

# AUDIO CASSETTE IN TEACHING ENVIRONMENTAL EDUCATION

Research  
Paper

## ABSTRACT

*The aim of this study was to find out the effectiveness of Audio Cassettes in teaching Environmental Education. The sample consisted of 40 students in Control group and 40 students in Experimental group. The data were collected using appropriate tools and it was analyzed by 't' test. The finding is that the achievement scores of Experimental group Students were higher than the Control group Students.*

## INTRODUCTION

This is the age of Science and Technology. Almost everything has undergone a change under the impact of Science. The teaching learning processes have also been affected by it. The classroom has to have it different shape in times to come. Learning depends upon the different type of equipment available in the classroom. Audio-Visual aids are of immense value in the teaching – learning process. They make the process lively and interesting and hence make it effective and better. In the absence of Audio – Visual aids the classroom will be considered traditional ones or the ones belonging to 19<sup>th</sup> century or early 20<sup>th</sup> century. Surely the classroom in the 20<sup>th</sup> century has to be modern from every angle.

## EDUCATIONAL TECHNOLOGY

In general, 'Educational Technology' refers to the application of scientific knowledge about learning and the conditions of learning to improve the effectiveness and efficiency of teaching and learning. Educational technology has been viewed in terms of its two interactive components viz. technology of Education and Technology in Education. Technology of education includes the systems approach to solve educational problems, through interactive strategies corresponding to the psychology of human learning leading to multi-media approach, the multi-sensory approach and individualization of instruction, which has to be an instrument of total quality education. Technology in education refers to the provision of hardware and hardware related software provide support to the instructional strategies. In general, it assumes that

technology has the power to change the process of learning.

Educational Technology is a revolution system to increase effectiveness and efficiency of teaching. The national council for education has defined educational technology as "The development, application and evaluation system, Techniques and Aids to improve the process of learning". In order to improve the effectiveness of the teaching process, we need to require learning materials, which are to be presented and developed in an effective manner to the learners.

## AUDIO LEARNING

Listening is a two way process, involving the transmitter of a message, and a receiver who hears, interprets and understands this message. During the last two decades, the nature of the listening process, and investigation by educators, particularly in connection with the effectiveness of language recordings, school radio broadcasts, tapes and other devices. However, listening skills have to be developed in pupils first, before audio-learning can be meaningful and of value. Learning from auditory experience is more complex than one may realize. Our ears take in much more audible information from our environment at every moment, yet we do not "hear" all of the sensory impressions. There are certain steps involved in audio-learning.

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Cassette is very much suitable method for the teaching and learning especially High School Students.

True audio-learning to be achieved, it is important for the pupil to become actively in the information itself, he must think about it, analyze its meaning, organize and reorganize its content elements into his exiting frame of reference and where appropriate, act. If this degree of listening – participation in audio – learning is to be attained several conditions must exist. The context of what he listens to must be interesting and suitable to the pupil's background experience, and the audible material must be clear and distinct so as to reach and affect the pupils learning ability.

### **ENVIRONMENTAL EDUCATION**

Environmental Education is the process of recognizing values and clarifying concepts in order to develop skills and attitude necessary to understand and appreciate the interrelatedness among man, his culture and his bio-physical surroundings. It also entails practice in decision making and self formulation of a code of behavior about problems and issues concerning environmental quality. Environmental education refers to the awareness of physical and cultural environment and perceives its relevance for real life situation. The problems and issues are to be identified. The imbalances of environment are to be improved in view of sustainable development.

### **NEED FOR THE STUDY**

The Audio Cassette is very effective for teaching – Learning, analysis and evaluation. However, the Audio Cassette has flourished in many ways. There is another side in which the teacher taught through conventional method. It has been observed that there are some defectives or disadvantages in conventional classroom method of teaching and learning. In this type of teaching, students have to observe classroom under tight-control and rigid supervision. It is highly laborious and time consuming. Besides these diversion may occur due to various factors such as poor performance of the students, inadequate classroom climate, excess class strength, noisy situation etc. Their performance of the assessment will not be corrected exactly. There are many external disturbances in learning. Thus, it has been found that Audio

### **OBJECTIVES OF THE STUDY**

- To find out the effectiveness of Audio Cassette over the traditional method in teaching the topic Depletion of Resources in Environmental Education.
- To find out whether there is any significant difference in the achievement scores of students in Gender (Boys and girls), Locale (Rural and Urban) and Residence (Hosteller and Day Scholar).

### **HYPOTHESES OF THE STUDY**

- There is no significant difference between the achievement scores of the Control group and Experimental group with regard to Audio Cassette in teaching the topic Depletion of Resources in Environmental Education.
- There is no significant difference in the achievement scores of students in Gender (Boys and Girls), Locale (Rural and Urban) and Residence (Hosteller and Day Scholar).

