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CHAPTER II
VIDEO MEDIA IN INSTRUCTION

INTRODUCTION

In the present day trend of fast changing sophisticated communication technologies in every field, the need for adopting new technologies is indisputable. The potential of the technologies to reach all parts of the country and outside is tremendous. The present progress in communication itself is a big leap forward in taking up the change for utilizing electronic media and also pave the way to join the list of advanced countries which have taken advantage of the electronic media for communication.

MEDIA IN EDUCATION

Media are to be distinguished. Media are concerned with the form or mode into which the message is placed. The channel is the technical transmission of that media to reach the receiver. Combination of these two put together act as the means of communication. There are several media, each has its own merits and demerits. Using of many media in communication is termed as multi-media. It is all media taking into account the utility and suitability of each medium to a particular situation.

The media used for education purpose are called educational media or academic communication. There is a need today to induct media into the teaching learning process. The media are technological tools to replace educational system. In many advanced countries educational media have been mechanized by introducing advanced electronic media viz. audio cassettes, video tapes, telephone, television, computer etc. Educational Institutions in India have not yet fully adapted to make use of the modern communication technology. The choice of educational media has significant bearing on the quality of education both in formal and distance education. The media
which are commonly used in our educational system are books, journals and chalk and talk. The role of modern electronic communication technology offers wide scope for improvement in educational quality and standards.

The choice of educational media has, therefore significant learning on the following aspects:

(i) Widening of opportunity for learners of different educational backgrounds and the needs of improving standards.

(ii) Due to wider coverage of educational service, a considerable degree of the economics of scale may be realised which, in effect, may generate savings for further investments on such activities as expansion of the distance learning programmes as well as constant revision of course contents.

(iii) Effectiveness of an educational programme would improve considerably since the slow learners would be able to proceed at their own pace and

(iv) Profession of teaching would become challenging since the teacher using educational media would find himself communicating with a far larger group of people than he previously interacted with. (Koul et al., 1988).

The National Conference on Distance Education, Ahmedabad, (1986) made the following recommendations on the role of media in education:

(i) To achieve the objective of mass education through distance education system, use of media is necessary. It has been realised that media cannot eliminate/replace the teacher. As such media should not be seen as a threat to the traditional teacher.

(ii) To ensure optimum utilisation of mass media, the instruction should be through the regional language, and not in English, because if we want to educate the entire population, the medium of instruction is more important a factor than the
media used. The socially relevant subjects such as seed sowing, house nursing, photography etc., can effectively be taught in the local language with the help of audio-video media.

(iii) In our enthusiasm for media, we should not forget to include socially relevant courses for the learners.

(iv) It has been accepted that 'media' should not be considered as a solution to all the educational problems.

The use of media has its own limitations depending upon the use in different socio-cultural situations. Thus media should be introduced and used without losing sight of the social background of both the teacher and the learners.

(v) As such due emphasis should be given to 'contact programmes'. As media may not be available to the entire population of the country, contact programmes may be useful to reach rural population also because our traditional ways of life cause resistance of audio-visual programmes.

Rural Media

Bordeneve, (1977) while reviewing the global situation of the role of communication in rural development, states that the adoption of this new approach to communication has produced several significant innovations in rural development communication which are as follows.

1. Media become more accessible to the rural population in various programmes.

2. Messages are originated among the rural population and government agents, technocrats and the elite who previously acted as sources are now learning to become receivers.

3. The content of the message is more relevant to the problems and needs of the rural people.

4. Rural people learn to formulate and articulate their ideas and feelings about matters important to them.

5. The Government learns to communicate less patronisingly and with less authoritarianism, thus making a dialogue with the rural population possible.

6. New technologies such as audio and video tape recording are making it possible to receive messages and feedback from all the parties thus facilitating mutual perception and understanding.

Mass media together comprise a new social institution, concerned with the production and distribution of knowledge in the widest sense of the word, and have a number of salient characteristics, including the use of relatively advanced technology for mass production and dissemination of message, the systematic organization and social regulation of this work and the direction of message at potentially large audiences who are unknown to the sender and free to attend or not.

