
UNIT 12 USE OF AUDIO, VIDEO AND COMPUTERS IN TRAINING

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12.1 INTRODUCTION

In this Unit we will deal with many different types of audio and video resources such as radio, television, computers and other recent technologies and methods to link learners with each other and with needed learning resources. Radio, T.V. and video are primary media for informative discussion that also have been used for home entertainment. T.V., radio, telephone and computers have all made life less stressful and more rewarding. The use of these audio-visual aids involves many different skills and techniques and each aid has a spectrum of functions.

The work of trainers gets facilitated if they can use modern technology that helps improve quality with orientation towards the learner and her capability to learn. Research studies have shown that through wise selection and use of appropriate educational media, the environment for learning can be made more conducive for learning and the instructional process can be significantly improved. Appropriate and imaginative use of audio-visual aids encourages learners to work, holds their attention and sustains their learning.

Objectives

After studying this Unit, you will be able to:

- describe the value of audio and visual materials;
- analyze the nature of audio resources;
- use the audio materials in training;

- state the potential of video and film media;
- use video/ film in training;
- discuss the role of computers in the training process;
- identify the appropriate medium to enhance the training activity.

12.2 BENEFITS OF AUDIO AND VIDEO TRAINING MATERIAL

Let us now discuss the important benefits of using audio and video instructional materials. They:

- Stimulate more senses than one;
- Stimulate students initial interest – arouse ‘sensations’, ‘feelings’;
- Save the trainer’s time and enhance the efficiency of training and make teaching easier;
- Force teachers and trainers to think through the whole presentation;
- Increase the retention of knowledge – more permanent learning;
- Increase speed of comprehension;
- Stimulate the development of understanding and abilities;
- Provide for individual differences;
- Develop a continuity of thought;
- Motivate goal seeking and evaluate outcome;
- Offer opportunity for student participation and personal experience;
- Offer real experiences which stimulate self activity; and
- Provide for fostering creativity.

Check Your Progress Exercise 1

1) State two examples/ experiences where the audio/video aid used has made a difference to the effectiveness of training.

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2) Compare the experience you have while watching a programme on a TV channel and reading about the same topic in a magazine or book.

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12.3 USE OF AUDIO IN TRAINING

The audio medium, a base resource, is powerful by itself and can act as a “life-giver” to other media. Generally, we tend to take sounds for granted but the fact is that however sophisticated a visual may be, it becomes alive only when it is supported by its audio component. Specific advantages of audio materials include:

- Helping the trainer to bring a touch of the real world into the training environment;
- Providing high quality instructional inputs which are cost-effective, well within most budgets;
- Hardware and software are easily available. This feature is of great value to systems which cater to learners in remote areas;
- Can be easily duplicated and distributed;
- Can be corrected, modified or even erased with ease;
- The entire equipment is portable and can also be operated with batteries;
- The learner can use it conveniently without much difficulty;
- Important teaching/learning points can be audio-taped for follow up analysis;
- Audio notebooks and audio tutorials can be used with great success;
- Best support can be provided for language learning;

We will discuss three types of audio media with you in this Unit—radio, recordings and audio conferencing.

12.3.1 Radio

The potential of radio for educational broadcasting is characterized by the following:

- *Wide Coverage:* A radio broadcast may cover a subcontinent, continent or the entire world. It can, therefore, reach the isolated rural areas as well as the urban crowds.
- *Speed and Immediacy:* Radio messages reach the audience instantly. There is no time lag and no waiting period. Radio waves are on air. You switch on your radio and you can listen to any programme of your choice. Also news of anything happening in the world, can reach you without any delay provided it is put on air.
- *Ease of Access:* Radio is easily accessible. Low-cost transistor radios have become commonplace. Radio broadcasts can now promote home-based education in one’s privacy especially with the advent of community radio.
- *Low Cost:* Radio technology is less capital intensive and it has low running cost compared to other media.
- *Ease of Listening:* Radio broadcasts can be heard even while doing

something else, say while eating, walking or writing or even while attending to your daily chores – personal or household. In fact this listening adds interest to your chores.

- *Thought Promotion:* Listening to radio permits one to think and to imagine what one cannot see. Consider listening to a description of a day in a woman farmer's life or a programme on women as custodians of natural resources. You soon start feeling as if you yourself are a part of their experience.
- *Ease of Programme Production:* Production of radio programmes is comparatively easy and less time consuming.
- *All-round Enrichment:* It is possible to provide enrichment material in all types of subjects by means of radio broadcasts.

In our country radio has very wide coverage and for this reason we can use it to reach learners even in the remotest parts of the country.

