995)

Advocates of block scheduling state that another shortcoming of traditional scheduling is that it tends to separate a student body into high and low tracks, with the less advantaged students and students with special needs over represented in the lower tracks. (Malloy, 1997) Malloy states that block scheduling allows schools to create more opportunities for students with special needs to be included in the regular education classroom. (Vermillion, 1998) This form of scheduling also provides a vehicle by which teachers can develop an environment that is conducive to learning for all students, even those with special needs. (Girtzmacher et al, 1993) One of the proposed advantages of block scheduling is to support special education students who are mainstreamed into regular education classes while providing their related services during longer periods of

time in whatever activities the class is engaged. (Rainforth, 1996) At the secondary level, block scheduling allows related services personnel to participate in community based instruction with their students due to the longer instructional periods. (Rainforth, 1996) Block scheduling, which provides flexibility, is believed to be vital if the student's least restrictive environment is to be met by a school district. (Girtzmacher et al, 1993)

Need for the Study

Block scheduling is a fairly new system being employed in high schools across the nation. Therefore, the literature review on block scheduling is somewhat limited. (www.coled.umn.edu/CAREIwww/BlockScheduling/research/reports.htm) Bowman (1998) states that block scheduling does not seem to rest on any meaningful research base, because there is very little data that is published on block scheduling that validates the benefits of this system. Additionally, Bowman (1998) states that data which is published does not come from well-designed research models. There is actually no empirical evidence that supports the idea that block scheduling enhances student attitudes, raises student achievement, increases the number of concepts taught or results in fewer classroom management problems. (Bowman, 1998) There is a paucity of research on block scheduling moreover the effects on students with special needs has not been researched. In spite of this researcher's exhaustive search, it was challenging to find the few articles that were used in this report. Therefore, additional systematic study is

needed and the focus of this project is the effect of block scheduling on students with special needs.

Significance of the Study

The significance of this study is to examine the differences between students with special needs and those without special needs in regards to the demands that block scheduling places on them. The following questions guided this study.

Research Questions

1. Do you think that block scheduling is a valuable change to your school?
2. Do you think that there is a difference between those students with special needs and those without special needs in regards to the demands placed on them because of block scheduling?
3. How has your instruction changed since the implementation of block scheduling?
4. What types of strategies do you employ to keep the interest, attention and motivation of your students for an extended block of time? Are these strategies successful for both students with special needs as well as those without special needs?

Definition of Terms

1. Special education teachers are teachers who work with students that have a classification of “Eligible for Special Services”. (New Jersey Administrative Code 6A:14)

2. Traditional scheduling is a daily schedule organized around approximately eight periods of instruction for two semesters.
3. Block scheduling is a daily schedule organized into blocks or periods of time which are more than 60 minutes in length.
4. Students with special needs are those students that have been classified as “Eligible for Special Services” under the New Jersey code.
5. Support services are any supplementary services that assist a student with special needs in achieving success. This could be assistance from a teacher or an aide, and it can either be an in-class support or a pull out program.
6. Strategies are a variety of instructional techniques ranging from cooperative learning to graphic organizers to providing a copy of the information being covered in class in note form.
7. Related services are any supplemental services that a special needs student would receive such as speech, occupational therapy or physical therapy.

Limitations

The subjects in this study were secondary (9-12) special education and regular education teachers from school districts in the southern portion of New Jersey. Consequently, the results will not be able to be generalized to other portions of the United States. Additionally, the study was dependent upon teachers completing the survey during their free time and returning it to the researcher. Therefore, the teachers that returned the survey may not be truly representative of the teachers from the southern portion of New Jersey. Finally, only two schools were used in this survey. This number

is considered low in regards to being able to generalize information to a certain geographic area.

Chapter 2

Review of the Literature

It has been tradition that a typical high school day encompasses approximately eight classes that each last for 50 minutes in duration. It has been observed that when a school employs this system it is difficult for teachers to provide adequate individual attention to their students due to large student loads of 150 or more and a limited amount of time in which they can spend with their students. (O'Neil, 1995)

In response to these concerns, as well as some educational reports that criticize the traditional system, many schools have begun to experiment with block scheduling. This system has been redefined to stand for a restructuring educational movement for longer classroom periods that last two to four times as long as those under the traditional system. (www.nctaxs.com/~twin/) Block scheduling offers teachers an opportunity to embark upon interdisciplinary initiatives, explore collaborative teaching ventures, engage students in learner-centered action projects and increase the variety of learning experiences needed for portfolio assessments. (Malloy, 1997)

The current move to block scheduling has caused controversy among individuals in the educational profession. (www.education-world.com/a_admin/admin029.shtml) Block scheduling has been hailed by its advocates as a vehicle of greater depth and flexibility in education. (www.education-world.com/a_admin/admin029.shtml) Canady, a well known expert of block scheduling, states that, "After the first year or two, about 80% of the students and teachers say they prefer the block scheduling and would not want to go back to shorter periods." (Bowman, 1998) Although some research has proven block

scheduling to be successful. Sigurdson points out that there is no indication as to what aspects of block scheduling contribute to its success. (Bowman, 1998)

The critics of this new system believe it is a faddish approach that fails to enhance the academic performance of students. (www.education-world.com/admin/admin029.shtml) An additional criticism from the skeptics of block scheduling is the fact that there is very little systematic research that validates the effectiveness of this system. (Bowman, 1998)

Although there are two separate schools of thought regarding block scheduling, it can be agreed that there are problems involved in evaluating the effectiveness of this system on student's academic achievement. (Bowman, 1998) These problems arise from the fact that block scheduling is implemented differently in various schools to meet their own individual needs. (Bowman, 1998)

Forms of Block Scheduling

A review of the research shows there are several types of block scheduling systems that a school can choose to employ. One form is known as the 4x4 plan. (www.netaxs.com/~twin/) This form of block scheduling involves the students having four classes a day that each last approximately 90 minutes in duration. (Irmsher, 1996) Under this system, the school year is divided into two semesters, each having four classes, for a total of eight classes in a school year. (Irmsher, 1996)

A second form of block scheduling is known as the 4x 4 A, B plan. (www.netaxs.com/~twin/) This form is similar to the 4x4 plan described earlier. (www.netaxs.com/~twin/) Under this system, classes are 90 minutes in duration, and the student has four classes during one school day. (www.netaxs.com/~twin/) However, the student is enrolled in eight classes at one time, and the classes meet on alternating days. (www.netaxs.com/~twin/) It has been documented that teachers dislike this system

because it requires them to carry a student load of approximately 150 students, and the preparation work for the extended periods can be exhausting. (www.netaxs.com/~twin/) An additional concern under this system in particular is the continual breaks in concentration that occur daily. (www.netaxs.com/~twin/)

Another block scheduling plan is known as the Copernican Plan. (www.netaxs.com/~twin/) This plan requires students to take two classes a day that are each 180 minutes in duration. (www.netaxs.com/~twin/) These courses are accelerated and completed within 30 school days. (www.netaxs.com/~twin/) Upon completion of two courses, two new classes will begin, and so on throughout the year.

