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Research Paper

Effectiveness of Multimedia Package (Slm) on Achievement In Geography

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A B S T R A C T

Instructional media has stimulated Geography teachers to seek innovative strategies in teaching learning process with the systematic application of various media and skills to the requirements of the syllabus.
Based on instructional design, a computerized multimedia package is prepared for Geography with the combination of text,. Graphics, sound, animation and video. It is an individualized learning package with multimedia techniques which ahs built-in-self-evaluation -process.

The modern era is all out for information and knowledge. Every branch of learning is oriented in such a way as to produce individuals who would fit in the present world scenario.This scientific and technological temper is giving an investigative nature to all of us. Educational technology has become a corner stone in the educational efforts of Government, specifically in teaching-learning process to improve the performance of the learners. Media and Technology have been introduced into educational institutions because it is believed that they have positive effect on teaching and learning process.

In recent years there has been an explosion of interest in using computers in various academic disciplines. Computers can provide a realistic representation of the content, including authentic material that can be accessed through a large number of formats, such as CD, or the internet. Design, development and evaluation of instructional materials and procedures with the help of computers, is a primary concern among researchers in the field of educational technology. In this regard Education technology has stimulated teachers to seek innovative strategies in teaching learning process. These strategies are concerned with the systematic application of modern methods and skills to the requirement of curriculum. However combining new technologies with effective pedagogy has become a challenging task.

This new kind of planning of instruction is referred to as instructional development, that means application of instructional systems approach to the analysis and development of practical solutions to the teaching and learning problems through multimedia. This is called as multimedia approach. Thus multimedia approach is a combination of a variety of instructional materials and techniques for providing series of learning experiences related to any subject. Amongst many subjects at secondary school level, the subjects Social Science are very important.

Designing a package by the teacher includes the effects of message configuration and characteristics, effective combination of multimedia elements such as text design, visual effects and the use of audio, animation and graphics. The present study is providing opportunities for regenerating ideas to use the innovative computer technology called multimedia package in teaching and learning process of Geography. Hence the study "Effectiveness of computer Multimedia package on achievement in Geography".

Objective of the Study

1. To develop a Multimedia package (SLM) on selected unit of IXth standard Geography content.
2. To study the effectiveness of the Multimedia package (SLM) on the achievement of IXth standard students in Geography.
3. To find out the relative effectiveness of Multimedia package on the achievement of stu dents of experimental and control group.

Hypotheses

1. There is no significant difference in Geography achievement of the experimental group and the control group in the post-test.
2. There is no significant difference in Geography achievement of boys and girls of the experi mental group.

Methodology

The present study is an experimental study with post-test single group design, in which the effect of multimedia package is studies in the experimental group. Hence the researcher has done the investigation in two phases namely

Phase I- Development of Multimedia Package

In order to develop the package, the researcher used ADDIE instructional design and has also prepared his own instructional design. By keeping the frame work of the design as basis, the researcher has developed self learning material (SLM) with the help of computer multimedia package as self contained unit and it was validated with different groups at different levels and subsequently field tested.

Development of Achievement Test

Other than built in evaluation for the topic, for the final performance, and achievement test was constructed by the researcher on the topic chosen for development of Multimedia package. The test was administered to both the control group and the experimental group.

Preparation of Reaction Questionnaire

In order to assess the student's reaction towards the computer Multimedia package (SLM) a reaction questionnaire was prepared to administer to the experimental group after the implementation. This covered the areas of content presentation, methodology used, activities, effects of Multimedia, language used, evaluation, etc.,

Phase II-The researcher taught the selected unit of Geography by conventional approach to the control group and measured the achievement mean scores of the learners by administering achievement test as post test:

The experimental group was treated with computer Multimedia package using it as self learning material, the achievement test was administered and scores were collected. To the experimental group to collect their opinions and suggestions the reaction questionnaire was administered and scores were measured (qualitatively).

Statistical Analysis

The scores obtained by the two groups of students in the post-test and Nonverbal intelligence group test were tabulated and analyzed using appropriate quantitative statistical techniques. The marked hypotheses were tested through 't' test. Percentage analysis was also used for analyzing the scores of reaction questionnaire.

Hypothesis-I

There is no significance difference in the Geography achievement of IXth standard students of experimental and control group of the study.

Table No.1 reveals that the obtained 't' value is significant at 0.01 level of significance. Hence the Null Hypothesis is rejected and an alternative hypothesis is formulated i.e. 'There is a significant difference in Geography achievement of the experimental and controlled group of the study.

Table-1 The table showing the comparative Mean scores of achievement of Experimental & Control group.

	Groups	N	Mean	S.D.	't' value	Level of Sig.
Achievement	Exp	56	60.30	6.464	13.53	Sig.
	Cntl	58	41.67	8.114		

Hypothesis 2

There is no significant difference in Geography achievement of boys and girls of the experiment group.

Table-2 Comparative Mean scores of achievement of Boys and Girls of experimental group.

	Groups	N	Mean	S.D.	't'value	Level of Sig.
Achievement	Girls	22	60.86	4.612	0.518	Non Sig.
	Boys	34	59.94	7.467		

The mean value does not differ much between boys (60.86) and girls (59.94) of the experimental groups. Also the obtained 't' value is 0.518 which is not significant at 0.05 level. Hence, the null hypothesis is accepted. The present socio cultural aspects of the society reveal that both boys and girls are equal when equally exposed to latest technology and both are computer savvy. Thus it can be concluded that the gender has no influence in the achievement of students of Geography. Boys and girls do not differ in their achievement in Geography when they are taught through multimedia package.

Qualitative Analysis

The performance scores alone do not give the complete picture of the effectiveness of multimedia techniques used since there are several other inputs in computer. Hence the research has used the reaction questionnaire to get to know the effectiveness of inputs used in the package.

Findings and Conclusions A strategy implemented with self learning material of multimedia techniques brings improvement in Geography on the achieve-

ment of students of experimental group.

1. There was a superior performance of experimental group over the traditional group which suggests that SLM 9MMP) was found effective.
2. A focused treatment with self learning material of multimedia techniques has enhanced the achievement of students of experimental group in Geography.
3. The gender of the students has no influence on the achievement in Geography of students of experimental group.

Educational Implications

1. The result of the study revealed the superiority of multimedia package (SLM) over traditional Method. So it is more psychological to view this as a highly individualized instructional process for better learning.
2. The students can be exposed to a new atmo sphere in which they can interact with com puter assisted material by learning on their own pace.
3. Individualized learning material helps in enrich ment of curriculum of Geography.
4. Learner can be provided sufficient motivation to learn with sustained attention and interest and active involvement in the task of learning.
5. The problem of indiscipline can be solved very easily by creating an atmosphere for learning. It may effectively be used in providing guid ance and remedial instruction.
6. Gradually students get interest in learning of Geography by getting rid of boredom.

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