THE AFFECTIVE ASPECTS
Of The Use Of Media On The Leaner

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I. INTRODUCTION

Education should keep up with societal changes. If stu
dents have the options of gaining information which is pre-
sented interestingly through a variety of media outside the
school, surely they should have them in schools as well. Be-
sides, the educational tasks which are getting electronic a-
ge heavier and more complex in this electrical age, cannot be
carried out through lecturing in traditional classrooms whe-
re pupils sit still and follow in unison the lecture or what
ever 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 qu-
estions about whether we should adapt new media for educatio
nal 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 view-
ing schedules (Gillett, 1973).

The two basic functions of educational media are : in-
forming 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 in
teractions between learners and the teacher. Hopefully,
through the discussion clearer eideas about the matter under
consideration will be obtained.

LIMITATIONS OF SCOPE

It is true that teaching and learning can take place out
side the school, e.g. through radio and television. But   in
this paper the teaching learning process (es) means limit-
ed as the 'process (es) of teaching-learning' taking place
at school,e.g. within the classroom. This means that the te
acher 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 per
son, material, or event that establishes conditions which ena
ble the learner to acquire knowledge, skills, and attitude.
In this sense, the teacher, the textbook, and the school en-
vironment are media."

II. THE AFFECTIVE ASPECTS OF MEDIA USE

In discussing the affective aspects of media use we ne-
ed some clarification of what is meant by *attitude*. *Attitu-
de* can be defined as : "A mental and neural state of readi -
ness, organized through experience, exerting a directive   or
dynamic influence upon the individual respons to all objects
and situations with which it is related (Thomas and Znanie-
chi, 1918, as quoted by Simonson, 1980 a : 1)". Gagne (1977
: 44) defines *attitude* as and internal state that influences
(moderates) the choices of personal actions made by the indi
vidual. Zimbardo and Ebbesen (1970 : 7) divide attitudes in-
to three components : affect, cognition and behaviour.   The
affective component consists of a person's evaluation of, li-
king of, or emotional response to some object or person. The
cognitive component has been conceptualized as a person's be
liefs about, or factual knowledge of, the object or person.-
The behavioural component involves the person's overt behavi
our directed toward the object or person.

The discussion will be supported by theories and rese -
arch 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

verbal symbols — XII
visual symbols — XI
radio and recordings — X
still pictures — IX
motion pictures : edited mediated reality — VIII
educational television : real time, mediated reality — VII
exhibits : edited reality — VI
study trips, viewing reality — V
demonstratings : learner becomes a spectator — IV
dramatized experiences : involving, qualitative — III
contrived experiences : representation of reality — II
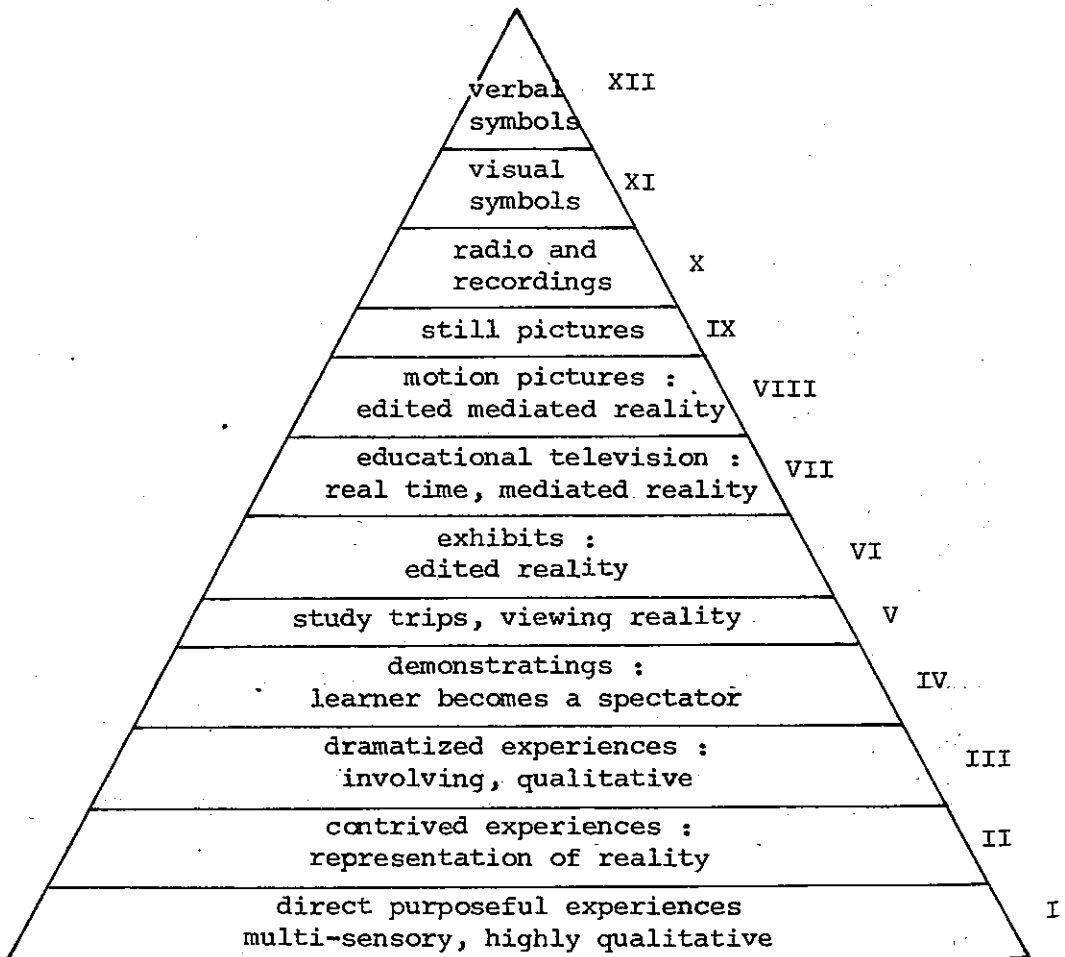direct purposeful experiences multi-sensory, highly qualitative — I

