FLEXIBLE SCHEDULING

Fad or Fundamental?

"Ordinary people think merely how they spend *their time; a man of intellect tries to use it."*

—Schopenhauer

By J. LLOYD TRUMP

THE one-room school is a feature of the American heritage praised in stories and defended emotionally by some great and many ordinary men who studied there. I attended one for a year and a half. Moreover, the first school in Indiana wherein I taught and became principal was produced by closing eight one-room schools and recouping high-school students transferred elsewhere. I know about one-room schools.

These one-room schools had several built-in advantages. Time was more truly at the disposal of the teachers and pupils in those schools. A teacher could, and the good ones did, spend more time with one group of students when they needed more time. She could reduce the time for other groups who did not need so much on a given day or during a given week. The students in those schools had more time away from class groups and could plan to use it for their own purposes. Student groups could, and were, easily changed. Sometimes the teacher combined grades to teach certain concepts, even taught the whole school on occasion. Work was in fact ungraded at times. Although space in the school was limited both in quantity and usability, it was readily at the disposal of teachers and pupils by moving chairs, tables, or portable partitions. There was flexibility in the one-room school and good teachers and students made the most of it.

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Unfortunately, we became so enamored with this one-room school structure that when we grew larger educationally we continued it as the self-contained classroom, failing to recognize the limitations thus imposed on both teachers and students. A group of students was locked in with one teacher and whatever strengths and limitations that teacher possessed. It was difficult and expensive to introduce educational technology into these rooms. The graded system stratified pupils so that a room became a fourth-grade room or a class became tenth-grade English, forcing us to devise many ways to fit students with diverse interests and talents into that rigid framework.

Small secondary schools possessed some of the advantages of the one-room schools, but these advantages disappeared when schools became larger. Administrators and teachers confused equality of opportunity with uniformity. A smooth-running school became the objective. We know the rigid patterns that developed. Classes were of standard size; optimum teacher-pupil ratio goals were established; class periods were uniform in length; curricular content was fitted into standard-size Carnegie units. Administrators developed many kinds of quantitatively defined institutional arrangements for learning and for dealing with teachers.

Finally, however, we are beginning to recognize and learn ways to cope with the problem. We are returning the use of time, space, numbers, and content to those who need it—the teachers and their students. This is happening even in the larger schools that symbolize so wonderfully well our concept of education for all youth. At the same time, we are learning how to cope with an-

other equally important problem: How can one treat a pupil as an individual even though he is one in a great mass of students? Solving those two problems constitutes the exciting challenge of our day. Let us look at what some schools are doing and what others need to do.

The Use of Time

Flexible scheduling is now the subject of many articles and speeches. It is an educationally stylish topic. What causes this development? What are the techniques and their limitations, if any?

A superficial reason for the current interest in flexible scheduling lies in the availability of new mechanical aids to the schedule maker. School administrators, like many other persons, enjoy working with gadgets. I pointed to the danger here some two years ago: "Modern electronic data-processing equipment can be a boon to the further development of quality in education. It can also be used to do faster what should not be done anyway and thus delay or forestall changes that could improve dramatically the service of schools to individual students. . . . The primary investigation of the schedule maker should *not* be to discover what data-processing equipment is available to help make the schedule. . . . "[1]

The point is that we must quickly disassociate speed from the concept of flexible scheduling. Doubtless the time will come when electronic aids can facilitate better use of time by students and by teachers, but concentrating first on machines may well delay achieving the kind of flexibility that is needed.

Other traps may ensnare those who would engage in flexible scheduling. While one of the basic reasons for changing schedules is to provide different institutional arrangements for education, the new arrangements may themselves become inflexible. For example, principals and teachers, dissatisfied with the rigidity of today's schedules, determine that some courses need more time than others or that some classes need to meet less often but for longer periods of time on certain days. Such considerations lead almost inevitably to the "modular concept" of flexible scheduling. Instead of the conventional 45- or 55-minute periods, these schools adopt a 15-, 20-, or 30-minute module, which means in essence that instead of six periods a day, the school schedule includes twelve, sixteen, or twenty-four periods in a day. School subjects then are scheduled for a different number of modules, sometimes the same number each day in the week, or sometimes for various numbers of modules on different days in the week. A degree of flexibility results, but once the change is made, the new schedule can become almost as rigid as the one it replaced.

