

# EFFECTIVENESS OF VIDEO INSTRUCTIONAL MATERIAL IN EDUCATIONAL PSYCHOLOGY FOR B.Ed STUDENTS OF MADHYA PRADESH

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## ABSTRACT

*The present study is related with development and effectiveness of Video Instructional Material in Educational Psychology. It was an attempt to find out whether the Video Instructional Material is effective in compare to Traditional Lecture Method. Keeping in mind to improve teaching learning process in Educational Psychology and due to need and importance of Video Instructional Material in Educational Psychology, Scarcity of researches in using Video Instructional Material in classroom, Scarcity in study of interactional effect of various variables like Intelligence, Adjustment, Personality, Gender, socioeconomic Status, Educational Discipline, Caste, Residential background and Marital status when Video Instructional Material (Method Of Teaching) was an independent variable and Achievement was dependent variable. Scarcity of quality teachers in Educational Psychology, Scarcity of quality instructional material in Educational Psychology, inconsistency in findings of different researches on Video Instructional Material and due to very few numbers of researches conducted on Video instructional Material present study need to be undertaken Video Instructional Material method of teaching Educational Psychology was found to be significantly superior to Traditional Method in improving Achievement in Educational Psychology when groups were matched with respect to Pre Achievement in Educational Psychology and Intelligence.*

## I. INTRODUCTION

The present study “Effectiveness of Video Instructional Material in Educational Psychology in terms of Achievement and Reactions towards Developed Material of B.Ed students of Madhya Pradesh” was Experimental in nature and related to two areas that is Educational Technology and Educational Psychology. In this study investigator was tried to explore the application of Video films of Educational Psychology in classroom teaching. Investigator attempted to find out how a teacher can use video films for teaching his effectively. More precisely, it is related with development and

effectiveness of Video Instructional Material in Educational Psychology. It was an attempt to find out whether the Video Instructional Material is effective in compare to Traditional Lecture Method. In teaching new technologies are adapting to bring change in existing System for fulfillment of predetermined educational objectives. In twentieth century books are only source of instruction material for Individualized teaching. Today the type have expanded to include diversification like text books, Supplementary reading books, workbooks, magazines, booklets, comics, programmed books, motion pictures, photographic slides, filmstrips,

videodiscs, audio discs, audio tapes, charts, graphs, photographs, drawings, simulation games, radio, television, e-learning, Video Instructional Material, Web Based Instructions, Computer Aided Learning etc. Within each of these type a growing collection of materials is being produced to suit individual students, levels of achievement and learning styles, There is however a striking difference between nations in the types and amounts of materials available. Individualized instruction is training tailored to meet the individual trainee's needs and abilities and to accommodate the differences between trainees. An instructional package is a collection or Programmes of learning materials put together around a topic or skill and used to facilitate the process of training and learning (Wilson, 1987). Instructional films had immense potentialities of vicarious visual experiences which in turn made the lessons more vital and further made the language used in lessons more meaningful (Muddu, 1978). Audiovisual materials supply concrete basis for conceptual thinking, they give rise to meaningful concepts enriched by meaningful association; hence they offer the best antidote for the disease of verbalism (Dale, 1985). A brief description of Video Instructional Material and Educational Psychology is given as follows.

## II. VIDEO INSTRUCTIONAL MATERIAL

Video Instructional Material is a systematically planned, skillfully arranged and effectively controlled Video instruction for providing individualized instruction or learning experiences to the learners. The subject matter is logically