The radio medium has, however, some limitations such as:

- a) *Inflexibility:* Radio will give you what is on air and not what you want.
- b) It makes possible only one -sided communication. As a result there is no interaction, no activity and no supervision.
- c) There is no immediate feedback on your actions. The doubts and queries of the listeners cannot be attended to immediately and we cannot provide any feedback right away as we can do in case of a face-to-face situation.

Once you decide to use radio for training purposes, remember the following points:

- Radio uses only one sense i.e, sense of hearing. For this medium to be effective the concentration of the learner on listening is of utmost importance. If the material presented is not of interest to the learner, her attention can drift and the message can be lost.
- Preparation of the learner is necessary because the programme / presentation is live. If the learner does not understand something she cannot clarify her doubts then and there. She will have to wait till the presentation is complete.
- The radio set should be available and in good order so that the sound quality coming from it is clear.

With all the above mentioned points in mind, let us see how we can make radio listening more effective.

Use of Radio

- *Preparation:* To make a radio-based learning session effective, ask everyone to assemble ten minutes before the session. Announce the topic, give the gist of the presentation, give points which need to be noted specially while listening to the presentation, inform the learners about what will be done after the presentation. In other words, tell everyone to listen carefully, note down questions and reactions, and wait till the presentation is complete.
- *Post discussion:* Discuss questions and reactions. Ask someone from the group to sum up. You can also add points if you feel that they are necessary.

Remember this *pre-preparation* and *post-discussion* on any presentation on radio are absolutely necessary for the success of learning from radio. Also, it is very important to listen with all your attention.

Activities: Listen to any radio programme that you consider good for a week and identify what makes the programme attractive or relevant for you.

Radio script is given in Annexure 1.

12.3.2 Audio Recording

You must have seen a cassette/ tape being played on a machine to play music. Well this is an audio recording and the machine is a cassette player.

Players can be operated by (i) electricity and (ii) battery. The transistorised tape player and/ or recorder is inexpensive, handy and portable. Whatever be the type of tape player used, remember audio recordings have good instructional value.

A tape is a fine roll of plastic inserted in an audio cassette. Recordings can be made on tapes of plastic through magnetic recording. One side of the plastic tape is glossy. This is the “Backing”. The other side – working side is dull. The recordings are made on this side.

Audio tape and cassette recordings may be used by themselves to provide motivation, to convey information, to analyze verbal messages, to provide drill and practice or to teach a skill. Used with worksheets and other materials, audio recordings can serve as a study guide and source of information. Recordings may also be used together with visuals in print or projects.

Audio recordings have advantages over radio. These can be started, stopped, taken forward and backward according to the requirements of the learner. Listening carefully is important but one can learn from recording at one’s own pace by playing it any number of times. Hence if the trainer and the learner decide to learn from a recording they do not have to worry about distractions while listening and the discussion can go on side by side. But the pre-preparation about the topic and discussion at the end are necessary here also like in the case of radio because these provide a direction to listening and also learning is summed up and systematized.

Sources for Audio Tapes: You can buy pre-recorded audio tapes from the market, borrow from libraries or prepare your own.

Tapes are best developed in a studio by a professional but if you have the recording equipment (a tape recorder) then you can also record this useful matter on a tape while sitting in a room or even outdoors in a quiet environment.

Audio cassettes help to:

- Increase the audience attention and involvement in the message from the song/ drama/ story.
- Retain the message for a longer period, especially if the message is in the form of a song (through repeated singing of the song).

Can you think of advantages of audio cassettes in the context of educational communication?

If you can, list them here.

- 1)
- 2)
- 3)

Now let us turn our attention to advantages of tape recordings/ cassette recordings.

Tape/cassette recordings can be:

- Used repeatedly and will last long.
- Recorded in any language, programmes can vary from a few minutes to hours.
- Erased and re-recorded to remove mistakes or make changes.

In the case of both formal and non-formal education, the possibilities of using this medium effectively are enormous but not fully realized.

Radio plays, dialogues, group discussions, symposiums, speeches, interviews, songs, background music, background sound, etc., can be recorded and used in different teaching situations.

Procedure of recording an audio-cassette

- 1) Select a theme for instance, “Women’s Self Help Groups”.
- 2) Write a song related to the theme or build a script including the messages to be communicated.
- 3) Choose a familiar tune sung often by members of the target audience for the same.
- 4) Test it with a group from the target audience and modify if necessary.
- 5) Get a singer to sing a song clearly and distinctly (Check for undesirable noises).
- 6) Record the song on an audio cassette.

Your tape is ready. Play it and see how it sounds. Was the song interesting? Can you prepare a song incorporating gender training concepts? To help you in this task, given below are handy cues on how to make use of ‘songs’ as a medium to communicate some selected concepts. They are:

- 1) Try to write songs in the regional language, building in appropriate messages and incorporating indigenous style tunes.
- 2) Contact training organizations or any other songs in the regional languages for reference.
- 3) Translate the relevant songs into your regional language and record them in audio cassettes.
- 4) Try to use the songs repeatedly on different channels like radio, formal and non- formal educational situations.