The final plan of block scheduling that was documented in the literature was entitled the San Francisco Urban Plan. (www.netaxs.com/~twin/) This plan is similar to the 4x4 plan except there are three 12-week semesters during each academic year. (www.netaxs.com/~twin/) Those courses that traditionally would have taken an entire academic year to complete require two semesters for completion. (www.netaxs.com/~twin/)

The four plans mentioned above are those plans that are documented within the literature. However, it should be noted that different schools would have different reasons for considering block scheduling. (Hackmann, 1995) Consequently, school districts choose the plan they will employ based on their individual needs. (Vermillion, 1998) It should be considered that these individual needs could possibly require the need for two plans to be integrated into one. Therefore, the four above-mentioned forms of block scheduling may not be the only four systems being initiated in schools today.

The Advantages of Block Scheduling

As with any controversial topic, there are differing opinions concerning the effectiveness of block scheduling. The advocates have published what they believe to be the advantages of employing such a system. These advantages will be discussed here.

Teachers that are employed at a school that is involved in block scheduling have found many advantages to using this system. Some of the advantages include that their average class size is smaller, and they have a student load of 75 to 90 students under the block scheduling system, not 150. (O'Neil, 1995) This reduction in numbers means that teachers have fewer students that they need to keep records for, and grades for each semester. (Irmsher, 1996) Additionally, with block scheduling, teachers only need to prepare for three classes each day. (O'Neil, 1995) The longer periods under a block-scheduling format allow for teachers to have enough time to group and regroup students according to what they have mastered. (O'Neil, 1995) This allows for teachers to make accommodations for students that learn different subjects at different rates. (O'Neil, 1995) It was also reported in the literature that teachers at schools using block scheduling have increased time for planning, participating in school-based decision making, coaching students, and conferring with parents. (Bowman, 1998)

Advantages under the block scheduling format not only benefit the teachers, but also benefit the students. If a student is responsible for fewer classes, he can focus his concentration more on each class. (www.netaxs.com/~twin/) If a school employs the block scheduling format, it has been documented that those students that wish to accelerate through course work now have the ability to do so easily. (O'Neil, 1995) It is believed that a student would have the ability to graduate high school within three years or earn

one year of college credits while still attending high school. (www.education-world.com/a_admin/admin029.shtml) This is possible because this system allows for students to enroll in a greater number of classes and a greater variety of elective courses. (Irmsher, 1996) This format of scheduling also allows a student that fails a course to repeat the course without falling behind his classmates. (O'Neil, 1995) This facet of block scheduling enables those students that may fail a course to regain the graduation pace of their peers. (Irmsher, 1996) It is believed that this facet of block scheduling is the cause for the reduction in drop out and retention rates among those high school that have employed this system of scheduling. (O'Neil, 1995)

It is believed that the aspects of block scheduling prepare students for the demands they will be encountering if they attend college classes.

([//smythnews.com/990130/I-Articles/mo-1.htm](http://smythnews.com/990130/I-Articles/mo-1.htm)) This belief stems from the similarity that block scheduling periods have with the longer periods students will face at higher education institutions. ([//smythnews.com/990130/I-Articles/mo-1.htm](http://smythnews.com/990130/I-Articles/mo-1.htm)) By introducing students to these longer periods at an earlier age it is believed that they will learn important time management skills that they will need to organize in their future lives. ([//smythnews.com/990130/I-Articles/mo-1.htm](http://smythnews.com/990130/I-Articles/mo-1.htm))

It is believed that the instruction of students can be effected in a positive way under block scheduling. This system allows for a more flexible, productive environment in which there is an increase in opportunities for teachers to use varied instructional methods, such as interactive technology. (Irmsher, 1996) Additionally, the increased time allows for teachers to engage students in experiments, writing activities as well as other learning activities. (www.education-world.com/a_admin/admin029.shtml) This increase in

time for varied instructional activities allows students and teachers to have a greater sense of interaction and ownership in their academic lives. (Bowman, 1998) Additionally, block scheduling provides opportunities for in-depth learning that develops higher level thinking skills and alleviates problems of retention of material and skills. (Vermillion, 1998) It is believed that block scheduling assists in the retention of information because in order to move information from short-term memory to long term memory time is required. (Vermillion, 1998) According to research, block scheduling offers the time for the retention of information and skills to occur. (Vermillion, 1998) Carroll, the developer of the Copernican Plan of block scheduling, states that he has found that those schools that employ block scheduling have students that have completed more course work and they have equal to or better mastery and retention of skills introduced when compared to those students that attend high schools under the traditional system. (Irmsher, 1996) Additionally, block scheduling allows for an increase in the frequency of field trips. (www.netaxs.com/~twin/) These field trips permit a teacher to enhance the educational experience for her students.

Those schools that have employed block scheduling have also documented a reduction in discipline problems. (O'Neil, 1995) There was a study completed by Buckman et al in 1995 in which they compared high schools from Florida that used the traditional system for scheduling with those that used the block-scheduling format. This study stated that those high schools that changed to block scheduling reported a sense of calm on the campuses and had a decrease in disciplinary infractions. (Buckman et al, 1995)

Advocates of block scheduling believe that students attain higher academic achievement under the block scheduling system. The most frequent explanation for these positive effects have been documented as follows: more time to complete homework as well as process information presented, more time for group and individual activities, and more individualized attention from both regular education and special education teachers. (Vermillion, 1998)

It has been observed that under block scheduling, several schools have an improved overall school climate in which the students and teachers are able to spend more concentrated time with one another. (O'Neil, 1995) This increase in time spent together has led to a greater feeling of overall satisfaction in the learning process for both students and teachers. (Irmsher, 1996) It has also been observed that the students in these high schools have a more positive attitude about school, as well as higher levels of engagement. (O'Neil, 1995)

The research in 1995 completed by Buckman et al showed that after one semester of block scheduling Evans High School (one of the schools that was using the block scheduling) reported more continuity among courses, an increase in opportunities for interdisciplinary activities, an improvement in grades, more committed teachers and students and a school environment that was more conducive to learning. (Buckman et al, 1995) Additionally, after an entire year of block scheduling, Evans High School reported an increase in daily attendance. (Buckman et al, 1995) Colonial High School (the other school in the study that initiated block scheduling) reported dramatic improvements in attendance, fewer suspensions, fewer disciplinary infractions and higher grades after one year of implementing the block scheduling approach. (Buckman, 1995)

To summarize the advantages of block scheduling, it is believed that this system: promotes individual instruction and independent study, increases instructional flexibility, enhances responsiveness to student's needs, yields more efficient instruction, invites implementation of the collaborative teaching approach, promotes more efficient use of school facilities and ensures the uninterrupted instruction and in depth teaching in critical subject areas. (Bowman, 1998)

The Disadvantages of Block Scheduling

In addition to the literature citing the advantages from the advocates' point of view, it also cites the disadvantages of block scheduling from the critics' point of view. If a small school district were to initiate a block scheduling format, it has been documented that teachers can feel stress and fatigue due to the increased demands placed on them. (Vermillion, 1998) It has been observed that teachers can have a negative attitude towards block scheduling because of the changes in planning, pacing and curriculum that would be required. (Vermillion, 1998)

In regards to instruction, the critics point out that not all courses, such as typing, are appropriately taught in the longer format. (O'Neil , 1995) Additionally, it has been observed that teacher's are not incorporating new teaching styles in their repertoire of methods because of block scheduling. Rather, they are still lecturing, but now for 90 minutes as opposed to 50 minutes. It has also been observed that classes can become impromptu study halls due to unwillingness for teachers to change their teaching style. (O'Neil, 1995) This refusal to alter teaching styles, according to Carroll could cause the school climate to be negatively effected due to the change over to block scheduling (Vermillion, 1998) Critics of block scheduling point out that the retention of information over time may cause problems, especially for those students with special needs or

attentional concerns. (Vermillion, 1998) It is possible that a student would have over a year lapse in time when completing sequential courses. (www.netaxs.com/~twin/) The retention of information in this aspect is considered a major disadvantage. In addition to retention difficulties, attention issues were a concern, especially since research shows that regular education teachers are not always making the modifications for students with special needs that are required to allow these students to be successful within the regular education setting. A majority of students reach their saturation point within one hour, the weaker students reach it prior to that. (www.netaxs.com/~twin/) This saturation point will have a major impact on the ability to mainstream some special needs students.

