UNIT 4 : MEDIA OF ENVIRONMENTAL EDUCATION

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4.1 LEARNING OBJECTIVES

After going through this unit you will be able to-

- discuss the concept of educational media;
- explain how a magazine can be used as a medium of environmental education;
- acquaint yourself with the procedure for organising a seminar and workshop;

- describe how exhibitions and models can be used for teaching purpose
- discuss the role of audio visual aids for environmental education

4.2 INTRODUCTION

In Unit 1 of this course you have studied the concepts, principles, scope and methods of teaching environmental education. You have understood that the basic objectives of teaching environmental education is not simply to study the environment but to generate the concerns for the environmental related problems. As such, the activities which can create concerns for the environment related problems should be inculcated through different forms of education. For this, we can take the help of media as channels of education to disseminate information in the classroom as well as among the common people (masses) and thereby make the educational programmes more effective and meaningful. This unit deals with different types of media that can be used effectively in the teaching learning processes of environmental education.

4.3 CONCEPT OF INSTRUCTIONAL MEDIA

The use of instructional media is an essential component in the teaching learning process. It contributes to the efficiency as well as effectiveness of the teaching learning process. Media is a supplementary devices by which the teacher, through the use of more than one sensory channel, can clarify concepts, establish and correlate accuracy, interprete and appreciate. It increases knowledge, arouses interest and enriches the imagination of children. Different media serves different functions. Media may be classified into two general categories:

(i) Print media and

(ii) Non print or modern electronic media

The print media include books, newspapers, magazines etc. Print media is the most important medium in the mass education scheme. The chief advantage of print media is that it is adaptable to many different learning

environments. Besides, it is economical and is traditionally used for pedagogical purposes. But the biggest disadvantage is that it demands the skills of literacy.

While, the non-print media include different audio-visual aids like the radio, television, computer, films etc, mass media education is now largely dependent on electronic media which facilitates diverse learning objectives. They can cater to individual needs and thus reduce the burden of a teacher.

Besides the print and non print media, there are some other methods like seminars, workshops, symposia etc. which are often used by teachers. In the following sections of this unit, we will discuss some of these media through which environmental education can be taught in a more effective way.

4.4 MAGAZINES

We know that a newspaper brings all the happenings of the world within the reach of the public. It is a very effective instrument for influencing the mind of the general public and mould public opinions. Along with the newspapers, popular magazines can also serve as a means of education for enhancing the horizon of knowledge of the general public regarding environmental education.

A magazine unlike a book is published periodically in a series, i.e., weekly, fortnightly, monthly, yearly etc. A magazine differs from a newspaper also. The reporting of day-to-day happenings is not the main concern of a magazine. Its main objective is to inform, instruct and entertain through comments on chosen news and features on subjects of interest. Articles related to environment, education, economics, religious, social and cultural matters are regularly published in a general magazine. All these have a great educative influence upon the people in general and students in particular.

From the point of view of environmental education, a magazine may create awareness among the masses by publishing series of articles on

problems on environment, conservation of wild life, environmental pollution and degradation, deforestation and aforestation etc. Thus, a popular magazine serves a great purpose as educators of the masses.

A school or a college magazine is similarly an important part of the social life of the school or college. It creates a literary atmosphere and both encourages and develops writing habits among the student community. Every educational institution should have a magazine for the development of literary abilities of the students. The magazine should be properly planned and published under the supervision of teachers. A magazine can be a very effective instrument in——

- enriching the learner with news about the outside world, heritage and culture of the society he or she lives in;
- spreading messages of environmental education;
- fostering moral and spiritual values among the students;
- providing the means of proper utilisation of leisure time;
- developing national and international understanding and
- acting as the source of entertainment by exposing the children to puzzles, riddles etc., which are also helpful to develop critical thinking and reasoning power.

Thus, magazines are very important media which are read and reread and circulated or stored away for further reference.