12.3.3 Audio Conference

An audio conference is nothing more than an extended telephone communication. Growth in telephone technology has made it possible for small groups of people in different locations to communicate with each other, discuss and learn. The system can be used for larger groups by using an amplifier at the receivers' end.

Use: For good results, the coordinator needs to do a good deal of preparation and ensure that all background materials and handouts required during the audio conferencing are already with the participants. The system is very practical and cost-effective in the long run. Each participant is able to participate actively.

Whenever you decide to use this medium for learning, do the following:

- Inform everyone to assemble near the telephone 5-10 minutes before the time fixed for conferencing.
- See that everybody has the necessary background material and if necessary should go through it before.
- Have the question-answer session for the time duration scheduled. These questions can be thought of before hand and may or may not be passed on to the other party.
- Ask any participant to sum up or you do it yourself.
- Post-discussions are also important at each centre. Participants should be given opportunity to clarify any doubt arising during the course of discussion or later.
- Somebody should sum up the discussion and write a report which in turn may be filed.

Check Your Progress Exercise 2

1) a) Indicate which of the audio aids discussed here would be most useful or of major use in your programme and state the reasons.

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b) Which would not be applicable in your area? Why?

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c) On what basis would you select the aids you wish to use?

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2) If you are training girls for a programme 'No Gender Bias', which of the audio media will you choose for support and why?

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3) Mention three essential purposes of audio cassettes in gender training communication.

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Now, let us learn the advantages of video cassettes and their use in educational communication.

12.4 USE OF VIDEO IN TRAINING

In a large country like ours, electronic media provide tremendous reach for disseminating audio-visual information which is universally understandable even by those who are illiterate and also by those who live in remote areas. It is said that one picture equals more than a thousand words and one moving audio-visual is several times more effective than a picture. Like films, the video medium incorporates images, sounds and movements. The medium has somewhat revolutionized instruction and has made significant contribution in the area of open and distance learning.

Skits, role plays, dialogues, group discussions, symposiums, speeches, interviews, public meetings, song and dance sequences, teaching-learning situations, important occasions, etc. can be recorded and used again and again on different occasions.

The popularity of the video medium is going to increase even further as the technology is improving and becoming more cost-effective.

Special Advantages of the Video Medium

- Video equipment is easy to operate.

Media–Preparation and Use

- Videotape is not sensitive to light and loading and unloading tape in the recorder is easy and quick.
- Videotape does not have to be developed and can be viewed right after recording, allowing for immediate evaluation of results.
- Videotape is economical and can be reused many times.
- Sound and picture are more easily recorded together (in synchronization).
- Special effects in the form of sophisticated graphics and animation can be produced easily.
- Duplication of programmes is easy and inexpensive.
- Packaging, transportation and handling is easy.
- Other resources like photographs, sounds, slides etc. can be incorporated in a video programme.
- The format is compatible with the computer. The graphics generated on the computer screen can be recorded directly.
- The recordings attract the audience easily.
- Video can involve trainees in active teaching-learning.
- Video can lead trainees to act on the message conveyed.

Video recordings are used in learning to allow self-pacing. This is because the tape can be stopped, started, taken forward and backward according to the requirements of the learners.

Here also the *pre-preparation* and *post-discussions* play an important role and these should be appropriately conducted.

Quite similar to this are two other media – *TV shows and films*. Their effect on learning is similar to that of video but their use in learning is similar to that of radio. The reason is that the programmes or content presentation on these is “live” and cannot be interrupted. Therefore, as in the case of radio, here also we have to wait for questions and answers after the presentation is complete.

Activity 1: Present your plan to use a video recording in a session of your training. (Hint: Follow the procedure you used for audio recordings.)

Activity 2: Present your plan to use TV/film in one of the training sessions. (Hint: Follow the plan you will use for radio broadcasts)

Video Cassette Recorder (V.C.R)

What is a video cassette recorder?

It is a machine for recording picture and sound on magnetic tape with the help of a video camera with microphone attachment. Its purpose is to capture both original picture and sound and preserve it for later use. When you purchase/hire a VCR, beware that you do not go for a VCP. It is only a player which is used for playing the recorded video cassettes. A Video cassette-recorder (V.C.R.) – serves two purposes, recording as well as playing the cassettes.

Now digital video discs (DVDs) have become far more common. DVDs store the video in digital form. This is more compact and easier to handle than a videotape. Instead of VCRs, DVD players have come into the market. They are, however, more expensive.