Personal, face-to-face methods cannot reach everyone who needs information. So mass media such as radio, newspaper, magazines, television, printed materials etc., are used to reach large number of people quickly.

These media are particularly useful in making large number of people aware of new ideas and practices, or alerting them to sudden emergencies. While the amount of detailed information that can be transmitted by mass media is limited, they will serve an
important and valuable function in stimulating people's interest in new ideas. Once stimulated or made aware of through mass media, they will seek additional information from neighbours, friends, or extension workers.

VIDEO MEDIA IN EDUCATION

Role of Video Media

Erickson and Curl (1972) suggest the following seven roles played by audiovisual technology:

1. Extend human experience
2. Provide meaningful information
3. Stimulate interest
4. Guide student response
5. Overcome physical limitations
6. Stimulate problem solving
7. Provide diagnostic and remedial tools.

If video is to be effective, we can mention in addition to the above cited seven roles, three more roles as stated below:

1. Develop stored understanding
2. Increase commitment
3. Achieve outcomes.

The different roles played by the audio visual technology are described as follows highlighting the benefits and implication of using video in particular.

1. Extend Human Experience

The video must extend human experience by including some material that is not familiar to the learner, perhaps relating experiences that are unusual, costly, too time-consuming, dangerous or unsafe to undergo. The video should extend human experience in such a way that learners are able to relate to the materials with increased motivation to learn. The extension of human experience must be coupled with an overall learning aim and, wherever possible, learning objectives.

When video is being used within the context of agricultural education, it needs to have a stronger justification than vicarious pleasure or incidental learning. These forms of learning are important side-effects of the use of video, but in isolation that are not a sufficient learning aim or objective.

There are situations where video is used to relieve tension and give the group a break on study programmes. The experienced practitioner will use videos to improve group cohesion and release tension. This use of video should be coupled with appropriate opportunities for summary, saying how the video has stimulated new ideas or consolidated major learning points.

2. Provide Meaningful Information

'Meaningful information' has a more rigorous interpretation in agricultural extension programmes than it does in normal, everyday use. The information can be meaningful in different ways according to one's perspective and level of understanding. Video should be able to satisfy content experts; it should offer ideas for teaching strategies for the instructor and, most important, its use must involve learning strategies that lead to successful outcomes for target groups of learners. Obviously it is 'meaningful information' in the sense of learning strategy that is most critical. The content research and refinement
can be arduous and time-consuming; it is also a challenging and creative team task to devise the best way of presenting the information on video using good teaching and learning strategies.

3. Stimulate Interest

Media such as video have the power to stimulate interest and give a presentation with engaging appeal for the viewers. However, the power of medium is not so great that it can sustain interest in topics that people find too difficult or uninteresting. Most instructors have had the unpleasant experience of watching how quickly their audiences' interest can wane when asked to view a video that is difficult to follow.

The video may be difficult to follow if the learning content is pitched at the wrong level of difficulty or the material is presented in a manner that is boring. If the presentation is too unvaried, then, regardless of the level of difficulty of the subject-matter, the audience will begin to lose concentration. If the viewers at home get bored by a TV programme, they can change the channel, engage in other activities or switch off the TV. In any learning situation using video, sustained attention is required on the part of the viewers so that they can be active participants in the teaching-learning process.

The video should stimulate interest through a variety of camera and editing techniques and through impressive dialogues and settings. Just because the video is designed for learning purposes, it does not mean that it is automatically didactic.

Creation of scenes that have the right degree of realism to suit the topic will stimulate interest in the audience. Even where the subject is highly technical a degree of drama is suitable for stimulating interest in the audience.
4. Guide Learner Response

Instructors or content experts can often be very effective guides of learner response. They provide the learner with a role model and can also back-up the video through discussion and by question and answer work on the content. Interactive video and other non-computer supported materials can also be very effective guides.

Interactive video has the advantage of being able to deliver interactive computer response under learner or computer control. The interactive videodisc medium is sometimes identified with other computer multimedia systems. The current state of interactive video is the reverse of broadcast, mainstream television which is characterized by unsegmented audiences, low viewer involvement and high ratings within the developed countries. Broadcast television and interactive video are similar, both being dependent on creative and professional teams for design and production, but as yet, interactive video does not often have the mass consumer audience or other economics of scale to match the ability of television to produce cost effectively.

