MUCH has been written in recent years on the educational advantages of team teaching. There appears to be some disagreement, however, as to what constitutes a team. In basketball a team has five players; while in football there are eleven. The evaluation of the outcome of a basketball game is easy; that of a football game (in case of a tie) is difficult. How many players do we have on the team in an educational environment? How do we evaluate the outcome of team teaching? In sports, each member has a specific role which he plays; true, these roles may at times overlap, but each member has his role responsibility. What are the role responsibilities in team teaching and how do we evaluate the outcome? Let us look at some possible implications of these questions.

Team teaching is often defined as an approach by two or more individuals to improve the quality of instruction. By using more than one person in a learning environment, we become aware that one person cannot know all. We are also cognizant that some people have special skills and knowledge which they can contribute. They may in fact be experts or specialists.

What is a specialist? As defined here, a specialist is a person who, by education, recognition in his field and past performance, has exhibited a high degree of competence. By virtue of his specialty, he is able to make a unique contribution to the team. We need to recognize that these people may be drawn from many areas and may carry various titles. They may be classroom teachers, curriculum directors, directors of audio-visual aids, directors of research, university consultants or any other of a multitude of titles that contribute to the team. The important thing is not the title, however, but the contribution one can make.

Cognizance must be taken of the fact that these specialists are members of a team that is working together harmoniously. Sometimes the term “team” is applied more as a means of flattery than as an operational reality. The team will vary in size depending upon the function it is to serve and upon the specialists available. The role a specialist will play depends upon the delineation of the problem. A professional team that works together effectively to arrive at a better understanding of the problems presented by a certain educational en-

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vironment will have a great deal of overlap and many common elements in their roles. However, though trite to say, the success of the team depends upon the personal dynamics of each member. A team can function only if each member is utilized in reference to his educational background and past professional success. His utilization will depend upon the degree to which he can contribute.

Placement of a person upon a team, simply because he carries a title, is an utter waste. Simply because one is designated, for example, “curriculum director,” does not mean that he knows more about curriculum than do the other staff members. Should not a curriculum director be a specialist in curriculum? Should not an administrator be a specialist in administration? The idea of making, for example, a math teacher a curriculum director, or a speech teacher an administrator simply because someone wants to give him a promotion is detrimental to the education profession.

A classroom teacher is not permitted to teach until he has met certain professional qualifications. Yet, when people are promoted to positions of leadership this concept of the education profession is often overlooked. An administrator who would appoint, or a teacher who would accept a position for which he is not at least academically prepared should review his obligations to education. A team—or education in general, for that matter—cannot function to its utmost under incompetent leadership. A team composed of only “title holders” will not do a truly scientific job.

To illustrate one way in which a team operates, the following team teaching approach is presented. This is a research study that will be carried on during the school years of 1961-62 and 1962-63. The study is to investigate three areas: (a) the teaching of freshman biology and sophomore physical science to large groups of students in contrast to small groups; (b) the comparison of attitudes of students in the experimental and contrast classes of the two subjects; and (c) a retention (after one academic year) of knowledge in the two subjects by those in the experimental and contrast groups.

Role of Specialists

Who are the specialists? What will be their roles? The specialists comprise a team of classroom teachers, an audiovisual aids director, a science department chairman, and a research specialist. These persons have quite adequately met the requirements set forth previously for a specialist. Each person considers himself an important and integral member of the team.

An examination of the role of each member of the team will illustrate how his special contribution is made to the team. The classroom teachers are, of course, the nucleus of the study. These teachers were selected by a voluntary method based upon individual academic skills. Each unit of work, in the large groups, will be taught by a teacher who is particularly qualified in that area. A teacher well versed in heredity would teach that unit in biology. Another teacher who had studied in a National Defense Education Act summer institute in atomic energy would teach that unit in physical science. These illustrations could be extended indefinitely.

In this study, the director of audiovisual aids has a unique contribution to make. His role is to incorporate audiovisual techniques into the program that will facilitate the large group instruction. His extensive technical knowledge
of the field allows him to teach the classroom teachers the most effective utilization of A-V techniques. He will also order these materials and make available to the teachers reference books in relation to the various films, slides and recordings that are available. One of his contributions to the team will be the construction of A-V materials. He will construct slides, prints and overlays.

The science department chairman will act as coordinator of the program. His role is to administer the program to the end that the educational experiences of teachers as well as students are enhanced to their fullest. His specific roles would include supervising, consulting, helping, making all instructional materials available, resolving conflicts, and interpreting the program to those not involved directly in it.

Too often in education the design and evaluation of a project have been characterized by trial and error and subjectivity. If educational research is to be respected, it must be scientific in its approach. The role of the research specialist, in this study, was to design the experiment and later to evaluate it. The design of the study required that during the first week of school all students in the experimental and contrast groups would have standardized instruments administered to them. These would measure academic knowledge in physics, chemistry and biology.

The physical science students would not take the biology test and vice versa. Also, a student attitude test in reference to the previously mentioned subject matter areas would be administered. At the end of the academic year different forms of the same instruments would again be administered. Any transfer students would be eliminated from the post-testing situation. At the end of the second academic year the original participants in the study would again be tested for retention and attitude. In both of these pre- and post-test situations, the statistical technique of co-variance would be used. Only by pre- and post-testing, submitted to statistical analysis, can team teaching be evaluated effectively. In addition to this statistical evaluation the study would be evaluated periodically by growth charts, team subjectivity, and student conferences. All these methods of evaluation, especially the statistical one, permit the final outcomes of the study to be subjected to scientific scrutiny.

This has been only one illustration of the use of specialists. Different projects could include other specialists. Participants in each program would have to decide which specialists are necessary.