

WORKING REPORT: COMMITTEE ON THE ROLE OF MEDIA IN INDIVIDUALIZED INSTRUCTION¹

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Completely individualized instruction exists only when there is a one-to-one relationship either between the student and the teacher or between the student and a machine which has been programmed to meet his own needs. Individualized learning, on the other hand, can exist in compromise situations such as small group instruction or self-paced learning of a standard "program."

Equipment, or "hardware," can—with the appropriate "software"—do much to simulate the one-to-one situation. It can also prevent the usual inefficiency of the learner's home study, thus enabling his structured class time to be devoted to interactive performance—an aspect of learning not yet fully attained by the use of equipment.

A device for approximating such performance is known as audio-tutorial technique, now used successfully in biology and other subjects as well as foreign language instruction. For each assignment, this technique utilizes one or more prerecorded tapes which provide concepts and instruction in addition to drill. This is accomplished by having students participate in the making of tapes, thus achieving a simulated teacher-in-the-classroom situation. Such tapes provide instruction and insights, rather than rote-learning; moreover, they are realistically attuned to typical student pauses and reactions, in contrast to conventional drill tapes which rely on arbitrary guesses about the expected responses of a faceless audience. On the other hand, it must be admitted that audio-tutorial tapes are far more time-consuming to produce.

The production of such a tape requires that the teacher sit on one side of a soundproof window facing one or more students (whose selection, of course, determines the level of learning for that tape), each speaking into a microphone and hearing each other through interconnected headsets; only the teacher's voice, however, is being recorded. The teacher thus conducts a "class session" with the stu-

¹This report is an outgrowth of the recent conference on Individualizing Foreign Language Instruction held May 4-7, 1971, at Stanford University. The entire proceedings will be published in book form at a later date. Dr. Hocking and the Stanford Conference have graciously allowed NALLD to publish here the principal comments from the conference with regard to equipment for tutorial teaching.

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dent(s) in view, their questions or responses guiding his pace, pauses, repetitions, etc.; the tape, meanwhile, records only silence during the time they are responding. When completed, the tapes are duplicated in many copies, and made available for individual use in the library-type laboratory or at home.²

A similar use of equipment in simulating a one-to-one learning situation is the prospective role of television or video players located in the home or school building. It is anticipated that such machines will be available on the American market late in 1971 or shortly later. They are planned to provide color video replay through a conventional television set for between \$600 and \$800; the price will most likely be only half of that by the end of this decade.

Another type of equipment for the student working individually is the remote telephone connection to audio players. Such installations, however, are feasible only when student demand is very large and when tight controls are possible over the audio quality of the telephone lines. Such conditions exist in very few instances; the lack of them probably accounts for much of the frustration accompanying some dial-access facilities.

Cassette recorders, although similar to the conventional tape recorders, provide the advantages of lower price, light weight, ease of use and increasing acceptance as a device that is commonly found in the students' homes. These home entertainment machines, however, may be of inferior quality. Those purchased for school use should be of greater ruggedness, with more than one motor, and of a known and reliable make, in order to minimize the noise produced at the very slow recording speed. Superior electronics and first-quality tape will help to produce clearly the most critical sounds, such as the fricatives and spirants.

A recent development, known as the Dolby system, reduces background noise to the extent achieved by a reel-to-reel recorder operating at $3\frac{3}{4}$ inches per second. Even more recent is a cassette tape with a guaranteed capacity of frequency response to 16,000 cycles. Cassette machines can serve to activate visuals by using slide/tape synchronizing features, and they can also control 8 mm film projectors. Doubtless the video cassettes will do likewise.

The use of authentic visuals can provide the "silent language" which is an integral part of interpersonal communication. Visual

²The above description of audio-tutorial instruction owes much to Purdue's Professor W. Flint Smith, a leading advocate and practitioner of this technique. For a more detailed exposition, readers are referred to his chapter (especially pp. 215-221) of *Britannica Review of Foreign Language Education*, Volume 2, in which he acknowledges his debt to the paper by George H. Brown.

materials can also put the foreign cultural referents in sight of the learner, enabling him to distinguish among, for example, house, *maison* and *casa* or even among *pain*, Wonder Bread and *matzoh*. Such authentic visual referents prevent students from subvisualizing the foreign culture in terms of his American experience.

Today's students are more interested in the contemporary foreign culture and its youth than they are in the foreign language itself. By the term "contemporary foreign culture" is meant the youth culture and its relationship to the established society. As a result, there exists an urgent need for a direct and continuing supply of off-the-air samples from the daily fare provided by radio and TV programs abroad. Examples of useful programs might be man-in-the-street interviews on today's controversial issues, and likewise commercials, sports reporting and popular music. Such materials must be selected and provided by American foreign-language teachers familiar with the interests of their students. Since such broadcasts are as topical as they are compelling in interest, a continuous flow of them must be assured. Such a service could be provided only by a national professional society, endowed with sensitivity to youthful concerns and with awareness of its responsibility to our profession. By regularly announcing each new batch of such materials, the society could revitalize our costly but neglected equipment while serving the needs of teachers and the concerns of students.

Another responsibility of our professional leadership is to prevent the wasteful duplication of effort, money (and errors!) which has already characterized individual efforts in producing materials and equipment for instructional television, for the classroom, and for the language laboratory. Professional leadership should be exercised in the following ways:

- 1) Periodically compiling and disseminating specific information about federal, state, and private funds available to our profession. Such funds vary from time to time, from state to state, and also according to local interpretations of acceptable programs and the expertise of the formal application. (Presently some funds are variously available from EPDA, ESEA, and even NDEA).
- 2) Establishing and publishing (in the language of the layman as well as the language of the expert) desirable technical and operational standards for equipment, whether the modified old or the truly new. Our profession should cease to be at the mercy of the market place.

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- 3) Providing simple expository interpretations of educational research pertaining to the use of computer-assisted instruction and other instrumental aids to learning. Our professional journals have devoted scores of pages to the reproduction of statistical analysis and tables which are meaningless to all but the most sophisticated specialists. The technical information should, however, be made available to individuals upon application to the authors.

The best examples of individualized instruction will benefit us and our students only to the extent that they are brought to the eyes and ears of our profession. Although theoretically desirable, demonstration projects inevitably remain local projects. The mountain must be brought to Mohammed in the form of audio-visual presentations on film. Here again it should be the responsibility of our national organization to subsidize the filming and dissemination of such demonstrations. Teacher education cannot live by print alone.

A generation ago a good radio program was "wide screen and in full color" to its listeners, but today's visually dependent generation requires that even a musical performance be seen in order to be heard. The concept of a language laboratory as a mere sound-room is therefore archaic. Moreover, the local, self-contained language laboratory is becoming obsolescent. The computer-assisted instruction system known as PLATO at the University of Illinois in Urbana anticipates having within a few years 4000 remote audio-visual terminals at a cost of only 35 cents per student hour—a mere fraction of the current cost of operating our language laboratories. A few successful computer-assisted instruction programs used independently by dozens of computers, serving hundreds of schools, involving various academic subjects, will provide to countless students the twin benefits of advanced technology and multi-sensory learning, thus fulfilling the promise of individualized instruction.