(www.netaxs.com/~twin/) Block scheduling can also impact on a child if he becomes sick and needs to miss a few days of school. (www.education-world.com/a_admin/admin029.shtml) Since each day of class is essentially two days worth of instruction, it is very possible that a student could drastically fall behind because of an absence due to an illness. Finally, for classes, such as mathematics, in which one skill needs to be taught and mastered prior to advancing to the next skill, teachers must provide homework time in class to ensure mastery before proceeding to succeeding topics. (www.netaxs.com/~twin/)

There has been some research that states that under block scheduling the total number of minutes devoted to instruction have decreased. (O'Neil, 1995) Some figures show that as many as 15 instructional periods are lost by implementing block scheduling. (www.netaxs.com/~twin/)

A major concern in regards to block scheduling is that of transfer students. (Vermillion, 1998) This concern is two fold, it would be difficult for students

transferring into a school mid year that come from a traditional system; and it will be difficult for students transferring out to a school with a traditional system.

(www.netaxs.com/~twin/) It is quite possible that parents may have to invest in a good tutor to assist their child in being successful in their new placement due to the different scheduling systems. (www.netaxs.com/~twin/)

There is currently a shortage of data to support the effects of block scheduling on student achievement. (Vermillion, 1998) Although the advocates' point out that block scheduling enhances a student's academic achievement, the critics are quick to point out that studies performed in Canada point out that students learn less in the block scheduling format. (Vermillion, 1998) According to the study, this was proven by the student's performance on multiple choice tests in science and math. (Vermillion, 1998)

Deciding to implement block scheduling can be a difficult decision for a school board. There are several concerns to address while making this decision. One of these concerns is what will be done about courses such as advanced placement classes and band that benefit from year long instruction. (O'Neil, 1995) Additional concerns include: student retention and continuity in the curriculum for courses that build on previous courses, and the requirement for teachers to vary activities within periods so students can "survive" the longer blocks of time.

(www.coled.umn.edu/CAREIwww/BlockScheduling/research/reports.htm) It should be noted that schools should spend at least one year planning for implementation of block scheduling for it to be a successful transition. (Vermillion, 1998)

Once all of the concerns are addressed and the decision has been made to implement block scheduling, a school can be faced with several challenges to ensure a

successful transition. The biggest challenge is perhaps making the initial transition. (Irmsher, 1996) The challenges in this initial transition include building support for altering such a time-honored tradition and creating the planning time required to make the change. (Irmsher, 1996)

Teacher's Perspectives on Block Scheduling

In addition to the research in the literature on the benefits and disadvantages of block scheduling, research has been completed on the teacher's perspective of this scheduling system. In 1987 two schools in Florida began a pilot program for block scheduling. (Buckman, et al, 1995) The teachers from the schools in which this program was piloted stated that they liked having more time to give their students individual assistance and they enjoyed having an opportunity to get to know the students personally. (Buckman et al, 1995) Additionally, the teachers enjoyed having more time to develop creative and meaningful student work. (Buckman et al, 1995) A final advantage that the teachers in Florida stated is present under block scheduling is that they had the ability to structure a full lesson, to introduce a topic or concept, discuss it and bring it to closure. (Buckman et al, 1995)

A second study found in the literature occurred during the 1994-1995 school year in the Anoka-Hennepin school district. ([www.coled.umn.edu/CAREIwww/Block Scheduling/research/reports.htm](http://www.coled.umn.edu/CAREIwww/BlockScheduling/research/reports.htm)) This study, conducted by the Center for Applied Research and Educational Improvement, attempted to compare the effectiveness of block scheduling versus the traditional scheduling system. ([www.coled.umn.edu/CAREIwww/Block Scheduling/research/reports.htm](http://www.coled.umn.edu/CAREIwww/BlockScheduling/research/reports.htm)) As a result of this study, it was observed that the teachers that taught in the school using the 4x4 plan of block scheduling felt they could perform their jobs more effectively. 7

(www.coled.umn.edu/CAREIwww/Block_Scheduling/research/reports.htm) The dimensions that were used to rate this ability included: facilitating student achievement, maintaining order, fostering a quality education, and improving one's work life.

(www.coled.umn.edu/CAREIwww/Block_Scheduling/research/reports.htm)

Additionally, teachers in the schools that employed block scheduling responded more positively when rating the following aspects of their school system: community, collaboration with their peers, respect and support received, and effectiveness of their approach towards educating their students. (www.coled.umn.edu/CAREIwww/Block_Scheduling/research/reports.htm)

One final study reviewed in the literature looked at schools from western North Carolina that changed to the block scheduling format in the fall of 1994. (Hurley, 1997) During this study, 31 teachers were interviewed in regards to their views on block scheduling. (Hurley, 1997) From these 31 educators, 17 felt that block scheduling was an improvement, nine were noncommittal, and five preferred the traditional system. (Hurley, 1997) There were several aspects of the block scheduling format that these teachers preferred over the traditional system. Teachers enjoyed having fewer students, more planning time, fewer classes to prepare for, and a more relaxed daily schedule. (Hurley, 1997) Teachers also noted that they had more opportunities to enrich their programs, they were able to build larger units of study, and they could include more skill development and enrichment activities into their daily teaching time. (Hurley, 1997) Additionally, these teachers noted that they were able to use more "hands on" activities, as well as spend more time completing one on one instruction, especially with the lower ability students. (Hurley, 1997) The teachers from this study also noted that they were

perceived to have higher expectations of the students while teaching at a school that employed block scheduling which led to higher student achievement while under the block scheduling format. (Hurley, 1997) It is believed that these higher expectations came as a result of the teachers demanding more of their students in order to cover the required material within the allotted time. (Hurley, 1997) A few final benefits that were noted under the 4x4 scheduling format were: students could take more courses, the pace of the day was more relaxed, there were more class activity options, and curricular enrichment opportunities were provided. (Hurley, 1997)

Even though the teachers were able to mention all of these beneficial aspects of block scheduling, they also cited some disadvantages of this system. A main disadvantage revolved around homework. (Hurley, 1997) The teachers noted that they were giving out less homework under this system, and students felt as though they should not receive any homework. (Hurley, 1997) The teachers that are required to give a state mandated end of the course test felt as though there was too little time to cover the required material. (Hurley, 1997) Finally, some extracurricular disadvantages under block scheduling included: a decrease in involvement in clubs and negative effects were apparent on students' senior year. (Hurley, 1997) The negative effects stemmed from early graduation, more seniors taking community college courses and some students becoming part time students. (Hurley, 1997) Finally, teachers also noted that student absences and uneven schedules could be cited as a disadvantage to block scheduling. (Hurley, 1997)

