The block schedule is fast becoming the new instructional delivery format of choice for the 1990s in American secondary schools. This paper presents findings of a study that examined the effects of changing from a six-period day to a four-block schedule on two large high schools in Knox County, Tennessee. Part I of the study examined the perceptions of the two schools' administrators and teachers. Part II surveyed 150 parents and 300 students at the two high schools. In general, students reported moderate satisfaction with the block schedule. The majority of students were ambivalent about returning to the six-day schedule. Both parents and students expressed concerns about the effects of learning in a fast-paced, abbreviated period of time on long-term retention of content. Appendices contain copies of the parent and student questionnaires. (Contains 21 references.) (LMI)
Block Scheduling in the Secondary Arena Part II:  
Perceptions from the Inside

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Block Scheduling in the Secondary Arena part II: Perceptions from the Inside

In a nationwide survey, Cawelti (1994) found that 39 percent of high schools had fully implemented block schedules or intended to do so by 1994. In fact, all kinds of creative alternatives to traditional six- and seven-period scheduling formats are emerging. (Hackmann, 1995, p. 24)

Introduction

The block schedule is quickly becoming the new instructional delivery format of choice for the 1990s in the secondary school arena in the United States. Reasons for moving from the traditional model are varied and include: a desire to improve school climate (Buckman, King & Ryan, 1995); a better utilization of existing resources and enhanced student performance (Edwards, 1993; Huff, 1995); a reduction in the teacher's work load, which may afford more "opportunities to improve the delivery of instruction" (Edwards, 1993, p. 79); and potential "increased success among students taking the Advanced Placement tests" (Guskey & Kifer, 1995, p. 9). Indeed, many researchers contend that breaking away from the six-to seven-period day, with its pass times, announcements, and other non-procedural activities, would prevent the loss of an inordinate amount of instructional time in the American secondary classroom (Canady & Rettig, 1993; Cusick, 1973; Justiz, 1984; Karweit, 1985; Seifert & Beck, 1984).

The above anticipated benefits of block scheduling have been heralded in the literature over the past few years, and, in fact, have inspired the researchers to conduct this second in a projected trilogy of research studies examining the restructuring of the two largest high schools in Knox County, Tennessee from a six-period day to a four-block schedule.

The paper will be organized into the following sections: Introduction; Purpose of the Study; Significance of the Study; Review of the Literature; Methodology and Procedures; Results; Discussion and Conclusions; Recommendations for Further Research; References; and a Bibliography.

Purpose of the Study

Whereby, last year, the perceptions of these two schools' administrators and teachers toward moving to a four-block format from a six-period day were examined (Davis-Wiley, George, Cozart, 1995), this paper will report the perceptions of the students and their parents/guardians involved in this formidable change process.

Significance of the Study

It is anticipated that this research study will contribute to a present paucity in the literature investigating the effect of block scheduling on the
students and their parents/guardians who are directly impacted by the dramatic transition from a traditional to a four-block instructional schedule (called by Canady and Rettig in 1995, p. 18, a "profound educational change for a school community").

Review of the Literature

This section will present a definition of block scheduling, its five basic models for class scheduling, documented benefits and concerns of moving to a block schedule.

What is Block Scheduling?

Cawelti (1994), in his High school restructuring: A national study, states that block scheduling occurs when "at least part of the daily schedule is organized into larger blocks of time (more than 60 minutes, for example) to allow flexibility for varied instructional activities" (p.23). One needs only to reexamine the other existing paradigms of instructional schedules in today's secondary classroom to fully appreciate the design of the block schedule.

The Five Basic Models of High School Instructional Scheduling

Canady and Rettig (1995) have identified five basic models of high school instructional scheduling. These are: 1) single-period schedules (which consist of six, seven or even eight daily instructional periods, ranging from 40 to 60 minutes long; 2) slide schedules/ alternating periods within the day or week, (with classes meeting on a rotation basis every other day for extended blocks of time); 3) the 4/4 semester plan or the 4 by 4 or accelerated plan (in which students take four 90-minute daily classes for 90 days); 4) the trimester, quarter-on-quarter-off model and other intensive scheduling models (in which there are shorter, more intensive courses whereby students can take, for example, two core courses and related subjects over a 60-day period); and 5) a variety of 180-day combinations (during which there typically are short and long terms of instruction and remediation and/or enrichment along with staff development for teachers).