Check Your Progress Exercise 3

1) Mention four instructional purposes of video cassettes.

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2) What are the advantages of using video in training?

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3) Mention the difference in preparation required when you want to use a TV programme and a video programme for training girls.

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12.5 USE OF COMPUTERS IN TRAINING

Computers have really arrived in the world of training and are here to stay. Computers can record, store, analyze and communicate words and figures well. In order to use it to its best potential, what is required is change in attitude rather than expertise of a high order.

Special advantages of computers in instruction include the following:

- Storage capacity for large quantities of data;
- Allow individualized working;
- Link to other users around the world;
- Can generate illustrations or animation sequences to support text.

Computers have proved to be effective in all types of learning environments. Developing computer-based instruction/learning material is a specialized task but it is finding more and more applications in training.

What can a trainer do with a computer? She can

- Create handouts;
- Plan an entire training programme session-wise/ lesson wise;
- Generate good transparencies for training; and
- Make powerpoint presentations.

Use of Computers

In case you decide to use a computer for learning in a training session, you have to keep the following points in mind:

- Decide if you are using it for a large group to make a power point presentation or are asking a small group to use a particular package/ programme. In the first case you are handling the computer and in the second case learners are handling it.
- The required hardware and software have to be available and in working order.
- In case the learner is using the computer, she/he has to be computer literate of course. In addition the learner must know how to make effective use of the computer for serving her/his learning needs.
- If learners are using the computer, introduce them to the programme/ topic, tell them what is expected of them at the end and then let them proceed on their own.
- Be available for sorting out any problems in learning and have a technician present on the site to handle any hardware problems.
- If there is more than one learner, ask them to discuss the topic and help each other to learn. Two- three learners can be together while learning from computer and can be discussing while learning.

The Internet

We are continually seeking new ways to capture the attention of students and create active learning environments where needs are engaged and interests are nurtured. The Internet is a powerful tool for engaging people individually and in groups.

Educators have become interested in Internet because everyone seems to be using it or trying to use it. It has become one of the most popular mechanisms available for communicating with others and locating information electronically. Once connected, educators and students can use the Internet to exchange messages and files with others anywhere in the world. People all over the world can communicate with each other as though they were on the same local area network.

In order to navigate the Internet, you must have an account on a computer connected to it. The combination of your account name is called **user id** and the Internet required name of the computer comprises your **Internet address**.

Like for instance:

rashmiker@yahoo.com

- The name **rashmiker** represents user id
- The @ symbol sets off the host name, in this case yahoo.

Some of the popular search engines are google, alta vista etc. These search engines help you to search pages relevant to your topic of interest from among lakhs of web pages created by experts all over the world. This is a tremendous resource available at the press of a few buttons on your keyboard.

In essence the Internet provides a way to break free from the walls of the institution and engage or interact with the people and learning resources available across the world. The Internet can also enable you to be part of chat or discussion groups or virtual communities of gender trainers from many countries. You can share your thoughts and experiences with other theorists and practitioners. This is very enriching.

Check Your Progress Exercise 4

1) Discuss advantages of the Internet for learning purposes.

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2) If you have access to information through Internet, how would you use it in training programmes?

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3) What can a trainer do with a computer?

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12.6 FACTORS CONTRIBUTING TO SUCCESSFUL USE OF AUDIO AND VIDEO MATERIALS

The following section describes some of the factors that we need to consider in successfully using audio and video materials. These include:

Media–Preparation and Use

- Selecting appropriate media;
- Adapting or supplementing;
- Arranging the training room seating so that everyone can see the screen;
- Trying and learning the software on the computer before the session;
- Ensuring that every cable is hooked properly to the computers;
- Ensuring that each student is equipped with writing implements and instruction sheets; and
- Knowing the use of the software.

Steps for Media Selection

- 1) Make a preliminary selection on the basis of type of learning outcomes you want such as remembering factual information, visual identification, listing or describing principles, procedures, processes, etc.
- 2) List the media you would use for the desired purposes in the case of each learning outcome. A group of outcomes can be linked to a single topic or theme.
- 3) Check the availability of hardware, software or need for the software, etc.
- 4) Select the simplest and the least expensive media.

Use of Media

We look at the use of media during three stages:.

- Before the training;
- During the training;
- After the training.

Let us consider each of these step by step.

i) *Before Training*

- a) In your available time, get familiar with the aid, its instructions and accessories when you want them and try the equipment, under your supervision e.g. experiment with fixing tapes and VCDs, controlling volumes, adjusting the distance of projectors from screens.
- b) Try out your materials and see if they are worthwhile. Remember a bad audio/video programme or film is worse than none at all, because poor quality inputs will confuse issues and hinder understanding.
- c) Check on the lighting, seating, accessories, electric points, etc.

ii) *During training*

- a) Once you have selected the type of audio or video or computer-based material, do the adjustment of shade, lighting in advance. As soon as you enter, set up the required equipment and material/resources to be presented.