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 sym bols". At the bottom of the " cone " Dale has " direct pur- poseful experience ". Between the lowest and the highest le- vels on the " cone " are a number of intermediate levels, each one more abstract than the level below it. These inter- mediate levels are represented by media types, and often it is the characteristics of these media that determine the ab- straction of the massage.

Dale's " cone " is generally applied to the delivery of information in the cognitive domain. Wager (1975 : 11) pro poses a set of guidelines for use of the " cone " for the fa cilitation of attitude attainment or attitude change by me- dia. The " cone " is also used to propose a series of attitu de related predictions (Fig. 2). The predictions are that:

1. The layers of the " cone " are realted 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 " co ne " will probably be most efficient.

3. To *change* attitudes of "adults", or establish atti- tudes in "young people", enriched messages, represen ted by the lower levels of the "cone", will probably be most effective.
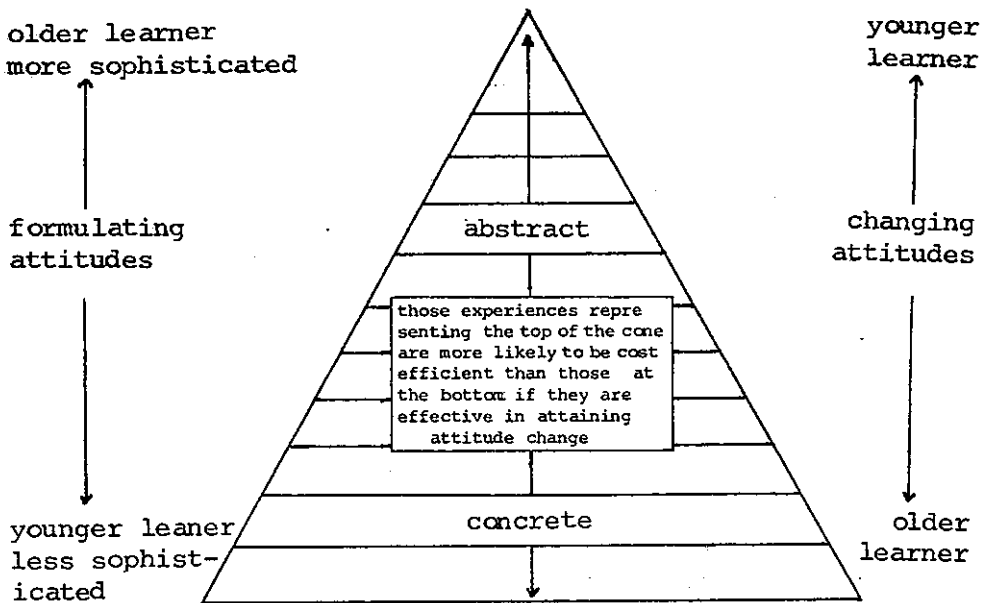
older learner
more sophisticated

younger
learner

formulating
attitudes

abstract

changing
attitudes

those experiences repre
senting the top of the cone
are more likely to be cost
efficient than those at
the bottom if they are
effective in attaining
attitude change

younger leaner
less sophist-
icated

concrete

older
learner

Fig. 2 Media Selection for the Affective Domain

(4) The lavel 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 cogni-
tive component (Wager, 1975).