Student's Perspective on Block Scheduling

In addition to assessing the teacher's perspective on block scheduling, Hurley (1997) also assessed the student's perspectives on this system. Hurley (1997) completed

this study by interviewing a total of 37 students from schools in western North Carolina that have employed block scheduling. The students from these schools seemed to be in favor of block scheduling. (Hurley, 1997) They listed the following aspects as advantages to this scheduling system: having more in-depth study, receiving better grades, receiving more individual attention, being able to have a “fresh start” each semester, and having the ability to graduate early. (Hurley, 1997) Although the students appeared to favor block scheduling there were still aspects of this system that they did not like. (Hurley, 1997) These aspects included the following: they did not like having “uneven” schedules, sometimes classes seemed too long (with some classes not requiring 90 minutes of instructional time), they received tests more frequently, and sometimes teachers tired to cover too much information in a short amount of time. (Hurley, 1997)

The Effects of Block Scheduling on Students with Special Needs

Block scheduling can have a dramatic effect on the regular education child, however, it can have an even more dramatic effect on students with special needs. The education of all students with disabilities in general education requires a supportive framework for collaboration between regular educators and special educators. (Rainforth, 1996) This framework is present in the restructuring and reform literature that has spurred the popularity of block scheduling. (Rainforth, 1996) A second, complementary framework for teacher collaboration is present in the Individuals with Disabilities Education Act which requires “supplementary aides and services” (which includes special education teachers) so those children with special needs can be educated with children without special needs. (Rainforth, 1996) A review of literature has revealed that there are several strategies that parallel the best practices in general education reform and restructuring efforts with those efforts of inclusion. (Rainforth,

1996) One of these strategies mentioned in the literature is block scheduling. (Rainforth, 1996)

In 1998 Vermillion completed a study that focused on the “Changes Special Education Teachers Make In the Transition from Traditional Scheduling to Block Scheduling”. Analysis of the questionnaires returned revealed that 50% of the teachers believed that block scheduling positively affected the literacy skills of students with special needs. However, the subjects from Vermillion’s (1998) study cited the following aspects of block scheduling in regards to students with special needs as negative aspects of the new scheduling system. Forty nine percent of those teachers that responded felt as though retention of material was a problem, and 36% of those that responded that there were increase in the amount of paperwork required due to the adjustments in special services from a traditional schedule to a block schedule. (Vermillion, 1998) Upon completion of her study, Vermillion (1998) suggested a few recommendations in regards to having successful inclusionary procedures for students with special needs into the regular education classroom. She suggested that regular educators and special educators need to be more thoroughly prepared to educate students with special needs in the regular education setting. (Vermillion, 1998) Vermillion (1998) stated that this could be completed by preparing future teachers while they are receiving their undergraduate degree at universities and colleges across America. Additionally, she recommended that school districts offer more in-service programs to assist teachers in becoming familiar with new instructional strategies that could be utilized during block scheduling. (Vermillion, 1998)

Another study reviewed in the literature was one that was completed by the Mifflin County School District (MCSD), in rural Pennsylvania, by distributing a questionnaire to the teachers and administrators from 11 school districts in Pennsylvania that had already implemented block scheduling. (Bugaji, 1998) MCSD was interested in beginning block scheduling in their school district however, found very little research on the topic and was interested in the point of view of other schools that chose to employ this scheduling system. (Bugaji, 1998)

The schedule employed in MCSD was a variant of the semester block schedule and included a five period instructional day and a six-day cycle. (Bugaji, 1998) During the instructional day, four periods were 80 minutes in duration and were targeted for semester-length core subjects that carried full credit towards graduation. (Bugaji, 1998) The day also had one 60 minute “flex” period during the middle of the day that was used for year long courses. (Bugaji, 1998)

This study reviewed the following criteria: academic performance of special education students, inclusion of the special education student in the regular education setting, the use of designated support services, and special education staff requirements. (Bugaji, 1998) The most definitive results were found in regards to the inclusion of special education students into the regular education classroom. (Bugaji, 1998) This study found that these students were integrated into regular education more and they demonstrated a greater success in regular education. (Bugaji, 1998) Additionally, it was noted that the goals and objectives of the students’ Individualized Education Plans were more readily attained. (Bugaji, 1998) Finally, results of the questionnaire showed that

some teachers felt as though the grade point average of the special education students improved. (Bugaji, 1998)

This questionnaire showed that there were no questions that met the criteria for being representative in regards to the concerns of support services. (Bugaji, 1998). The staffing requirements for the special education students were found to be less than favorable by the teachers that completed the questionnaire. (Bugaji, 1998) The teachers felt as though additional special education teachers and aides needed to be hired. (Bugaji, 1998) The results from these questionnaires showed that suburban districts viewed block scheduling more favorably than the rural school districts. (Bugaji, 1998)

Results of the questionnaire showed that those school districts that had employed block scheduling for more than three years had the highest mean scores. (Bugaji, 1998) Those schools that had employed block scheduling for two years had the next highest set of mean scores. (Bugaji, 1998) Finally, those schools that had employed block scheduling for less than a year had the lowest mean scores. (Bugaji, 1998) According to these findings, it should be noted that school districts that are beginning to use block scheduling may not see improvement until the second or third year after implementation. (Bugaji, 1998)

A few aspects of block scheduling in regards to students with special needs were mentioned as findings from the questionnaires. It was noted that any subjects that are taught in self contained classrooms should also be 80 minutes in duration and of semester length. (Bugaji, 1998) A flex period should be offered to students with special needs in which a review of off semester course is initiated. (Bugaji, 1998) Additionally, it was noted that testing should be completed in a resource room or testing room. (Bugaji,

1998) A system should be employed when using block scheduling in which itinerant special education teachers provide co-teaching services in the regular education classroom as well as acting as an ongoing liaison and consultants to regular education teachers. (Bugaji, 1998) In the same regards, aides need to be placed in special education classes, resource rooms or as additional help to regular education teachers. (Bugaji, 1998) Finally, it was noted that the implementation of block scheduling should have limited negative effects on pull out service for those students with special needs. (Bugaji, 1998)

Block scheduling could be considered a controversial topic. The advocates as well as the critics have demonstrated and published legitimate support for their point of view on this topic. If a school district is going to employ this new scheduling system a complete review of the literature, as well as discussion with the teachers and community members is recommended to ensure everybody's viewpoint is listened to and understood.

Chapter 3

The purpose of this study was to determine the effectiveness of block scheduling on students with special needs.

Subjects of the Study

The identified population was secondary teachers, both regular education and special education, from two high schools in the southern portion of New Jersey. Convenience sampling was used when finding subjects for this study. The sample was chosen based on professional contacts and proximity to the researcher. Due to the limited location of the schools from this study, caution needs to be taken in regards to the generalizability of the information to other schools.

