

Staff Utilization in Senior High School

*New approaches to
staff use
are being demonstrated.*

DURING the past five or six years, we have heard much about a new kind of American high school for the future.¹ Students will assume more responsibility for directing their own learning. Teachers will have more time for individual student counseling as well as for planning. Students will meet in groups as small as ten or as large as several hundred, and class periods will range from a half hour to a full day. Teaching machines and other mechanical supplements to the teacher will be commonplace. The sacred class of 30 and the six-period day will be virtually extinct.

Such visions reflect a growing awareness of the need for increasing the operating efficiency of our schools. A combination of rising enrollments, increasing pressures to improve the quality of public high school education, and mounting costs has made some kind of funda-

mental change imperative. We must find a way to obtain greater educational value for the dollar spent: either we must reduce expenditures without sacrificing quality or we must improve quality without corresponding rises in costs. Society may demand that we do both.

Yet our traditional pattern of operating high schools actually reduces efficiency by producing waste—both of teaching talent and of effort. In part, this waste results from a failure to define the various roles which teachers must perform. Professor Herbert Thelen and his associates at the University of Chicago, for example, have identified at least nine functional roles operating within the typical classroom.² We have, however, tended to ignore these distinctions in practice.

In fact, we act as if we assume that any teacher can perform each of these roles equally well and that all teachers (with equal training and experience) are equally competent in any given role. Apparently, we have also assumed that all kinds of learning activities require the same number of students and the same amount of time and that the same activi-

¹ See, for example, Kimball Wiles, "Education of Adolescents: 1985," *Educational Leadership* 17:480-83, May 1960; and J. Lloyd Trump, *Images of the Future*, Washington, D.C.: National Association of Secondary-School Principals, NEA, 1959.

² Herbert Thelen. "Project on Teacher Effectiveness—Experimental Studies." Dittoed faculty memorandum. University of Chicago, February 25, 1957.

ties are appropriate for all kinds of students. Indeed, unless we make these assumptions, we cannot justify our quaint custom of insisting that all subjects (except music and physical education, perhaps) must be taught in groups of 30 students, one hour a day and five days a week, in the same room and by the same teacher.

Intuitively, of course, we reject these assumptions. Our experience reminds us, for example, that some teachers are better lecturers than discussion leaders, that some teachers are better than others at a particular task. Reason tells us that because this is true, we should assign teachers to those roles for which they have the greatest proficiency and interest.

New Approaches

Reason has also suggested some other approaches to the problem of reducing waste, and an increasing number of school districts throughout the country have begun to experiment with them. The Ford Foundation and the National Association of Secondary-School Principals have helped add to our vocabularies such terms as "team teaching," "flexible grouping," and "flexible scheduling."

Do these concepts really promise to revolutionize education, however, or do they represent simply another bandwagon movement? What has been going on in the name of "more efficient staff utilization"? And what, precisely, have we learned as a result?

We have learned, first, that efforts to conserve teacher time and to exploit more fully their specialized talents can take varied forms. Some variations of

team teaching have had little effect on the daily class schedule.³ Snyder, Texas, for example, has simply scheduled into the same period two or more sections of the same subject. The teachers meet with standard sized classes for purposes of group discussion and project work, just as in the traditional high school. For lectures and demonstrations, however—which require little teacher-student interaction—the teachers combine their sections into large groups and conduct classes in large rooms reserved for the occasion. One teacher will give the lecture or conduct the demonstration, and the other team member may spend the time in additional preparation for future sessions. Because both the regular classrooms and the assembly rooms are always available when needed, this plan offers considerable flexibility for grouping students and obviously saves much time and effort on the part of teachers. This plan, however, may sacrifice some efficiency in space utilization.