- b) If you are not planning to use the aid at the beginning of the session, keep it to one side, and do not draw attention to it till you are ready to use it.

After Training

- c) After the actual use in the training session, it is important to evaluate and assess if the objectives of the programme have been successfully achieved.
- d) Note the positive and the negative points, the time required for use, problems encountered and the general effectiveness of the audio/video/computer-based materials.
- e) Report any equipment that needs repair immediately.

Two important points you can keep in mind are:

- In essence you use the audio/video/computer resources because you cannot use the 'real thing' or you find it impractical to do so.
- There is no right/best audio/video/computer-based aid to use in any given situation. Some are better than others for a specific task.

12.7 CASE STUDY

Here is an interesting case study on combining media to achieve training objectives.

Design and Plan of the "Media Mix"

A video film almost substitutes for demonstration. While an actual demonstration would normally take 3 to 4 hours, a video film can reduce the time to about 15 or 20 minutes.

But unfortunately the medium is very transient. The shots and the commentary go by. The sequences come one after another, the beginning and the end are separated out in time. So to grasp the subject matter thoroughly, it needs to be played again and again.

Video can be replayed (theoretically) as many times as the trainers/ trainees wish. However, in actual field conditions this may not be possible.

Moreover, this is not desirable, since the needs of the various participants would be different. Replay which satisfies one woman in the group may bore the others.

A training manual, however, is a more stable medium and lends itself to quick references, individual usage (at one's own pace) and can be given to the trainees after training for aiding memory. But it is, by its very nature, static (unlike video which is dynamic) and needs more active participation from the trainees (than the usual passive viewing in the case of video).

It was decided to maximize the strengths of each of these media to cover up the weaknesses of the other. Video would be used to enliven, to motivate, to show compressed glimpses of reality with its richness of life and activity and the manual of step-by-step learning of details.

Since the target audience we are considering in this case study consisted of women who were semi-literate to illiterate, the preparation of the manual presented specific problems. We had to make sure that the women could identify the steps in the process being taught without being able to read at all. If they could read and were only semi-literate, it should give them the thrill of having read a full book. It should also be enjoyable for literate women — atleast it should not talk down to them, make them feel inferior. This was a worthwhile challenge to take up.

The trainers decided to make a comic book instead of the usual ‘training manual’. A highly visual form with a bare minimum of words, the comic book format, they felt, would lend itself to be used by both literate and illiterate women. It was felt that staggering the presentation of written matter, with only words and phrases at first to simple and then complex sentences, could enable the book to be used as a literacy tool.

The literacy campaigns in the country have already created a demand for such material and so, now the safe water campaign could easily be linked to the post-literacy campaign. It was seen that the literacy campaign had integrated water and sanitation messages (for example the educational video serial called “chauraha”). It was time to return the favour.

Since the manual and the video were to be parts of the same communication package in the hands of the trainer and since reading and referring to the manual should normally follow the video viewing, the reading and understanding of the manual would be facilitated by the video.

Yet knowing that the field conditions of training would not allow strict adherence to the recommendations about the use of the training package, it was decided to treat them as two separate packages while pre-testing.

The resource persons would have liked to finish the video first since their media resource person had a better hold over the medium. They thought that the video could become a tool for motivation and reference material for the artist who would do the artwork for the comic book. But at the insistence of UNICEF, it was decided to start on the comic book first.

An artist, however, imaginative he or she may be, cannot produce technically correct representations unless there are enough reference materials. An artist cannot be briefed on abstractions.

Thus a large amount of time was spent on trying to perfect the manual. And so, the video and manual evolved simultaneously without concretizing the idea. In other words, they have to be used as a single package.

Thus, ‘paani ki kahani’ evolved in the form of both a video programme and a training manual. Both start with the story that ‘we’ women have to undergo so much hardship to collect water for the family needs.

The angle of ‘we’ women was taken as an alternative to the ‘you’ angle which is normally used for such communications. The ‘you’ angle may be successfully used by advertising agencies in sales talk. This was not apt for this communication which calls for participation of the audience and not its alienation.

Both the manual and video went on to deal with the health problems caused by unsafe water. Here again some problems had to be overcome. The trainers had noticed that some people had aversion to immunization because they were visually connected with unpleasant sights of suffering children in the TV campaign. The rejection of the unpleasant sights of suffering had affected people's judgement about immunization.

So the trainers had to step aside from the visual communication strategy of 'scaring-them-out-of-their-wits-to-make-them-take-our line' approach. The visuals had to be pleasant but yet the point had to be made with due emphasis.