sequenced into small segments. It is an application of the principles of behavioral sciences and technology in the field of education. In the Video Instructional Material the video lecture films were developed on specific criteria, on the basis of scripts which were examined by subject experts as well as video technology experts. In Video Instructional Material concepts were made more comprehensive with the help of daily life examples and pictures. Students were free use facilities provided in video software like pause, rewind, forward etc. Students are free for discussion after study with Video Instructional Material. Students may also clear his or her doubts by discussion with teacher after study through Video Instructional Material. In conventional teaching, most of the time is consumed for Input-Output and less time left for process, but in teaching with Video Instructional Material, the input and output time may reduced and process time is increased. When the process time is increased, the time of students activities, discussion, correlation with other subjects, brain storming, learning etc may be increased (Singh & Dahiya,2007). Video Instructional Material in Educational Psychology was developed on the basis of common syllabus of Educational Psychology for B.Ed. Video Instructional Material is produced in form of lecture CD's in classroom environment which facilitate concept learning easy. Video Instructional Material covers five units of common syllabus of Educational Psychology for B.Ed. The investigator reviewed Video Instructional Material in other subjects and discussed with subject expert

and technical experts for development of Video films. Data related to components of Video Instructional Material was collected by the investigator. Students can see number of times to same film but a teacher may face difficulty to deliver a lecture exactly same in second time.

### III. EDUCATIONAL PSYCHOLOGY

Education Psychology is the study of the learners the teaching learning process in its various ramifications directed towards helping the child come to terms with society with a maximum of security and satisfaction (**Encyclopedia of Education, 2004**). In this branch of psychology, psychological principles and techniques are applied to study the teaching learning process, evaluation of learning performance, guidance for exceptional children and various educational problems.

**Skinner (1958)** Educational Psychology is that branch of Psychology which deals with teaching and learning. It means psychology is applied in the field of education for improving the methods and products of the teaching learning process.

**Crow & Crow (1973)** Educational psychology describes and explains the learning experience of an individual from birth to old age. It means development an individual in terms of learning achievement is judged through his life span. Therefore what we do in the process of learning is the role of educational psychology.

### IV. RATIONALE

Number of students increasing in higher education and due to it there is shortage of teachers and adequate facilities. It is difficult to meet these needs by conventional means hence it is necessity of time to use media in field of education. Video provides facility of picture viewing which is many times made imagined by teacher in classroom. Students get better understanding of concepts when lecture is accompanying by motion pictures which is only possible through Video. It will enable teaching to be undertaken privately at home or at work place in a group, in the remote areas or in the city. Technology is revolutionizing teaching. Quality of education should be improved for all round development of the child. Different Individualized instructional materials like module, Programme learning material, and computer aided instruction, web based instructions, video instructional materials etc found very useful in individualized learning and distance learning (Wilson, 1987). Students can learn by own pace & interest with the help of Video Instructional Material. Video instructional material facilitates students to learn even in absence of teacher. Motion pictures, color, sound adjustment, facility of forward, rewind and zooming made video a powerful tool of communication between teacher and student. This Video Instructional Material can be upload on website and n numbers of students may benefited by it without any constraints of Distance, Time, Money and Energy. There is scarcity of quality teachers & quality books in field of Educational Psychology. Education Psychology



is a compulsory subject at B.Ed as well as M.Ed level. In India number of Educational College increasing day by day but enough number of teacher Educators is not produced to fulfill their requirements so there is a gap exists between demand and supply. Video Instructional Material in Educational Psychology was developed on the basis of common syllabus of B.Ed Educational Psychology of Universities of Madhya Pradesh. Those B.Ed. colleges who are having sufficient teaching staff sometimes found that they are not having conceptual clarity in Educational Psychology. Keeping these problems in mind the present study will need to undertake. A lot of adequacy observed in present teaching learning process such as consistency of lectures, passive role of learners, lack of opportunities for self pacing study, absence of flexibility etc. To eradicate these adequacy many changes are require such as renovation of traditional teaching learning method, use of various psychological principles, meaningful learning, proper feedback etc. For fulfillment of these Video Instructional Material is required. Researchers developed different types of video instructional materials and studies their effectiveness on the basis of achievement in subject. The effect of VIM on achievement is one of the innovations in field of teaching and learning. Jeyachandran (1980), Andrews (1985), Barve (1986), Clarke (1986), Yadav (1988), James (1988), NCERT and DAVV Project (1989), Narayanasamy (1991), Idayavani (1991), Kalimuthu (1991), Sinnathambi (1991), Napapong (1993), Pandya