The Benefits of Block Scheduling

Studies investigating the impact of fewer blocks of longer instructional time characteristic of the block schedule, have documented that "increasing the amount of time students are instructed can have a significant and beneficial effect on student achievement" (Gillman & Knoll, 1984, p. 41), permitting "greater student learning, laboratory work, and student-directed interactive activities" (Shortt & Thayer, 1995, p. 53). Strange's research (1982), in fact, strongly suggests that instructional time may be one of the essential ingredients in student performance. The effect of block scheduling on instructional efficacy and student discipline has also been documented in the literature.
Canady and Rettig (1993) contend that the block schedule format ensures fewer pass times between classes which translates to fewer opportunities for student disruptions. They continue by stating that with the new schedule: an hour of instruction may be gained each week in a four-block class format; students may take additional courses during the regular academic year that they typically would have matriculated during a traditional summer term; and individualized, special programs may be more easily scheduled.

Buckman, King and Ryan (1995) corroborate the benefits of block scheduling and report that results from their research indicate that not only did flexible scheduling allow "teachers to use cooperative learning, integrated curriculum, and multi-intelligence instruction,...[it] resulted in a sense of calm on the campus,...brought a decrease in disciplinary infractions" (p. 11), "facilitated collaboration among...teachers and students (p.12), and provided "a school environment more conducive to learning" (p. 12). They further reported that with increased blocks of instruction, "students had time to engage in hands-on learning experiences and to master the content of each of the disciplines" (p.12). Interestingly enough, it is this latter issue, in particular, that others have expressed concern with in their research on the block schedule.

Concerns About Block Scheduling

A major concern voiced by some researchers about block scheduling, is how it is related to semester courses, especially in terms of retention of course content.

If a student elects to take the second year of a foreign language in semester one of his or her ninth grade year, and the third year of the language is not offered until semester one or two of the student's tenth grade year, will this sequencing create a problem with the retention of information that is necessary for student success? (Shortt & Thayer,1995)

Similarly, Shortt and Thayer (1995) note other potential problems associated with block scheduling. These are: articulating transfer students academically into or from a block schedule; offering advanced placement courses during a semester when the exam is not taken; maintaining "a balance between electives and academics" (p. 55); and affording the implementation of an alternative schedule (e.g. funding new instructional staff and purchasing "materials and supplies for additional electives" (p. 56). The researchers also state that there may be some major challenges involved with modifying the traditional format's academic pacing to fit the new block schedule paradigm.

Methodology and Procedures

Specific Investigative Procedures

The following is the sequence of procedures followed for collection of the data for this study:
1. In January of 1996, the principal investigator met with the principals of the two target schools to discuss the content of the Parent/Guardian Questionnaire on Block Scheduling (Appendix A). The questionnaires were then approved by the principals and duplicated.

2. Classroom teachers were asked by the principals of each of the two schools to distribute questionnaires to the parents and guardians of each school's student body who attended Open House at each school. (East High School held its Open House in February; Far West High School held its Open House in March.) It was decided by the principals that 150 questionnaires would be randomly distributed to the subjects at each school during their Open House evenings.

3. The completed instruments were collected by the classroom teachers attending the Open House events at each school and turned into the principals' offices at both schools.

4. The questionnaires were then picked up by the principal investigator and two of her doctoral students from each school within two weeks after they had been completed.

5. In April of 1996, the principal investigator met with the principals of the two target schools to discuss the content of the Student Questionnaire on Block Scheduling (Appendix B). The questionnaires were then approved by the principals and duplicated.

6. Classroom teachers at both of the target schools were asked to distribute the questionnaires to their students in May. It was decided that 300 copies would be randomly distributed at each school.

7. Completed questionnaires were turned into the classroom teachers and subsequently turned over to the principals of each high school participating in the study.

8. After approximately two weeks, the completed questionnaires were collected by the principal investigator and two of her doctoral students.

9. The Parent/Guardian Questionnaires and the Student Questionnaires were organized for later data analysis by the researchers.

**Population**

All of the subjects for this research study were drawn from the student bodies at two Knox County High Schools (Knoxville, Tennessee) and their respective parents/guardians. Permission to conduct the study was obtained from the school district.
Subjects

Suburban Far West High School (student population of 1,883) and Urban-Suburban East High School (student population of 1,375) were selected to participate in the research study. These two schools were selected to participate in this on-going research project started the previous year. For both of these two schools, this was their second year for following the 4 by 4 block schedule.