Water-borne diseases like diarrhoea and dysentery are not very interesting to look at. So we had to make visual understatement. Considerable stylization in the manual and use of these as graphics in the film allowed us to overcome the problem.

Yet graphics in the video medium have a flatness of response from the viewer. They lack motion and therefore, emotion. So this section had to be coloured by music.

Music for the video

The title music for the video was to have a typically Indian beat and a melodic line, which is acceptable by the audience. The trainers took a beat which is normally used in Durga festivals and in the montage, threw in a few dance poses of Durga (the dancer had the tools for repair of handpumps in her hands for linking the video with the posters). They also tried to build up the emblem of women power vis-à-vis handpumps, through a montage of music and visuals.

Music for the video, therefore, had to be designed with care. The trainers could not try to fit pre-recorded music or sound effects. But they could definitely use computerized synthesizers. They could not get either a sampler or a card containing the rhythms or the instrument that we wanted. So we had to mix and synthesize different instruments to get close to what we wanted. Ultimately, the title music contained 18 tracks.

Some of the songs at the end of the training programme were written and composed by the women of Kusumpur Pahadi.

The title theme music would be repeated within the training films to break the monotony and to unify the different parts of the film. But this music could not be used for creating the emotions related with illnesses. It was realized that sound effects were needed and some musical chords would create and relieve tension periodically so that the various sequences could stand out.

The Text in the Manual

When the resource group took the second draft of the sketches to the trained women they suggested that there could be written matter along with the pictures. As an example, for demonstration, the resource group wrote above the first two frames. The women were then asked for their help in completing the rest of the frames.

What evolved out of this was a pleasant surprise. The resource group had used the normal format of the manual which says do this, then do this and don't do that and made it mild by using them in the form of a request. When the women helped them to fill the rest of the frames, the grammar suddenly changed. They consistently used "let's do this".

This had a strange effect on the manual. It suddenly turned less ‘preachy’, more positive. This verbal form has two interpretations: *We* will do and *you* will do. Since Hindi lacks the form ‘shall do’ as a distinct entity, when we consider the interpretation of “you will do”, the meaning diffused into “you shall do”. This copy had suddenly a lot more force.

In later drafts of the manual, when the working group was deciding on the font size (the size of the letters) etc. they retained the ‘request’ form (requesting the trainees to perform a certain action) in certain specific places – to break the monotony and to distinguish side actions from the main sequence of operations.

It should be noticed that this experience helped them to modify even the commentary for the video. But unlike the manual, video has more life and immediacy. So they used the form: “Let’s do/is being done”.

12.8 LET US SUM UP

In this Unit, you have studied the uses of audio, video and computers. Obviously these can be used only when you have the necessary equipment and electricity supply/ generator. Each medium has its own advantages and disadvantages. Used in combination especially if supported by printed materials, they can be very powerful learning tools.

12.9 GLOSSARY

Hinder	: Prevent
Accessory	: Equipment which is additional to the main equipment

12.10 ANSWERS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress Exercise 1

- 1) Two examples from personal life where audio/video aids were helpful in learning.
- 2) Watch an educational programme on a TV channel. The TV programme usually:
 - Stimulates students initial interest – arouses ‘sensations’, ‘feelings’;
 - Offers rich experience in less time;
 - Increases speed of comprehension;
 - Stimulates the development of understanding and abilities;
 - Develops a continuity of thought;
 - Offers a reality of experiences which stimulate self activity; and
 - Increases the retention of knowledge – more permanent learning.

Check Your Progress Exercise 2

- 1) a) Usually audio recordings/ cassettes would be useful

The factors involved in selecting audio aids would be:

Availability of power, type of learning, objectives to be achieved, size of the group of trainees and training room facilities.

Recorders are operated by (i) electricity and (ii) transistors. The transistorized tape recorder is inexpensive, handy and portable. Whatever be the type of tape recorder used, remember they have a good instructional value.

Radio plays, dialogues, group discussions, symposiums, speeches, interviews, songs, background music, background sound, etc., can be recorded and used in different teaching situations.

- b) Usually audio conference may not be applicable.

- c) Audio cassettes help to:

- Correct the audience for teaching – learning situations.
- Increase the audience attention and involvement in the message from the song/ drama/ story.
- Retain the message for a longer period, especially if the message is in the form of song (through repeated singing of the song).

- 2) Any one of the two – recording or radio depending on the cassettes available/ programme available on radio. Both can present related content effectively.

- 3) If the programme available is good:

- It will allow individuals to work at their own pace.
- In a group it can be played again and again if you don't agree with what is being said.
- It can be used to resolve conflicts.
- It can be used to generate group discussions.