4.5 SEMINARS

A seminar is both a method and a medium of teaching. In conventional lecture methods, the interaction flows from the teachers to the learners in an un-directional manner. But, in a seminar, each member of the group, whether he is a teacher or a student, has the scope to interact with each other. Overt verbal interaction among the members of the group is a must for all the participants in a seminar. A lecture may be good or bad depending on the skill of a teacher. Similarly, interaction sessions of a

seminar also require skillful display on the part of a teacher in its organisation and conduct, if it has to achieve the objectives for which it is organised.

4.5.1 Steps for Organising a Seminar

(i) Identifying the Theme: For a seminar, generally the theme of discussion and its objectives are announced in advance so that the participants who want to participate can prepare for it, gather their thoughts, collect data etc. For e.g. to organise a seminar on environmental education, the theme may be selected as—"Role of education in creating environmental awareness." The subthemes of the seminar may be classified as:

- Environmental degradation
- Preservation of bio-diversity
- Global warming
- Climate change
- Destruction of tropical forest etc.

(ii) Motivating the participants: The authority can request the participants to prepare papers which can be presented and submitted to the organisers much before the seminar starts. In other words, they should try to involve the participants and make them think and feel about the topic before the actual discussion starts. Involvement and motivation thus allow each of the participants to share his or her views without fear.

If it is a class seminar meant for students, paper presentation should be made mandatory. If the students are not aware about how to write or prepare a seminar paper, the teacher should help them out.

(iii) Notification: Advance intimation of date, time and venue will help the participants not only to get the paper ready on time but also to get psychologically set for the occasion. Notifications also help the participants to do their homework and come prepared for the session. It increases not only the quality of presentation but also the quality of participation.

(iv) Circulation of write ups: Advance circulation of write ups help to ensure that enough time is provided for study. Participants can give independent thoughts to the content of the write ups and concretize their reactions to it, clarify the doubts, if any, consult others who have expertise and so on. This increases the quality of participation in a seminar.

4.5.2 Advantages of Seminar as a Medium of Environmental Education

Seminars are essential and suitable for developing higher cognitive abilities like application, analysis, synthesis, evaluation, problem solving and decision making. Its advantages may be summarised in the following manner:

- A general seminar provides the opportunity to assemble a good number of experts from different fields of education and various aspects of environment, and may help in finding some methods to tackle the problems.
- The students can present their thoughts clearly, concisely and logically in an academic setting which may prove very effective and can create tremendous impact on managing the environmental problems at the local or regional level.
- By participating in a seminar one can learn how to work in small groups and make the people aware about how to save the environment.
- A school seminar of students and teachers can play a very important role in influencing the young minds on how to behave responsibly to save the environment and follow healthy practices, to control pollution, to save water, to recycle waste material, to use natural resources judiciously and so on.



CHECK YOUR PROGRESS

Q 1: What is meant by the term media?

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Q 2: Name the types of media you are aware of.

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Q 3: How does a magazine differ from a newspaper?

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Q 4: What are the functions of a school magazine?

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Q 5: What are the steps for organising a seminar?

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Q 6: What are the issues a school seminar should take up?

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4.6 WORKSHOP

A workshop is an interactive form of learning, where students work in groups, usually as part of a specific set of task. The term workshop has been borrowed from the engineering field. In workshops, the participants have to do some hands-on activities to produce something.

Workshop is one of the main techniques used in higher learning. This method relies heavily on the involvement of the learners in formulating or constructing knowledge through small groups and individual explorations. Workshop method is very useful in teaching environmental education. Workshop may be organised on areas like controlling environmental

pollution, plantation, awareness campaign to improve man and environment relationship, appraisal of existing environmental conditions etc.

Every workshop is organised to achieve certain objectives. These objectives are related to cognitive and psychomotor aspects. In the cognitive objectives attempts are made to provide knowledge on theoretical aspects. Psychomotor objectives are related to practical aspects like skill development to perform a task independently, to train persons for using different techniques, approaches etc.

