

## A STUDY OF THE EFFECTIVENESS OF MULTIMEDIA PACKAGE FOR B.Ed. COURSE TEACHING & LEARNING ON ACHIEVEMENT LEVEL OF TEACHER TRAINEES

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### Abstract

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*One of the technique to improve the quality of Teacher education is to understand the academic needs of the teacher trainees and to help them in learning process by providing multimedia during the process of teaching and learning in the classroom. Multimedia classroom provide the Teacher Trainees chances for interacting with diverse texts that give them a solid background in the tasks and content of mainstream college courses. The writing aims to find out some advantages of the use of multimedia in the classroom. Also, the involvement of technology in the classroom cannot deny giving positive point to improve the quality of teaching and giving more various techniques in teaching. The research uses a qualitative method giving a deeply description using multimedia in the classroom. The difference between a traditional classroom and multimedia classroom has been drawn in this writing. The writing shows that there are some advantages of using multimedia as a technique in teaching process in the classroom. Through the media the teacher could give more opportunity to teacher trainees to express their opinions and enjoy during the course. The highly presence and motivation also bring positive aspects to teacher trainees so that they can improve their skills.*

**Keywords:** *Multimedia, Teaching & learning, Teacher Trainees.*

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### Introduction

The new vision of education is curricular goals integrate content with process and affective outcomes and aim for development Education plays the greatest part in democracy. The teachers have to train and mould the minds of young people so as to make them worthy citizens of our democratic state. This means that a tremendous responsibility rests upon the teachers. Rapid developments in digital technology play an important role in teaching learning process.

Teacher's education in the transit phase because of the rapid change in technology and values. A substantial effort is needed to understand the underlying dynamics of teaching and learning

principles of students of the recent time. Teacher education courses must incorporate the learning and teaching psychology of students and teachers respectively.

In our growing of technology, students also learn very early to use the latest technology .Moreover, in the fast developing world, where knowledge explosion is taking place in everywhere. It is unreasonable to expect the spoken or written words alone to convey the volume of relevant information to the learner.

In that sense multimedia is a unique medium with features of quality and visual recording and instant feedback .It can be conveniently used to convey well designed information with varying special effects

The use of such technology in the institutions will motivate the teaching community and create better learning conditions. Further the involvement of teachers in the process of production reduces the dependency of teachers on technology experts who are not in general academics. In this study the teacher educator compares the conventional method with multimedia method. This will be beneficial to the teachers, learners, students and the educational institutions. Hence, keeping all these views the investigator attempted an experiment to study the effectiveness of multimedia in the B.Ed. course teaching learning to Teacher Trainees.

### **Multimedia Definitions:**

Multimedia is a term frequently heard and discussed among educational Technologists today. Unless clearly defined, the term can alternatively. mean a judicious mix of various mass media such as print, audio and video. Or it may mean the development of computer-based hardware and software packages produced on a mass scale and yet allow individualized use and learning. In essence, multimedia merges multiple levels of learning into an educational tool that allows for diversity in curricula presentation.

Multimedia is the exciting combination of computer hardware and software that allows you to integrate video, animation, audio, graphics, and text resources to develop effective presentations on an affordable desktop computer. (Fenrich, 1997).

Multimedia is characterized by the presence of text, pictures, sound, animation and video; some or all of which are organized into some coherent program. (Phillips, 1997).

Today's multimedia is a carefully woven combination of text, graphic art, sound, animation, and video elements. When you allow an end user, i.e. the viewer of a multimedia project, to

control 'what' and 'when' and 'how' of the elements that are delivered and presented, it becomes interactive multimedia.

### **Objectives of the Study:**

1. To check the subject knowledge of teacher trainees in B.Ed, course teaching & learning.
2. To develop multimedia package to teach the B.Ed. course teaching & learning,
3. To implement the multimedia package on teacher trainees for B.Ed. course teaching & learning.
4. To study the effectiveness of multimedia package on the achievement level of teacher trainees of B.Ed. course teaching & learning.

