EFFECTIVENESS OF MULTIMEDIA IN ENVIRONMENTAL STUDIES AT THE COLLEGES OF EDUCATION

V. Gnanaselvi
Ph. D Research scholar,
Dept. of Education, Bharathidasan University,
Tiruchirappalli,

Sr. Sabina Jose
Ph. D Research scholar,
Dept. of Education,
Bharathidasan University,
Tiruchirappalli

Dr. A. Edward William Benjamin
Professor& Head,
Dept. of Education,
Bharathidasan University,
Tiruchirappalli

ABSTRACT
This article meticulously discusses on the theme of effectiveness of multimedia in environmental studies at the colleges of Education *by adopting an experimental design with a sample of 30 students. This study has used pre test-post test control group design. The main objective of this study is to test the effectiveness of the multimedia specialized for learning environmental studies at the college of Education. It has proved that there is a significant relationship exists among those hypotheses tested.*

INTRODUCTION

Nowadays, teaching and learning environment should be set in such a way that students could learn in an easier, economical, and attractive manner. If we want to create higher learning environment, we have to include the term "Multimedia" in it. In today's information age, multimedia has the potential to create high quality learning environment for everyone. This study focuses its area on College Level Environmental Studies prescribed under Pondicherry University Syllabus. Being a compulsory subject for all the disciplines, undue hardship is faced by the students to learn this subject of Environmental Science, especially by the Literature students. To evade their disinterest and disorientation, introducing multimedia course content in learning will inculcate interest in them and pave the way for easier assimilation. This study attempts to explore conceptual understanding about environment, and attitude towards multimedia in learning environmental Science and academic achievement at the college level.

NEED AND SIGNIFICANCE OF THE STUDY

There are many advantages in applying multimedia elements in education. One of it is that multimedia enable students to represent information using several different media. This proves to be helpful when students need to do their project. Moreover, multimedia approach also provide flexibility of where and when can they learn. This is because by using multimedia approach such as audio and video, student can record or make connection with one another for discussion or listening to the previous topic that they have recorded. Multimedia approach also helps the students to develop a higher order thinking skills. By using the multimedia elements, students use their own idea and creativity to combine the elements of multimedia to produce something fresh and new.

Furthermore, multimedia approach are also much more engaging compare to the traditional one. With multimedia, interactive learning can be done with live-action video, feedback, questions and answers to keep the students interested and help enhancing their skills.

OBJECTIVES OF THE STUDY
The following are the objectives of the study;

1. To find out the Effectiveness of multimedia and achievement in environmental studies at the colleges of Education .
2. To find out the significant difference in the multimedia and achievement in environmental studies at the colleges of Education.
3. To find out the significant relationship in the multimedia and achievement in environmental studies at the colleges of Education.

HYPOTHESES
1. The Effectiveness of multimedia and achievement in environmental studies at the colleges of Education is low.
2. There is no significant difference in the multimedia and achievement in environmental studies at the colleges of Education.

3. There is no significant relationship in the multimedia and achievement in environmental studies at the colleges of Education

Method of Study
This study adopts Pre test-post test control group design

Research Tools
The following research tools will be adopted
1. Achievement test

Population and Sample
Population of the study is first year students studying in the Educational Colleges under the control of Pondicherry University, Puducherry region. From the population the investigator selects 30 students in Pope Jahn Paul II college of education at Pondicherry using purposive sampling technique.

Statistical Techniques Used
This study utilizes descriptive, differential and correlation analysis

TESTING OF HYPOTHESES
Hypothesis: 1
1. The Effectiveness of multimedia and achievement in environmental studies at the colleges of Education is low.

Table: 1.1. Post -test scores of the Experimental group and Control group learnt through Technology integrated and through traditional method.

Variable	Test	N	Mean	SD	Mean Difference	t-value	df	Level of significance (0.01Level)
Through Multimedia	Post-test of Experimental Group	15	66.27	3.75	23.33	14.03	28	Significant
Through Traditional Method	Post-test of Control Group	15	42.93	7.05				

The mean of the post-test scores of the Experimental group learnt through technology integrated courseware is found to be 66.27 with an SD 3.75. The mean of post-test scores of Control group learnt through traditional method is found to be 42.93 with an SD 7.05. The Mean 23.33 is found to be significant at a 0.01 level for 28df with 't' of 14.03. Therefore, the hypothesis is rejected. It is concluded that the Effectiveness of multimedia and achievement in environmental studies at the colleges of Education in Puducherry region is high.

Hypothesis: 2
There is no significant difference in the multimedia and achievement in environmental studies at the colleges of Education

Table: 1.2.

Variable	Test	N	Mean	SD	Mean Difference	t-value	df	Level of significance (0.01Level)
Traditional Method	Post-test	15	42.93	7.05	2.73	1.25	28	Not Significant
	Pre-test	15	40.20	3.69				

The mean of the post-test scores of the Control group learnt through traditional method is found to be 42.93 with an SD 7.05. The mean of pre-test scores of Control group learnt through traditional method is found to be 40.20 with an SD 3.69. The Mean 2.73 is found to be significant at a 0.01 level for 28df with 't' of 1.25. Therefore, the hypothesis is accepted.

It is concluded that the post-test mean score for enhancing environmental science learning competencies through traditional method among the B.Ed., trainees is not significantly higher than the pre-test mean scores of the control group.

There is no significant relationship in the multimedia and achievement in environmental studies at the colleges of Education

Table: 1.3.

Variable	Test	N	Mean	SD	Mean Difference	t-value	df	Level of significance (0.01Level)
Multimedia Courseware	Post-test	15	66.27	3.75	26.47	15.41	28	Significant
	Pre-test	15	41.80	4.95				

The mean of the post-test scores and pre-test scores of the Experimental group learnt through technology integrated learning courseware is found to be 66.27 with an SD 3.75 and 41.80 with SD 4.95 respectively. The Mean 26.47 is found to be significant at a 0.01 level for 28df with 't' of 15.41. Therefore, the hypothesis is rejected.

It is concluded that the post-test mean score for enhancing environmental science learning competencies through multimedia among the B.Ed., trainees is significantly higher than the pre-test mean scores of the Experimental group.

EDUCATIONAL IMPLICATIONS
A few educational implications for the present study are as follows:
- ➢ The results of the study have proved that multimedia is more effective than the conventional method of learning environmental science to the college level students. Hence, it is recommended to utilize this technological innovation in the enhancement of environmental science learning competency at the colleges of education.
- ➢ Since the use of multimedia penetrates more deeply into the development of human cognitive system, it would help them to be best of learning environmental science.

CONCLUSION
In the light of the research findings, it is felt that the present research may contribute to the alleviation of the transactional competencies of college level students. Multimedia was found to be effective in achievement of environmental science learning competencies in all areas. This has also been realized by many educational experts; hence, there is an urgent need to gear national efforts towards the implementation of this innovative strategy in all colleges of education.

REFERENCES
1. *Ayman Abu Nadar (2003). The effectiveness of using a computer program in the development of some basic skills needed to operate the video camera technology among college level students.*
2. *Abu Yunis, Alyas, 2005. The effectiveness of multimedia software for teaching engineering in the second row preparatory, unpublished Ph.D. thesis, University of Damascus, Damascus udents in education*
3. *Abdullah Atawaim(2008). The impact of computer use on the collection of sixth grade students passed the primary rules of the Arabic language*