4.6.1 Functions of Workshop

(i) Workshop is used to seek, explore and identify the solution of a problem, to permit extensive study of a situation, its background and social implications.

(ii) It is used for giving awareness and training of new practices and innovations in different fields.

(iii) It provides an opportunity to prepare specific professional, vocational or community service functions.

4.6.2 Procedure for Organising a Workshop

The procedure for organising workshop can be divided into two phases—pre-active and active. The steps of both the phases are as the following:

Pre-Active:

(i) Define the goals: Every workshop must have a goal. Without a clear goal, there is no point in getting people together.

(ii) Decide the target group: Decisions regarding the target group is very important because it directly relates to the objective. It is expected that workshop participants contribute actively to the workshop discussion and tasks.

(iii) Points to be discussed: A list of the main points for discussion should be prepared. These points should break down into details. Time allotment for each exercise should be fixed.

(iv) Develop a follow-up plan: The only way to find out if the workshop was a success is to have an effective follow up plan.

Active Phase:

(i) In the first stage, the theme is presented to the participants. A resource person or expert provides the theoretical and practical aspects of the theme. The participants are given opportunities to seek clarification.

(ii) In the second stage, the group is divided into small groups. The groups are formed on the basis of subjects, topics. An expert provides guidance for the work to be performed. Every group has to work independently and complete the task within the given time.

(iii) At the round up of the workshop, the representative of each group will be asked to present the findings. Following the presentation by all the groups, the workshop participants discuss the findings. The participants are given opportunities to comment and give suggestions. Finally, the report of the workshop is prepared by adding or eliminating points.

4.6.3 Advantages of Workshop

- Workshop can be used to realise the higher cognitive and psychomotor objectives.
- The workshop method enables the learner to explore or master relatively abstract ideas.
- It can be effectively used for developing understanding and proficiency for different practices of education.
- It also provides opportunities and situation to develop individual capacities of a teacher.
- It develops feelings of cooperation, group work, and team spirit.
- It focuses on participatory approach, small group activity, problem solving etc. As a result, because of the 'active' nature

of experiences, a large number of learners are motivated to participate and learn.

4.7 EXHIBITIONS

In exhibitions a group of objects and materials are displayed according to a deliberate plan. The exhibitions that are arranged in schools are usually planned to communicate something to parents, public and students.

Through exhibitions environmental issues and problems can be highlighted. It can be displayed with the help of still pictures, illustrations, charts, maps, models, diagrams, etc. A well designed exhibition may act as a motivating and vitalizing factor for actively participating in environment improvement and protection.

Exhibition should be an annual affair of the school and the idea of holding an exhibition should be planned at the beginning of the year. Teachers must guide and lead the pupils in the preparation of possible exhibits. Subject-wise arrangements of the items and effective labeling are very important.

The following points should be taken into consideration while arranging objects of exhibition –

- Too many exhibits should not be kept crowded in a room.
- The exhibits must be kept in a well-lighted place.
- It is better to put one single idea in an exhibit.
- Labels should be short and simple, easily understood.
- Explanations for the exhibits must be brief as far as possible.
- Colourful and moving exhibits attract attention of the people.

The Values of exhibition can be listed as the following (Sampath, 1987) :

(i) It is one of the effective modes of mass communication and instruction on a large scale.

(ii) Self activity is fostered on the part of those who take part in the exhibition. Special talents become known and creativity is fostered.

(iii) The outcomes of different activities and processes are very well understood by pupils.

(iv) Pupils learn the art of expression while explaining exhibits and they become good at expressing themselves.

(v) Team spirit is encouraged as an exhibition is a co-operative effort.

(vi) Values like a vocational value, aesthetic value, cultural value, disciplinary value and ethical values are realised in the conduct of an exhibition in varying degrees.