All of the Parents/Guardians of students attending the first Open House of the Spring term at the two target schools were invited to participate in the research study. A total of 68 or 45.3% (out of a possible 150) from East High School and 38 or 25.3% (out of a possible 150) from Far West High School agreed to participate in the study and completed the Parent/Guardian Questionnaire on Block Scheduling.

A total of 291 students (97%) from East High School and 275 students (92%) from Far West High School completed the questionnaire on block scheduling.

The Instruments

The Parent/Guardian Questionnaire (Appendix A) consisted of eight modified-Likert scale questions. Two open-ended questions ended the instrument. The Student Questionnaire (Appendix B) consisted of six modified-Likert scale questions with two open-ended questions ending the instrument.

Analysis of the Data

The modified-Likert scale sections of the instruments were analyzed by hand calculated by the researchers establishing a mean for each response. The open-ended questions appearing on the instruments were qualitatively analyzed thematically.

Results

The results of the analysis of the data for each of the two instruments will be reported in narrative format in this section. Data analysis of the Student Questionnaire for both schools indicated similar results for both schools and will therefore not be differentiated by school. Students stated having fairly successfully made the transition from the six-period day to the four-block day (4.0 on a 5-point scale). Most students appear to basically like the block schedule (3.6/5) and feel that the new format has neither strongly enhanced (3.2/5) nor hurt their grades (2.2/5). The majority of students reported being ambivalent about returning to the six-period day (2.3/5).

Data from the Parent/Guardian Questionnaire were not dramatically different between the two schools and indicate the following: Most parents/guardians feel that: their students have successfully made the transition from the six-period day to the four-block day (4.4 on a 5-point
scale); their students appear to like the block schedule (4.3/5); their students' grades seem to have improved with the block schedule (4.1/5); they don't particularly want their students to return to the six-period day (2.2/5); and their students do not appear to want to return to the traditional format (1.9/5).

Data collected from the Student Questionnaire appeared to correlate fairly strongly with that collected from the Parent/Guardian Questionnaire.

**Major Concerns of the Students**

When asked about their major concerns about block scheduling, 50 students at Far West High School and 30 at East High School mentioned that teachers appeared to be rushing through the material in order to finish before the end of the semester. Selected comments included the following:

"I think we are trying to cram way too much in a short period of time."

"Teachers move too fast and I try my hardest to keep up but I end up falling behind."

"Not getting the full information you would get during a 1 year class because some teachers ran out of time."

"I can't catch up. Everything is going too fast."

"We are always hurrying through the book."

Interestingly, 24 students from Far West High School and 28 students from East High School mentioned problems with specific classes, such as math, foreign languages and Advanced Placement courses. Following are some of their comments:

"Will we still remember stuff like math and science after not having them for a year?"

"It is virtually impossible to take a class in the fall and take a test in the spring. [possible concern about AP testing] You don't learn all of the information and you forget everything you know by spring."

"Moving too quickly in classes like math to get it all done."

"AP classes have suffered; some material cannot be covered."

"AP courses and tests, do we really learn the material? Will we retain information?"

"AP courses! Too much homework. Forgetting of foreign language. Algebra II too tough."
Twenty-one students commented about their teachers lecturing too much:

"Teachers need more than one exercise. They need to stop lecturing an hour and a half."

"Teachers take advantage of it and regularly lecture the whole time."

"Too long! Teachers haven't changed their way of teaching. Always lectures [sic] for 90 minutes."

Nineteen students wrote about field trips and school activities being curtailed and one student in particular, asked, "When are we ever going to get a field trip again?"

Seventy-eight students commented about classes being too long while 17 said classes were boring:

"Sometimes classes are too long. Classes like math drag and practically put people to sleep."

"Classes are too long and it gets very tiring."

"...it just gets so boring I want to sleep."

"With the bock schedule, I have been able to get more sleep because the nap period is longer and uninterrupted."

"People get bored sitting for an hour and a half."

**Positive Student Comments**

Not all of the students expressed having major concerns about block scheduling. Twenty, in fact, liked having four versus six classes during a term.

"I like not having as many classes at once. It is less stressful."

Twenty-nine students mentioned that the day and/or term goes by faster because of the block schedule:

"I like it a lot. It makes the day go faster."