Logan, Utah, has assigned teachers to larger-than-standard classes, employing clerk-aides to assume the clerical duties. Such an arrangement permits the teacher to devote a much larger portion of his time to actual teaching and thus represents a more efficient use of personnel. On the other hand, this arrangement ignores the fact that even the standard class is sometimes too large for effective learning. Lakeview High School in Decatur, Illinois, has made use of teacher "unit-specialists." Each teacher of a particular subject specializes in one or more units of that course and instructs these units in all sections. The teachers then

³For information on team teaching, flexible grouping, and flexible scheduling, the reader should consult three issues of *The Bulletin*, National Association of Secondary-School Principals, NEA, for January 1958; January 1959; and January 1960.

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trade their schedules with each other according to the planned sequence of units. Although this plan does not necessarily eliminate duplication of effort—an English teacher may present the same lesson five times in one day—it does capitalize on the specialized interests and competencies of the teachers.

These three plans illustrate approaches which can be applied within the framework of the traditional high school. Other proposals, recognizing that various learning activities require varying amounts of time and numbers of students, call for more flexibility in grouping and scheduling. San Diego, California, has scheduled several sections of a given subject for the same period, assigning teams of teachers to these sections. The teacher-in-charge is a highly competent and experienced teacher; assistant teachers may be less experienced but highly qualified for guiding small groups; clerk-aides may relieve teachers of clerical chores. The sections will be combined into groups of 100 for lectures and demonstrations under the teacher-in-charge. The students will meet in small work groups on other occasions under the direction of assistant teachers. Within the allotted time, teachers have much more flexibility in the grouping of students and in the planning of learning activities. The cooperative planning among team members, furthermore, undoubtedly contributes to their own professional growth as well as to instructional improvement.

Newton, Massachusetts, has followed a similar approach, scheduling large groups for certain days and small groups the rest of the time. Instructional activities are planned in accordance with the schedule, although the schedule itself is modified when the occasion demands. Newton has applied the concept of spe-

cialized teacher roles—e.g., the teacher-researcher, teacher-lecturer, discussion leader—and has selected team members on this basis. Newton has also successfully employed lay citizens as members of the teaching team, contracting with adults in the community for the correcting of English themes. Any school can follow this approach, of course, without any modification of its daily class schedule and pattern of teacher assignments.

Jefferson County School District R-1, in Colorado has combined team teaching with flexible grouping and schedule modification. Golden High School, for example, adopted a modified schedule which called for various classes to meet as large groups on certain days of the week and in small groups on certain other days of the week. Thus six sections of biology might combine as a group of 160 students on Monday for one hour; on Friday all students would have a two-hour laboratory period in groups of 25 to 30. Supervised group or individual activity might round out the week. Under the "Golden Plan," students still get a total of five hours of biology each week, although they do not attend biology class every day. The teachers, however, spend less time meeting with organized classes, thereby having more time for preparation.

In the same district, Bear Creek High School has experimented with ungraded English classes. Thus, tenth, eleventh, and twelfth grade students may be scheduled together as members of the same large English class, assigned to it on the basis of need and performance ability. A few students may receive remedial instruction from one member of the teaching team, a few talented youngsters will proceed at their own pace with a teacher-specialist, and the majority will receive the "standard

course" from other team members. The composition of these subgroups may vary from day to day, however, in terms of the on-going activities and the needs of individual students. This approach holds rich promise for the future of high school English instruction.

At the University of Chicago Laboratory School, four subject matter specialists (one each from English, mathematics, science, and social studies) and a "facilitator" or coordinator have comprised a team. In one year this team had responsibility for 47 students for a three-hour block of unplanned time each day. Within this time block, these teachers had complete flexibility in planning the learning activities of the students and in grouping them for instructional purposes. This kind of organization may cost more money because of reduced teacher-pupil ratios, but at the same time it may represent a helpful approach to really flexible use of student and teacher time.

Help for Teachers

These and a variety of other versions of team teaching suggest ways to use teachers more efficiently, to group students more realistically, and to plan instruction more adequately. Nevertheless, there are some pitfalls, and the fundamental question remains unanswered: Do these approaches improve education?