An example of a 15-minute module, with the same schedule every day, follows:

8:00	Mathematics	. . .
8:15		. . .
8:30		. . .
8:45		
9:00	Speech Correction	
9:15	Science	. . .
9:30		. . .
9:45		. . .
10:00		. . .
10:15		
10:30	Music	. . .
10:45		
11:00	Spanish	. . .
11:15		. . .
11:30		
11:45	Lunch	. . .
12:00		. . .

Here is another example, with two-hour classes, Monday through Thursday, and one-hour classes on Friday:

Time	*Monday*	*Tuesday*	*Wed.-Thurs.*	*Friday*
8:00	Biology	Geometry	Same as	Biology
9:00				English
10:00	English	French	Mon.-Tues.	Phys. Ed.
11:00				Geometry
12:00	Lunch and Activities			
1:00	Physical	Study or	Same as	French
2:00	Ed.	Elective	Mon.-Tues.	Study/Elect.

Another type of flexible schedule is represented by rotating periods, sometimes of varied lengths, or even by rotating different days. A school following conventional curricular organization patterns wishes to make it possible for a student to take six or seven subjects instead of the conventional five or six. Subjects are scheduled to meet four times a week instead of five. Some periods may be longer than others. Subjects are scheduled on a floating basis to fill out the five-day week. Although this change is sometimes called flexible scheduling, the new program also can become quite rigid and actually contributes relatively little to the improved use of time by students and teachers.

[1] J. Lloyd Trump, "Developing and Evaluating a Class Schedule To Help Each Pupil Learn Better," *Journal of Secondary Education*, 36: 338-345, October, 1961.

In the following example, classes are rotated and periods vary in length:

Time	*Mon.*	*Tues.*	*Wed.*	*Thurs.*	*Fri.*
8:55-10:26	1*	2	4	5	6
10:30-11:26	2	4	5	6	1
11:30-12:26	3	3	3	3	3
12:26-1:04		L U N C H			
1:04-2:30	4	5	6	1	2
2:34-3:30	5	6	1	2	4

*Numbers indicate different subjects

Or standard periods can be used while classes are rotated:

Time	*Mon.*	*Tues.*	*Wed.*	*Thurs.*	*Fri.*
8:00	1*	1	1	1	2
9:00	2	2	2	3	3
10:00	3	3	4	4	4
11:00	4	5	5	5	5
12:00		L U N C H			
12:30	6	6	6	6	7
1:30	7	7	7	Special	Special

*Numbers indicate different subjects

A more flexible arrangement is represented by schools engaging in a variety of team-teaching approaches. One form is to schedule six teachers and 180 students for a two-hour block of time to cover two subject areas. Within that two-hour block, teachers and students may divide their time among large-group instruction, small seminar-size discussion groups, and independent study. All of the students may watch a film for eighteen minutes then separate into one group of ninety for a supplementary presentation by one of the teachers, and into four groups of fifteen each for discussion with four other teachers, with the remaining thirty students scheduled into a library or workroom for independent study under the supervision of the other teacher. The changed arrangements can last for thirty-six minutes, or any other particular time, so long as the total two-hour block is maintained. Obviously, this approach represents a more flexible use of time, space, and student groupings than is possible in a conventionally organized school. But again, flexibility is limited, this time by the two-hour block.

Here is an example of the team teaching—block of time schedule:

Time	*Monday through Friday*
8:00 9:00	3 U. S. History + 3 English teachers schedule 180 junior students as they deem desirable
10:00	Planning Period for Team
11:00	Conventional Classes
12:00	Lunch
12:30 1:30	Same as above but with different students; *e.g.*, sophomores

