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Impact of Multimedia Instructional Module in Economics on Students' Achievement

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ABSTRACT

The present study aims to find out the effectiveness of Multimedia Instructional Module over Conventional method in teaching of Economics in high school. Two groups, random sampling, post-test design was employed. Two experiments were carried out. In Both the experiments that results shows that the Multimedia Instructional Module was more effective than the conventional method in context of achievement of students. It can be concluded that there was no significant effect of type of school on the relationship between teaching method and student's achievement.

INTRODUCTION

In present era, technology and communication is used in every field of education. The academic world is becoming more dynamic, innovative due to technology. Various ICT media are used to keep the classroom environment lively. In this digital age, integration of multimedia learning tools helps to enhance the effectiveness the teaching learning process. The effectiveness of multimedia tools in teaching and learning process is a topic of growing significance, representing a convergence of pedagogy, psychology and technology. These tools including a diverse range of technology driven resources such as videos, animation, interactive simulation, virtual reality experience, e-books designed to enhance the learning process. In multimedia there is a combination of various media like Voice, Photo, Video, Part and Animation etc. This allows users to experience content in a variety of forms which can be both physical and non-physical. Multimedia collects materials from various sources. This can include any words, images, videos and animations.

Multimedia is a type of medium with the help of which we can transfer data and information from one place to another without much trouble. Multimedia is a technical and creative process in which information is transmitted in different forms. It is an effective medium of communications in which is created using knowledge, video, sound, graphics, images, animation and other media elements. The use of multimedia in classroom motivates self paced learning. Multimedia bring real life scenario in classroom and make classroom learning experience more relevant and practical. The present study has been designed to investigate the impact of multimedia Instructional module in the achievement of commerce students as compared to that of traditional method.

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OBJECTIVES OF THE STUDY

The following objectives were framed:

1. To prepare Multimedia Instructional Module for the unit 'Market' of Economics of Standard 11th.
2. To construct an Achievement test for the unit 'Market 'of Economics of Standard 11th.
3. To study the effectiveness of Multimedia Instructional Module over the Conventional Teaching Method
4. To find out the effectiveness of Type of School on the relationship between the teaching methods and achievement.

HYPOTHESES OF THE STUDY

The following hypotheses were formulated for testing:

1. There is no significant difference between the mean scores obtained by students of government school learnt by the Multimedia Instructional Module and by the lecture method for the unit Market of Economics of Standard 11th.
2. There is no significant difference between the mean scores obtained by students of private school learnt by the Multimedia Instructional Module and by the lecture method for the unit Market of Economics of Standard 11th.
3. There is no significant difference of Type of school on the relationship between teaching methods and achievement.

VARIABLES

1. Independent Variable Teaching Method	1. Multimedia Instructional Module 2. Lecture Method
2. Dependent Variable: -	Student's Achievement
3. Moderator Variable: -	Type of School
4. Control Variable: -	Medium of Instructional, Standard, Subject, Unit
5. Intervening Variable: -	Intelligence, Self-Motivation

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SAMPLE

The investigator selected 11th Standard Students of two schools of Bhuj City. Out of these two, one is government school and the other one is private school. Students were selected by using simple random technique.

DESIGN

The present study was experimental in nature and its design was two group, random sampling, only post test.

TOOL

Investigator has constructed an achievement test of 40 marks for the measurement of dependent variable.

APPLICATION OF THE EXPERIMENT

This study was divided into two experiments. Experiment one was undertaken on students of government school and the later was undertaken on students of private school. For experiment one, two groups were formed randomly. Out of these two groups, group one which designated as experimental groups was taught the topic by using Multimedia Instructional Module. The second group which designated as control group was taught the topic by using lecture method. The same procedure was used for the experiment two.

COLLECTION OF THE DATA

After the experiments students were given an achievement test. In each experiment, both the groups were given the test simultaneously.

STATISTICAL TECHNIQUE

To find out the effectiveness of independent variable (teaching methods) on the depended variable (achievement) t-test was applied.

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DATA ANALYSIS AND INTERPRETATION

Table-1

Analysis of scores obtained by students of government school on an achievement test

Teaching Methods	Number of Students	Mean	Standard Deviation	t-value
Multimedia Instructional Module	31	36.25	3.13	7.49*
Lecture Method	31	28.39	4.96	

*Significant level 0.01

Table-1 reveals that the 't' value is significant at 0.01 level. Hence, it could be inferred that there is a significant difference between the two groups. It means there is a significant difference between the mean scores obtained by students learnt by Multimedia Instructional Module and by the lecture method for the unit 'Market' of Economics of Standard 11th. The students perform well when taught through Multimedia Instructional Module.

Table-2

Analysis of scores obtained by students of private school on an achievement test

Teaching Methods	Number of Students	Mean	Standard Deviation	t-value
Multimedia Instructional Module	32	37.29	3.24	6.93*
Lecture Method	32	30.50	4.56	

*Significant level 0.01

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Table-2 indicates that the 't' value is significant at 0.01 level. It means there is a significant difference between the mean scores obtained by students taught the topic by Multimedia Instructional Module and by the lecture method for the unit 'Market' of Economics of Standard 11th. The students perform well when taught through Multimedia Instructional Module.

Table-3

Result of experiments on students of government school and private school in context of the effectiveness of teaching method on the achievement

Experiment	Subjects of Experiment	Result
1	Students of Government school	Multimedia Instructional Module was more effective than lecture method in context of achievement of students of government school
2	Students of Private School	Multimedia Instructional Module was more effective than lecture method in context of achievement of students of private school

Table-3 indicates that Multimedia Instructional Module was found to be more effective than the lecture method in both cases. It means there is no significant difference of type of school on the relationship between teaching methods and achievement.

FINDINGS

Findings of this study were:

1. Multimedia Instructional Module was more effective than lecture method in context of achievement of students of government school.
2. Multimedia Instructional Module was more effective than method in context of achievement of students of private school.
3. There was no effect of type of school on the relationship between teaching methods and achievement.

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