(vii) Parents and visitors can have an idea of the work turn out by the pupils and as such it fosters parent – school contacts.

4.8 MODELS

Models are substitutes for the real objects. Models are used for teaching because due to several reasons it may not be possible to bring the real objects to the classroom. The real objects may be too large or too small to be seen for a group of students.

Models are the replicas or copies of the original object. It is a three-dimensional representation of a real object. Models are concrete objects to explain clearly the structure or functions of real things. Models may be working or static. A working model attracts immediate attention and serve as motivation to learn.

Preparation of different models could form a topic for project work. It is necessary to create interest in creative activity in children. For preparation of models, several types of materials, such as, cardboard, plastic, clay, thermocole, plaster of paris, wood, metal etc. are used.

The use of models for teaching purpose is highly effective because it serves the following purposes—

- Models simplify reality. As they are three dimensional, they evoke greater interest.
- It helps to explain clearly the structure and functions of the original object.

- Models enable to reduce or enlarge objects to an observable size.
- A model can provide correct concepts of a large industrial unit or even a larger machine.
- A working model attracts the attention of students easily and stimulates interest which could be utilised to the fullest advantage.
- Model preparation develops creative ability of the students. Any student constructing a model will definitely learn more than what he will learn if exposed to a similar model prepared by a teacher, because of the direct experience involved.

In environmental education, a number of projects for preparing models can be assigned to students in school situations, such as—making herbarium, making models of domestic and wild animals, mountains, course of a river etc. Thus, the teacher can sensitize the students for improving the quality of environment by preparing models of different objects which are related to environment.



CHECK YOUR PROGRESS

Q 7: What is a workshop?

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Q 8: Mention the necessary steps of a workshop in pre-active phase.

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Q 9: List the points necessary for arranging exhibits for exhibition.

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Q10: List five values of an exhibition.

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Q 11: In what way can models be effective in teaching?

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4.9 AUDIO-VISUAL AIDS

Audio-visual aids or technological media are instructional devices which can be heard as well as seen. The aim of teaching with technological media is to clear the channel between the learner and the things that are worth learning. It helps in completing the triangular process of learning, i.e., motivation, clarification, and stimulation. Audio-visual aids provide significant gains in informational learning, retention and recall, thinking and reasoning, activity, interest, imagination and better assimilation of ideas (Aggarwal, 2005). Let us discuss some of the audio-visual media which can help in learning about environmental education in a more effective way:

4.9.1 Radio

The Radio has been playing a vital role in the field of communication since its origin. It works with sound only but has the power to stimulate values, stir imagination and to increase knowledge and understanding. Radio is a powerful medium for mass communication. Communication from any part of the world to any other place, however remote it may be or wherever located, is possible through radio.

The radio also plays a major role in imparting instruction to the school children. This type of broadcast is known as educational broadcast which are made during specific days at specific school hours, mainly for the benefit of the educational institutions. These broadcasts are on curricular subjects based on the prescribed syllabus. Educational broadcasts considerably help the teacher to supplement his classroom instruction. But, to get the maximum benefit the teacher should prepare his students to listen to a specific broadcast and also prepare a suitable follow up work for consolidation.

Environmental education can be given through radio broadcasts. To make a programme for radio broadcast the following steps should be taken:

- The subject expert should choose the topic according to the course content prescribed for the students.
- The objective of the lesson should be clearly defined.
- The expert should prepare lessons in such a way that all concepts can be easily understood by the students through listening.
- Presentation of the lesson should be made attractive.
- Lessons on environmental education can be easily broadcasted in the form of questions and answers, where the subject experts and the students both come together and discuss the subject.
- A radio broadcast once recorded can be retained in the library and can be repeatedly aired whenever needed.

