THE AFFECTIVE ASPECTS
Of The Use Of Media On The Learner
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I. INTRODUCTION

Education should keep up with societal changes. If students have the options of gaining information which is presented interestingly through a variety of media outside the school, surely they should have them in schools as well. Besides, the educational tasks which are getting electronic age heavier and more complex in this electrical age, cannot be carried out through lecturing in traditional classrooms where pupils sit still and follow in unison the lecture or whatever presentation is made. It seems inevitable for us to agree to the adoption of media in the teaching learning process, in this case modern media. The writer would suggest that questions about whether we should adapt new media for educational purposes be put aside. It is advisable for educators to accept the compound view on technology. In educational terms this view means that the introduction of electronic media, for example, will not prove a panacea as the optimists might claim, nor will it necessarily dehumanize, as the pessimists hold. It will solve some pedagogic problems and create others for instance, television may bring the outside world into the schoolroom, but it will very likely impose rigid class viewing schedules (Gillett, 1973).

The two basic functions of educational media are: informing and developing mental skills (Solomon, 1974). In this paper the emphasis will be put on the discussion of the affective aspects of the use of media on the learners, on the interactions among learners themselves, and on the interactions between learners and the teacher. Hopefully, through the discussion clearer ideas about the matter under consideration will be obtained.
LIMITATIONS OF SCOPE

It is true that teaching and learning can take place outside the school, e.g., through radio and television. But in this paper the teaching learning process (es) means limited as the 'process(es) of teaching-learning' taking place at school, e.g., within the classroom. This means that the teacher is also present, whatever role he is playing.

The second limitation is on media. There are more than one definition of media. The broad definition set forth by Edling and Paulson, as quoted by Gerlach & Ely (1980:241) will be used here: "A medium, broadly conceived, is any person, material, or event that establishes conditions which enable the learner to acquire knowledge, skills, and attitude. In this sense, the teacher, the textbook, and the school environment are media."

II. THE AFFECTIVE ASPECTS OF MEDIA USE

In discussing the affective aspects of media use we need some clarification of what is meant by attitude. Attitude can be defined as: "A mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual response to all objects and situations with which it is related (Thomas and Znaniecki, 1918, as quoted by Simonson, 1980a:1)". Gagne (1977:44) defines attitude as and internal state that influences (moderates) the choices of personal actions made by the individual. Zimbardo and Ebbesen (1970:7) divide attitudes into three components: affect, cognition and behaviour. The affective component consists of a person's evaluation of, liking of, or emotional response to some object or person. The cognitive component has been conceptualized as a person's beliefs about, or factual knowledge of, the object or person. The behavioural component involves the person's overt behaviour directed toward the object or person.

The discussion will be supported by theories and research findings.
THEORIES

There are some theories which attempt to describe the relationship between mediated instruction and attitudes of learners. One of the most interesting was one proposed by Wager (1975). He used Edgar Dale's "Cone of Experience" as a framework for a discussion of the relationship between learner attitudes and instructional media. Basically, Dale's model may be envisioned as an upside-down ice-cream cone, broad at the base and pointed at the top (Fig. 1). This one was designed to visualize the degree of abstraction of the

Fig. 1 Edgar Dale's Cone of Experience
message presented to the learner. At the top of the "cone" the massages are highly abstract and consist of "verbal symbols". At the bottom of the "cone" Dale has "direct purposeful experience". Between the lowest and the highest levels on the "cone" are a number of intermediate levels, each one more abstract than the level below it. These intermediate levels are represented by media types, and often it is the characteristics of these media that determine the abstraction of the massage.

Dale's "cone" is generally applied to the delivery of information in the cognitive domain. Wager (1975:11) proposes a set of guidelines for use of the "cone" for the facilitation of attitude attainment or attitude change by media. The "cone" is also used to propose a series of attitude related predictions (Fig. 2). The predictions are that:

1. The layers of the "cone" are related to age (and/or sophistication) of the learner, and the tasks of establishing or changing (or refining) attitudes.

2. To establish attitudes in "adults" or change the attitudes of "young people", almost any medium might be effective, but those at the top of the "cone" will probably be most efficient.

3. To change attitudes of "adults", or establish attitudes in "young people", enriched messages, represented by the lower levels of the "cone", will probably be most effective.
(4) The level of experience necessary to effect attitudes change may not be the same as the level necessary to effect cognitive change, although attitude change involves a cognitive component (Wager, 1975).