Perhaps the most universally claimed result of all this experimentation is that, because of it, teachers have examined current practices more critically and have demonstrated more experimental attitudes. Perhaps the participating teachers volunteered, however, because they were already critical and wanted to try something different. Many teachers have not volunteered—because they feared failure or because they feared a

change in their classroom roles. In any event, the staff utilization projects have focused attention on the weaknesses of our traditional patterns of operation and have suggested some promising ways "to get out of the rut."

Still, at least some versions of team teaching have posed some psychological problems for teachers. Being accustomed to working alone—assuming full responsibility for particular groups of students—teachers must now learn to work together very closely, and this is not always easy. Furthermore, teachers have reported a loss of identification with and responsibility for a particular group of students, and students themselves have apparently sensed this loss also. If teachers have traditionally derived emotional satisfaction from status roles—that of authority figure for a limited number of students—then we must help them experience equal satisfaction from more functional roles if team teaching is to be effective.

Ironically, many teachers have reported that team teaching requires more, rather than less, work. This is hardly surprising. More thorough preparation will always require more work, but perhaps this represents a more efficient investment of teacher time and energy than attendance accounting and grade recording.

Curiously, teachers report greater difficulty in knowing individual students in large groups, yet they also report greater opportunity for individual attention through flexible grouping. Has this greater individual attention paid off educationally? The evidence is inconclusive.

Some schools have reported "statistically significant differences" in favor of experimental groups, others equally striking differences in favor of control groups. Some have reported heightened student

interest in large groups with a consequent reduction of discipline problems, while others have experienced the opposite. Similarly, in some schools standardized classes have learned more, in others flexible grouping accounted for greater learning, and Jefferson County found no inherent relationship between group size and either amount or rate of learning.

These contradictory findings stem in part from incomparable research designs and measurement procedures. If, for example, we expect the educational outcomes of team teaching and flexible grouping to be *different* from those obtained with traditional procedures, we can hardly find evidence of such changes if we rely solely on the same old standardized tests. One can safely conclude, however, that these experimental approaches are no worse educationally and cost no more financially than the more orthodox brands. The results depend largely upon what the team does, with whom, for what purpose, and under what conditions.

One obstacle to more flexible use of personnel and time is the inflexibility of facilities. High school buildings must be designed for the flexible use of space if we want to promote the flexible use of time, student talent, and teacher competence. For this reason, probably most buildings now under construction are obsolete before they leave the drawing boards. They will bind us firmly to tradition. By contrast, Jefferson County, Colorado, has designed three new secondary schools which embody this concept of flexibility—buildings clearly designed for tomorrow.

We must break the lockstep of the traditional high school operation if we wish to increase the efficiency of that operation. To do this we must redirect our attention to certain fundamental

questions: First, what shall the schools teach and why? Second, for which students shall the schools provide what experiences? And third, how can the schools best organize these experiences? The recent experimental activity has not given us definitive answers, but it has shown us how to find such answers. We need now to embark on rather large-scale and well-designed research. Not just any project will do.

As a result of the staff utilization studies to date, one of two things will happen. Perhaps they will have no more long-range impact on the American high school than did the "Eight-Year Study" of the 'thirties. Administrators will continue to refer proudly to their "traditional" schools: buildings which resemble egg crates; classes held to the magic size of 30; students studying the same subjects for the same amount of time each day; teachers changing functional roles every five minutes of the day, performing some with expertness and others with appalling ineffectiveness. If this happens, high schools will continue to operate as inefficiently as they have in the past, and taxpayers will become increasingly restive with rising costs.

Or—we will build upon what the staff utilization studies have already accomplished. We will design basic research to resolve the apparently contradictory findings. On the basis of this research, high school teachers will find themselves shifting from status roles to functional roles and becoming more professional in the process. Students will participate in learning activities genuinely designed to meet their individual needs. School buildings will be functionally designed to house a particular kind of educational program; their distinguishing characteristic will be flexibility.

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