A few schools organize instruction almost completely on the team-teaching basis, with large-group, small-group, and independent study arrangements. Such schools achieve still more flexibility in scheduling. Typically, these schools also use a modular approach. Large classes of 100 or more students in a given subject may be scheduled for two 20-minute modules (forty minutes) twice a week. Seminar-size groups of fifteen or fewer students in the same subject area are scheduled for two modules, twice a week, at different times in the day from the large group and possibly on different days in the week. Independent study in each subject is scheduled for each student, depending on his interests and talents, for three, four, or more consecutive modules on different days in the week. These schools typically stand ready to change at will the independent study of their students, but hold fairly systematically to the scheduled time for large group instruction and small group discussion. Thus even these flexible schedules can become rigid in part while remaining flexible in other aspects. For example, the conventional (and without research basis) idea that an English class must meet five days a week, fifty minutes per day, at the same hour of the day, with one teacher in charge, is replaced by the concept that English meets twice a week, forty minutes per time, in classes of 120, with the best teacher available, plus meetings in classes of fifteen, twice a week, forty minutes each time, with a teacher in charge. Thus, the new schedule says in effect that English requires 160 minutes per week of group instruction plus whatever time the staff determines for independent study by students in English workrooms. The danger is that the staff may become so enamored with these arrangements that the "flexible schedule" becomes rigidly established.

An example of a partial student schedule, with large-group instruction, seminars, laboratories,

and independent study on different days at varied periods:

	Mon.	*Tues.*	*Wed.*
8:20 8:40	History LG	English LG	History LG
9:00 9:20	French Sem.	French LG	French Lab.
9:40 10:00	History Sem.	Homemaking LG	English Sem.
10:20 10:40		Science Sem.	Phys. Ed.
11:00 11:20	Phys. Ed.	Homemaking Lab.	
11:40 12:00	Math LG		Math LG
12:20	Lunch		
Etc.	Humanities RC	Typing LG	Science RC

LG=Large-Group Instruction
Sem.=Small-Group Discussion
Lab.=Laboratory
RC=Resource Center for Independent Study

What is the ultimate in flexible scheduling? No one knows for sure, but the goal necessarily is to return to teachers and students as much freedom as is reasonable in the use of time, space, numbers, and content for instruction.

A relatively undisciplined answer to the question was represented more than three decades ago by the extremists in the Progressive Education movement. For example, at the beginning of the day the teacher was supposed to have asked her students, "What do you want to do today?" It was reported that if the students said that they wanted to go fishing, school was dismissed and the students learned about fish, water habitats, the economics of fishing, and whatnot. Whether that situation ever existed or not, the fact remains that this proposal represented a child-centered answer to the question. Actually, I suspect that in most instances teachers influenced very much the decisions that students made. A major problem in that situation, however, was that it would work only with one teacher and one group of students —and education was back to the one-room school days.

The goal, then, in a larger school is to develop orderly procedures that permit teachers and students as much latitude as possible in developing various aspects of instruction and learning. The following appear to be necessary ingredients: The class schedule is made daily on the basis of teacher requests. Each student, under competent direction, makes decisions regarding his part in the established schedule. Conflicts for students and teachers are reduced to a minimum. Teacher loads and pupil loads are such that they permit, on the one hand, maximum professionalization of teaching; on the other, they provide maximum potential learning opportunities for students. The school knows what its students are doing and follows reasonably equitable personnel policies for teachers. The whole scheme is financially feasible and logistically operational.

At least one school is making significant strides in the direction of such a schedule. Gardner Swenson, principal of the Brookhurst Junior High School in Anaheim, California, describes their program somewhat as follows:

Individual members of teaching teams determine three days in advance what students they want to teach, in what size groups, for what length of time, in what places, and with what technological aids. Teacher job-specification forms containing this information are turned in to their team leaders. The team leaders then assemble to make a master schedule for the day, a procedure that takes approximately twenty minutes each day. The master schedule then is duplicated and made available to the students and their counselors. In a daily 20-minute meeting, with the advice and consent of their counselor (twenty students to a counselor), each student makes his schedule. A student noting, for example, that the schedule calls for a large-group presentation on a given subject and deciding that he already knows that material, may elect rather to spend his time in independent study in the art room or library or some place else. The counselor either approves or rejects this decision. Then the student makes out his own schedule for the day in quadruplicate. One copy is for himself, one for the office, one for the counselor, and one for his parents.

This kind of schedule is developed mainly by hand. Mechanical aids could doubtless simplify the process and help to avoid conflicts and some other problems that arise. Time could be saved for both students and teachers. It should be noted, however, that the concepts of schedule-making come first and the machines that facilitate the process come second in planning.

