

# Effectiveness of Multimedia Courseware for Teaching Environmental Education at the B.Ed Level



## Education

**KEYWORDS :** Environmental Education, Multimedia courseware and Effectiveness

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### ABSTRACT

*The advancements of science and technology have changed the world into a knowledge based society. Knowledge about environment is the basic criteria for the human Endeavour of today's world. Environmental Education is an innovation in the field of education. In the words of UNESCO, integrating technology in to education can help to bring quality education to everyone everywhere and at any time. The present study attempt to find out the effectiveness of multimedia courseware for teaching environmental education at the B.Ed level. This study uses pre test post test control group design with the simple of 62 and by adapting the suitable techniques of evaluations the framed directional hypotheses were proved to be effective or not. Hence this article tries to highlight the unique importance of the need of the knowledge of environmental education at the B.Ed training students is the part and parcel of the training graduates curriculum.*

### Introduction

The present piece of research work has the main intension to test the effectiveness of multimedia courseware for teaching environmental education at the B.Ed level. In order to proceed the work the researcher with the help of the multimedia course designer, a beautiful course work has been brought out in the form of CD and in order to verify the newly developed courseware the researcher has taken the experimental research design. It adopts the pre test post test control group design with the help of 62 samples. Since the talk of the world is an global warming the author has rightly chosen the appropriate topic for the timely research area for the present study. According to the effectiveness of the courseware these sorts of attempt can be made and this could be used as a tool to propagate the need of the concept of teaching environmental Education at the B.Ed level. So that it would be easily transmitted to the student generation.

### Research Questions

The researcher has tried to find out the possible solution in the following question for the present study. They are;

Is the multimedia courseware for teaching environmental education effective at the B.Ed level?

If it is so how for are they effective?

Does the multimedia courseware improve the achievement of student teacher in environmental education?

What are the advantages of using multimedia courseware for teaching environmental education at the B.Ed level?

Are there any significant differences between the conventional and innovative method?

### Title of the study

“Development of multimedia course ware for teaching environmental education at the B.Ed level”.

### Objectives of the study

To study the effectiveness of multimedia courseware for teaching environmental education at the B.Ed level student teachers.

To study the significant difference between the pre test of the control and experimental groups.

To study the significant difference between the pre and post test of the control groups by adopting traditional method of teaching for environmental education.

To study the significant difference between the pre and post test of the experimental group by adapting the newly developed multimedia courseware for teaching environmental education.

To study the significant difference between the post tests of con-

trol and experimental group in the present study

### Methodology

This study adopts the pre test post test control group design for the present study

### Sample

From the population as 75 student teacher of physical science an mathematics of Pope Johnpaul II college of Education, The researcher has chosen 62 samples based as their achievement test in the mid year exam and these 62 were equally divided into two groups as homogeneous according to their academic ability.

### Research Tools

The present study has used the following tools 1. Multimedia courseware for teaching environmental education and 2. Achievement test

### Statistical techniques used

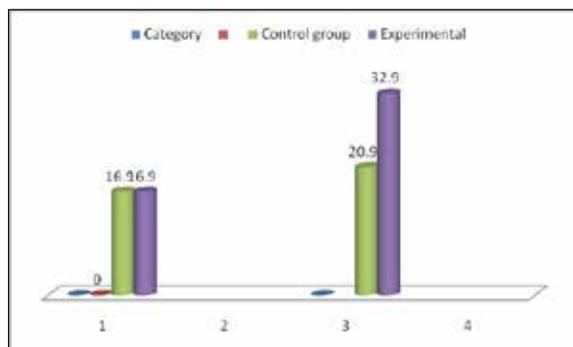
The researcher has selected the following techniques to prove the nature of the objectives framed

- I. Descriptive analysis and
- II. Differential analysis ‘t’ test

### Hypothesis 1

The following table shows the pre test and post test of the control and experimental groups during the pre and post treatment

Category	N	Pre test		Post test	
		Mean	SD	Mean	SD
Control group	31	16.90	3.24	20.90	2.93
Experimental	31	16.90	3.24	32.90	5.52

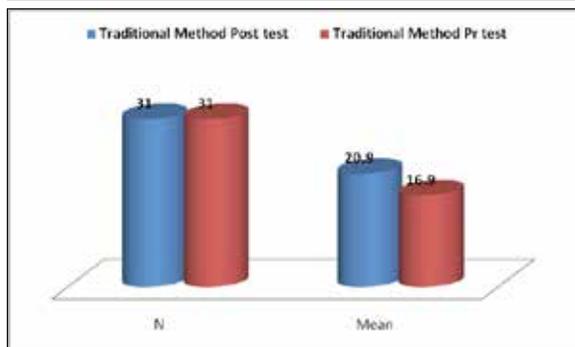


From the table it is evident that both the control and experimental groups were equal during the pre test. And after the treatment both groups differ significantly

**Hypothesis 2**

There is no significant difference between pre and post test mean scores of the control group who were taught through conventional method of Teaching.