"The days go by much faster on the block. My teachers have overall done [sic] an exceptional job teaching on the block schedule. Frankly, I was surprised---but it really has been a worthwhile year."

"It seems to make the school year shorter!"

"The day goes faster. (As long as you have a good teacher that doesn't lecture all the time.)"
Concerns about the new block schedule format differed considerably between students and parents as evidenced in the following section.

**Parent/Guardian Concerns**

Parent/Guardian concerns included: long-term retention of material taught, especially with AP classes, language and math courses; continuity between sequenced classes (math and language, in particular); excessive homework, especially for honors and AP classes; the fast-pace of instruction; the variety of instructional strategies being used in the block format; the negative impact on transfer students; and the unavailability of elective courses. In particular, 27 parents/guardians expressed major concerns over the dense amount of course content to be covered in a short period of time with the expectation of long-term retention of the material:

"Too much material is being pushed into a shorter period of time. Teachers move on despite the fact that the material is not understood (especially math)"

"There doesn't seem to be enough time to cover material in the time allowed especially in physics and advances classes. My child's attitude about school [has] greatly deteriorated during the first semester because of the stress encountered."

"I feel that it is impossible to cover a year's material in one semester. It makes preparing for AP exams very difficult."

"I'm very concerned the areas of languages and math are going to suffer with block scheduling. Trying to learn a year's worth of math skills in one semester is extremely stressful and doesn't allow enough time to practice t skills so that they are truly learned, not just memorized for a test. The same is true in the language dept. Also, I feel that there is too much time between language and math courses from year to year."

"...Most students cannot assimilate the material with so little instruction."

"I feel that it [block scheduling] is wonderful for many subjects; however, for subjects like language and math, it is proving to be tough for the kids."

Eight parents/guardians voiced painful concerns about the plight of the "average" student following a block schedule format:

"In math (example), are the kids who are a little slower getting their skills, able to keep up with...[example]...Algebra?"

"Math is difficult for an average students under the block scheduling. Material must be covered too quickly. So 'they get it fine, if they don't, we've got to move on anyway.'"
"The block scheduling does not accommodate the slower math student. The Algebra I curriculum move[s] too fast to retain material from one year to the next...."

"One of our sons...does not attend special classes but struggles to keep up in basic courses. It takes him longer to retain information so the shortened time frame for classes makes it more difficult for him to absorb new information."

Thirteen respondents were especially concerned about the lapse between courses once taught over contiguous semesters and were fearful that their students would not exhibit long-term retention of course material.

"...it could be nine months before their next math course [;] this could cause many students to lose out of mastering math in high school."

"My concerns deal with how students will retain their foreign language from year to year. Also, how are math skills affected?"

"Foreign language and math programs [are] not continuous... block on, block off; retention/relearning process."

"Not enough continuity in math when they may not have math for 1 1/2 years---2 semester gap."

"Continuity of courses which build on each other (ex. Spanish, math). If you have Spanish I 1st. semester of 9th. grade and don't take Spanish II until 1st. semester 10th. grade---will they remember anything?"

"Nine months without math and science. Devastating disruption in the learning process."

"How effective will this type of scheduling be if the ability to remember materials from one year to the next is diminished, i.e. foreign languages, math, etc.?"

Several parents/guardians expressed their deep concern not only about the extra homework being given to their students, especially those in AP courses, but about the seemingly limited exposure their students were being given in these courses.

"My daughter is up until 11 or 12 p.m....I consider this a bit much."

"It is hard to many parents that I have spoken to with children in the AP & Honors classes to feel that block scheduling is beneficial or even fair to our children."

"They are not thoroughly covering the material...It's impossible."
"My son had 2 AP courses first term. I'm concerned how this will affect his test score since AP tests are given in the spring."

The lack of elective offerings also disturbs some parents, with students "...not being able to take some courses like Drama because of required courses." And, lastly, two respondents were concerned about a student losing a half year when transferring in or out of a block-scheduled school.

Positive Parent/Guardian Comments

Eight parents (out of 106 respondents) literally sang an ode to the block schedule format and effuse the following comments:

"I think block scheduling should be implemented in all Knox County high schools. It helps the students stay focused on their subjects and increases their learning. I am pleased with the education that my daughter is receiving..."

"I think it's great! My son enjoys it and [he] is benefiting academically from this schedule. That's what matters!"