### **Need& important of the Research**

The emergence of multimedia technologies has been set against a background of increasing student numbers and decreasing resources, increased administration burdens for teachers, and increased demands for research output. Using multimedia courseware and thereby reducing the amount. of teacher-student contact time appears to offer the scope for significant efficiency savings. However, the claim that multimedia technology leads to increase efficiency is somewhat exaggerated, for two reasons. Firstly, the claim is based on the relatively. low marginal cost incurred each time such courseware is used. This ignores the considerable up-front development costs involved, which when accounted for may mean that the courseware must be used a great many times before any efficiency gains are realized. Secondly, efficiency defined solely from the educator's perspective fails to recognize students' involvement in the learning process

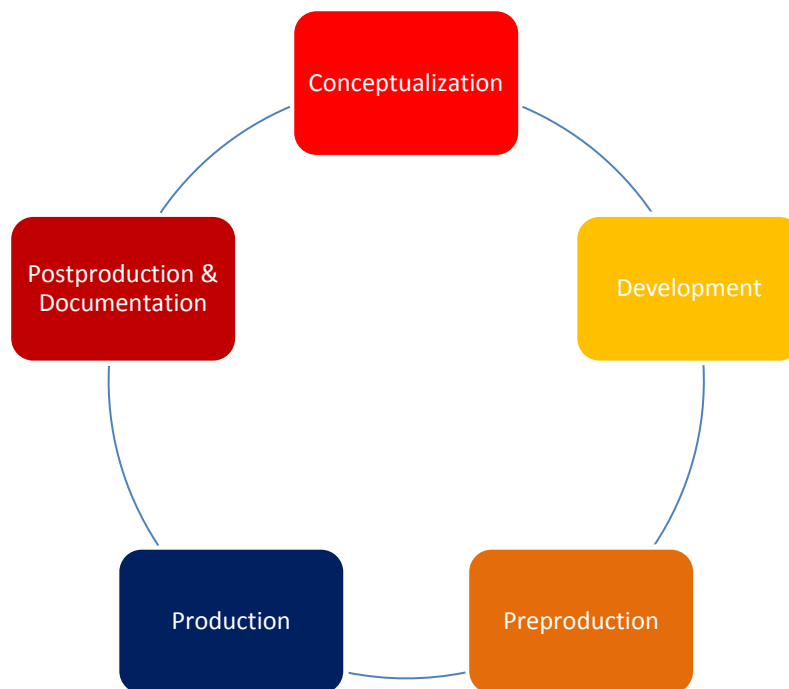
1. Education is life long process therefore anytime anywhere access to it is the need.
2. Information explosion is an ever increasing phenomena therefore there is need to get access to this multimedia.
3. Education should meet the needs of variety of learners and therefore multimedia is important in meeting this need.
4. The research is very useful to teacher trainees in the B.Ed. course Teaching and Learning.

This research is important to B.Ed. course teaching and learning for developing multimedia package.

## DESCRIPTION OF MULTIMEDIA PACKAGE

The investigators of the present study developed a multimedia package on B.Ed. course teaching & learning for Teacher Trainees. The production of multimedia applications is a complex one, involving multiple steps.

This process can be divided into the following phases:



The content for package is selected from the multimedia package on B.Ed. course teaching & learning to Teacher Trainees. The prepared multimedia package was given to experts to get opinion about the content in the package. The experts in Education and B.Ed. course teaching & learning accepted the package and it covers the curriculum of B.Ed. course which was prepared by the investigators by using appropriate module preparing technique in B.Ed. College.

### Null Hypothesis

There will be no significant difference in the achievement level of teacher trainees of the B.Ed. course teaching and learning from experimental and control group before and after implementation of the multimedia package.

### Scope and Limitation of Study

Following are the scope of the study

1. This study is related with the SPPU B.Ed. course teaching learning using multimedia for the teacher trainees.
2. Only two units of B.Ed. course 103 teaching & learning are selected for this Research study.
3. This includes views of teacher, teacher trainees towards multimedia package.
4. This research studied B.Ed. course tracking learning of teacher trainees of academic year 2015-16.
5. Multimedia package is developed only for teacher trainees of B.Ed. course.
6. There is no control of any kind on the variables such as family, social, financial of the teacher trainees. Some problems may occur in the B.Ed. course teaching & learning of teacher trainees' academic achievement through multimedia package.

### **Research methodology**

The method used for the present study is an experimental method. There are two groups experimental and control groups. Experimental group is being taught by multimedia packages and control group is taught by Traditional method.

**Sample** The sample of 60 teacher trainees is taken from SKNCOET Lonavala as teacher trainees. They are divided in two groups(30 30) experimental and control group equally, according to their score in MCQ test.

The sample was selected through random sampling procedure .The selected lessons were taught to the experimental group for one month through multimedia. The same lessons were taught through the traditional method to the control group. After the treatment the achievement level of the groups was tested. To find out the effectiveness of multimedia in the B.Ed. course teaching & learning researcher used the tools like pretest and post test. Researcher used 't' test score for finding the significance.

