CHAPTER - VII

In a Nut Shell

SUMMARY
CHAPTER-VII
SUMMARY

7.1 INTRODUCTION

The multimedia allows kids to see him to hear him speak that you don't get off the paper. - Douglas Buchaman

Variety in teaching methods adds spice to leaning. Teachers need a repertoire of teaching methods, strategies and tactics to make their teaching – leaning process more interesting, interactive and effective. Since teachers as they are taught, teacher- educators have an added responsibility. They should present content through a variety of methods and techniques that is passed down to student- teachers.

Teaching methods in recent years have moved from a predominantly teacher oriented and teacher controlled approach to teacher pupil interactive process. In the present scientific and technological age, the conventional teaching methods are not sufficient to arouse interest among the students and do not satisfy the intellectual, psychological, and emotional needs to the students in the new millennium. For making this teaching – leaning process effective a learner is to be active as he or she cannot afford to be a passive listener.


Multimedia is a computer based interactive communication process that incorporates text, graphics, diagram, sound, animation, pictures and video. These
The various elements of multimedia namely text, graphics, sound, animation and video helps in activating and the learners in drawing attention, arousing their interest and creating interest in the concerned subjects. Sound used in MML package becomes a stimulus to the imagination. As a result of using video, graphics and animation in MML package, classroom teaching – learning process become interesting, more interactive and have a direct influence on subject's learning outcomes.

Multimedia Approach manifested by the emergence and convergence of technological advances has provided an important stepping stone in the evolution of teaching-learning. The virtual world of seamless digital integration of text, images, animation and sound offers a fundamental transformation in educational system. Incorporation of instructional technology into conventional teaching method is certainly effective in facilitating conceptual understanding and
fostering active and independent learning. The recipient is also an active participant in the experience: not only seeing and hearing the message, but interacting with it as well. (Kamat & shinde, 1998)

Pande and Mohan lal (1998) reported that through multimedia the learner is exposed to a variety of information which helps in clearer understanding of the subject as well as in the appetite to know more. The user can make use of the information contained in the program which could comprise of different levels of information from basic to complex or advanced.

Nimarathi (2008) reported that by the use of multimedia the students get a live vision of life's aspects and scientific factors. e.g. a diagram can be explained in detail with three-dimensional effect which helps the students in understanding the lesson clearly.

Numerous studies have also shown that student's academic achievement improved when taught through multimedia approach (Kulik, 1994; Patil 2006; Shikhare, 2007) Various explanations have been put forward with regard to the cognitive benefits provided by the use of various communications technologies in preparing multimedia learning package for enhancing student's conceptual understanding. Selinger (2004) claimed that multimedia content helps to illustrate and explain difficult concept in ways that were previously inaccessible through traditional teaching resources and methodologies. Similarly Ferror (2002) reported that the use of multimedia approach using interactive CD-ROMS, Power point presentations and graphing software has been successful in generating conceptual understanding in student's studies conducted by researcher Munirah, et. al (2003) Chandra (2002) has also reported the use of different multimedia in bringing about conceptual change.

Bosco (1986), Fletcher (1989) Leahey & Harris (1989) and Najjar (1996) reported that interaction which results during teaching – learning process as a result of different multimedia have a strong enhancing influence on the learning of the pupils by improving their retention and their speed of learning. They found that Novelty associated with multimedia enhanced interest in learning. Students
felt motivated to learn with computers after seeing their usefulness in teaching—
learning. (Ranade, 2004 and Madan 2009)

A review of this research investigation indicates that a well designed multimedia learning package (MML) can generate effective instruction and learning. It offers an alternative medium of instruction to the current learning process.

7.2 NEED OF THE STUDY

“Teachers to be taught and trained”- is a relatively growing concept found in societies all over the world, for these many learners do B.ED to improve their teaching skills and undergo professional training. Various methods are adopted by various institutions to increase the efficiency of their in-service teacher. In modern age of science and technology besides print media, audio, video, broadcast teleconferences, computer etc. are used for communication. Undoubtedly one of the most rapidly changing and exciting areas of education in the world today is the development of computer based teaching material, specially interactive multimedia packages that run on personal computers. These new technology offer students and teacher access to materials as never before through the condensed storage capability of computers, multimedia can deliver large amount of information in ways that make it manageable, approachable, and useful. And by making it possible to access illustration and photograph, sound and video, as well as large amount of text, multimedia program present learning information to teacher, student, and scholars in newly engaging and meaningful ways.