Wager generalizes that verbal messages are more effective in changing the attitudes of children than adult because the verbal messages are looked on as having greater credibility with children. Adult have different perception on verbal messages. They would perceive them as being less credible, and would require more concrete, direct experiences in order to produce changes in attitudes. Simonson and Burch (1980: 5) summarize Wager's article as follows: "as the degree of abstraction decreases, the more effective a medium will be in changing attitudes. The more concrete the medium, the more likely it will be that attitudes are influenced."

According to Perception theories (Forgus, 1966, as quoted by Simonson and Burch, 1980), information is gained from
various cues in a given situation — the more cues the more information gained. When two forms of media are used to deliver the same verbal massage, the one with the most cues will provide the greatest amount of information. Cues would include fineness of detail of facial features, colour, dimensionality, voice quality, etc. Further it is said that Hoelvland and Weiss (1952) demonstrated that the credibility of the information presented is a significant variable in determining attitude change, since cues contribute to credibility (Croft, 1969), as quoted by Simonson and Burch (1980), the more cues available, the more credible the communicator (medium), and the more attitude change in the listener.

Another theory contributing to the description of the relationship between media and learner attitude is the Visual Stimuli Theory proposed by Cochran (1976). A continuum of visual stimuli (Fig. 3), which draws attempt on Dale's "cone" and on Bruner's (1966) enactive, iconic, symbolic continuum, does attempt to provide a framework for defining relationship between media on the basis of the visual stimuli provided. While similar to Dale's "cone" in its sequencing of media from abstract to realistic, the Cochran model is more prescriptive in isolating the characteristics of media that influence visual stimuli. These visual stimuli might probably interact with the affective component learner attitude.

RESEARCH FINDINGS

Several reviews on mode/attitude studies have been done by Machula (1978), Simonson and Bruch (1979), Simonson (1980 a), and Simonson (1980 b). The experiments reviewed dealt with television, motion pictures (primarily 16 mm films), and still pictures (filmstrip, slides, prints, and filmographs). The use of media in classroom instruction is of primary concern.

Operationalizing the definitions of attitude quoted at the beginning of this section, Simonson (1980 a) divides attitude/media research into two types — attitude toward the medium of instruction and attitude toward content delivered by media. From these he derives four types of attitudes:
Fig. 3 Model of Cochran's Theory of Visual Stimuli as quoted by Simonson and Burch (1980).

1. attitudes of learners toward a medium (liking),
2. comparisons of attitudes toward more than one medium or method,
3. attitudes of learners toward content delivered by media, and
4. attitude changes toward content produced as a result of mediated instruction.
ATTITUDES OF LEARNERS TOWARD A MEDIUM

Five studies, conducted between 1960 - 1972, reported TV users who were generally favourable toward this mode of instruction. But three studies, done between 1958 - 1969, reported results where learners indicated a negative feeling toward televised instruction (Simonson, 1980 a). These results led some researchers to attempt to evaluate the reasons for the inconsistent reactions. The results indicated that familiarity with the medium contributed to the liking. Simonson asserted that probably the attitude (liking) developed in viewers of instruction delivered by television depended upon more than just the medium. Variables such as familiarity with the medium (cf. Solomon, 1974; Wager, 1979), amount of visualization, quality of production, and utilization techniques may have been crucial in developing favourable or unfavourable attitudes in learners toward TV as a method of delivering instructional information. The attitudes toward the media are an important variable, since existing attitudes (wager, 1979) toward the media might affect information transmission, e.g. in the case where the individual does not "trust" television.

Simonson's review of over 50 studies of film (1980 a), done between 1956 - 1962, results in a conclusion that generally, researchers reported viewers of film enjoyed it as a communication mode. However, when film was used as the basic instructional method, the reactions of viewers were less likely to be so uniformly positive.

Reviewing 23 studies, conducted between 1954 - 1973, on the relationship between still pictures and attitudes, Simonson (1980 a) finds that while still media pictures were favourably received, in certain instances, there were other instances reported where information was depicted more positively by motion pictures. An example of success in the use of still media (slides) described by Stoane (1980) seems worth mentioning. Two different slide/tape programmes were shown before and after a visit to the museum respectively. Worksheets were also given to accompany the presentation. The assessment indicated that the programme was successful.
COMPARISON OF ATTITUDES TOWARD MORE THAN ONE MEDIUM OR METHOD

The results of the studies on the attitudes toward TV as compared to other methods were inconsistent. The studies were conducted between 1956 - 1967. One researcher concluded that the attitudes of students toward television could probably be more accurately described as attitudes toward other elements involved in the teaching-learning process, such as the instructor, the situation, and the content. Based on the results of studies in this category, Simonson (1980 a) concluded that there did not seem to be any conclusive trends in the literature supporting the hypothesis that televised instruction is either favoured, or disliked, by students. One generalization that seemed to be supported was that the content of an instructional presentation probably played a more important role in the liking of the delivery mode than did the delivery mode of the instruction itself.