### **Tools of Data Collection**

1. **Pretest**-Post test was administrated to find out the existing level of the B.Ed. course teaching learning.
2. **Program**- A program of one week was prepared for the teacher trainees of experimental group to teach B.Ed. Course teaching & learning through multimedia package.
3. **Post –test**- Post test was administrated after the completion of the program on experimental group which contains the same tasks but different topic from the pre-test to find out the effectiveness of the program.

**Data Collection**

Researcher has collected the data by taking pre test and post test of the teacher trainees of B.Ed. course teaching & learning. Two units were included in the pre test and post test

**Data Analysis and Interpretation**

The summary of the results of mean scores of experimental group and control group in pre test and post test is given in the following tables. It is inferred from table 1 that the calculated between the experimental group and the control group with respect to their achievement in pre test to their achievement in pretest is lower, than the table value at 0.05 level of significance. Hence there is significant difference between experimental group and the control group in their achievement scores in post test.

**Table -1 Mean difference between the experimental group and control group in their pretest.**

Category	Number of Student	Mean	SD	t
Control Group	40	58.09	10.83	0.42
Experimental Group	40	31.53	10.49	

**Table -1 Mean difference between the experimental group and control group in their posttest**

Category	Number of Student	Mean	SD	t
Control Group	40	50.95	14.37	8.26
Experimental Group	40	77.05	13.87	

**Testing of Hypothesis** - There will be no significant difference in the achievement level of teacher trainees in the B.Ed. course teaching and learning from experimental and control group before and implementation of the multimedia package. The two hypotheses were formulated for research study. They were as follows:

Level of Significance	Value	Table Value	Null Hypothesis Accept/Reject
0.01	8.26	2.66	Reject
0.05	8.26	2.00	Reject

1. At 0.01 level of significance the calculated' value 8.26 is greater the available t' value 2.66. Hence null hypothesis is rejected and research hypothesis is accepted by researcher.

2. At 0.05 level of significance the calculated 't value - 8.26 is greater than available value  
Hence hypothesis is rested and research hypothesis is accepted by researcher.

### **Major Findings of Study**

1. The program developed by the researcher was effective for B.Ed. course teaching & learning through multimedia package on teacher trainees.
2. The achievement scores of each and every teacher trainees in teaching & learning was increased after the implementation of multimedia package.
3. The preceding analysis of data indicates that the program was effective in bringing about the teaching learning of the units. 4. The effect of the program was positive.
5. Multimedia programme helped the teacher trainers to clear their concepts in teaching & learning for B.Ed. Course.

### **IMPORTANT FINDINGS OF THE STUDY**

1. The control group students are having average level of achievement in teaching & learning
2. The experimental group students are having average level of achievement in pretest but high level of achievement in posttest in B.Ed. course teaching & learning.
3. The control group students differ significantly in their pretest and posttest achievement score in B.Ed. course teaching & learning.
4. The experimental group students differ significantly in their pretest and posttest achievement score in B.Ed. course teaching & learning.
- 5 The control group and experimental group students differ significantly in their post test achievement score in B.Ed. course teaching & learning.

### **Conclusion**

The experimental study reveals that there is a significant difference in the achievement of the experimental group over the control group. Thus multimedia helps the students to sustain their interest and also their retention power compared to the traditional method of teaching.

The main gain in achievement test of controlled group and experimental group shows better performance due to the treatment given to the experimental group .That is why the mean of the experimental group is higher than the mean of the control group.

Therefore there should be more and more number of multimedia packages used in classroom. The contact use of multimedia will make students understand more and achieve more achievement. in their academic

Hence it is concluded that the multimedia package is considered to be one of the best techniques for B.Ed. course teaching & learning to teacher trainees.

### **Suggestions for the further study**

1. A similar study may be carried out by considering more than one controlling variable.
2. A large study may be carried out by considering different types of college localities, gender of pupil etc.
3. In the present study, single group pre-test & post test design was used to study the Effectiveness, Control group may be used to compare the effectiveness of program with regular teaching.
4. The entire syllabus can be planned and its effectiveness studied over a longer period.
5. In the present research the researcher has basically relied on the multimedia package. Different models of teaching can be taken into consideration and its effectiveness can be verified.
6. A study on Effect of multimedia package on student teachers and finding its effectiveness D.T. Ed. & M.Ed. level.

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