(1994), Joshi (1995), Lal (1996), Joshi (1997), Tiwari (1997), Shukla (2003), Shinde (2007) and Gupta (2011) studied the effectiveness of Video Instructional Material and found that Video Instructional Material significantly improved achievement of students. After going through related literature, the investigator realized that there are very few research studied conducted related to the use of video Instructional Material in classroom at B.Ed level and probably no study conducted for teaching Educational Psychology for B.Ed students through Video Instructional Material Keeping in mind to improve teaching learning process in Educational Psychology and due to need and importance of Video Instructional Material in Educational Psychology, Scarcity of researches in using Video Instructional Material in classroom, Scarcity in study of interactional effect of various variables like Intelligence, Adjustment, Personality, Gender, socioeconomic Status, Educational Discipline, Caste, Residential background and Marital status when Video Instructional Material (Method Of Teaching) was an independent variable and Achievement was dependent variable. Scarcity of quality teachers in Educational Psychology, Scarcity of quality instructional material in Educational Psychology, inconsistency in findings of different researches on Video Instructional Material and due to very few numbers of researches conducted on Video instructional Material present study need to be undertaken.

## V. STATEMENT OF PROBLEM

The problem was worded as given below:

“Effectiveness of Video Instructional Material in Educational Psychology in terms of Achievement in Educational Psychology of B.Ed. students of Madhya Pradesh”

## VI. OBJECTIVES

The following were the objectives of the present study:

- (a) To compare mean scores of Achievement in Educational Psychology of students belonging to Video Instructional Material Group at Pre and Post Test stages.
- (b) To compare adjusted mean scores of Achievement in Educational Psychology of students belonging to Video Instructional Material Group and Traditional Method Group by considering Pre Achievement in Educational Psychology and Intelligence as covariate.

## VIII. HYPOTHESES

The following were the hypotheses of the present study:

- (a) There is no significant difference between mean scores of Achievement in Educational Psychology of Video Instructional Material Group at Pre and Post Test stages.
- (b) There is no significant difference between adjusted mean scores of Achievement in Educational Psychology of students belonging to Video Instructional Material Group and Traditional Method Group by

considering Pre Achievement in Educational Psychology and Intelligence as covariate

## XI. DELIMITATIONS

There were some of the specific restrictions with respect to sample, content, duration of treatment and tool for measuring the variables were made these are

- (a) The study was confined to the two cities four B.Ed. colleges and one university teaching department only.
- (b) The content of Video Instructional Material in Educational Psychology was prepared by taking common B.Ed syllabus of Madhya Pradesh.
- (c) Video Instructional Material covers only five units of common syllabus of M.P.
- (d) The Treatment was continuing for one academic year that is 2011-12 only. Video Instructional Material treatment was given for 15 days only.
- (e) Achievement in Educational Psychology was assessed with the help of unstandardized tool developed by the investigator.

## VIII. SAMPLE

The population comprised of B.Ed students of Madhya Pradesh. There were approx 500 B.Ed colleges in Madhya Pradesh affiliated by NCTE and Govt. of Madhya Pradesh.. The two cities, namely, Indore and Dewas were selected purposively for taking sample. From two cities of Madhya Pradesh Three B,Ed colleges and three sections of School of

Education, DAVV Indore were selected randomly as Sample of study from forty six B.Ed colleges of Indore and Dewas. Sample comprised of 177 B.Ed students out of which 75 were Males and 102 are females of session 2011-12 (Table1.1). The treatment assigned randomly to two groups from six selected groups (Table1.2) which was Section 'A' and Section 'C' of School of Education, DAVV Indore. There are 74 students in Video Instructional Material Group who were get treatment through Video Instructional Material. There are 103 students in Traditional Method Group who were get treatment through traditional method (Table1). Members of both the groups represented Student's qualification were graduate and postgraduate. Their age was from 22 years to 45 years. Group wise and