The two high schools selected for this study both began block scheduling fairly recently. High school A is currently in their fourth year of block scheduling. Their student population is approximately 1700, and they employ approximately 130 teachers. High school B is currently completing its first year of block scheduling. Their current student population is approximately 850, and their staff population is at approximately 105 educators. There were enough questionnaires distributed to each school so that every teacher employed could complete one. Return rates were based on individual teacher motivation.

Pilot Study

The questionnaire (see Appendix A) was designed by the researcher to determine the effectiveness of block scheduling on students with special needs. The questionnaire was initially distributed to ten teachers as a brief pilot study prior to the distribution to the sample population. The suggestions made by the participants in the pilot study were considered prior to completion of the final questionnaire.

Questionnaires were delivered to the schools by the researcher. The researcher enclosed self-addressed stamped envelopes with each questionnaire in order for the participants to send the completed questionnaires to her in the mail.

The subjects were asked to answer questions in which they had to choose advantages and disadvantages of block scheduling (in general as well as for the special education child), strategies employed in their classroom to assist them in maintaining attention for extended amounts of time as well as to describe any form of modifications made to assist students in retaining information for sequential courses. Questions were in several different formats including open-ended questions, checklists and likert scales.

The data gathered from this research tool was analyzed and tabulated by the researcher. Frequency distributions and percentages were computed to obtain a descriptive analysis of the gathered data. The data was recorded within the text of this paper as well as in graph form. Additionally, the researcher read any comments to open-ended questions made by the subjects of this study. Any recurring comments made by the subjects were included within the text of this research paper. Results will be discussed in chapter four.

Chapter 4

Analysis and Interpretation of Data

The purpose of this study was to determine the effectiveness of block scheduling with students at the secondary level who are eligible for special education services. This study answered four questions:

- (a) Do you think block scheduling is a valuable change to your school?
- (b) Do you think that there is a difference between those students with special needs and those without special needs in regards to the demands placed on them because of block scheduling?
- (c) How has your instruction changed since the implementation of block scheduling?
- (d) What types of strategies do you employ to keep the interest, attention and motivation of your students for an extended block of time? Are these strategies successful for both students with special needs as well as those without special needs?

Presented in this chapter are the results of the teachers' responses on the survey that was developed by the researcher to determine the answers to the research questions. The survey was administered to regular and special education secondary school teachers at two separate high schools in southern New Jersey during January of 2000. This is the initial year of implementation of block scheduling for one of the high schools surveyed. The other high school has had block scheduling in place for the past three years; this school is currently in their fourth year of block scheduling.

The data was obtained from surveys which were distributed at two high schools. Participants were given one week to complete the survey and return it to the researcher. The total return rate was 61 out of 243 or 25%.

A portion of this survey asked the teachers to identify demographic professional background information. This information asked teachers to identify the following: (a) Are you currently a regular education teacher or a special education teacher? (b) How many years have you been teaching? (c) What subject(s) are you currently teaching?

Presented in Tables 1 and 2 are summaries of the demographic characteristics regarding the population of teachers who participated in this study. Table 1 reflects that a majority of the teachers surveyed were regular education teachers. The professionals that fell under the “other” category included a vice-principal, a ROTC instructor, and an interpreter.

Table 1

<u>Summary of Teacher Certification Currently Being Used</u>		
Form of Certification	Percent	Frequency N = 61
Regular Education	80.32%	n = 49
Special Education	14.75%	n = 9
Other	4.91%	n = 3

Table 2 reflects that the majority of teachers that returned the survey have taught between one and ten years.

Table 2

Summary of Number of Years in Teaching

Number of Years	Percent	Frequency N=61
Zero to ten	42.62%	n = 26
Eleven to Twenty	16.39%	n = 10
Twenty One to Thirty	22.95%	n = 14
Over Thirty	18.03%	n = 11

The third question that dealt with background demographic information concerned the subject(s) presently being taught by the participants in the study. The following subjects are currently being taught by the participants of this study: biology, earth science, English, resource center Language Arts, basic skills writing, basic skills reading, history, world cultures, health and physical education, driver's education, calculus, algebra, geometry, core math, resource center math, foreign language, art, study skills, business, computers, vocational education, ROTC, family and consumer science, foods and nutrition, single living, video production, and human relations.

The initial research question asked was whether or not the participants from this study felt that block scheduling was a valuable change to their school. Table three summarizes the participants' belief in regards to the change from traditional to block scheduling. Several of the participants that checked "No difference" commented that it was too early to tell if it was a positive change, or that this was their first year of teaching and therefore did not have anything with which compare their initial year of teaching.

Table 3

Do you believe that block scheduling has been a valuable change to your school?

Response	Percent	Frequency N = 61
Yes	68.85%	n = 42
No	11.48%	n = 7
No difference	13.11%	n = 8
No reply	6.55%	n = 4

It is interesting to note that when the surveys completed by the special educators were reviewed 77.77% (7 out of 9) of those professionals surveyed felt that block scheduling was a valuable change to their school. This percentage is slightly higher than the percentage of the entire group surveyed.

Another portion of the survey inquired about the teachers' enjoyment of teaching under a block schedule. Table 4 presents the results from the survey.

Table 4

Do you enjoy teaching more under the block scheduling format than the traditional schedule?

Response	Percent	Frequency N = 61
Yes, I enjoy teaching more under block scheduling	70.49%	n = 43
No, I do not enjoy teaching more under block scheduling	9.8%	n = 6
My teaching experience has been about the same	14.75%	n = 9
Not Applicable	4.92%	n = 3

When examining the responses the special educators only, the researcher found that 55.5% (5 out of 9) of special education teachers enjoy teaching under the block scheduling. One educator stated that she did not enjoy teaching under the block schedule, and there were three teachers (33.33%) that stated they enjoyed teaching under a block schedule about the same amount as they did teaching under a traditional schedule. In comparison, when the surveys of the regular educators were interpreted it showed that 71.70% (38 out of 53) enjoyed teaching more under block scheduling than the traditional

model. This is significantly higher than the percentage of special educators that enjoyed teaching under the block schedule. Additionally, 9.43% (5 out of 53) stated that they did not enjoy teaching under the block scheduling format, and 13.21% (7 out of 53) ranked their enjoyment for teaching at “about the same” under both formats. Finally, the two participants that answered this question as “not applicable” held certificates for regular education; this constituted 5.66% of the regular educators’ population.

The research has documented several advantages to block scheduling. The participants of this research study were asked to comment on those advantages. The results of their comments are presented in Table 5.

Table 5

<u>The Advantages of Block Scheduling</u>		
Response	Percent	Frequency N = 61
Better rapport between teachers and students	54.1%	n = 33
Ability to alter teaching techniques	75.41%	n = 46
Ability to completely cover a topic of discussion	80.33%	n = 49
A decrease in discipline problems	18.03%	n = 11
An increase in students’ grades	27.87%	n = 17
An increase in average daily attendance	13.11%	n = 8

A majority of the participants from this study (80.33%) felt as though having the ability to completely cover a topic of discussion within one class period was a definite advantage of block scheduling. Additionally, a large majority of these participants (75.41%) also felt as though having the ability to alter one’s teaching techniques was also an advantage to block scheduling. One final advantage worth noting that was documented by more than half of the participants was the ability to establish a better rapport between teachers and students.