Check Your Progress Exercise 3

- 1) Video cassettes help to:

- Attract the audience for a specific nutrition teaching-learning situation.
- Involve them in active nutrition teaching-learning.
- Lead them to act on the nutritional/ health advice given.
- Capture a model skit, role play or demonstration, etc. for future use.

- 2) • Create handouts.
• Plan an entire training programme session-wise/ lesson wise.
• Generate good transparencies for training

Media–Preparation and Use

- Make power point presentation
 - Video equipment is easy to operate.
 - Videotape is not sensitive to light and loading and unloading tape in the recorder is easy and quick.
 - Videotape does not have to be developed and can be viewed right after recording, allowing for immediate evaluation of results.
 - Videotape is economical and can be reused many times.
 - Sound and picture are more easily recorded together (in synchronization).
 - Special effects in the form of sophisticated graphics and animation can be produced easily.
 - Duplication of programmes is easy and inexpensive.
 - Packaging, transportation and handling is easy.
 - Other resources like photographs, sounds, slides etc. can be incorporated in a video programme.
 - The format is compatible with the computer. The graphics generated on the computer screen can be recorded directly.
- 3) In using a video programme, discussion can be organized at intervals during the programme. These need to be planned just like the orientation before and discussion after the programme.

Check Your Progress Exercise 4

- 1) Immense learning resources from across the world.
Access relatively easy to materials across the world.
- 2) Training materials can be downloaded, training studies can be researched and discussed.
- 3) Create presentations, files, handouts, show websites, link to useful documents, modify the order of presentation of content, generate multimedia content etc.

Sample Radio Script in Women's Health**Topic: Care of the pregnant women**

As you know pregnancy is a time when the woman has to make many adjustments in her diet and way of living. If she has been regularly eating sufficient amounts of good nourishing food, she has a better chance of having a healthy baby than a poorly fed mother.

Do you think that pregnant mothers need special care? Yes, the pregnant lady must eat extra amounts of each of the following foods:

- Cereals;
- Pulses/flesh foods;
- Greens/fruits;
- Other vegetables; and
- Milk and milk products.

What are some of the problems pregnant mothers face? Common problems in pregnancy are:

- Nausea and vomiting;
- Swelling of the feet;
- Paleness and weakness (anaemia and malnutrition); and
- Constipation.

How can one deal with these problems? There is no need to take drugs immediately, but if a little attention is given to the diet of a pregnant woman as suggested here, problems can be easily solved.

For Nausea and Vomiting

Try to eat foods you like more, avoid greasy foods and eat small amounts of food several times a day.

For swelling of the feet: This is due to the weight of the baby pressing on the veins in the mother's legs/ By putting the legs up as often as possible, this can be taken care of. Try to avoid drugs for this, as far as possible.

For paleness and weakness: The pregnant woman undergoes a lot of physiological changes and hence, needs foods to help build up the body, foods that protect her from illness. She should eat beans, fish, groundnuts, meat, milk, eggs, and greens. She needs iron pills with folic acid and vitamin C, specially when she cannot eat enough food.

For constipation: Try to drink plenty of water, eat food with lot of fibre like fruits and bran and do plenty of exercise.

Is there any other care that needs to be taken?

Media-Preparation and Use

Yes there is.

Some important points to keep in mind include:

- Generally, it is better to avoid taking any medicines unless prescribed.
- Try to get immunized against tetanus. (If the pregnant woman has had vaccination before, booster in the 7th month is sufficient.).
- Ensure regular weight gain (there should be 8-10 kg. weight increase during nine months of pregnancy).
- Try to take good rest.
- Keep up good personal hygiene.

Many problems of pregnancy are due to the faulty diet habits of the pregnant woman. Hence, the pregnant woman must always remember that the surest way to have a healthy baby is for herself to be healthy.

Method of Preparation of a Video Cassette on Role of Women in Care of Infants and Health Promotion

Development of a skit for a video cassette

- 1) Select a relevant theme.
- 2) Write learning objectives.
- 3) Think of the characters and situations.
- 4) Write dialogues in sequence.

Skit

Topic : Infantile Diarrhoea and its Prevention and Cure

Learning objectives:

- 1) To help the women learners to know the symptoms of infantile diarrhoea.
- 2) To help them to find cure and prevention for infantile diarrhoea in the family environment

Characters:

Sitamma (the mother)

Rajamma (the grandmother)

Ramayah (the father)

Kamamma (a friend of the family)

Krishna (the baby of 11 months)

Introduction: Ramayah's family is very happy family. But one day the baby Krishna developed diarrhoea. After two days, the condition became worse. Now he is feeling weak. Let us see what is happening to the baby at home.

(Sitamma and her mother-in-law are talking, Ramayah is standing quietly).