Will the Anaheim people and others following similar practices fall back into a rigid schedule? Such a development is possible but certainly less probable than in the case of the approaches described earlier in this statement. Further use of automated instruction devices (teaching textbooks and machines) and the development of computer-operated instructional systems will encourage further individualization of instruction and consequently more individual scheduling. Today's self-contained classrooms and rigid schedules permit

little more than gestures in recognizing individual differences among students and teachers. If the real purposes of flexible scheduling are kept constantly in mind, this concept will be a *fundamental* operation in quality education and not a *fad*. However, the use of time is inseparably related to other aspects of the school program. We must record and emphasize these relationships.

The Use of Numbers, Space, Content

The significance of flexible use of numbers, space, and content has been explained by this writer in a number of publications, the most detailed of which is *Focus on Change—Guide to Better Schools*.[2] Essentially, this concept says that some teaching and learning can occur effectively with larger numbers of students than are found in the conventional class group of twenty-five or thirty, not only to save time and energy for teachers and money in the school budget but also to make logistically possible contacts between all students and the best teaching that the school can muster, aided by modern technology. Small classes of fifteen or fewer students, the number that can realistically be involved during a reasonable period of time in effective discussion, are essential for other purposes of instruction. And students need to spend much more time than now working as individuals, or in groups of two or three, in specially designed workrooms for every subject area included in the school curriculum. Thus the size and the nature of pupil groupings change with changing instructional purposes.

Spaces in the school also vary with the purposes of learning. The multi-purpose classroom found so often in today's school violates this principle. It is educationally wrong to attempt to engage in large-group instruction, small-group discussion, and independent study in the same room, even with flexibly operated walls. Specifically designed spaces for learning with specialized facilities are essential.[3]

Flexibility in curricular content is another essential ingredient in the flexibility concept. The present conflicts among subjects in competing for pupil time needs to be resolved by programs of *basic* and *depth education* that provide logical and sequential content for each student in all areas of human knowledge. At the same time, each student need opportunities for study in depth in those areas where he has special interests and talents. Flexibility further requires that each student be able to progress through the various phases of these subjects according to his own talents and interests. B. Frank Brown, principal of the Melbourne (Fla.) High School, described such a program in the Feb., 1963, PHI DELTA KAPPAN.[4]

Fad or Fundamental?

Whether flexible scheduling is a fad or a fundamental depends entirely on how it is accomplished. If school leaders seek easy answers (some of which are described in this article) and change their schools accordingly, largely because it has become fashionable, flexible scheduling is only a fad. It will soon vanish from the educational scene. However, if leaders engage in a never-ending search for the enlightened use of time, space, numbers, and curriculum, then flexible scheduling is absolutely fundamental in the search for better education.[5]

One other thought before closing this statement: The author does not wish to criticize adversely many principals and teachers who are demonstrating minor deviations from conventional ways of organizing teaching and learning. Those who engage in even the smallest experiments and demonstrations are courageous persons. What they do is visible; therefore, their position becomes vulnerable to the attacks of the conservatives who enjoy criticizing those who dare to seek better answers. Since it is not easy to change educational procedures, small steps may well be the best way to start in many schools. The important matter is that those who take small steps need constantly to remind themselves, their colleagues, and the public they serve that the small steps constitute only the beginning of the journey.

We salute those principals and teachers whose school environment permits big steps. We also say, please evaluate carefully what you are doing so we may all know what to avoid when we go down similar roads. Extend your evaluation horizons to include the goals we seek beyond mere acquisition of facts measured by conventional standardized and locally constructed tests. Let us all seek to determine whether students are developing more responsibility for their own learning, whether they are becoming more creative, whether they practice habits of intellectual inquiry, whether they communicate better and more effectively with other persons, whether they think more critically, whether they are better adjusted human beings, and whether they are achieving a number of other very important educational outcomes. These are fundamental goals. They are not educational fads.

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[2] J. Lloyd Trump and Dorsey Baynham, *Focus on Change—Guide to Better Schools*. Chicago: Rand McNally Company, 1961. 147 pp.

[3] J. Lloyd Trump, "Places to Learn," *Audiovisual Instruction*, VII: 516-517, October, 1962.

[4] B. Frank Brown, "The Non-Graded High School," *Phi Delta Kappan*, XLIV: 206-209, February, 1963.

[5] Flexible scheduling, team teaching, and other innovating projects in a number of schools are listed and described in "Changing Schools," the May, 1963, issue of *The Bulletin*, monthly publication of the National Association of Secondary-School Principals.