Variable	Test	N	Mean	SD	Mean Difference	t value	df	Level of Significance
Traditional Method	Post test	31	20.90	2.93	4.00	5.10	60	0.01
	Pr test	31	16.90	3.24				

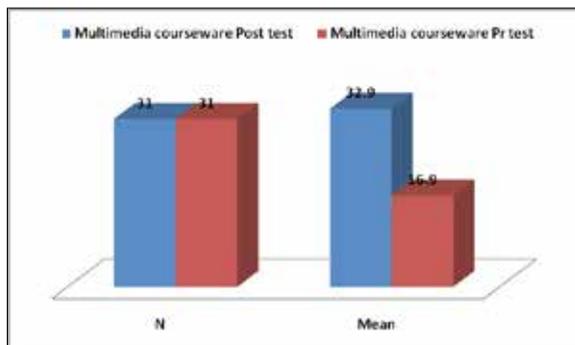


The mean post test scores of the control group (N=31) through traditional method is found to be 20.90 with SD of 2.93 which is having a t value 4.00 found to be significant 0.01 level with 60dfs. Therefore the hypothesis is rejected and it is concluded that there is a significant difference between the pre and post test of the control group.

**Hypothesis 3**

The post test mean scores of teaching environmental education through multimedia courseware at the B.Ed level is not significantly higher than the pre test mean scores of the experimental group.

Variable	Test	N	Mean	SD	Mean Difference	t value	df	Level of Significance
Multi-media course-ware	Post test	31	32.90	5.52	16.00	13.92	60	0.01
	Pre test	31	16.90	3.24				



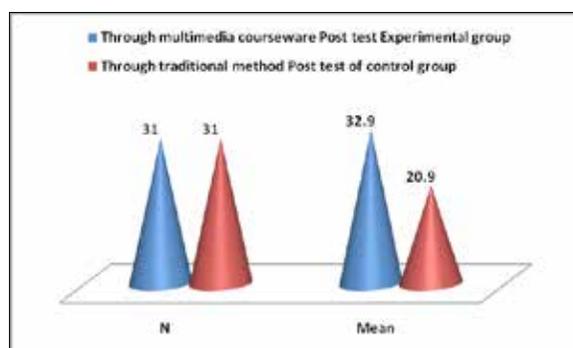
From the table it is evident that there is a great significant difference between the pre and post test of the experimental

group. The t value is 13.92 which is highly significant and hence the hypothesis is rejected and so it is concluded that there is a great significant difference between the pre and post test of the experimental group which were taught through multimedia courseware.

**Hypothesis 4**

Multimedia courseware for teaching environmental education at the B.Ed level students –teachers is not effective.

Variable	Test	N	Mean	SD	Mean Difference	t value	df	Level of Significance
Through multimedia course-ware	Post test Experimental group	31	32.90	5.92	12.00	10.72	60	0.01
Through traditional method	Post test of control group	31	20.90	2.93				



From the table it is evident that when comparing the post tests of control and experimental groups, the experimental group has shown a high significant different when compared to the control group. Hence it is concluded that the multimedia courseware for teaching environmental education at the B.Ed level student teacher 13 effective.

**Educational Implications**

Based on the statistical evidences the present study proposes the following implications for the present study

The results of the study have proved that the multimedia courseware is more effective than the conventional method for teaching environmental education at the B.Ed level. Here it is recommended to utilize this technological innovation in the process of teaching environmental education at the B.Ed level.

Since use of multimedia courseware enhances the retention paver of the students it would help than score more marks in environmental education.

**Conclusion**

The present piece of research have been concluded to use the multimedia course ware for teaching environmental education at the B.Ed level in the due course of curriculum, especially for the training graduate curriculum. Hence it is also strongly recommend to use the innovative method of teaching in future by and large

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