   Wager generalizes that verbal messages are more effec.-
tive in changing the attitudes of children than adult becau-
se the verbal massages are looked on as having greater cre -
dibility with children. Adult have different perception   on
verbal messages. They would perceive them as being less cre-
dible, 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 de
gree 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 quo -
ted 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, dimen sionality, voice quality, etc. Further it is said that Hovland and Weiss (1952) demonstrated that the credibility of the information presented is a significant variable in deter mining 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 Visu-- al 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 relation- ship between media on the basis of the visual stimuli provi- ded. While similar to Dale's "cone" in its sequencing of me- dia from abstract to realistic, the Cochran model is more prescriptive in isolating the characteristics of media that influence visual stimuli. These visual stimuli might proba - bly 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, sliedes, prints, and filmo - graphs). 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 at- tude/media research into two types - attitude toward the me- dium of instruction and attitude toward content delivered by media. From these he derives four types of attitudes :
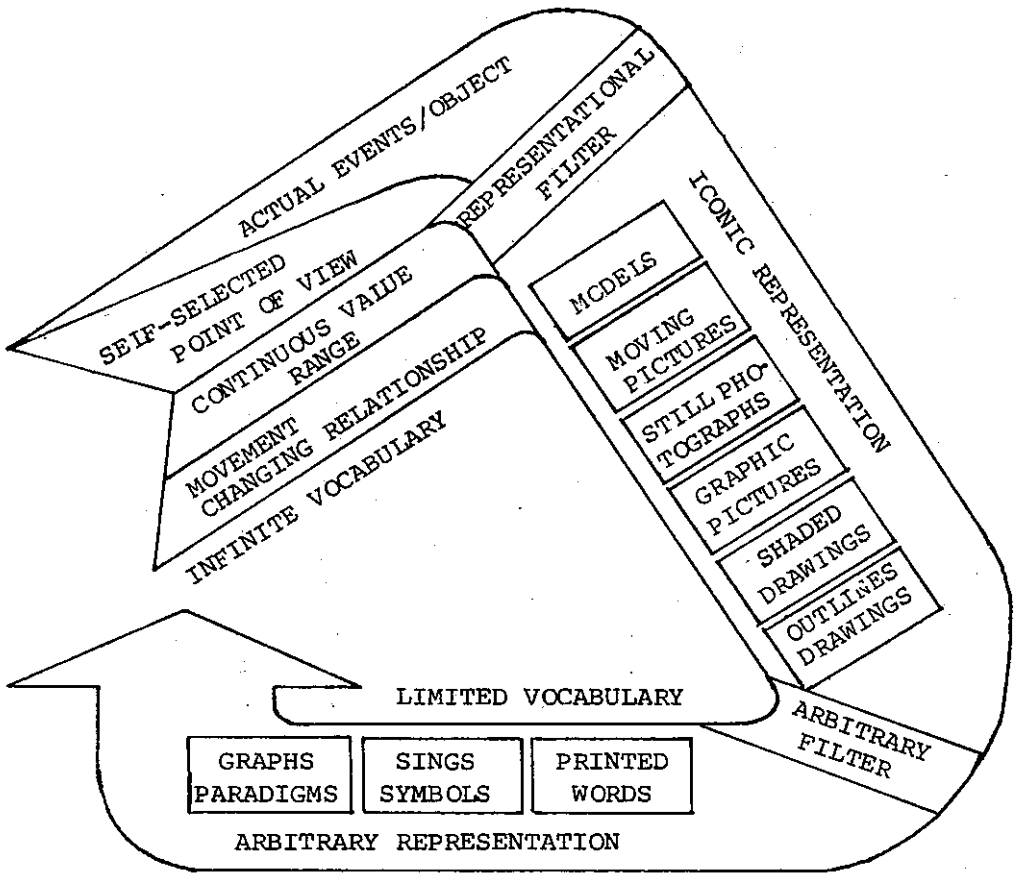
Fig. 3 Model of Cochran's Theory of Visual Stimuli   as
        quoted by Simonson and Burch (1980).

