Introduction
Among the current trends in U.S. education is the introduction of block scheduling as a curriculum delivery system. The model emerged as a result of debate among education theorists vis-a-vis the value of instructional depth versus breadth. The underlying principle of block scheduling is based on preference for in-depth instruction and extended learning sequences as opposed to practices characteristic of the traditional instructional model. Since block scheduling is a relatively new education practice, little data is available comparing learning outcomes with those resulting from other models. This paper will explicate emerging issues and identify those of particular significance for second-language instruction.

Definition
In the past few years, schools have begun to experiment with block scheduling, that is, enrolling students in fewer classes each day, but in classes of longer duration. Two frequently chosen models include (1) the four-block model, also known as the concentrated model, the intensive model, the 4 X 4 model, the 90/90 model, or the straight block model and (2) the rotating block, also referred to as the flexible block, the eight-block schedule, or the A-B block schedule. While other variations exist, discussion in this paper will focus on these two models.

The Four-Block Model
With this model, students take four 90-minute classes a day, five days a week. Courses that were previously taught for a full year of 50-minute classes run for half a year of 90-minute classes. Thus, students may take eight courses a year, or 32 courses over four years of high school as compared with 24. A visual depiction of this model might look like this:

<table>
<thead>
<tr>
<th>First Semester</th>
<th></th>
<th></th>
<th>Lunch</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Course #1</td>
<td>Passing</td>
<td>Course #2</td>
<td>(30-45</td>
<td>Course #3</td>
<td>Passing</td>
</tr>
<tr>
<td>(90 min)</td>
<td>(5-15 min)</td>
<td>(90 min)</td>
<td>minutes)</td>
<td>(90 min)</td>
<td>(5-15 min)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second Semester</td>
<td>Course #5</td>
<td>Course #6</td>
<td>Lunch</td>
<td>Course #7</td>
<td>Course #8</td>
</tr>
<tr>
<td></td>
<td>Passing</td>
<td>(30-45</td>
<td>(90 min)</td>
<td>Passing</td>
<td>(90 min)</td>
</tr>
<tr>
<td></td>
<td>(90 min)</td>
<td>minutes)</td>
<td>(90 min)</td>
<td>(90 min)</td>
<td>(90 min)</td>
</tr>
</tbody>
</table>
Reasons for Selection

Administrators whose school adopted the four-block model stated that it offered a potential solution to the following concerns:

- Classes too large
- Too many classes per student and teacher
- Insufficient time for lab classes
- Too many failures
- Too many dropouts
- Too many preparations for teachers
- Too little individualized instruction
- Inadequate variety of instructional methods
- A high level of stress for students and teachers
- Few team-teaching opportunities
- Too many truancies, absences, and tardies
- Too many student-student and student-teacher conflicts
- Class, lunch, and passing periods too short
- Too much vandalism and inappropriate behavior

(Houston et al. 1991)

Selected General Issues

Student Contact Hours and Content Mastery

A traditional two-semester course that meets for 50 minutes/day for 180 days provides a total of 9000 minutes of instruction time. A class that meets 90 minutes/day for 90 days offers 8100 minutes of instruction time. Some time may be made up due to decreased administrative functions (e.g., no special schedule for final exams requiring several days of cancelled classes at the end of the semester to accommodate testing; roll-taking and other daily duties conducted for 90 class meetings rather than for 180). Still, there is general agreement that less material can be covered in a semester-long block schedule "year" than in a traditional two-semester schedule (Schoenstein 1994; Steen 1992). A compounding factor is that of reduced homework: Comparatively few high school students can be convinced that they need to do twice as much daily homework for each class in order to complete a year's work in a single semester; thus, some reinforcement and extension possibilities may be lost due to less total time per course spent on out-of-class study.

Teachers comment that with block scheduling instruction, "Less is more." Extended classes require new and varied activities that may lead students to better mastery of the material they study (Schoenstein 1994; Steen 1992).