In addition to documented advantages of block scheduling, the research has also documented several disadvantages to block scheduling. Table 6 will summarize the findings from this research in regards to those disadvantages.

Table 6

<u>The Disadvantages of Block Scheduling</u>		
Response	Percent	Frequency N=61
Student absences	70.49%	n = 43
Retention of material	24.60%	n = 15
Transfer students	60.66%	n = 37
Teacher stress and fatigue	26.23%	n = 16
Student stress and fatigue	24.60%	n = 15
Changes in curriculum planning and pacing	24.60%	n = 15
Student attention	45.90%	n = 28

It appears as though the biggest disadvantage of block scheduling according to the participants is student absences. When a student misses one day due to illness, he is really missing the equivalent of two instructional days under a traditional system. If a student is kept home for one week with a serious illness, that student is put at a considerable disadvantage in regards to understanding previously taught concepts and attempting to get “caught up” with the rest of the class. The only other disadvantage that was noted by more than half of the participants was that of transfer students. Thirty-seven out of 61 participants (60.66%) felt as though students that transferred into a school using block scheduling from one that was using a traditional schedule are at a disadvantage. Additionally, those students that transfer from a school with a block schedule to one with a traditional schedule are also at a disadvantage.

The participants were asked to rate their experience of block scheduling using a likert scale of one through seven, with one being negative and seven being positive. The average score for all 61 participant was 5.607.

The second research question that was asked regarded any differences observed by the professionals in regards to the demands placed on students with special needs in comparison to those students without special needs in as a result of block scheduling. When asked if there was a noticeable difference between the two groups of students and the demands of block scheduling 55.74% (34 out of 61) felt there was a difference between these two sets of students. Twenty-two out of 61 (36.07%) felt there was no difference between those students with special needs and those students without special needs in regards to the demands placed on them because of block scheduling. There were also two participants that did not answer this question; this constituted 3.28% of the population. Table 7 summarizes the results of the portion of the survey in which the professionals were requested to explain why they felt there was a difference between these two group of students in regards to block scheduling.

Table 7

Differences on the Demands Placed on Students with Special Needs and those Students without Special needs in Regards to Block Scheduling

Reason	Percent	Frequency N = 61
Attentional Difficulties	31.15%	n = 19
Students with special needs require an opportunity to get up and physically move around	8.20%	n = 5
Difficulty making up missed assignments due to absences	4.99%	n = 3

Additionally, there was a portion of the survey which asked the professionals if they felt as though block scheduling promotes inclusion of student with special needs into the regular education classroom. The response to this question is presented in Table 8.

Table 8

Does block scheduling promote inclusion of students with special needs into the regular education classroom?

Response	Percent	Frequency N = 61
Yes	39.34%	n = 24
No	37.70%	n = 23
No response	18.03%	n = 11
“Don’t know”	3.28%	n = 2
Not applicable	1.64%	n = 1

A review of the research has documented several advantages of block scheduling in regards to students with special needs. Again, the participants from this study were asked to document which aspects of block scheduling they consider as advantages to block scheduling with regards to students with special needs. The results of this portion of the survey are presented in Table 9.

Table 9

The Advantages of Block Scheduling with Regard to Special Education

Response	Percent	Frequency N = 61
Improved academic achievement	24.59%	n = 15
More time in regular education classrooms	39.34%	n = 24
Fewer discipline problems	11.48%	n = 7
Improved social interaction with peers and teachers	55.74%	n = 34
More time for hands-on projects	63.93%	n = 39
Ability to offer more classes	13.11%	n = 8

It appears as though the participants from this study felt that the biggest advantage for students with special needs in regards to block scheduling is the ability to have more hands-on projects due to the increased amount of time in class. Additionally, the improved social interaction with peers and teachers was considered to be an advantage of block scheduling for student with special needs by 55.74% of the participants in this study.

Additionally, the professionals were asked their opinions regarding the disadvantages of block scheduling with regard to students with special needs. The professionals felt as though make up work after an absence and student's attention span was the two biggest concerns for students with special needs. The results to this portion of the survey are presented in Table 10.

Table 10

<u>What are the disadvantages of block scheduling for students with special needs?</u>		
Response	Percent	Frequency N = 61
Make up work after an absence	77.05%	n = 47
Students' attention span	72.13%	n = 44
Behavior	26.23%	n = 16
Problems retaining information	52.46%	n = 32
Academic achievement	18.03%	n = 11
Frequency of instruction	13.11%	n = 8

A documented concern in regards to block scheduling is the ability for students to retain information that is needed for sequential courses. It is not abnormal for a students to have a year to a year and a half in between sequential courses. The participants from this study were asked to comment on this concern in regards to students with special needs. The results are presented in table 11.

Table 11

<u>Do you feel that students with special needs are having difficulty retaining information needed for sequential courses?</u>		
Response	Percent	Frequency N = 61
Yes	29.51%	n = 18
No	21.31%	n = 13
No Answer	39.34%	n = 24
"Not sure"	9.83%	n = 6

It is understood that a professional's instructional practices would have to change if her school converted from one using a traditional schedule to one using a block schedule format. The professionals surveyed for this research were asked to comment on those changes. Fifty-one participants (83.61%) felt as though their instructional practices have changed due to the conversion to the new schedule. Six participants (9.84%) say their techniques have not changed, and two participants (3.28%) checked both yes and no. Additionally, two participants (3.28%) stated that this question was not applicable to them. Table 12 shows a summary of the data collected from the professionals regarding ways in which their instruction has changed due to the change in scheduling.

Table 12

Changes in Teaching Technique Due to a Change to Block Scheduling

Way in which technique changed	Percent	Frequency N = 61
More frequent change in activities	26.23%	n = 16
More group activities	16.39%	n = 10
Reduce amount of material covered	3.28%	n = 2
More hands on activities	3.28%	n = 2
More teacher supervision	3.28%	n = 2

The final research question in this study regarded types of strategies employed to keep the interest, attention and motivation of students for an extended block of time. Another question regarded the usefulness of these strategies for both learners with special needs and those without special needs. Table 13 shows a summary of the strategies employed to foster this extended attention span in the students. Additionally, two sets of statistical data are presented. The data includes the percentage of participants that employ strategies for the entire student population versus those strategies that are implemented to assist the special needs student experience success.

Table 13

Strategies that are used During Instructional time to maintain the Interest of Students

Response	Percent (Frequency N = 61) *Used to assist all students*	Percent (Frequency N = 61) *Used to assist those students with special needs*
Cooperative learning	95.08% (n = 58)	86.89% (n = 53)
Hands on projects	90.16% (n = 55)	78.69% (n = 48)
Graphic organizers	45.90% (n = 28)	44.26% (n = 27)
Use of audio visual materials	86.89% (n = 53)	73.77% (n = 45)
Use of the Internet	55.74% (n = 34)	36.07% (n = 22)
Lecture	88.52% (n = 54)	59.02% (n = 36)
Small group work		90.16% (n = 55)

The largest apparent difference between the two groups of students is that the professionals appear more likely to consider using lecture as an instructional strategy for students without special needs over students with special needs. The second difference occurred in using the Internet as a strategy of instructional technique. It appears that the professionals are more apt to use this strategy with students as a whole, rather than as a technique used for students with special needs. Upon compilation of the data collected from the surveys from the special educators, it was interesting to note that 100% of the special educators employ use of audiovisual materials, hands on projects, and small group work as instructional techniques to assist their students with special needs in the block schedule. In comparison, only 69.81% of the regular educators used audiovisual materials to enhance the success of students with special needs in the block schedule. In regards to hands on projects, 75.44% (40) of the regular educators reported that they employ this technique, and 90.57% (48) of the regular educators reported that they use small group work to enhance the opportunity for success of students with special needs in the block schedule.