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 me
   dia, 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 T
V users who were generally favourable toward this mode of ins
truction. But three studies, done between 1958 – 1969, repor
ted results where learners indicated a negative feeling to-
ward televised instruction (Simonson, 1980 a). These results
led some researchers to attempt to evaluate the reasons for
the inconsistent reactions. The results indicated that famil
liarity with the medium contributed to the liking. Simonson
asserted that probably the attitude (liking) developed in vi-
ewers 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 techni
ques may have been crucial in developing favourable or unfa-
vourable attitudes in learners toward TV as a method of de-
livering instructional information. The attitudes toward the
media are an important variable, since existing attitudes
(wager, 1979) toward the media might affect information tran
smission, 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 gene-
rally, 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 li-
kely to be so uniformly positive.

Reviewing 23 studies, conducted between 1954 – 1973, on
the relationship between still pictures and attitudes, Simon
son (1980 a) finds that while still media pictures were fa-
vourably received, in certain instances, there were other
instances reported where information was depicted more posi-
tively 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 (event 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 prefered 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 readly apparent, the results of several studies reviewed in this category did provide some interesting insights into the liking of the content of filmed instuction 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 studie es did not seem to provide support for any hypothesis rela - ted to the positive or negative impact of still media on con tent-related attitudes of learners. Possibly the informal na ture of the classroom use of slides, filmstrips, or transpa- rancies contributed to this lack of definitive conclusions.

ATTITUDE CHANGES TOWARD CONTENT PRODUCED AS A RESULT OF ME DIATED 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 vio- lent) influenced by three forty-five minute violent treat - ments. When the results of experiments designed to change content-related attitudes were evaluated collectively, it it seemed obvious that televised massages 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 studi- es on attitude changes toward the content of filmed instruc- tion are as follows : Viewers would seem to like films and learn from them, at least as well as other forms of instruc- tion. 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 pro- duced in viewers of persuasive films. Motion pictures were found to be a powerful for delivering controversial massages espectally when extreme care was used during planning, pro- duction, and utilization of the film. In short, motion pic- tures would seem to have been a viable mechanism for deliver ing information when attitudinal outcomes were important.

Concerning the findings of studies on still media, con clusions can be said to be similar to those reported in the television and film sections, i.e. properly designed still media instuction 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 ma tter) 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 at titudinal outcomes in learners, especially when the instruction is designed specifically to produce cer tain attitudes or attitude changes;

(2) The state of the art of media-attitude research is such that no specific guidelines for producing atti tudinal outcomes can be generated. There is no Theo ry 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 nondistracting/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 prese sentations that involve the viewer emotionally and intellectually in the content shown;

(4) Procedures *least likely* to produce desired attitudi nal 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 distracti ons in the form of extraneous information or cues

  c. presenting unrealistic, highly symbolic information in visual media;

      d, presenting problem/conflict situations but pro-
         viding no mechanism for conflic 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 ope-
rate well. The management of learning involves the use of me-
dia which in turn requires special physical conditions in a
classroom. The installation of television equipment, for e-
xample, 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 accous
tical 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 envi
ronment of learning, not merely the media in isolation. The
object is not to gain precise, technical know-how, but in-
sights and understandings of the processes at work, An eco -
logical 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 sett -
ings'. 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 sup
porting different types of social interaction and social be-
haviour. 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 a-
re sociopetal (tending to bring people together) (Becker and
Bossert, 1978).

All kinds of learning objectives are likely to be achiev
ed 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 en-
vironment 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 tea
cher is no longer as the authority on all facts. He must be-
come a guide and counsellor to the pupil, a manager of the
learning situation, a commentator on world affairs, and a mo
del of intellectual activity (Haney, 1970). In short, the in
teractions between students themselves and between the tea-
cher and his/her students may run better in such an environ-
ment 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 le
arners, and several others the reasons for the preference.
Though the experiments sometimes reported inconsistent re-
sults, it is clear that the use of instructional media has
impact on learner's attitudes. The impact can be either posi
tive or negative. To direct and control the impact should be
a main concern of any educator interested in using instructi
onal media for desired attitudinal outcomes. The five state-
ments made by Simonson mentioned on pages 8 and 9 of this pa
per 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,

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da = dari atas
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