UGC Approved Journal
© INNOVATIVE RESEARCH THOUGHTS | Refereed | Peer Reviewed | Indexed
ISSN : 2454 – 308X | Volume : 03 , Issue : 1 | January - March 2017

EFFECT OF MULTIMEDIA PACKAGE ON LEARNING OUTCOMES OF SENIOR SECONADARY STUDENTS IN ECONOMICS

DR. YUDHISTER, Associate Professor
R.L.S. College of Education, Sidhrawali (Gurgoan)

Abstract

The presence of multimedia technology opens a new era in teaching learning process. Combination of various media and digital softwares and their interactive capacity makes it an alternative of learning aid. By use of multimedia package, the students become more active participant in teaching learning process. In this paper, the findings related to the comparison of effectiveness of multimedia package and conventional method are given. The educational implications and suggestions for further research are also given in this paper.

Key words: Multimedia Package, Learning Outcomes, Conventional method, CAI

Introduction:

Teaching is a complex activity carried on in the complex situation of school by complex organisms (teachers) directed towards more complex organisms (students) who are constantly undergoing complex changes. In the present fast-growing age, lot of information has to be collected from multifarious sources, integrated and then presented in a gainful manner not only within self but to next generation. Teachers have been shouldered with the responsibility of processing it through a formal system to the different level of students.

Various strategies, methods and approaches are being tried out to improve the instructional procedure in order to have effective teaching resulting into good achievement by students. The multimedia approach is one of the latest developments in the art and skill of teaching. This instruction approach has the potential of being matched to the objectives of teaching as well as students' learning styles. The multimedia in education is a new concept being introduced to emphasize on application of multimedia package in teaching and learning process. A large number of researches have been conducted abroad to see the effectiveness of multimedia packages on students' achievement.

These studies reported that they show a significant difference in their formal operation level and learning abstract concepts and therefore, a significant difference in their achievement score was reported (Anderson & Nicolson 2003, Turner & Lindsay 2003 etc.) Wright and Shade (1994) stated that the impressiveness of a lesson using multimedia technology depends upon the quality of multimedia packages. However, some studies reported that there is no significant difference in achievement scores of students who were taught by multimedia packages. After reviewing various related studies, it is clear that no much work has been done in this field in India.

Teachers still find comfortable to use traditional instruction techniques for usual interaction with students in teaching Economics. But in teaching Economics many concepts

and phenomena require visualization in three dimensional shapes, graphs and other pictorial shape which can be best perceived by using multimedia packages. Many educators think that computer can do wonder in teaching Economics to students by using multimedia package to educate the human beings in the existing computerized society. They need to be provided a favourable environment with computer as a base to learn and flourish. Therefore, classroom activities need to be redesigned and technology be integrated for teaching Economics rather than viewed in isolation or as 'add on'.

Economics education all over the world has witnessed a paradigm shift in the past decades from teacher dominated to knowledge based to student centred. But in India, in many spheres, 'Lecture Method' dominates teaching. Integration of multimedia packages in teaching Economics is still far from desired. A very few studies have been conducted in this direction and that too in the limited disciplines. A lot of work is to be done in this direction in India. Thus, it is evident in the context of above rational that there is a paucity of researches in use of multimedia packages in teaching Economics. Thus, the study was conducted to see the effectiveness of multimedia package on students' achievement in Economics.

Statement of the Problem:

"Effect of Multimedia Package on Learning Outcomes of Senior Secondary Students in Economics"

Objectives of the Study:

The main objectives of the study are:

a) To assess effectiveness of multimedia package and compare the mean achievement score of students taught Economics through conventional method and multimedia package.
b) To compare the mean achievement test score in Economics of two groups of students taught with and without multimedia package before the experimental treatment.
c) To compare the mean achievement test scores of two groups of students taught Economics with and without multimedia package after the experimental treatment.
d) To compare the mean gain achievement scores of two groups of students taught Economics with and without multimedia package.

Hypotheses:

To attain the above-mentioned objectives, the following hypotheses were formulated.

a) There is no significant difference between the mean achievements scores in Economics of students of experimental and control group before experimental treatment.
b) There is no significant difference between mean achievement scores in Economics of students of experimental group taught with multimedia package before and after experimental treatment.

c) There is no significant difference between mean achievement scores in Economics of students of control group taught with conventional method before and after experimental treatment.
d) There is no significant difference between mean achievement scores in Economics of students of experimental group taught with multimedia package before and after experimental treatment.
e) There is no significant difference between the mean achievement scores in Economic of experimental and control group taught with and without using multimedia package after experimental treatment.
f) There is no significant difference between mean gain achievement score in Economics of experimental and control group taught Economics with and without multimedia package after experimental treatment.

Sample of the study:

Random sampling technique was used. Major Bihari Lal Memorial School, Bilaspur Chowk (Gurgoan) was selected by using lottery method. Both the sections of 10+1(Arts) class were taken as a sample. Then two groups (30 students each) were formed after matching the students on the basis of intelligence, socio-economic status and academic achievement. One group was named 'experimental' and the other 'control'.

Tool and Statistical Techniques Used:

Following tools were used for data collection:

- Multimedia packages developed and validated by investigator.
- Mixed Type Group Intelligence Test by Mehrotra.
- Socio-Economic Status Scale (Form B-Rural) by Kulshrestha.
- Achievement Test in Economics constructed by investigator to measure the achievement of students.

Keeping in view the objectives of study the main statistically technique used by the investigator was 't' test.