"I think it's the best thing that's happened to my child in terms of education. She can now concentrate more fully on fewer subjects. Having so many assignments and class requirements resulted in lots of frustration on the part of my child as well as myself. This year---no frustration!"

"I don't have any concerns. This has made sense since I first heard of it!"

Discussion and Conclusions

Based on the results of this study examining the perceptions of students and their parents/guardians towards their transition from a traditional six-period high school day to a four by four block format schedule, it appears that, on a whole, the subjects feel that they are moderately satisfied with the block schedule and don't necessarily want to return to the traditional format. Both sets of subjects, students and their parents/guardians, however, expressed concerns about long-term retention of content taught in a fast-paced, abbreviated period of time, especially in those subjects not being offered over sequential terms (i.e. math and language).

It must be noted that results from this research study cannot be automatically generalized to a larger population in other school districts even though the findings of this study appear to reflect those prevalent in current published research on the topic of block scheduling.
Recommendations for Further Research

This research study is the second in a series of three papers examining the impact of moving from a traditional six-period day to a four by four block schedule format in two large high schools in Knox County Schools, Knoxville, Tennessee. Whereby the first research paper (1995) investigated the initial perceptions of administrators and teachers toward the new format in their initial year of transition, and the present study has examined the perceptions of students and their parents/guardians toward the new schedule during the second year of transition, it will be of particular interest to explore, in the third research study, (to be conducted next year) how the two schools view the new block schedule format, compared with the traditional one, after having experienced the former for over two years. Will some of the particular challenges of a new schedule identified in this present study be worked out? Will more parents express satisfaction with the block schedule next year? Perhaps next year's study will have some answers for these queries.
References


Bibliography


Appendix A
PARENT/GUARDIAN QUESTIONNAIRE
BLOCK SCHEDULING
FAR WEST H.S.
FEBRUARY 20, 1996

In an effort to evaluate the impact of block scheduling at Far West H.S., we would like to ask you to take just a few moments to complete this very important questionnaire. Thank you.

Please circle the appropriate number to each question.

1. My F.W.H.S. student has successfully made the transition from the six-period day to the four-block day.
   (strongly disagree) 1 2 3 4 5 (strongly agree)

2. My F.W.H.S. student likes the block schedule.
   (strongly disagree) 1 2 3 4 5 (strongly agree)

3. I like the block schedule format.
   (strongly disagree) 1 2 3 4 5 (strongly agree)

4. My F.W.H.S. student's grades have improved with block scheduling.
   (strongly disagree) 1 2 3 4 5 (strongly agree)

5. My F.W.H.S. student's grades have remained the same with block scheduling.
   (strongly disagree) 1 2 3 4 5 (strongly agree)

6. My F.W.H.S. student's grades have declined with block scheduling.
   (strongly disagree) 1 2 3 4 5 (strongly agree)

7. My F.W.H.S. student would like to return to the six-period day.
   (strongly disagree) 1 2 3 4 5 (strongly agree)

8. I would like F.W.H.S. to return to the six-period day.
   (strongly disagree) 1 2 3 4 5 (strongly agree)

(over, please)

Please answer the following questions below.
8. What are your concerns about the block schedule?

9. Other comments about the block schedule at F.W.H.S.
Appendix B

STUDENT QUESTIONNAIRE: BLOCK SCHEDULING
FAR WEST H.S. MAY 27, 1996

In an effort to evaluate the impact of block scheduling at Far West H.S., we would like to ask you to take just a few moments to complete this very important questionnaire. Thank you.

_____ (FEMALE) _____ (MALE) _____ GRADE

Please circle the appropriate number to each question.

1. I have successfully made the transition from the six-period day to the four-block day.
   (strongly disagree) 1 2 3 4 5 (strongly agree)

2. I like the block schedule.
   (strongly disagree) 1 2 3 4 5 (strongly agree)

3. My grades have improved with block scheduling.
   (strongly disagree) 1 2 3 4 5 (strongly agree)

4. My grades have remained the same with block scheduling.
   (strongly disagree) 1 2 3 4 5 (strongly agree)

5. My grades have declined with block scheduling.
   (strongly disagree) 1 2 3 4 5 (strongly agree)

6. I would like to return to the six-period day.
   (strongly disagree) 1 2 3 4 5 (strongly agree)

Please answer the following questions. You may use the other side of this paper to complete your comments.

7. What are your major concerns about the block schedule?

8. Other comments about the block schedule.
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