In teacher education a number of media are used to teach student. But there are very few institution like IGNOU, C.I.E.T that develop the multimedia package for B.ED students. In the present study, investigator wants to compare the achievement of B.ED students with and without the use of multimedia learning package. No serious attempt has been made to my knowledge to find out the effectiveness of multimedia on the B.ED students. Hence a study was undertaken to assess the Educational learning of B.Ed. pupil teachers when taught Educational Technology through multimedia package over traditional method of teaching.
7.3 STATEMENT OF THE PROBLEM

‘DEVELOPING AND VALIDATING A MULTIMEDIA LEARNING PACKAGE IN EDUCATIONAL TECHNOLOGY FOR B.Ed STUDENTS’

Operational Definition of the key terms

The Terms used in the statement of the problem are defined as under:

DEVELOPMENT:- Development of multimedia includes identification of concept, scriptwriting, preparation of story board and computer graphics.

VALIDATION:- To state officially that is useful and of an acceptable standard.

MULTIMEDIA LEARNING PACKAGE:- The word multimedia simply means able to communicate in more than one way by using computer. So multimedia learning package (MML), by definition has the capacity to deliver large amounts of materials in multiple forms meant for teaching and to deliver them in an integrated environment that gives students the reading, listening, speaking and viewing experience.

7.4 OBJECTIVES OF THE STUDY

The objectives of the study are to:

- Develop an Achievement Test for B.Ed. Students.
- Develop opinionnaire for teachers to find the opinion towards using multimedia as a teaching-learning strategy for B.Ed. students.
- Develop opinionnaire to find the reactions of learners towards using multimedia as a teaching-learning strategy for B.Ed. students.
• Compare the mean Achievement Scores of two groups of pupils taught Educational Technology with and without the use of MML before the experimental treatment.

• Compare the mean Achievement Scores of two groups of pupils taught Educational Technology with and without the use of MML after the experimental treatment.

• Compare the mean gain achievement scores of two groups of pupils taught Educational Technology with and without the use of MML package after the experimental treatment.

7.5 HYPOTHESES

H1 Teaching through Multimedia Learning Package will have a significant effect in enhancing the achievement on B.ED students.

H2 At the end of experimental treatment, the group of students taught 'Educational Technology' through MML package scored significantly higher on achievement test than the group of students taught through the traditional method.

H3 At the end of experimental treatment, the group of students taught 'Educational Technology' through MML package showed a significantly higher gain score on the achievement test than the group of students taught through the traditional method.

7.6 DELIMINATIONS OF THE STUDY

The study was delimited to:

• 100 B.ED students Selected from only one college of education i.e. Advance Institute of Education, Palwal.


7.7 DESIGN OF THE STUDY

The experimental method was used for the present study. Pre-test, Post-test control group experimental design was employed. The experimental group was taught through MML package and control group was exposed to traditional method of teaching.
7.8 SAMPLE

In the present study purposive sampling technique was followed for the selection of the college of Education, only one college i.e. Advance Institute of Education, Palwal was chosen for the study. The sample of the study consisted of 100 students of B.Ed. studying in Advance Institute of Education was divided randomly in two groups i.e. Experimental Group and Control Group. The experimental group (N=50) was exposed to Multimedia Approach and Control Group (N=50) was exposed to traditional method of instruction.

7.9 TOOLS USED

Following tools are developed for carrying out the present study:
1. Development of MML package for Instructional Treatment
2. An Achievement Test
3. Opinionnaire for Teachers
4. Opinionnaire for Students

7.10 EXPERIMENTAL PROCEDURE

The experiment was conducted in three phases as given below:

Phase I : Pre-Testing Stage
Phase II : Treatment Stage
Phase III : Post-Testing Stage

Phase I : Pre-Testing Stage

The stage involved the administration of an achievement test to both the groups: Experimental as well as Control group. Scoring was done with the help of scoring keys.