### **METHODOLOGY**

An experiment involve the comparison of the effects of a particular treatment with that of a different treatment or of no treatment. In a sample conventional experiment, reference is usually made to an experimental group and to a control group. These groups are equated as nearly as possible. The experimental group is exposed to the influence of the factor under consideration; the control group is under observation to determine to what difference appears or what change or modification occurs in the experiment as contrasted with the control group. The present study, which aims at finding the Audio Cassette in teaching the topic Environmental Education for IX Standard Students, has been designed using the methodology Experimental method.

## SAMPLE

A Sample of 80 students of High School level was taken. The students of IX standard were the sample for this study. The samples were divided into two groups namely control group and experimental group. Control group was exposed to traditional method of teaching. It consists of 40 IX Standard student. In the same way experimental group was given treatment through Audio Cassette in teaching. It also consists of 40 IX Standard students.

## TOOLS USED

1. An well developed and standardized Audio Cassette was used.
2. Post – test materials were prepared and validated by the investigator.
3. The personal data of the samples were collected through the Questionnaire.

## STATISTICAL TECHNIQUE USED

Statistical techniques serve the fundamental purpose of the description and inferential analysis. The following statistical technique was used in the study.

't' test was applied to analyze the differential hypotheses.

## ANALYSIS OF POST – TEST PERFORMANCE

On close analysis of post – test, it is found that the experimental group has improved very much. The control group shows less improvement compared to experimental group, so it is clearly seen that Audio cassette is responsible for this improvement. The reason for this as per Audio analysis is

- audio effect
- new environment
- systematic study (Learning)
- better motivation
- better classroom climate

Hence Audio Cassette is the best technique and method for the process of learning. The following table furnishes the data on the Post – Test performance of the Control and Experimental groups and also furnishes the significance of difference between the achievement scores of students in various groups in detail.

### SIGNIFICANCE OF DIFFERENCE BETWEEN THE ACHIEVEMENT SCORES OF STUDENTS IN VARIOUS GROUPS

Sl. No.	Group / Variable	N	Mean	S.D.	Calculated 't' value	Remark at 5% level of significance
1	Control	40	25.76	1.62	20.84	S
	Experimental	40	39.73	3.91		
2	Boys	20	43.05	2.46	10.46	S
	Girls	20	36.4	1.43		
3	Rural Area Students	22	36.7	1.64	10.62	S
	Urban Area Students	18	43.4	2.25		
4	Hosteller	15	39.32	3.83	0.843	NS
	Day Scholar	25	40.4	4.09		

1. The calculated 't' value 20.84 of Control and Experimental Group is greater than the critical value 1.99 at 0.05 level of significance. It shows that the difference in the achievement scores and consideration is significant.
2. The calculated 't' value 10.46 of Boys and Girls is greater than the critical value 2.02 at 0.05 level of significance. It reveals that the difference in the achievement scores and consideration is significant.
3. The calculated 't' value 10.62 of Rural and Urban Area Students is greater than the critical value 2.02 at 0.05 level of significance. It implies that the difference in the achievement scores and consideration is significant.

4. The calculated 't' value 0.843 of Hosteller and Day Scholar Students is lesser than the critical value 2.02 at 0.05 level of significant. It shows that the difference in the achievement scores and consideration is not significant.

### SUMMARY OF THE FINDINGS

The major finding of the study reveals that Experimental method of teaching is more effective than the Traditional method in teaching the topic Depletion of Resources in Environmental Education. In other words teaching the topic Depletion of Resources in Environmental Education by using Audio Cassette is more effective.

There is no significant difference between the Control group and Experimental group in the pre-test. But in the post-test the Experimental group performed better than the Control group.

From the findings it is clear that there is significant difference between the Variables such as Boys and Girls, Rural and Urban area students. There is no significant difference between the achievement scores of the Students of Hostellers and Day scholars regard to Audio Cassette in teaching the topic Depletion of Resources in Environmental Education.

### CONCLUSION

Form the above study, the investigator has an idea that Audio Cassette provides greater opportunities for the students to learn. It is better than the traditional method of learning. It brings a new kind of experiences for the students in High Schools. Therefore, the investigator desires that more number of Educational institutions should teach the topic Environmental Education by using Audio Cassette and make the process of teaching and learning more effective.

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“Education to be tone must not be a machine made fabric, but a true building or living evocation of the powers of the mind and spirit of human being”.

- Aurobindo

“Leave the child alone. Let him be a natural man rather than a civilized man. Let him have a state of nature rather than artificial surroundings that stunt his proper growth and arrest his natural development”.

- Rousseau