Teacher Contact Hours, Course Load, and Work Load

Under a traditional schedule, a teacher typically teaches 250 minutes per day (five classes x 50 minutes). With block scheduling, a teacher teaches 270 minutes per day (three blocks x 90 minutes each). This may be compensated for by more preparation time (a 50-minute class period versus a 90-minute block schedule class period). However, this will vary from school to school, as block scheduling preparation time in some cases may overlap with lunch periods, resulting in less total "non-contact" time for the teacher (Barrueta 1994). Additionally, the literature shows unanimous agreement that a great amount of preparation time is required for block scheduling instruction, even by experienced teachers and even after the first year. Steen states, "The time involved in preparing effective classes...is overwhelming." The Virginia Education Association (VEA) recommends that "daily planning time should equal at least one-third of the teacher's classroom instructional time, in no case less than 45 minutes per day."
A teacher who is responsible for three blocks for two semesters ends up teaching six courses per year as opposed to the traditional five. The VEA recommends that "no teacher should be required to teach more than five classes per year for which graduation credit is awarded." A related concern is that with increased course offerings, teachers may have more preparations per year than with traditional scheduling.

Teachers do, however, attest to decreased workloads in one regard, that is, the total number of students per semester (from 75 to 90, down from 120-150), resulting in fewer papers to correct for each assignment or test. (It should be mentioned, though, that since two traditional semesters are taught in one block semester, in theory more assignments are given.)

Other Concerns Questions have been raised (1) whether block scheduling might be used as a pretext for institutions to adopt more part-time teaching positions at the expense of full-time jobs and (2) if increased requirements might be instituted in some subject matter areas (math and science) that will limit student enrollment in elective classes (second language courses) (Russell 1995).

**Specific Concerns for Second-Language Instruction**

Continuity Perhaps the most crucial issue that language instructors encounter with four-block scheduling is that of continuity from level to level. Schoensteins (1994) recommends that curriculum planners identify exactly where gaps cause problems and not allow them to be scheduled. He is adamant in stating that students should take the first two years of language instruction in back-to-back semesters. It is advantageous, too, for the third and fourth years to be studied in consecutive semesters. (This implies offering every level each semester and may result in more part-time hirings.)

Content and Methodology The extended time period requires the use of varied and involving activities to capture and maintain student interest while promoting learning and retention. This may require teachers to develop new and varied instructional techniques. Enhanced use of technology offers promise (e.g., interactive CD-ROM programs and keypal correspondence using E-Mail; however, many classrooms and schools do not have access to these resources [Szecsy et al. 1995]). Teachers who rotate classrooms and those who do not have access to a language laboratory may find the difficulties of their teaching situations exacerbated by block scheduling (Russell 1995).

Instructional activities should reflect what we know about memory and retention. Barrueta (1994) cites Buzan's studies on memory and recall which suggest that, after 20 to 50 minutes, recall declines and memory-based activities are ineffective. Steen (1992) discusses a "con" for four-block scheduling arising from the issue of retention:

"Language retention is an area that needs to be researched. In my experience, students were forced to cover some material too quickly. In spite of the different structures and activities used to reinforce and spiral language, some students encountered problems with retention."

This may be especially true for special education students and other students who learn a second language slowly. Even when classroom aides are available, the fast pace imposed by the block schedule model poses problems for these students (Steen 1992).

Appropriate content and methodology are also determined in part by student age and maturity. With the four-block model, younger learners can reach higher levels sooner: Sophomores may be enrolled in third- and fourth-level courses.

Steen (1992) states that it is essential for teachers to select one or more organizing principles in order to develop instructional blocks that represent units of learning, as opposed to a series of isolated, time-filling activities. (E-Mail all discussion does indeed suggest that already, in some instances, videos are being used as time-fillers [Szecsy et al. 1995].) She and her colleagues chose three reference points to use as organizing principles: the Essential Elements of Instruction (Hunter 1982), 4MAT (McCarthy 1990), and the cooperative learning strategy (Totten 1990). She suggests the Natural Approach (Krashen 1983) and proficiency-based instruction (Higgs 1984; Hadley 1994) as other possible sources for organizing principles.

Standardized Tests A final issue that must be addressed by language teachers concerns student participation in standardized exams, such as the Advanced Placement exam, the National French/German/Spanish exams, and college placement tests. Since students study less material, the implication
(and teacher concern) is that students will score lower on standardized tests. Steen (1992) states:

"The amount of material taught is less, and so we concentrate on language that can be used and handled well by students, working with basic language for communication: We lost time for practicing structure per se and time to teach grammar. This is a consideration for student performance on national exams and in placement exams at the university level."