Several studies (Machula, 1978) found an overwhelming preference for television not only as a medium they perceived most credible, but also as the source of most news. One study conducted in England found somewhat similar results. A speculation is set forth by Trenaman (Machula, 1978): "There is a strong suggestion here that what can be seen (even if it is only a talking face) is more convincing or gives the impression that it can more easily be verified, than what is only heard or read ......"

Machula maintains that one could possibly draw a correlation between cognition and verbal communication on the one hand and affect and nonverbal communication on the other.

After reviewing 6 studies, conducted between 1954-1970, on the relation between film, compared to other media, and student attitude, Simonson (1980 a) contends that generally results seemed to indicate that students enjoyed filmed instruction and had favourable attitudes toward this medium. While small numbers of attitude-toward-film studies reviewed made definitive conclusions of a general nature impossible, it did seem that film was more often favourably valued than televised instruction. Probably the single most important reason for this was the fact that most classroom films were commercially made and were technically excellent, while many
TV lessons were locally prepared, not as well done, and therefore not as favourably received. Two more findings are worth mentioning here.

Simonson (1980 a) writes that Greenhill and McNiven were able to determine that the more useful learners perceived the information presented in a film, or the nearer they felt they were to the people or objects depicted in a film, the more favourably they would react to the film, and learning could be increased. Addis (Machula, 1978) in a recent study verified the credibility of the audio-visual combination (in this case film rather than television) over audio and print.

ATTITUDES OF LEARNERS TOWARD CONTENT DELIVERED BY MEDIA

Simonson (1980 a) identified 18 studies, conducted between 1958 - 1975, that attempted to determine if students demonstrated any liking of, or preference for, the content presented in televised lessons. Again, results were fairly evenly divided between studies where learners preferred TV delivered content and those where no preferences were reported.

Merely televising a lesson could either promote positive attitudes toward the content of the lesson, or often produce negative reactions in viewers. Variables other than delivery mode probably were most important in determining student's attitudes toward instructional content.

The basic form of content-related film/attitude research involved assessing the reactions of viewers to information presented by motion pictures. While generalizable conclusions were not readily apparent, the results of several studies reviewed in this category did provide some interesting insights into the liking of the content of filmed instruction expressed by viewers, even if these insights were not exactly definitive. For example Greenhill and McNiven's study (1956) indicated that students valued the concept of a film more positively if they perceived a usefulness on the content of the motion picture, and if they identified with the character or events depicted in the film.

Of 9 studies on student attitude toward content of instruction through still media, only one study reported positi
ve results. Simonson (1980 a) asserts that results of studies did not seem to provide support for any hypothesis related to the positive or negative impact of still media on content-related attitudes of learners. Possibly the informal nature of the classroom use of slides, filmstrips, or transparencies contributed to this lack of definitive conclusions.

ATTITUDE CHANGES TOWARD CONTENT PRODUCED AS A RESULT OF MEDIATED INSTRUCTION

Simonson (1980 a) found 12 studies, done between 1959 - 1975, where treatments were, in varying degrees, successful in altering pre-existing content-related attitudes of viewer in the direction. For example, one of the studies found that violent attitudes of inmates were positively (made more violent) influenced by three forty-five minute violent treatments. When the results of experiments designed to change content-related attitudes were evaluated collectively, it seemed obvious that televised massaged were often successful in producing desired effective outcomes, particularly when television presentations were designed to bring about these changes, just as cognition outcomes can be produced in well developed lessons (cf. Solomon, 1974; Wager, 1979).

General implications derived from the results of studies on attitude changes toward the content of filmed instruction are as follows: Viewers would seem to like films and learn from them, at least as well as other forms of instruction. Subject's attitudes toward the content of films were quite positive. Viewers valued information presented by film. In addition, attitude changes were more often than not produced in viewers of persuasive films. Motion pictures were found to be a powerful for delivering controversial massaged especially when extreme care was used during planning, production, and utilization of the film. In short, motion pictures would seem to have been a viable mechanism for delivering information when attitudinal outcomes were important.

