



IMPACT OF MULTIMEDIA PACKAGE IN SCIENCE SUBJECT OF CLASS VIII MALE STUDENTS

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Abstract

This research was intended to study the impact of multimedia package in science subject of class VIII male students. For testing the hypothesis of the research, 60 male of average intelligence students were finally selected. Out of these 60 male students one-half (n=30) were randomly assigned to the control group and another half (n=30) were randomly assigned to the experimental group. Multimedia Package and two set of Science (Biology) Achievement Test were developed and used by the investigator for teaching chapters related to Biology subject of Science Textbook of class VIII prescribed by Board of Secondary Education, Chhattisgarh. In the pre-test, Set-I of Science (Biology) Achievement Test was administered on both i.e., Control and Experimental and then they were taught by the investigator for 1 period (40 minutes) every day. After teaching with traditional method and multimedia package to control group and experimental groups respectively, Set-II of Science (Biology) Achievement Test (SAT) was administered. Statistical analysis of data showed that the male students' science achievement could not be enhanced considerably by multimedia package.

Keywords: Multimedia Package, Science Achievement



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Introduction

Academic achievement is the outcome of the training imparted to a student by the teacher in the school situation (Sharma & Sharma, 2011). It is knowledge, understanding, skills, learning attitudes and all of which can be assessed by means of many tests during, or after teaching/learning activity (Kamonpattananan, 2000). For better academic achievement effective teaching and learning requires new technological innovative methods which increase students participation and provide live experiences as well as teachers dominated classroom environment is transformed into student centered learning environment (Rosa & Preethi, 2012). Multimedia, as a teaching method stimulates various senses with colour, graphics, sound and animation which are found in the audio, video and movie media. Multimedia Package was designed to enhance the academic achievement of science subject in the context of Chhattisgarh's Hindi medium schools. Academic achievement was definitely facilitated by using multimedia and multimedia package which creates interactive, creative,

democratic, interesting, understandable, simple classroom environment so that, teacher enables students to respond in a theoretical and practical way. In this way multimedia was revolutionize the various aspects and factors of teaching-learning process. Therefore, the present study is very important and being conducted on multimedia approach to find out the impact of multimedia package on achievement of science of VIII class male students.

Objective & Hypothesis

The only problem of the research pertained to impact of multimedia package in science subject of class VIII male students.

It was hypothesized that multimedia package would enhance science achievement of class VIII male students.

Methodology

Sample

Total 60 male students with average intelligence were selected from a larger population of class VIII students aging 13-14 years and studying in nongovernment Hindi medium schools of Raipur city.

Tools

Tandon's Group Test of Intelligence (1973) was used to access intelligence level of students.

Multimedia Package was developed by the investigator for teaching 3 chapters related to Biology subject of Science Textbook of class VIII prescribed by Board of Secondary Education, Chhattisgarh and constructed by using text, graphics, audio, video and animation by the researcher for effectively explaining difficult topics with the help of experts.

Science (Biology) Achievement Test was developed with the help of experts and used in two sets with randomly shuffled questions by the investigator from the Science Textbook of Class VIII prescribed by Board of Secondary Education, Chhattisgarh to seek pre-test and post-test scores of the students in consultation.

Procedure

An initial incidental sample of 200 male students aging 13-14 years and studying in class VIII was selected. All these 200 students were administered Tandon's Group Test of Intelligence and a total of 60 cognitively average intelligent students were finally selected randomly. Out of these 60 male students one half (n=30) were randomly assigned to the control group and another half (n=30) were randomly assigned to the experimental group.

In the pre-test, Set-I of Science (Biology) Achievement Test was administered on the selected final sample of male students of the two groups i.e., Control and Experimental Groups. Students of the groups viz. Control and Experimental Groups were taught by the investigator for 1 period (40 minutes) every day by traditional method and with the help of multimedia package, respectively. The first chapter on "Sharir Ki Rachanatmak Ikai Koshika" was assigned 10 days teaching, the second chapter on "Sukshma Jeev: Ek Adbhut Sansar?" was assigned 8 days teaching and third chapter "Kuch Samanya Rog" was assigned 12 days teaching. After completion of teaching session, the students were administered Set-II of Science (Biology) Achievement Test (SAT). Raw scores on achievement tests were converted into T-scores for further computation.

Result and Discussion

Difference Science Achievement scores were obtained for each student by deducting pre-achievement scores from post-achievement scores and the average of both the groups were obtained (Table 1).

Table #1: Average ‘Difference Science Achievement T-Scores’ and Obtained t-ratio for Comparisons between Two Training Groups Belonging to Male Students

Comparison Groups	n	M	Σx^2	t-ratio	Level of Significance
Control	30	19.63	3448.34	0.72	NS
Vs. Experimental	30	21.49	2365.47		

A perusal of Table 1 clarifies that average ‘difference science achievement T-scores’ of experimental (training) group (M=21.49) was higher than that of control (non-training) group (M=19.63).

A t-ratio was computed to check significance of this difference between the two groups in respect of their science (Biology) achievement. The obtained t-ratio 0.72 (Table 1) was not significant at 0.05 level of significance for 58 degrees of freedom which provided sound statistical ground to reject the hypothesis in the present research. It can be concluded that multimedia package could not improve science achievement of male students considerably.

The findings was contrary to Kirkpatrick and Cuban (1998), Mantei (2000), Baviskar (2006), Yünkül and Er (2014), Abidoeye (2015), Okwara, Paul and Gloria (2017), and Hossein and Ebrahim (2018) who found that multimedia package training was useful and effective in increasing science achievement of male students. However, the present study was in

consonance with the results of Longe (2012) and Gambari et al. (2016) who observed that multimedia package training had no any significant effect on the science achievement of male students.

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