Merits:

- Radio is a popular media. It is less expensive as compared to other means and is available throughout the country.
- Radio helps in the development of both formal and non formal education.
- As an agency of adult education, radio is of immense importance for a nation. Through radio programmes many illiterate adults of the rural areas have been made literate.
- To spread awareness among the people, through programmes on health and hygiene, agriculture, environmental education etc., radio programmes are very helpful.
- Radio programmes can be prepared in the local languages according to local needs and background of the people.
- Radio broadcast can be listened to even while one is doing some manual work. Distance learners can listen to programmes from wherever they desire to do so.
- Radio technology is comparatively cheap. Production of programmes is simpler compared to other electronic media.
- The programmes can be repeated whenever needed.

Limitations:

- Radio broadcast is a one way communication. The educational value of radio broadcasting depends on the sense of hearing.
- As there is no face-to-face interaction between the listener and the broadcaster, if the student does not understand some concepts, it cannot be immediately clarified.
- It may not be an effective medium for all types of subjects, especially for the subject which need demonstration, visual illustration etc.
- The broadcasting time of educational radio programmes may not be appropriate or convenient to the learners as they have to make themselves available during the scheduled time whatever might be their engagement.
- In a country like India, the educators have to plan programmes for the heterogeneous audience like illiterates, school drop-outs, unemployed etc. Therefore, it becomes difficult to produce a radio programme of common utility.

4.9.2 Television

Television is one of the major means of mass communication. Unlike radio broadcast, where only the sound is transmitted, television transmission has the added advantage of visual experience which has made it more dynamic and meaningful. It has revolutionized the lives of people in the world and has become a major source of information and entertainment for a large number of our people. Next to home and school, television has a more profound influence on the education of a child.

Educational Television (ETV) is a system that presents learning contents in various subjects produced by an agency. It includes programmes whose primary purpose is to educate rather than entertain. ETV generally includes instructional television and non-commercialised television programmes. Instructional television includes programmes which are related directly to organized

programmes of formal instruction as well as continuing education.

Advantages of Educational Television

- Television is the most potent instrument for educating the masses. India is large country with varied climatic conditions, a large and ever growing population and vast tracts of inaccessible remote locations. Television as a mass media can play a major role in the educational set up of our country.
- Television reduces dependency on teacher. The students can learn from television with their own efforts and they need minimum help from teacher.
- ETV makes educational opportunities equal throughout the country. The students in the rural and backward areas of the country can get the same quality education as their counterparts in the urban areas.
- If television is used in a large scale, it can provide education throughout the country at a minimum cost.
- Different problems of environmental education can be presented nicely through a television programme. It may also be used for developing awareness about the environment among the common people.
- Educational television can be used for the in-service training of teachers in non-school hours. NCERT is telecasting their programmes per week for the teachers to improve their skills.
- It brings live demonstration of objects, events and natural disasters like earthquake, tsunami, volcanic eruptions etc. to the classroom immediately after they occur.
- It saves time and effort as no special classroom preparation like a dark room, projection equipments etc. are necessary for telecasts.

Limitations:

- Television is essentially a one-way communication from teacher. It does not provide the facility of interaction or discussion, and hence does not provide for immediate feedback on learners' reactions, queries or doubts.
- The cost of teaching by television is more than normal classroom instructions unless it is used to teach a large number of students at a time.
- Individual differences of students are not taken into consideration in a TV lesson.
- Instruction through TV is not learner centered and lessons are not flexible.
- Due to the absence of a uniform syllabus, absence of trained teachers, suitable timings etc. there are difficulties in building television as a part and parcel of classroom instruction.

4.9.3 Educational Films

A film is a multiple media of communication. It presents the facts in a realistic way. Educational films can create a very powerful influence in the minds of children. Therefore, it may be used for communication of ideas, attitudes, scientific knowledge and experiences to the students. It is a very effective medium of both formal and non-formal education.

The films put before us the learning situations which look quite real and actual. A film on environmental pollution can be prepared to inculcate ideas about different sources of pollution and how to minimise them. A number of films on different aspects of environmental education, such as—inter-relation of plants and animals with their environment, environmental degradation, hazards, disaster etc. can be prepared to educate people about the environment.