The final question asked of these professionals was whether or not they would want to go back to a traditional schedule if given the opportunity. Fifty participants (81.97%) responded “non” to this question. Six (9.83%) responded “yes”, two (3.28%) had no response, and three (4.92%) were “undecided” at the time of this survey.

In summary it appears as though the teachers that chose to participate in this survey enjoy teaching under block scheduling and they feel as though it has been a valuable change to their schools. A majority of these professionals surveyed feel as though block scheduling does require a change in an educator’s teaching technique to ensure that their students, both those with and without special needs, are attending to the instructional material for the extended block of time. In order for this increased attention to occur, various strategies need to be incorporated into a teacher’s repertoire of skills. In regards to special needs students, the professionals surveyed for this research study feel as though there is definitely a difference between students with special needs and those without special needs in regards to the demands placed on them because of block scheduling. The results from this survey were very undecided in terms of whether or not block scheduling promotes inclusion.

Chapter 5

Summary, Findings and Conclusions

Presented in this chapter is a summary of the study, the conclusions drawn based on the data obtained, a discussion of the findings, and recommendations for further study.

The purpose of this study was to determine the effectiveness of block scheduling for students with special needs. A questionnaire was constructed by the researcher to identify the perceptions held by educators in respect to this topic. Additional goals were to survey the perceptions of educators on the effectiveness of block scheduling for their academic institutions. The questionnaire consisted of demographic questions, professional background information questions, questions concerning the advantages and disadvantages of block scheduling, and types of strategies the educators must employ in their instruction to help meet the demands of block scheduling.

The subjects for this study consisted of secondary educators, both those holding special education certificates and those holding regular education certificates. The subjects came from two high schools in the southern New Jersey area. One of these schools has used block scheduling for a full three years, they are currently in the middle of their fourth year using such a system. The other school is currently in their initial year of block scheduling. The researcher analyzed the questionnaire and frequency of responses were reported.

Conclusions

Within the limitations of the population and the design of the study, the following conclusions are justified:

1. The majority of educators participating in this study have not taught special education; therefore, the responses are primarily from a regular educator's perspective.
2. A majority of the educators felt as though block scheduling was a positive change for their academic institution, and given the opportunity to return to the traditional form of scheduling, 81.97% said they would rather remain in the block schedule.
3. The participants felt as though the advantages of block scheduling are: having the ability to completely cover a topic of discussion and having the ability to alter teaching techniques. The participants feel that the disadvantages of block scheduling are encountered when students are absent and when students transfer into or out of the district.
4. Fifty-six percent of the participants felt as though there is a difference between those students with special needs and those without special needs in regards to the demands placed on them because of block scheduling.
5. There was no apparent consensus in regards to whether or not block scheduling promotes inclusion of students with special needs into the regular education classroom.
6. Eighty-four percent of the participants stated that they had to adjust their instructional methods since the implementation of block scheduling. The most popular strategies that were incorporated into academic lessons for all students in general were cooperative learning, completing hands on projects and using a lecture format.

7. The participants felt as though the main advantages of block scheduling for students with special needs include: (1) having more time for hands-on projects and (2) an improvement in the social interaction with peers and teachers. These participants felt as though the main disadvantages of block scheduling for students with special needs are completing make up work after an absence and having the ability to maintain attention for an extended period of time.
8. The strategies that the participants from this study found most beneficial for students with special needs in the block schedule were: (1) utilizing small group work, (2) cooperative learning, (3) using audio visual materials and (4) incorporating hands on projects into the lesson.
9. There was no apparent consensus regarding the participants view concerning any difficulty that students with special needs may have in retaining information needed for sequential courses such as math courses and foreign language courses.

Discussion

Block scheduling is a form of alternative scheduling in which at least part of the daily schedule is organized into larger blocks of time (more than 60 minutes) to allow for flexibility and a diversity of instructional activities. (Irmsher, 1996) According to Canady, a well known expert on block scheduling, this system has increased in popularity over the past few years. (Bowman, 1998) He states that, "After the first year or two about 80% of the students and teachers say they prefer the block scheduling and would not want to go back to shorter periods." (Bowman, 1998) The research completed in this

study confirmed this generalization. When the participants from this study were asked if they felt that block scheduling was a valuable change to their school, 68.85% of the participants answered positively. Additionally, when these participants were asked if they would prefer to return to a traditional schedule 81.97% of the participants said they would rather remain in the block scheduling format.

As was previously mentioned, the advocates of block scheduling have published what they feel are advantages to such a scheduling system. The advocates for this system have reported numerous advantages for school districts that implement this plan. There were some similarities in the advantages found during the review of the literature and upon compilation of the participants' responses to the survey. These similarities include the following: (1) teachers enjoy having the opportunity to use varied instructional methods, (2) they like having the opportunity for uninterrupted instruction with the ability to completely discuss a topic of instruction and (3) the ability to incorporate activities such as hands on projects into the instructional period.

In addition to the published advantages of block scheduling, there have also been documented disadvantages to this scheduling system. Again, the participants from this study stated some disadvantages to block scheduling that have were cited in the review of literature. These disadvantages include: concerns for students with special needs in regards to their attentional issues, the possibility that a student could drastically fall behind because of an absence due to an illness, and transfer students.

Finally, there has also been research on the effects of students with special needs in the block schedule. According to the research, teachers felt that retention of material was a problem for students with special needs. (Vermillion, 1998) In the current study,

the findings on this topic did not yield a consensus. In the current study, only 29.51% felt as though retention of material for sequential courses was a concern for students with special needs. However, when the participants were asked what they felt could be done to increase these retention abilities no similar answers were given by a majority of the participants. Some participants made recommendations such as ensuring that classes are taken sequentially or ensuring that there is a special education teacher in every classroom. One final topic in regards to block scheduling and special education is whether or not this form of scheduling promotes the inclusion of special needs students into the regular education classroom. Research states that special needs students are integrated more into the regular education classroom when block scheduling is implemented. This was another topic in the current research that did not appear to have a consensual opinion from the participants of this study. A majority of the participants did say that they felt block scheduling promoted inclusion, however, these participants only accounted for 39.34% of the sample population.

Recommendations

Based on the results of this study, the following recommendations for future research are made:

1. It is recommended that some program be established to help students with special needs retain information required for sequential courses.
2. It is recommended that teachers be provided with in-service opportunities related to keeping the attention of students with special needs during an extended block of time.
3. It is recommended that some program be established to enhance the make-up opportunity for work missed due to student absence.

4. The participants for this study were limited to secondary educators within two school districts in the southern portion of New Jersey. It is recommended that a study be conducted to include a larger number of participants from other states.
5. The participants for this study primarily held a certificate for regular education. It is recommended that a larger sample of special educators be used in future studies.