Interactive video has been promoted as more effectively reaching segmented target audiences, and had been compared to 'narrowcasting'. Since the establishment of cable TV, narrowcast technology-based solutions have been talked about the predicted, first with the advent of VCRs and more recently, Direct Broadcasting by Satellite.

Paper-based support materials are the most normal form of guiding student response when using video. Sometimes the video will have response commands or icons 'built in' to the video programme; usually though the guides are in the form of instructions and questions on paper encouraging the learner to examine and use the video for learning.
5. Overcome Physical Limitations

A well designed and produced video can increase the credibility of the learning programme. In general, the development of the groups or the individual learner's confidence and belief in a learning programme grows with time, and video can help to improve or sustain the quality of the learning programme. The video can capture moments that the participants would find difficult or impossible to view at first hand. Video can also save money and ensure safety by showing even dangerous events or experiments without them having to be directly performed by the participants.

Appreciation of physical reality as conveyed by video will be greatly influenced by the standard of the production. So, audience will expect only well-produced audio-visual material. As such the producer needs to ensure that the quality of the video is acceptable.

The strength of video is that it provides an experience that is concrete and will often be perceived by the learners as being a fuller and more realistic portrayal when compared to other media. A carefully designed and produced video can give the viewing audience a means of learning concepts and operations that they could not understand without the assistance of a video portrayal.

The video can give a surrogate experience of a wider range of situations than the learners may have yet encountered, but can expect to meet from time to time in the future. Learning experiences using video can be simple and direct.

The scripting of the visual communication can be designed to help the participants appreciate complex situations from either a large number of view points or a small number of basic principles. Video can present lessons in a visually informative and simple manner. The video is frequently used to give a simple overview of the material to be learnt.
The individuals and groups are then expected to go into further depth and details during their discussions and learning activities.

6. Stimulate Problem Solving

The strength of the video lies how it provides a concrete representation of the world. Through problem-solving activity, participants progress from initial enjoyment and partial understanding to achievement of the learning objectives and a full comprehension of the video's message and role.

Segments of video have to preserve some continuity in the audio and visuals if the sequences are to end up meaning anything to the audience. High-quality television and video is often described as offering a 'seamless' presentation of the world; the cuts between the different shots are so carefully edited together that it becomes not only pleasurable but believable to view a number of image sequences from very different times, locations, meaning and story-line. Videos for agricultural practices are sometimes simpler in their construction and there is more of an emphasis on achievement of learning objectives, clarity of learning content and coherence of structure.

The same video sequences can be replayed a number of times so that the learners can, by repeat viewing and problem solving, arrive at an improved knowledge and understanding of the video content and the learning points. The participants should be able to breakthrough the continuity of the presentation and understand it more fully.

The interrelationships and overall meaning of the content may not be completely clear on first viewing. However, by the end of the session, the learners may have a shared understanding of the main learning points and a fuller individual appreciation of some of the details.
It is expected that video encourages a depth of understanding by providing material that stimulates thought and problem solving. Just viewing a video, the audience will not develop a depth of understanding. It should be accompanied by discussions, exercises and problem-solving tasks which may encourage the learners to develop deeper understanding of the issues raised in the video. A depth of understanding can only occur where the learners actively reflect on what they have seen and been asked to do. Used correctly, video can therefore play an important role in motivating the learners to think more deeply about issues.

7. Provide Diagnostic and Remedial Tools

Video provides effective simulations that can assist the learners and the instructor to diagnose difficulties or problems. It can also give remedial help, showing how events will unfold if certain contingencies occur.

Video can also be used to help the learners understand concepts or topics which they find difficult to visualize. The effectiveness of the video presentation will be partly dependent on the video's ability to help the learners adopt viewpoints and perspectives to make the sense of the audiovisual information. Carefully constructed exercises and tasks in worksheets or workbooks accompanying the video materials will make the video to be maximally effective in diagnosis and remediation.