Phase II : Treatment Stage

In the second phase the experimental group was exposed to instructional MML package whereas the control group was taught by conventional method. Same content was taught to both the groups. Students were encouraged to participate and learn through the novel method of instruction i.e. through
Multimedia on computer with the combination of text, animation, graphics, pictures, video, audio etc.

**Phase III : Post-Testing Stage**

After completion of the experimental treatment, the achievement test was administrated to both the group i.e. Experimental and Control group.

**7.11 STATISTICAL ANALYSIS**

For analyzing and interpretation of data, statistical techniques such as differential statistics – mean, standard deviation and inferential statistical techniques such as 'T' ratio were employed.

**7.12 MAIN FINDINGS**

1. The result arrived during this study show that the post-test achievement mean scores of the experimental and control groups differ significantly in favour of the experimental group. This implies that the students who were taught through MML package have shown significant improvement in their achievement in 'Educational Technology' than the students who received instruction through traditional method.

2. The group of students taught 'Educational Technology' through MML package has shown significantly higher mean gain in achievement than the group of students taught through traditional method.

3. At the end of experiment treatment, the group of students taught through MML package have scored significantly higher on the test of the group of students taught through traditional method.

4. From the opinionnaire it was found that most of teachers were agree towards using multimedia learning package.

5. From the opinionnaire it was found that student also have positive reaction towards using multimedia learning package.
7.13 CONCLUSION

From the above findings it may be concluded that MML package helps in improving the achievement of B.Ed. learners. The main motive of the teacher is to capture the attention of the students in the class so that teaching-learning process becomes interesting and effective.

The retention of all the hypothesis of the study namely H1 at end of experimental treatment, teaching through MML package have a significant effect in enhancing the achievement of B.ED students.

H2 at the end of experimental treatment, the group of students taught Educational Technology through MML package scores significantly higher on the achievement test than the group of students taught through the traditional method.

H3 at the end of experimental treatment, the group of the student taught through MML Package showed a significantly higher gain score on the achievement test then the group of students taught through the traditional method.

7.14 EDUCATIONAL IMPLICATIONS

It is evident from the study that MML Package helps in improving the achievement of B.ED. students It convincingly demonstrates that MML Package has a significant impact on achievement scores of B.ED students.

The present study is of greater importance in present times as there is growing realization of focusing attention in developing multimedia package for creation of interest of the students in concern subject and making teaching learning process interactive. The finding of present study can be beneficial for student, teachers teaching both in colleges and school, policy makers, planners and administrators.

- Multimedia learning package helps the teachers to make his/her teaching – learning process totally interactive.
- Multimedia Learning package helps the teacher to play the role of a facilitator. She/he encourages or motivates the students to participate actively in the various activities of the class.
- Multimedia Learning package helps in bringing better retention and confidence among the students.
• Multimedia Learning package is a good tool in the hands of students for Self-study and self-evaluation at their own pace.

• Multimedia Learning package has widespread use, which means good for all the levels and for all subjects. So it is globally applicable.

• Multimedia Learning package helps in achieving the important skills such as creative thinking, critical analysis and the synthesis of knowledge.

• Multimedia Learning Package act as a source of Edutainment (Education + Entertainment) which helps in creating interest of the students and make the favorable attitude towards the subject.

• MML package helps the teacher to spare time for special children.

• Multimedia Learning Package helps in highlighting the important points of study.

• Multimedia Learning Package helps in making the teaching interesting and adds variety in teaching methods by breaking the monotony of the class.

7.15 OVERVIEW

A multimedia instruction that integrates different types of media in a way to maximize learning effectiveness, and lessons through a variety of multimedia will be able to offer a more realistic education as an innovative alternative to one-sided, lecture-oriented instruction. It is an instructional device for providing exciting opportunities for teaching and learning. Multimedia has the unique strength of communicating difficult concept in simple ways. It provides the child-centered education by stimulating the different senses of the child.