Procedure of Data Collection

The study was Quasi experimental in nature. Pre-test, post-test, equivalent group format design was employed. The data was collected by administering tools selected for data collection. The rapport was established by the investigator and important instructions were

given to students verbally after taking permission from head. The purpose of study was explained and they were asked to give responses freely. After giving the treatment to students of experimental group the achievement test was administered to both the groups to see the effect of multimedia package on students' achievement in Economics.

Findings Related to Effectiveness of Multimedia Package

The main findings of the study are as under:

- The mean achievement score in Economics of control and experimental group was 25.34 and 26.86 respectively. The calculated 't' was 1.79 which is not significant at 0.05 level. It means that there is no significant difference in achievement of control and experimental group in pre-test stage. This leads to conclude that before experiment both groups were similar in performance.
- The mean achievement scores of experimental group in pre-test and post test was 26.86 and 44.92 and the calculated 't' value was 13.08 which is significant at 0.01 level. This means that there is a significant difference in achievement of experimental group after treatment. It can be concluded that multimedia has enhanced the achievement of experimental group.
- The post-test mean achievement scores of control and experimental group was 38.84 and 44.92 respectively. These were compared by using 't' test (8.96) and significant difference was found in favor of experimental group. So, it can be inferred that students who were taught by using multimedia package showed significant improvement in achievement as compared to those students who were taught by conventional method.
- The mean gain achievements scores of experimental and control group was 18.06 and 9.50 and calculated 't' value was 7.44 which is greater than table value at0.01 level of significance. This means that students who were taught Economics by multimedia package showed more significant improvement in their achievements than the students taught by conventional method.

Educational Implications:

The findings of present study will serve as a basic data for research scholars of education for undertaking research work related to multimedia packages development and other related areas like CAI, CBL CML and Web based teaching.

- The courseware related to different subjects for different classes are not adequately prepared or provided to schools. So, the state government should take initiative to develop the courseware in collaboration with different agencies like NCERT, SCERT, IGNOU, CIET, etc.

- The government agencies and other producers and intermediaries should provide the catalogues to show products.
- The state government and other agencies should make arrangement for providing training for developing and using multimedia package in their concerned subjects.
- Efficient and effective success comes from experience not from legislation. So, teachers will have to design various multimedia environment with different cognitive level, demands and various contexts.
- The government should provide financial assistance to schools for development of these multimedia packages as per their requirements. The government should also give incentives to those teachers who are doing good jobs in their field.
- Efforts should be made by teachers to create a suitable environment in class room so that students may be motivated to participate in learning with understanding.
- The institutions can tie up with some professional organization like NCERT etc.
- The state department of education may organise workshops and seminars for teacher educators who are working in collages of education, DIET, SIT so that they can persuade the pupil teachers for developing and using multimedia and other computer-based programme.
- Local experts should have the time to develop and reinforce their expertise as well as the opportunity within the school context to disseminate their findings and experience. These local experts know the schools in which they work and needs of teachers as well as the range of products and their requirements.

Suggestions for Further Research

The present study opens avenues for further research which are given as under:

1. The present study was confined to 60 students of 10+1 class only. Further studies can be conducted on larger sample taken from different classes.

2. The present study was confined to four units only. Further studies may be conducted on teaching whole syllabus.

3. Similar studies may be conducted on students of 10+2, degree classes and other professional courses.

4. Further studies may be conducted on different types of schools like Government, Kendriya Vidhyalayas, Navodaya Vidhyalayas and Public schools.

5. Further studies may be conducted to compare the effectiveness of teaching with multimedia package and other CAI like tutorials, drill, practice session, games and simulation.

6. Further studies may be conducted to develop, validate and use of multimedia packages in other subjects like Science, Mathematics, Geography, History, Computer Science etc.

7. Further studies may be conducted to study the attitude of teachers towards development and using multimedia packages as an instructional model.

REFERANCES

Alexander, N.S. (2001). Preparation and validation of multimedia packages in the teaching of science to the hearing impaired students of secondary school. Ph.D. Education, Mahatma Gandhi University, Kottayam.

Aloraini Sara (2012). The impact of using multimedia on students academic achievement in the college of Education at King Sand University. *Journal of King Sand University Languages & Translation*. 75-82.

Al-Seghayer, K. (2001), The effect of multimedia annotation modes on L2 vocabulary acquisition : A comparative study, *Language Learning & Technology*, 5(1), 202-232.

Berk, R.A. (2009). Multimedia teaching with video clips, TV, Movies, youtube mtc in the college classroom, International Journal of technology in teaching and Learning, 5(1), 1-21.

Buch, M.B. (2007). *Sixth Survey of Research in Education NCERT*, New Delhi.

Dahiya, S. Surender (2004). Educational Technology, Towards Better teacher performance, Shipra publication, New Delhi.

Garret, H.E. and Hentry (2002). Statistics in Psychology and Education, Bombay, Vakils.

Krishan, S.S. (1988). Development of multimedia package for teaching a course on Audio Visual Education, *Fourth Survey Educational Research*, 1983-88, NCERT, New Delhi.

Maheshwari, B. (2011). Developing multimedia package for university teaching and learning, lesson learnt, *Asia pacific Forum on Science Learning literacy*, 112, ISSUE 2.

Malik, S. and Agarwal (2012). Use of Multimedia as a new Educational Technology tool. *International Journal of Information and Educational Technology*, 2(5), Oct. 2012.