We cannot assume that the video will itself provide diagnosis and remedial learning. It is a tool to be used within an overall strategy for achieving the learning objectives. The learners often appreciate the use of the video in diagnosing the general issues or, in clarifying points of detail. Similarly, remedial learning from video involves the instructor in ensuring that the learners have sufficient support to practice and consolidate
the learning. The remedial learning will have to be monitored and assessed to check that the learning has successfully transferred to the work place.

8. Develop Shared Understanding

Video being a powerful means of developing better understanding within a group of learners facilitates their understanding of the learning content. Much of the effect of the video depends upon the instructor's and group's ability to listen and share individual ideas. The development of shared understanding does not mean that the group has to watch the video at the same place and time. But it means that the learners have to meet together face-to-face on several occasions during the learning programme or course.

The success of discussion about a video depends jointly on the skill of the instructor in stimulating and conducting the session and upon the ability of the group to relate to one another.

Individuals may take the learning points of the video seriously if they are given the chance to voice their own opinions. Hence, after viewing the video, discussion among the audience should be initiated.

The size of the group and the different status of the individuals within it can greatly affect the extent to which individuals are able to express their views and feelings. The instructor may divide the learners into smaller groups to give the passive individuals the confidence to discuss freely along with the active participants.

It is obvious that the healthy learning situation is one where the individuals feel relaxed about airing their views and interpretations in the groups. There are learning
situations in which the progress of the group has been inhibited by individuals failing to make their valuable contribution due to worries over the impressions and status of others.

The sharing of individual ideas can be improved by dividing the discussion into four different phases as stated below:

1. creativity sessions, brainstorming, ideas sharing
2. informal and formal presentations
3. evaluation and
4. planning future strategy and behaviour.

The use of the video can be considered within this discussion structure. The different segments of video should suit to different phases of the discussion.

An established end-point has to be reached although the start-point is often varied for any group of individuals.

The video can play an important role in conveying the information and stimulating the learners into thinking and action. Structuring what has been learnt within the learner’s long-term memory is possible through discussion, exercises and tasks that use the support materials and make a selective review of key parts of the video.

9. Increase Commitment

Learning from video has to be set in a longer term education and organizational context, otherwise its effect will decrease rapidly with time. The learners, appreciation of the video will be greater if its role is emphasized and reaffirmed towards the end of the session. The learning from video has to be part of a larger plan and tied to implementation in the practical or work environment.
The instructor should be aware of his position as a role model and this will often involve being seen to support and believe in the key messages that the video is trying to convey. The group may identify any lack of commitment and insincerity on the part of the instructor, if he goes contrary to his instructions.

The instructor should know how the video be set up, viewed and reviewed efficiently with no unnecessary delays during group discussions. The instructor should also devise strategies which enable small groups and individuals to interrogate and learn from the video during hands-on use. The best techniques for learning from video are the responsibility of the people in the room; they control and decide how they will receive and process the message.

The level of difficulty of the video and the associated learning exercises sets the degree of challenge that faces the learners and greatly influences motivation and commitment. Any learning programme first aims at raising the degree of knowledge and skill of the learners to a minimum level. Later it may enable them to perform and learn to their highest potential.

The degree of challenge in learning can be defined as the extent that individuals must improve on their existing level of knowledge and skill to reach up to and beyond the minimum level of achievement.

The video material should be assessed for the appropriateness to the target group. Before showing a video to a group the structure and content of the video must be considered. The level of difficulty of the video and its accompanying learning activities and tasks should be a central part of the instructor's discussion on how the use of the video can increase commitment.
10. Achieve Outcomes

The instructor must be able to formulate how the use of video can assist the learners to achieve outcomes. The learner should be sufficiently informed of the outcomes of the video instruction. The instructor should be able to state how the learning activities are facilitated through use of the medium, and how outcomes will be achieved. The relationship between the use of video and the achievement of learning outcome is often not obvious, and this relationship needs to be made explicit.

GROUP-BASED LEARNING

The effective use of video in group-based learning means that the instructor must be able to manage and understand groups of learners. The video can motivate their interest in further learning of activities and support exercises by providing them with stimulus learning materials. All the same, the video must still be understood in the contextual situation of the group of learners.