Barrueta (1994) notes that the early May testing date for AP exams raises course-scheduling issues for many schools: Do students complete the AP class during fall semester, then wait four months to take the AP exam? Or do they take the exam in early May, well before completing the spring block preparatory course?

An additional concern arises from students completing higher-level language courses at an earlier school level: Complications may ensue for sophomores who finish fourth-level language courses and wish to take Advanced Placement exams or university placement tests.

The Rotating Block Model

With this model, students take four 90-minute classes Monday, Wednesday, and Friday and four other 90-minute classes on Tuesday and Thursday, then rotate the schedule the following week. A course runs for the entire school year for a year's credit. However, as with the four-block model, a student may complete eight courses during a school year, or 32 courses during four years of high school.

A Visual Representation of the Rotating Block Model May Look Like This:

<table>
<thead>
<tr>
<th>Course</th>
<th>Course</th>
<th>Lunch</th>
<th>Course</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>#2</td>
<td>#3</td>
<td>#4</td>
<td></td>
</tr>
<tr>
<td>Week 1: M / Block A</td>
<td>T / Block B</td>
<td>W / Block A</td>
<td>Th / Block B</td>
<td></td>
</tr>
<tr>
<td>F / Block A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Course</th>
<th>Lunch</th>
<th>Course</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>#5</td>
<td>#6</td>
<td>#7</td>
<td>#8</td>
<td></td>
</tr>
<tr>
<td>Week 2: M / Block B</td>
<td>T / Block A</td>
<td>W / Block B</td>
<td>Th / Block A</td>
<td></td>
</tr>
<tr>
<td>F / Block B</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Discussion

Huff (1995) lists reasons given by teachers and students in a Missouri high school who preferred the rotating block to a traditional schedule:

- Allows time for development of key concepts
- Allows for greater diversity of activities (field trips, films, etc.)
- Allows time for greater variety of teaching techniques
- Encourages teacher and student creativity
- Encourages immediate application of new concepts
- Requires teachers and students to prepare for only four classes each day
- Allows students two evenings to complete assignments
- Allows students greater range of class choices

Many of the issues discussed above in the context of the four-block model apply as well to the rotating block: for example, the questions raised vis-a-vis teacher contact hours, course load, and preparation time and issues about appropriate content and methodology for instruction during an extended time period.

Several additional concerns about the rotating block model have been expressed. Boorman and Kirkpatrick (1995) note that it does not relieve the stress of having many demands at once, and Russell (1995) observes that because several days may elapse between class meetings, certain aspects of instruction can be complicated (e.g., reviewing on Thursday for a test that takes place the following Monday).

Boorman and Kirkpatrick (1995) describe what they call a "hybrid schedule," selected by one high school after two years of experimentation. The decision was made to offer rotating "double mod" classes (that is, extended-length classes) at all academic levels for all courses offered by the four major subjects (identified as English, social studies, science, and
mathematics) that had no testing concerns. Other subjects continued to meet on a traditional 50-minute block schedule five days a week.

Shortt and Thayer (1995) recommend creative scheduling of this kind to meet different instructional needs of different disciplines. First-year language courses are listed among those they identify as perhaps best taught under the traditional model.

**Conclusion**

In a series of articles on block scheduling appearing in the May 1995 NASSP Bulletin, several authors comment on the fact that many second-language teachers continue to express strong reservations about the efficacy of block scheduling models for language instruction (Boarman and Kirkpatrick; Shortt and Thayer). Still, it is instructive to consider the responses to block teaching by three teachers cited in this paper who have participated in it. Steen (1992) comments:

"Fortunately for us as foreign language teachers, we are used to diversifying our classes, making them playful and interesting. When we compared ourselves to some of the other disciplines, we found we were well equipped to succeed."

And despite the problems resulting from their change to block scheduling, both Schoenstein and Remus agree: They have no desire to go back to the traditional model. (Some of their reasons are listed above in the section "Reasons for Selection.")

This may offer encouragement to language teachers who will soon undertake block scheduling instruction and undergo all the discomfort, exhilaration, rethinking, redefining, and experimentation presented by any profound change.

**BIBLIOGRAPHY**