Concerning the findings of studies on still media, conclusions can be said to be similar to those reported in the television and film sections, i.e. properly designed still media instruction would produce desired attitude changes.
In his summary, Simonson states that characteristics of media and mediated instruction, such as flexibility of use, accessibility of materials and equipment, and relationships of content characteristics to specific media characteristics for example, were probably most important in determining affective outcomes in learners (for cognitive use, for that matter) in the studies reviewed.

In his observation on the findings of studies published in sources other than AVCR, Simonson (1980 b) asserts that:

(1) Mediated instructions does contribute to desired attitudinal outcomes in learners, especially when the instruction is designed specifically to produce certain attitudes or attitude changes;

(2) The state of the art of media-attitude research is such that no specific guidelines for producing attitudinal outcomes can be generated. There is no Theory of "media-produced attitude change";

(3) Procedures most likely to produce desired attitudinal outcomes toward content as a result of instruction delivered by media include:
   a. use of follow up activities and open-ended questions after the mediated instruction;
   b. maximum use of realistic types of media with as many nondisturbing/noncontradictory visual cues as possible;
   c. creation of an aroused state in the learner through direct participation, intermittent distractions to distract the learner from previously hold attitudinal positions, or dramatic presentations that involve the viewer emotionally and intellectually in the content shown;

(4) Procedures least likely to produce desired attitudinal outcomes as a result of instruction delivered by media include:
   a. varying only the channel through which the instruction is delivered.
   b. including in the mediated instruction distractions in the form of extraneous information or cues
   c. presenting unrealistic, highly symbolic information in visual media;
d, presenting problem/conflict situations but providing no mechanism for conflict alleviation or proble solving either built in to the media or through follow up discussions;

(5) Media attitude experimentation is not currently a high priority for researchers in media or related areas.

THE AFFECT OF CLASSROOM ARRANGEMENT

Learning objectives are not all achieved in the same way. Some objectives can be reached by the learner independently, some through interactions among learners themselves, some through formal presentation by the teacher and interaction between the learner and the teacher (Gerlach and Ely, 1980). Therefore learning should be managed in order for it to operate well. The management of learning involves the use of media which in turn requires special physical conditions in a classroom. The installation of television equipment, for example, may require some physical changes in the classroom—modifying the seating arrangements so that all can see the screen, reducing the glare from the window, fixing up acoustical control (Gillett, 1973). This is an attempt toward the application of the ecological approach. Applied to education this approach calls for looking at the all-encompassing environment of learning, not merely the media in isolation. The object is not to gain precise, technical know-how, but insights and understandings of the processes at work. An ecological approach might concentrate, not on the individual child, not on the individual medium, nor any particular form of technology, but on what has been called 'behaviour settings'. The ecological perspective focuses on how rules are enacted with in the context of interpersonal relations and activity. It includes the setting or 'physical and material conditions'. Issues of control, reflected in concepts such as privacy, territory, and crowding, are generally central in any social grouping and play a role in structuring and supporting different types of social interaction and social behaviour. Paradoxically, desired social interaction appears to be related, in part, to achieving privacy.
Physical characteristics of some settings are sociofugal (tending to separate people from each other) while others are sociopetal (tending to bring people together) (Becker and Bossert, 1978).

All kinds of learning objectives are likely to be achieved in a classroom environment where students can move about freely and have access to materials as well as facilities, and the desks are moveable (Gillett, 1973) to allow for more flexible teaching arrangement. In this kind of classroom environment the barriers between individuals, and between the teacher and students do not necessarily exist. Students can plan their own activities. They can work individually or in group, exploring problems cooperatively. The role of the teacher is no longer as the authority on all facts. He must become a guide and counsellor to the pupil, a manager of the learning situation, a commentator on world affairs, and a model of intellectual activity (Haney, 1970). In short, the interactions between students themselves and between the teacher and his/her students may run better in such an environment than in a traditional classroom where pupil's movement are limited.

III. CONCLUSIONS

Numerous studies have reported a positive link between learner attitudes toward content information and achievement, several a preference (affect) for mediated instruction by learners, and several others the reasons for the preference. Though the experiments sometimes reported inconsistent results, it is clear that the use of instructional media has impact on learner's attitudes. The impact can be either positive or negative. To direct and control the impact should be a main concern of any educator interested in using instructional media for desired attitudinal outcomes. The five statements made by Simonson mentioned on pages 8 and 9 of this paper are worth considerings

Since the development of certain attitudes in student teachers is usually of great concern in teacher education, teacher educators could derive much benefit from the points discussed in this paper,
REFERENCES:


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