Romiszowski (1981) gives a classification of interactive behaviours, based on an earlier work of Rackham and Morgan. He lists the following types of interactive behaviour under two categories heading of 'speaking and listening skills' and 'group maintenance skills'. The categories such as proposing, building, supporting, disagreeing, testing, understanding, summarizing, seeking information and giving information are classified as speaking and listening skills' while defending/attacking, blocking/difficulty stating, open, shutting out and bringing in are classified under group maintenance skills.

The instructor is formally the group leader in most learning situations, even though leaders are selected within the group of learners. It is therefore imperative that the instructor develops a conscious and effective set of skills in dealing with groups.
Effective management of group means being flexible, responding to the different situations and needs of the individuals and subgroups. Though video tape is fixed in terms of its content, there are plenty of alternative ways that any video can be presented to a group, replayed, paused and supported by different learning materials.

It is always better that in group-based learning with video, the instructor should not over dominate. Preferably he should remain in the background, helping where necessary and facilitating the learners' own development of speaking and listening and group maintenance skills.

It is sometimes useful if the instructor can get a colleague to monitor a session. The colleague may also need to join in the session to ensure that the observation doesn't hinder the discussion work by making learners more self-conscious or uneasy. The colleague can observe the frequency with which the instructor uses the different listed behaviours, sampling at an agreed rate over a fixed period of time.

Understanding Face-to-face Communication

Goffman\(^1\) (1967) makes a series of observations about face-to-face communication. He calls 'face' the positive social value that a person is assumed to have by others. Face is the image we make of ourselves during our contact with other people. Face is those social attributes we show ourselves to possess that others approve of the same.

"The combined effect of the rule of self-respect and the rule of considerateness is that the person tends to conduct himself during an encounter so as to maintain both his own face and the face of the other participants. This means that the line taken by each participant is usually allowed to prevail, and each participant is allowed to carry off the role he appears to have chosen for himself. A state where everyone temporarily accepts everyone else's line is established. This kind of mutual acceptance seems to be a basic

structural feature of interaction, especially the interaction of face-to-face talk. It is typically a 'working' acceptance not a 'real' one, since it tends to be based not on agreement of candidly expressed heart-felt evaluations, but upon a willingness to give temporary lip service to judgement with which the participants do not really agree".

As members of any group it is expected that one show to identify emotionally with others who are present and be sensitive towards their feelings. 'Defacement' termed by Goffman (1967), includes not wanting to witness unnecessary unpleasantness and poor behaviour towards others.

'Face-work' enables people to maintain a sufficient degree of poise in the social situation. It is a way of counteracting little 'incidents' which may disturb the face-to-face communication of the group if not corrected. These 'face-work' repertoires may not be consciously under-stood by the individual, and frequently will be employed unconsciously to redress the balance of the situation. Goffman suggests that these repertoires of 'face-work' are so common place that people often know how to use them.

Ultimately, individuals have to be self-regulating in their social encounters. Society can do nothing with individuals who fail to participate in a self-regulating manner. Communication rituals are methods of mobilizing individuals to be self-regulating participants in social encounters.

"One way of mobilizing the individual for this purpose is through ritual. He is taught to be perceptive, to have feelings attached to self and self expressed through face, to have pride, honour, and dignity, to have considerateness to have that and a certain amount of poise. These are some of the elements of behaviour which must be built into the person if practical use is to be made of him as an interactant, and it is these elements that are referred to in part when one speaks of universal human nature". (Goffman, 1967)

The instructor needs to be sensitive to the individual's and group's understanding of their rights and obligations, and the interchanges should give them the feeling that, they
are treated with respect. The instructor has also an important role in refining the learners' ability to give and accept criticism so that they can engage in high quality discussions.

CONCLUSION

Video media in agricultural extension education may create readiness in the learners for participating in the teaching-learning process. It may also provide clarity, precision and accuracy of the information processed. It can also be used to development, organization and summarizing phases of the programme. While selecting the video media in agricultural extension education, the instructor should have a clear idea of the objectives of the programmes and the desired outcomes. He should also be sure whether the video programme matches the learning styles of the participants besides ensuring the appropriateness of the content under consideration and physical facilities available in the learning centre. Consideration should also be given for cost effectiveness, cultural issues related to the video media and the physical and emotional needs of the learners.