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## Training TV Teachers

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## Training TV Teachers

By MARTIN F. FRITZ AND JOHN A. GREENLEE

The high hope that is being placed in television as an educational medium makes it desirable that we examine the training needed to fit teachers to this medium. Many questions can be asked such as, can only certain persons teach successfully by TV? How long does it take to train a TV teacher? Is a very special kind of training necessary? What are the peculiarities of TV a teacher must recognize?

In the past several years, considerable information has accumulated on how to teach by television. Most of this information is empirical but some has resulted from situations involving a fair degree of control and statistical evaluation. Colleges utilizing commercial outlets and WOI-TV operating the first educationally owned station have been exploring the possibility of education by TV. The Special Devices Center, Port Washington, L. I., New York has conducted pioneer projects of great value for the purpose of adapting TV to military training.<sup>1</sup>

It would appear, fortunately, that the requirements of TV teaching are not so stringent that only a few can qualify.<sup>2</sup> Anyone with a mastery of a field of knowledge and the ability to teach is likely to do a reasonably good job before the TV camera in a relatively short time. What would be considered good teaching in a classroom would also with some adaptation be considered good TV teaching. It needs to be emphasized that knowledge of materials to be taught remains important and there is not the slightest evidence that television in any way reduces the need for mastery of a subject-matter field. In fact, TV places a premium upon mastery of information because there must be less verbal fumbling or trial-and-error explanation than would be tolerated in a classroom.

It is now clear that a memorized script is not necessary. A subject-matter specialist with teaching "know how" can talk informally with great effectiveness. The very fact of informality enables the

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<sup>1</sup>A summarizing report prepared under contract with Iowa State College was issued under the title "Survey of Television Utilization in Army Training," by Fritz, M. F., Humphrey, J. E., Greenlee, J. A., and Madison, R. L. Human Engineering Report, SpecDevCen 530-01-1. Dec. 31, 1952. Special Devices Center, Port Washington, L. I., New York.

<sup>2</sup>Ideas expressed in this paper do not imply either acceptance or rejection by Special Devices Center or any other military authority.

viewer to empathize with the speaker and serves to increase the feeling of immediacy.

All instructors appearing before the camera the first few times seem to experience a certain amount of uneasiness because "there is no one to talk to!" This can be partly corrected by providing a small panel or group, not more than three or four persons, in the studio. Experienced TV instructors report no need of a panel. A class in the studio addressed by the instructor is not recommended because it gives the viewers a feeling of looking in on a situation rather than being talked to personally.

Both speed and amount of movement need to be restricted before the camera. It is difficult for a new instructor to realize that movements must be made deliberately and when he is moving more slowly than he feels like moving, he has probably found the optimum rate. Unnecessary movements seem to be more distracting on television than would ordinarily be the case, perhaps because of the high concentration of the viewer.

Rate of speaking should be deliberate and unlike radio it is not necessary to keep up a continuous stream of "chatter." When demonstrations are being presented, it is possible to have long periods of silence and still maintain a high degree of effectiveness. Clear enunciation of words is desirable to compensate for deficiencies or limitations of audio systems.

Movements toward or away from the camera result in rapid deterioration of the picture and call for adjustments to be made by the cameraman. Even stretching the hands out toward the camera will result in a distortion of perspective. Such changes in depth of field are distractions to the viewers and with just a little coaching, new instructors can soon learn to keep such motions to a minimum.

In the display of objects, television achieves one of its most important functions because it maximizes the visual. In the hands of a properly trained instructor—and such training is not difficult to give—even small objects can be shown in a way that approaches personal inspection. The technique consists of slowly turning the object in various directions, pausing for quite long periods of time when particularly good angles of viewing are obtained, and watching the results in the studio monitor for it is in the monitor that the instructor can see what the students are seeing.

An experienced TV teacher comes to depend a great deal upon the studio monitor, which should be of good size, seventeen inches or larger, so situated that it can be glanced at when desired without turning too far away from the camera.

Some modification in the use of a blackboard is desirable with television. A large amount of material sprawling over a wide area of blackboard space is not desirable. Short phrases or single well-chosen words should be used. Drawings and diagrams should be compact so that they can be picked up by the camera as a unit. When only a portion is shown, students report a feeling of "wanting to see more" and the ability to integrate and see relationships is hampered. Considerable writing on a blackboard in the usual face-to-face classroom may be desirable in order to capture and hold attention but on the television screen it appears as distracting "busyness." The rate of writing should be deliberate and unhurried.

Because television is visual, the good instructor comes to depend heavily upon prepared cards, charts, magnetic boards, flannel graphs, and cards with changeable sections. With proper equipment it is possible to show photographic slides, film-slides, and moving pictures. One justifiable criticism frequently made of television is that much of the material could just as well be transmitted by the more economical medium of radio. The rule for television is: maximize the visual!

New TV teachers should always be instructed to hold the end of a pointer (or pencil when it is used) against a chart, blackboard, or object. Unless this is done there will be a distracting waver. Also, the pointer must be held on a particular spot much longer than is ordinarily realized.

Over-the-shoulder (zero angle) shots may be very useful because directions "to the right" or "to the left" can be followed without confusion. Such "subjective" presentations are especially valuable where the student needs to follow the instructor in making adjustments on a mechanism or to follow complicated diagrams. The view on the TV screen is like that which the instructor has before him.

With a little practice, a TV teacher soon learns to establish camera eye-contact by looking directly at the camera face when talking. This is an important element because it gives the viewer a feeling of intimacy, a feeling that he is being talked to personally.

The last point to be considered is that an instructor should dominate the presentation of a lesson. This is easy when a single camera is used and it has been found that students do not object to an occasional remark or direction addressed to the cameraman. In educational TV it is possible to have a degree of informality which would be quite horrifying in commercial TV. When two cameras

as used, a lesson may easily slip over into a director-dominated presentation which means that the instructor is no longer "controlling the show." This is not desirable if it is assumed that the instructor knows best what is to be taught.

In conclusion, then, it may be said that educational television is not likely to be seriously hampered by a teacher training problem. Those already able to teach and those with a "message" eager to tell it can with some coaching and direction do a reasonably good job before the camera.

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