References

Block scheduling House of Problems. www.netaxs.com/~twinn/

Bowman, R. (1998) If Block Scheduling is the Answer, What is the Question? The Clearing House, 71(4), 242-244.

Buckman, D., King, B. & Ryan, S. (1995) Block Scheduling: A Means to Improve School Climate. NASSP Bulletin, 79(571) 9-18.

Bugaji, S. (1998). Intensive Scheduling and Special Education in Secondary Schools: Research and Recommendations. NASSP Bulletin, 82(594), 33-39.

Hackmann, D. (1995). Ten Guidelines for Implementing Block Scheduling. Educational Leadership, 53(3) 24-27.

Seven Period Day gets Strong Support at Scheduling Hearing.

<http://smythnews.com/990130/1-Articles/mo-1.htm>

Hurley, J. (1997) The 4x4 Block Scheduling Model: What do teachers have to say about it? NASSP Bulletin, 81(593), 53-63.

Hurley, J. (1997). The 4x4 Block Scheduling Model: What do students have to say about it? NASSP Bulletin, 81(593), 64-72.

Girtzmacher, H. & Larkin, D. (1993). A Comparison of Middle Level and Special Education. Middle School Journal, 25(1), 28-32.

Irmsher, K. (1996). Block Scheduling. Clearinghouse on Educational Management.

Malloy, W. (1997). Responsible Inclusion: Celebrating Diversity and Academic Excellence. NASSP Bulletin, 81(585), 80-85.

O'Neil, J. (1995) Finding Time to Learn. Educational Leadership, 3(53), 11-15.

Rainforth, B. (1996). Related Services Supporting Inclusion: Congruence of Best Practices in Special Education and School Reform. Issue Brief-Consortium on Inclusive Schooling Practices, 1-4.

Vermillion, T. (1998) Changes Special Education Teachers Make in the Transition from Traditional Scheduling to Block Scheduling. Master's thesis, Southwest Missouri State University.

Report Study of the Four-Period Schedule for Anoka-Hennepin District Number 11.

www.coled.umn.edu/CARE/www/BlockScheduling/research/reports.htm

Block Scheduling: A Solution or a Problem? www.education-world.com/a_admin/admin029.shtml

Appendix A

PLEASE RETURN THIS QUESTIONNAIRE BY JANUARY 28, 2000

Block Scheduling Survey

For the purpose of this survey terms have been defined as follows:

*Traditional Schedule – a daily schedule organized around approximately eight periods of instruction for two semesters

*Block Schedule – a daily schedule organized into blocks or periods of time which are more than 60 minutes in length

1. Including this school year, how many years have you taught? _____
2. Of those years in question number one, how many have been in a traditional schedule? _____ How many have been in a block schedule? _____
3. What subject(s) are you currently teaching? _____

4. What form of teacher certification do you have? _____ Special education teacher
_____ Regular education teacher _____ Both (Please check one)
5. If you checked both in question four, which certification are you currently using? _____ Regular education _____ Special education _____ Both (Please check one)
6. How many years has your school been participating in block scheduling? _____
7. Do you enjoy teaching more under the block schedule than you did under the traditional schedule?
_____ Yes _____ No _____ About the same (Please check one)
8. Please rate your experience with block scheduling. (Seven indicates that you have had a positive experience with block scheduling. One indicates you have had a negative experience with block scheduling.)

1	2	3	4	5	6	7
(Negative)						(Positive)
9. Do you think block scheduling has been a valuable change to your school?
_____ Yes _____ No _____ No difference (Please check one)

OVER

10. Which of the following do you consider as advantages of block scheduling? (Please check all that apply)

- Better rapport between teachers and students
 - Ability to alter teaching techniques
 - Ability to completely cover a topic of discussion
 - A decrease in discipline problems
 - An increase in students' grades
 - An increase in average daily attendance
 - Other (Please list) _____
-

11. Which of the following do you think are disadvantages to block scheduling? (Please check all that apply)

- Student absences
 - Retention of material
 - Transfer students
 - Teacher stress and fatigue
 - Student stress and fatigue
 - Changes in curriculum planning and pacing
 - Student attention
 - Other (Please list) _____
-

12. Do you think there is a difference between those students with special needs and those without special needs in regards to the demands placed on them because of block scheduling?

(Please check) Yes No

If yes, please explain, _____

13. Please check all of the strategies that you use during instructional time to maintain the interest of your students. (Please check all that apply)

- Cooperative Learning
- Hands on projects
- Graphic Organizers
- Use of audio visual materials
- Use of the Internet

Lecture
 Other (Please list) _____

14. Have you adjusted your instructional methods since the implementation of block scheduling?

(Please check) Yes No

If yes, briefly describe how your instruction has changed. _____

15. Do you feel that block scheduling promotes the inclusion of students with special needs into the regular education classroom?

(Please check) Yes No

Why? _____

16. Please check all of the strategies that you use during instructional time to assist those students with special needs to make sure they experience success? (Please check all that apply)

- Cooperative Learning
- Graphic Organizers
- Use of audio visual materials
- Hands on projects
- Small group work
- Use of the Internet
- Lecture
- Other (Please List) _____

17. Which of the following are advantages to block scheduling with regard to special education? (Please check all that apply.)

- Improved academic achievement
- More time in regular education classes
- Fewer discipline problems
- Improved social interaction with peers and teachers
- More time for hands-on projects
- Ability to offer more classes
- Other (Please list) _____

OVER

18. Which of the following are disadvantages for block scheduling with regard to special education students?(Please check all that apply.)

Make up work after an absence

Students' attention-span

Behavior

Problems retaining information

Academic achievement

Frequency of instruction

Other(Please list) _____

19. Do you feel that students with special needs are having difficulty retaining information needed for sequential courses (i.e. math courses and foreign languages)?

Please check) Yes No

If you checked yes, what do you feel could be done to help review these skills? _____

20. Would you like to go back to traditional scheduling if given the opportunity? (please check) Yes No

Why or why not? _____

PLEASE RETURN THIS QUESTIONNAIRE BY JANUARY 28, 2000

Thank you so much for taking the time to complete this survey. Please be assured that I will not use your name in any part of this report, however, if you would like a copy of the result please complete the information below. Copies will be sent after the completion of the course.

Name _____

Address (please remember your zip code) _____

Appendix B

Kim Seifring
25 Wakefield Road
Atco, New Jersey 08004
January 8, 2000

Dear Educator,

My name is Kim Seifring and I am a teacher at the Hainesport School. I am currently completing my thesis work at Rowan University to earn a masters degree in learning disabilities. In order to complete my thesis I am asking you to please take a few minutes out of your busy schedule to complete the attached questionnaire.

My thesis project is on "The Effects of Block Scheduling on Students with Special Needs". The questions you will be asked are regarding your feelings on block scheduling in general, as well as your feelings about block scheduling regarding students with special needs. Your responses will be kept anonymous, and individual responses will not be shared with your administration. No respondents will be identified individually and only a composite summary will be presented. This will allow the administration the opportunity to be aware of the opinions of the staff at their school in regard to block scheduling.

If you are interested in receiving a copy of the results of my project there is a section on the last page for you to fill out.

Please return the completed questionnaires by January 28, 2000. A basket will be placed in the main office for you to place your questionnaires when completed.

Thank you for your cooperation!

Sincerely,

Kim Seifring