



Development and Try-out of a Multimedia Package on ‘Science and Technology’ of Standard IX

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ABSTRACT

The traditional method of classroom teaching should be re-innovating according to the changing society and trend. Multimedia is a planned combinations of Media in to system. Also the one of objectives of the study was to develop a multimedia package on selected units of Science and Technology for Std. IX etc. The one of hypothesis was there will be no significant difference between mean scores obtained on the basis of pre-test and post-test in the experimental group. The present study was an experimental study. The one of analysis and Interpretation of the data was it could be concluded that the multimedia package was found effective in teaching the unit of ‘Science and Technology.’ Also, Major finding of the study was the developed multimedia package was found effective in learning the selected unit of Science and Technology to the students of Std. IX.

Introduction

The traditional method of classroom teaching should be re-innovating according to the changing society and trend. The most vital and significant issue of immediate concern to the teaching community was the inadequacy of the traditional method of instruction because in this method information is transmitted through lecture only. It cannot consider properly the needs of each learner and there is no scope for self-study. The present conventional system

gives more stress on teaching than the learning. The self-directed learning has captured the attention of the educators of today. In this regard a self-learning package offer an effective way of teaching-learning process. Multimedia as an instructional material, posses the qualities to meet the needs of the students and help him in his own way, Actually, Multimedia is a planned combination of media into the system in which the role of medium is distributed according to its potential theory reinforcing the value of each medium taken separately.

In the present study, to make the teaching of Science and Technology more interesting and lively investigator developed and tried-out a multimedia package for the students of standard IX and explore its effectiveness and acceptance for the teachers and students.

Statement of the Problem

The problem under study could be stated as: “Development and Try-Out of a Multimedia Package on ‘Science and Technology’ of Std. IX.

Terminology Used

Multimedia is a planed combinations of Media in to system. the multimedia package developed for the present study consisted of the following components.

- (1) Audio-Programme (Question Answer)
- (2) Work Book
- (3) Tape-Slide Programme
- (4) Lecture by Expert
- (5) Audio-programme (Drama)

Development

It means the preparation of the multimedia package keeping in view to analysis of the content, selection and preparation of media and pilot testing of the package.

Try-out

Try-out refers to the evaluation of the package through experimentation. Pre-test, post-test and retention test after one month of the experimentation were used for the evaluation of

the package on the students of Std. IX. Opinions of concerned students and teachers were also taken into consideration.

Objectives of the study

1. To develop a multimedia package on selected units of Science and Technology for Std. IX.
2. To know the effectiveness of multimedia package developed on Science and Technology for Std. IX
3. To compare the multimedia package with the traditional approach in terms of teaching of the subject of Science and Technology.
4. To compare the experimental group with the controlled group on the basis of the scores of retention test given after one month of the experiment.
5. To get opinions of students and teachers towards multimedia package.

Hypothesis

1. There will be no significant difference between mean scores obtained on the basis of pre-test and post-test in the experimental group.
2. There will be no significant difference between mean scores obtained on the basis of post-test for the experimental group.
3. There will be no significant difference between mean retention scores of two groups (Experimental and controlled) obtained on the basis of retention test given after one month of the treatment.

Research methodology

The present study was an experimental study. In which pre-test, post-test with control group research design was given. A retention test was also given after one month of the experimentation.

The study was completed in two phases-

- (1) Development of multimedia package (MMP)

(2) Try-out of MMP through experiment.

In final experiment two groups each consisted of 30 students (Equal number of male and female) were selected from a Anglo Urdu High School, Surat. The students of the two groups were matched on their age, sex and previous achievement. The students of the experimental group and five teachers of school were also contacted for getting the opinion regarding MMP.

In addition to the multimedia package, a criterion test (used as pre, post and retention test) and two opinionnaire for teachers and students were developed by the investigator.

For developing a multimedia package investigator selected a unit Ajanta of Science and Technology for Std. IX. It was consisted of five sub-units. The details are as follow:

Table-1

S.No.	Sub-Unit	Related Medium	Time Limit
1.	1	Audio Program (Drama)	25 min.
2.	2	Work Book	45 min.
3.	3	Tape- Slide Prog.	40 min.
4.	4	Lecture By Expert	25 min.
5.	5	Audio Program (Question - Answer)	25 min.

A pre-test of marks 50 was given before starting the experiment to both the groups. In the experimental group related medium for each sub unit were used as per the serial number given in the above table. After treatment a post test was given and the retention test was given after a month of experiment.

Critical ratio 't' test was used to compare the two means and percentage was used to analyse the opinions regarding MMP.

Analysis and Interpretation of the data

I. Comparison of mean pre and post-test scores group-1 (Experimental Group) (N=30)

Table-II

Test	Mean	S.D.	SE _m	r-value	't' value
Pre	11.92	1.45	0.78	0.19	27.87*
Post	36.43	3.45	0.90		

- Significant at 0.01 level.

The obtained value of 't' (29.39) was significant at 0.01 level. Thus, the null hypothesis (1) could not be accepted. It could be concluded that the multimedia package was found effective in teaching the unit of 'Science and Technology.'

II. Comparison between experimental and controlled group in relation to their mean post test scores.

Table III

Group	N	Mean	S.D.	SE _D	't' Value
Exp.	30	34.34	4.32	0.76	12.78*
Con.	30	22.45	3.45		

*Significant at 0.01 level.

The obtained value of 't' (13.97) was significant at 0.01 level. Thus, the null hypothesis (2) could not be accepted. The findings revealed that the teaching of Science and Technology through MMP was more effective than the traditional method of teaching Science and Technology.

III. When the mean scores of pre and retention test for both were compared. The significant mean differences were found.

The result revealed that both MMP and traditional methods were found effective in retaining the achieved knowledge.

Major findings of the study

1. The developed multimedia package was found effective in learning the selected unit of Science and Technology to the students of Std. IX.
2. The developed MMP was found more effective than traditional method of teaching the subject Science and Technology.
3. The developed MMP succeeded significantly in the retention of the achieved knowledge after one month of the learning.
4. The both students and teachers found the developed MMP effective, useful and interesting. Although, it was the self instructional device but the help of teacher was conceived as more useful. The used language was communicable and simple.

Implication of the study

The findings of the present study provide evidences regarding the efficiency of MMP. It suggests that more packages for other subjects should be developed and used in the classroom instruction effectively.

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