Superimposition of Supplemental Information on an Instructional Film

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A readily observable aspect of the current "explosion" of teaching materials is the flood of new instructional films introduced almost daily. It may be assumed that teaching films represent one of our more "tried and true" audiovisual materials; certainly instructional motion pictures have been subjected to an impressive quantity of research. Yet, regular use of films in the classroom is still far from a universal practice.

One of the problems confronting the user of classroom films is the fact that most such films are made for distribution to a mass market. They are designed primarily as enrichment experiences, bringing otherwise inaccessible people, things, or events into the classroom with no particular regard for the film's relationship to the rest of the student's learning. Much of the research on instructional films has concerned this communication by general films to specific classroom audiences. Guidelines for repetition, commentary language, and systematic development

1 This article is based on a Ph.D. dissertation, The Effect of Supplemental Information Superimposed upon Aural and Visual Elements of an Instructional Motion Picture, completed by the author at Syracuse University, August 1964.

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have been suggested for film producers. Techniques of introduction, postfilm discussion, review, and evaluation have been developed for teachers to use in the classroom. In nearly all cases, the suggested procedures involve expenditure of extra time and effort. For the film producer, repeating scenes or inserting titles and animation means additional footage, additional expense, and a higher selling price for the film. For the teacher, the additional teaching time and effort required for optimum film communication may outweigh the contribution a film could make. It is possible that many potentially valuable film experiences are bypassed in the interest of time.

Recently, attention has been directed toward techniques which employ several "channels" of communication simultaneously to achieve the redundancy required for efficient communication. Hartman (3), using closed-circuit television, achieved simultaneous redundancy in three channels—picture, audio, and print (titles)—with superior learning as a result. Oxhandler (4, 5) demonstrated that information not contained in a film could be communicated by means of supplemental messages briefly superimposed on the presentation of an instructional film.

These studies suggest that means for influencing communication as a film is shown may be possible for producers and teachers alike. If this adaptation to particular audiences is exercised during the film presentation, utilization of teaching films previously bypassed because of time considerations would be feasible.

This article describes the development of a technique to influence students' perception of instructional film content by means of supplemental messages superimposed on the film presentation. The following definitions will be used in the study:

**Channel:** Information theorists use the term to mean "a complete system for transmitting a signal from an input location to an output location." The channel includes properties of the apparatus in the system and of the code of language used, and may be organismic, mechanical, or even social-institutional (as a newspaper) (2).

**Learning:** Operationally, the number of responses correctly recognized in an information test based on the film and supplemental messages. In a pretest-posttest design, gain in number of correct responses is measured.

**Supplemental Information:** Facts not contained in an instruc-