- Sitamma : Look at the baby. He is not able to stand.
How nicely he was learning to walk last week.
- Rajamma : Don't worry, Sita. Let us take him today to Subbanna and let the child have his mantram (spell).
Surely, he will get better with Subbanna's mantram. Everybody does the same thing for such illness.
- Sita : But Ma, he is having severe diarrhoea and not eating anything. I am worried.
- Rajamma : He will get better with mantram, you will see.
- Ramayah : (Moving closer) Why not we take him to the doctor?
- Rajamma : No! No! There is no need for this. You needn't bother about the baby. We will take care of his sickness.
(That evening baby's mother and grandmother went

- to Subbanna with the sick baby. Subbanna put his mantram to the baby. Another day passed. Child did not get better. He is becoming thin and weak).
- Sita : (Started crying keeping the baby on her lap).
- Ramayah : Amma! You say that he will get better, but it is already two days that he is suffering like this.
- Rajamma be patient Ramudu! It is common for the children (she is also worried in her heart of hearts but has not expressed outwardly).
- (Kamamma, a friend of the family, arrives at the house and sees the whole family).
- Kamala : Why are you all worried?
- Sita : Sister haven't you noticed that Krishna is sick? Look at him; I just don't know what to do.
- Kamala : Don't worry, children get sick and get well. Anyway what is the problem with Krishna?
- Sita : He is having diarrhoea, feeling weak, not able to stand, refusing to take food.
- Kamala : What did you give him?
- Sita : We are not giving him any food and are not giving water too, thinking that it aggravates diarrhoea. We took him to Subbanna and got his mantram to the child. But the baby is still like this.
- Kanta : In the primary health centre (P.H.C.) there is a doctor. I saw him suggesting simple medicine with salt, sugar and water for treating infantile diarrhoea.
- Raja : What water!! Water should be restricted to the child suffering with diarrhoea, otherwise it aggravates diarrhoea.
- Kamala : No aunty! I saw Suguna's child getting better only with that liquid. It is very simple to make also.
- Raja : See Kamala! I don't believe in all these things.
- Kamala : That is not the point Peddamma! You have taken him to Subanna for Mantram. Let us also take him to P.H.C. once – what is there?
- Sita : (with worried look) See some way, Sister! I am afraid. Look at him. How he is drooping. I just don't know what to do.
- Kamala : Don't worry, Sita! I will come tomorrow morning and take the baby to the PHC Doctor.
- (Next day morning, Kamamma came to Sita's house and took the mother and the baby to the P.H.C. Rajamma didn't object to this act. This may be because she was also afraid in her heart of hearts that the baby is not getting better).
- Doctor : (In P.H.C.) What is wrong with the baby?

- Sita : Sir! Baby is suffering with diarrhoea, feeling very weak, and refusing to eat any thing.
- Doctor : Since how long he is suffering like this?
- Sita : Since four days.
- Doctor : Since four days !! Why didn't you come to the P.H.C. all these days'? You should not neglect the baby suffering with infantile diarrhoea. As soon as the child develops diarrhoea, you must start giving O.R.T. (Oral Rehydration Therapy) to the child even before you think of the medicine.
- Sita : What is O.R.T.? I don't know!
- Doctor : O.R.T. is very simple. You must take a glass of boiled water and add a pinch of salt and a spoonful of sugar, mix it well, give to to the child as many times as possible.
- Sita : Really! But my mother-in-law says that water should not be given to the child during diarrhoea because it aggravates diarrhoea.
- Doctor : No! NO! Before medicine, you must start giving O.R.T. to the baby. Sometimes O.R.T. itself cures the baby without medicine even. What happens during diarrhoea?
- Sita : The child passes watery motion many times.
- Doctor : So, the child loses so much of water from the body in a day. If any tree or fruit starts losing water from its body, it starts drooping or shrinking. It will lose its original strength. Similarly, the baby also. That is why your baby is not able to stand now, though he was able to stand easily earlier. Hence O.R.S. (Oral Rehydration Solution) is a must for the baby suffering with diarrhoea.
- Sita : (nodded her head) I will definitely give ORS because I am worried about my child.
- Kamala : Thank you doctor! That is what I told her, sir. They didn't accept my word. That is why I brought her here today. (Kamalamma and Sitamma went to Sita's home, Kamalamma explained to Rajamma also about the advantage of O.R.S.). Sita started giving O.R.S. to the baby).
- After two days, the child started feeling better. The family experienced the advantage of O.R.S. and started talking about it to their neighbours also.

This skit can be enacted by some good actors. If you are a good actor, you can also participate in the skit by playing a role. Then the skit can be video-taped in a cassette. (Such a video-cassette can be used in various teaching-learning situations.