Educational films motivate teaching as the child may take great interest in that. It is very difficult to give an adequate idea of a mountain, ocean, desert etc. to a child. The film is a wonderful medium for this. It can bring the ocean, the mountains, the deserts all into the class room or auditorium and create a vivid picture in the minds of the learners.

Educational films are specially planned to achieve certain educational objectives and are made in specific subject areas for teaching purposes. These films can be background films or direct teaching films. They help to promote a skill, an attitude or to convey certain facts, information, phenomenon or theory.

Role of a teacher in using films as a media:

(i) The teacher selects the Film: The teacher should take care to select a film which would help him to realise his objectives. It should be integrated with other learning experiences he/she is providing. For that, he should select the best film available and must be familiar with the content of the film.

(ii) Arrangement of the Screening: The teacher should make proper seating arrangement, check lighting, and ventilation, and test the projector of the film, in advance.

(iii) Preview Film: The teacher should go through the instructional manual and guidebook, which accompany the film. He should prepare the students by providing the necessary background information and keep the student ready.

(iv) Presenting the Film: The film should be presented at the right moment integrating it with classroom teaching. If necessary, the screening could be stopped to just recapitulate in between. At the end of the film, a brief conclusion with the students interaction should be conducted.

(v) Evaluation and Feedback: There should be immediate evaluation, either oral or written feedback. The teacher should immediately correct the misconceptions or errors, if any, in the light of the information obtained from the students.



CHECK YOUR PROGRESS

Q 12: Audio-visual aids are devices which can be ——— as well as ——

Q 13: Radio has been playing a major role in the field of ————

Q 14: Radio broadcast is a ——— communication.

Q 15: State five advantages of radio broadcast.

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Q 16: What is educational TV?

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Q 17: List the limitations of ETV.

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Q 18: A film is a ——— media of communication.



4.10 LET US SUM UP

- This unit has dealt with different types of media.
- Media is an essential component of teaching learning process.
- There are mainly two types of media i.e. print and non print media. There are some other Medias also like seminar and workshop.
- A magazine is a non print media which is very effective in influencing the general public.
- Articles related to environment education, social and cultural matters are regularly published in a magazine.
- A school or college magazine creates a literary atmosphere and encourages the writing habit among the students.

- A seminar is both a method and a medium of teaching. In a seminar, every member of the group finds a scope to interact with each other. To organize a seminar, one should identify the theme first and motivate the participants to participate and share their views with others. Seminars are essential for developing higher cognitive abilities like application, analysis and synthesis.
- A workshop is an interactive form of learning. It gives importance on the involvement of learner in formulating or constructing knowledge through small groups and individual explorations.
- In exhibitions different objects are displayed according to a deliberate plan. Through exhibitions environmental issues can be highlighted. A well designed exhibition may act as a motivating factor for actively participating in the improvement and protection of the environment.
- Models are three-dimensional representation of the real thing which is very helpful to explain the structure and functions of original things. It simplifies reality and evokes greater interest. It is helpful in providing correct concepts. Model preparation develops creative ability of the students.
- Audio visual aids are instructional devices which can be heard as well as seen. It helps in completing the triangular process of learning, i.e., motivation, clarification and stimulation. Radio plays a major role in imparting instruction to school children.
- School broadcasts should be on curricular subjects based on prescribed syllabus. Radio helps in the development of both formal and non-formal education.
- Educational television presents the learning contents in various subjects. TV is the most potential instrument for educating the masses. The students in the rural and backward areas can get the same quality education as their counterpart in urban the areas.
- A film is a multiple media of communication. It presents facts in a realistic way. Educational films motivate teaching. Films are specially planned to achieve certain educational objectives.
- The teacher should take care to select a film which would help him to realise his objectives.