

A STUDY OF THE USE AND PRACTICE OF AUDIO-VISUAL AIDS IN TEACHING OF SCIENCE AT HIGH SCHOOL LEVEL

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ABSTRACT

The aim of the research is to study the use and practice of audio-visual aids in teaching of science at high school level. The main purpose is to find out the views of science teachers towards the use and practice of audio-visual aid in schools. The investigator used descriptive survey method for the present study. The sample of the present study includes all the science teachers of the 10th class of 25 schools in Panipat city. For analysing the data, questionnaires interview and checklist technique were used. The result on the basis of questionnaires was that the schools are either sufficiently or moderately equipped with audio-visual aids. But they were not being used to a large extent. It was also observed that the science teachers are facing problems in using of audio-visual aids. The reason are lack of teachers training, headmaster co-operation and problems of technical handling, mechanical defects etc.

INTRODUCTION

Today is the age of science and technology. The teaching learning programmes have also been affected by it. The class-room is just like a laboratory wherein different hardware such as projector, tape-recorder, record player, overhead projector, computer etc. is lying. Suitable types of software's are prepared by the teachers as per their needs and requirements will work wonders in the class-rooms.

Undoubtedly, instructional-aids are the devices which are used in the class-rooms to encourage learning and thereby make it easier and interesting. The materials like charts, maps, models, concrete objects, film-strips, projector, radio, television etc. which help a teacher in good communication, healthy class-room interaction and effective realization of the teaching objectives may be called aids in the field of teaching-learning. In this regard, Albert-Duret rightly said, "it is easier to believe what you see than what you hear; but if you both see and hear, then you can understand more readily and retain more lastingly." For the purpose of better understanding and learning we employ some aids while we teach in the class. The devices that are used for observations only are called visual aids and those for listening purposes are audio aids. But the devices that can be used for seeing and listening simultaneously are known as audio-visual aids.

TYPE OF AUDIO-VISUAL (A-V) AIDS

- (1) **Projected Aids:** These aids include slides, film-strips, films and transparencies which bring about better result and are more effective. By use of different colors, the aids become more attractive and impressive.
- (2) **Non-Projected Aids:** These are generally still materials including maps, charts, globes, models, display board, bulletin boards etc. These aids are not so costly and no sophisticated aids are required for their use. Therefore non-projected aids can be easily used with good results.
- (3) **Activity Aids:** These aids include field trips, excursion, exhibitions, museums, demonstrations and dramatization. Planning, execution and evaluation of those activities ensure better results and help in improving these aids to bring about quality in education.

NEED AND IMPORTANCE OF AUDIO VIDEO AIDS

An outstanding development in modern education is the growth in the use of audio-visual aids for instruction. Audio-visual aids motivate the child's learning by arousing his interest in a number of ways. Audio-visual aids are easy to understand so they interest children more than the description of anything through a talk. Audio-visual aids make the child's experience

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meaningful because audio-visual material supplies a concrete basis for conceptual thinking they give rise to meaningful association. Hence, they offer the best antidote available for the disease of verbalism. Audio-visual aids help us not only to see things that are removed by space but also those that are removed by time. Properly selected and used, Audio-visual aids help decrease the amount of forgetting and increase the permanence of what is learnt. They are able to achieve these mainly by virtue of their power of making experiences enjoyable and meaningful. When we have taken interest in a topic and have understood it clearly, we are not likely to forget it. 'Other things being equal' says Pressey, 'materials will be remembered in proportion as it is meaningful'.

OBJECTIVE OF THE STUDY

The objectives of the study may be enumerated as under:

- 1) To study the views of science teachers towards the use of audio-visual aid in schools.
- 2) To study the present status of audio-visual aids in the schools of Panipat.
- 3) To study the facilities available in schools for the use and display of using audio-visual material.
- 4) To study their practice of using audio-visual aids.

OBJECTIVE OF THE STUDY

The following hypotheses are formed for the present study:

- 1) The views of science teachers are not favourable towards the use of A.V. aids.
- 2) The status of A.V. aids is not good in the schools of Panipat.
- 3) The facilities for the use of A.V. aids are not proper in the schools.
- 4) The teachers do not use the A.V. aids in their daily teaching.

RESEARCH DESIGN METHODOLOGY

The study was conducted through descriptive survey method of research and it is most suitable for the present study

SAMPLE

For the purpose of the study a sample was selected of science school teachers of 25 schools in Panipat. All the science teachers belonged to 10th class only.

TOOLS USED

The study was delimited to following tools of research.

1. **Questionnaire:** The investigator prepared a closed form questionnaire which was designed forgetting the feedback from the science teachers. The terms of questionnaires was constructed taking into account two aspects related to audio-visual aids.

- (i) Availability of audio-visual aids
- (ii) Use of audio-visual aids.

2. **Interview:** Interviews were used to call the information regarding problems and cause of audio-visual aids un-availability.

3. **Checklist:** A checklist was prepared in order to know the number of audio-visual aids available in the schools. Used to draw the attention of the observers to relevant factors and enables him to record data quickly and systematically.

PROCEDURE

The present investigation followed the survey method. The questionnaires were administered to the science teachers of 25 schools of Panipat. The checklist was also administered to the science teacher of the same 25 schools. The collected information was supplemented by informal interviews with these science teachers.

ANALYSIS AND INTERPRETATION

Interpretation of analyzed data from the response related to identifying aids in relation to availability and use: on the basis of Questionnaires it was observed that schools are either sufficiently or moderately equipped with audio-visual aids. To all the 25 schools visual aids are available. The aids are of good quality and also in fairly good condition. But then they are all not being used to a large extent. The reason are lack of teachers training, headmaster co-operation and problems of technical handling, mechanical defects etc.

Interpretation on the basis of checklist we found that schools have only 51 audio aids, 4148 visual aids and 68 audio visual aids. The reasons of more availability of visual aids are because they are cheap, easily available, prepared and easy to handle, and main problem is finance technical handling and lack of teacher training.

Interpretation on basis of interview we found the problems regarding use of audio-visual aids. In all the 25 schools visual aids are available. But for one or other reason, teachers are not much interested in using them.

MAIN FINDINGS

The more significant findings resulting from the analysis and interpretation of the data may be summarized as below:

- 1) The maximum numbers of aids available in the schools are the visual aids.
- 2) Schools are not well furnished even with other physical facilities, the arrangement for film, libraries, museums, aquaria and other equipment is far to think of.
- 3) Audio-visual aids are available in all the schools but are not being used to a great extent.
- 4) The teachers are not well versed in the use of teaching aids as they are not adequately trained.
- 5) Planning is necessary for every work. It is often said, 'Always plan your work and work you plan.' But this investigation reveals that in many schools, the teachers do not plan the lesson to be taught beforehand.
- 6) Sometimes teachers use damaged or defected aids which mar teaching instead of helping in clarifying the concepts to students.

EDUCATIONAL IMPLICATIONS

One of the basis of the foregoing conclusions, it is significantly apparent that the present study involves some important implications. They may be summed up as under;

- a) Usefulness for the school administrators: The present investigation may serve a lot of labour and unnecessary correspondence at the district circle and state level, to know about the status of audio-visual aids in a collected form.

- b) Usefulness for the science teachers: As the problem differs from school to school and area to area, so this piece of research may help the science teachers of the other area to have peep into the various problems. Moreover, the principals of the schools may also be above to an overview of the status of audio-visual aids in their schools.
- c) Usefulness for Researchers: Last but not the least, the present investigation may also be a source of some guidance for the future researchers regarding the selection of area, topic, data gathering techniques and for the comparative analysis and interpretation of the data.

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