



A Study of Effectiveness of Video Programme on Achievement in Mathematics of Girls Students Studying in IX Class

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ABSTRACT

This research paper highlights effectiveness of the video programme teaching method to improve the achievement in Mathematics among IX standard students. In this study video programme was prepared on the selected units of IX standard Mathematics subject. The effect of the by CIET was assessed with the achievement test. The researcher decided to compare mean achievement scores of Girls students of class IX taught by video programme and traditional method. The main objective of the study was to compare the mean scores of achievement in Mathematics of IX class Girls students taught through traditional and video programme method and null hypothesis was formulated stating as “there is no significance difference between mean scores of achievement in Mathematics of IX class Girl students taught through traditional Vs video programme methods.” Statistical techniques Mean, S.D. and ‘t’-test were applied for analysis of data and major finding was that teaching through video programme is effective in teaching of Mathematics to the Girl students of class IX.

KEY WORDS:

CIET Video programme, Advantage of Video Aid, Traditional Method, Verbal, Intelligence Test (VIT), and Mathematics Achievement Test (MAT) constructed by themselves, Gender: Girl Students only.

INTRODUCTION:

The education is one of the foremost agencies for the democratic setup of our country. The students living in City should be taught Mathematics in effectiveness method, as the modern age is called age of information technologies. The qualitative education of mathematics plays an important role in the advancement of information technology. When we talk about qualitative education, we have to think about competent teachers, who have positive impact on education, Teacher influences his pupils by what he says and even more he does. In the present time there is great importance of Mathematics, without mathematics nobody can do anything in his/her daily life. Mathematics has influenced every field of life.

NEED AND IMPORTANCE:

Role of Mathematics have important role in the development of every male students. Mathematics education refers to both the methods currently used to teach mathematics and to an area of pedagogical research that seeks to improve video programme. Most of the teachers of secondary schools, do not know how to teach Mathematics with the help of audio visual aids, a Mathematics teacher should have the ability to use different teaching skills in his /her teaching C.I.E.T. (a unit of N.C.E.R.T. New Delhi) has developed video programmes to teach Mathematics in an interesting way, so the researcher felt a need to verify the utility and effectiveness of these programmes on achievement in Mathematics of the Girls Students Studying In IX Class in a significant manner.

STATEMENT OF THE PROBLEM:

“A Study Of Effectiveness Of Video Programme On Achievement In Mathematics Of Girls Students Studying In IX Class.”

OBJECTIVE OF THE STUDY:

1. To compare the mean scores of Achievement in Mathematics of IX class **Girls students** taught through Traditional and Video Programme method.
2. To compare the mean scores of Achievement in Mathematics of IX class Girls students belonging to **high intelligence** group taught through Traditional and Video Programme methods.
3. To compare the mean scores of Achievement in Mathematics of IX class Girls students belonging to **average intelligence** group students taught through Traditional and Video Programme methods.
4. To compare the mean scores of Achievement in mathematics of IX class Girls students belonging **low intelligence** group taught through Traditional and Video Programme methods.

HYPOTHESES OF THE STUDY:

1. **H₀**: There is no significance difference between mean scores of Achievement in Mathematics of IX class **Girls students** taught through Traditional and Video Programme method.
2. **H₀**: There is no significance difference between mean scores of Achievement In mathematics of IX class Girls students **belonging high intelligence** group taught Traditional and Video Programme method.
3. **H₀**: There is no significance difference between mean scores of Achievement in Mathematics of IX class Girls students **belonging average intelligence** group taught through Traditional and Video Programme method.
4. **H₀**: There is no significance difference between mean scores of Achievement in mathematics of IX class Girls students **belonging low intelligence** group taught through Traditional and Video Programme method.

VARIABLES OF THE STUDY:

(A) Independent Variables: Controlled Variable: (1).Traditional teaching, (2). Intelligence, **Treatment Variables:** Teaching through video prepared by C.I.E.T. and traditional method of teaching. **(B) Dependent Variable: Academic Achievement.** By academic achievement in mathematics means that the scores obtained by the Girls students in mathematics which shows the level of learning or which is helpful in the decision about the learning in mathematics.

Groups of students. On basis of I.Q. the Girls students of rural and urban area have been classified into three groups i.e., (i) High Intelligence Group, (ii) Average Intelligence Group, (iii) Low Intelligence Group.

METHOD OF RESEARCH:

In present study experimental method of the research has been used. Random replication research design has been used in the present study. **Population and sample of the study:** All Girls students studying mathematics in class IX in secondary schools situated in rural and urban of Meerut District affiliated to Board of High School and Intermediate Education, Uttar Pradesh constituted the population of the study. Sample of the study has been consists of 212 students only IX class rural and urban students selected randomly from the population. **Tool use in the study:** The following tools were used in present investigation for the collection of relevant data. Verbal Intelligence Test (VIT) constructed by R. K. Ojha and K. Ray Chowdhury. Self prepared the Mathematics Achievement Test (MAT). **Statistical technique used:** The parametric statistical technique for analyzing and proving the hypothesis the researcher used 't' test. **Delimitation of the study:** The present study was delimited to Meerut Dist., Mathematics Girls students of IX class, District Meerut of Uttar Pradesh ,institutions affiliated to U.P. Board High school and Intermediate Allahabad, The C.D.'s prepared by C.I.E.T. Delhi ,The variables- intelligence , academic achievement in mathematics ,Two methods of teaching - traditional and video only.

DATA ANALYSIS:

1. **H₀**: There is no significance difference between mean scores of Achievement in Mathematics of IX class Girls students taught through Traditional and video programme method.

Table 1

“Showing the comparison between mean score of achievement in mathematics of IX class Girls students belonging intelligence group taught Traditional and video programme method.”

METHOD OF TEACHING	N	SUM	MEAN	S.D.	t-VALUE
TRADITIONAL	106	8199	77.3491	11.4381	3.9014 Significant @ .01 level
VIDEO PROGRAMME	106	8132	76.7170	11.9273	

RESULT: Table 1 represent the obtained t - value is 3.9014 with df 210 and the table value is 2.58 at .01 level of significance i.e., significant. Hence the null hypothesis “There is no significance difference between mean scores of Achievement in Mathematics of IX class Girls students taught through Traditional and video programme method” is rejected. It means that mean scores of Achievement in Mathematics of IX class Girls students taught through Traditional and video programme methods do differ significantly.

2. **H₀**: There is no significance difference between mean score of achievement in mathematics of IX class Girls students belonging high intelligence group taught Traditional and video programme method.

Table No. 2

METHOD OF TEACHING	N	SUM	MEAN	S.D.	t-VALUE
TRADITIONAL	22	524	23.8182	2.5873	2.2612 Significant @ .05 level
VIDEO PROGRAMME	15	386	25.7333	2.4891	

“Showing the comparison between mean score of achievement in mathematics of IX class Girls students belonging high intelligence group taught Traditional and video programme method.”

Table 2 shows that the obtained value of ‘t’ is 2.2612 with df 35 and the table value is 2.021 at .05 level of significant. Hence the null hypothesis “There is no significance difference between mean scores of Achievement in Mathematics of IX class Girls students belonging high intelligence group taught through Traditional and video programme method” is rejected. It means that mean scores of Girls students taught through Traditional and video Achievement in Mathematics of IX class programme method do differ significantly.

3. H₀ There is no significance difference between mean score of achievement in Mathematics of IX class Girls students belonging average intelligence group taught through Traditional and video programme method.

Table No. 3

“Showing the comparison between mean score of achievement in mathematics of IX class Girls students belonging average intelligence group taught Traditional and video programme method”

METHOD OF TEACHING	N	SUM	MEAN	S.D.	t-VALUE
TRADITIONAL	80	1505	18.8125	2.7572	4.9715 Significant @ .01 level
VIDEO PROGRAMME	85	1803	21.2118	3.4234	

Table 3 shows that the obtained t - value is 4.9715 with df 163 and the table value is 2.576 at .01 level of significant that is significant. Hence the null hypothesis “There is no significance difference between mean scores of Achievement in Mathematics of IX class Girls students belonging average intelligence taught through Traditional and video programme method” was rejected.

It means that mean scores of Girls students taught through Traditional and video Achievement in Mathematics of IX class programme method do differ significantly.

4. H₀: There is no significance difference between mean score of achievement in mathematics of IX class Girls students belonging low intelligence group taught through Traditional and video programme method.

Table No. 4.

“Showing the comparison between mean score of achievement in mathematics of IX class Girls students belonging low intelligence group taught Traditional and video programme method.”

METHOD OF TEACHING	N	SUM	MEAN	S.D.	t-VALUE
TRADITIONAL	4	67	16.7500	3.2617	0.9895 Not Significant
VIDEO PROGRAMME	6	113	18.883	2.1054	

Table 4 represent the obtained t - value is 0.9895 with df 8 and the table value is 2.306 at .05 level of significant. Hence the null hypothesis “There is no significance difference between mean scores of Achievement in Mathematics of IX class Girls students belonging low intelligence taught through Traditional and video programme method” was accepted.

It means that mean scores of Girls students taught through Traditional and video Achievement in Mathematics of IX class programme method do not differ significantly.

FINDINGS:

1. The achievement in Mathematics of **Girls students** of IX class taught through Video Programme is effective only on the Girls students, these students will learn and understand concepts of Mathematics in better way if they are taught by teaching with Video Programme.
2. The achievement in Mathematics of Girls students of IX class taught through Video Programme is effective only on the Girls students who have **high intelligence** and these students will learn and understand concepts of Mathematics in better way if they are taught by teaching with Video Programme.
3. The achievement in Mathematics of Girls students of IX class taught through Video Programme is effective only on the Girls students who have **average intelligence** and these students will learn and understand concepts of Mathematics in better way if they are taught by teaching with Video Programme.

4. The achievement in Mathematics of Girls students of IX class taught by traditional method was greater than the taught by video programme in the group of **low intelligence** these students will learn and understand concepts of Mathematics in better way if they are taught by traditionally.

EDUCATIONAL IMPLICATION:

The affiliating and recognizing boards of secondary school should make such provisions in the schools affiliated to these boards so that the students of high and average intelligence should be taught Mathematics by Video Programme and the Girls students of low intelligence should be taught traditionally.

CONCLUSION:

The teaching through Video Programme is effective only on the Girls students IX class students are taught through video presentation they can understand and excel academically rather than teaching through chalk and board method (traditional method) They having high and average intelligence and these students will learn and understand concepts of Mathematics in better way if they are taught by teaching with Video Programme, the Girls students having low intelligence should be taught by Traditional Method, to improve the understanding and learning of concepts of Mathematics.

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