**Table 2: Name of College/Department wise number of Males and Females**

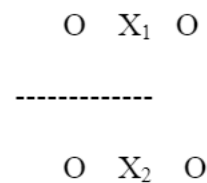
College wise distribution of sample is given in table1.1 and 1.2

Group	Males	Female	Total
<b>Video Instructional Group</b>	22	52	74
<b>Traditional Method Group</b>	53	50	103
<b>Total</b>	75	102	177

**Table:1 Groupwise Number of Males and Females and total number of students**

## XI. EXPERIMENTAL DESIGN

The present study was experimental in nature. In present study the Non Equivalent pre test Posttest control Group Design was used. The experimental group were exposed to the independent variable that is treatment and both groups were tested at pre and post test stages by same achievement test in Educational Psychology, Scores are then compared to determine the effectiveness of the treatment.



S.No.	Name of College/Department	Gender		Total
		M	F	
		01	Section'A' School of Education.DAVV Indore	
02	Section'B' School of Education, DAVV Indore	17	13	30
03	Section 'C' School of Education DAVV Indore	16	26	42
04	Christian Eminent B.Ed College of Education Indore	00	13	13
	New Era College of Education Dewas, Vikram University Ujjain	7	12	19
06	Govt.College of Education Dewas Vikram University Ujjain	28	12	40
	Total	75	102	177

Table.2 Name of college/Dep.wise no.of M/F

(Campbell and stanely ,1963)

$X_1$ = Video Instructional  
Material Treatment

$X_2$ = Traditional Method  
Treatment

O = Observation test

In it one group received a new or unusual treatment that is teaching by Video Instructional Material the other receives a Traditional or usual treatment that is Traditional Method Group and both groups are

tested at pre and post stages. Both groups are comparison groups. ( $X_1$ ) group were taught by Video Instructional Material and the ( $X_2$ ) Traditional Method Group was taught by traditional Lecture Method. The posttest achievement of both the groups was compared by considering their Pre Test Achievement in Educational Psychology as covariate.

## XII. TOOLS

In the present Study data were collected in respect of Achievement in Educational Psychology by criterion test developed by the investigator in Educational Psychology. Intelligence of students were assessed with the help of Raven's standard progressive matrices test. Intelligence test developed by J.C. Raven this test for the target group belonging to age of 12 years to adult H.K. LWEIS AND Co. Ltd. published it in 1960.

## XIII. PROCEDURE OF DATA COLLECTION

The investigator reviewed Video Instructional Material in other subjects and discussed with subject expert and technical experts for development of Video Instructional Material. Data related to components of Video Instructional Material was collected by investigator. Investigator collected syllabus of B.Ed Educational Psychology from all the universities of Madhya Pradesh. The common syllabus of Educational Psychology was prepared by the investigator and it was validated by subject teachers of different universities in Madhya Pradesh. On the basis of common syllabus Scripts



were prepared by investigator and it was examined by subject experts. On the basis of approved scripts the video films were produced. Prepared film was edited and was converted into digital mode with the help of non linear editing system. Permission was taken from Head of the Department/Principal/Director for administration of Pre Test of Achievement in Educational Psychology which was developed by the investigator then the pre test was administered. The two groups were selected as a experimental group randomly from six groups. Permission was taken from Principle and Head of the department for treatment through video instructional material in Educational Psychology for B.Ed Students of Madhya Pradesh. Section 'A' and section ' C' of School of education, Devi Ahilya Vishwavidyalaya, Indore were selected randomly in experimental group. After establishing rapport with students Investigator gave all necessary instructions then students of experimental group were taught by Video Instructional Material and Traditional Method Group Students by their respective teachers with traditional Lecture Method. The Treatment was run for fifteen days and six months respectively for experimental group and traditional group. After completion of treatment the post test was administered on both groups who were taught by video instructional material and traditional lecture method. After that each test was scored. The procedure for scoring was adopted as decided by investigator for criterion test. The data were computed & Analyzed by applying suitable statistical technique.

#### XIV. DATA ANALYSIS

The objective wise data analysis was as given below: Comparision of mean scores of achievement in educational psychology of video instruction material group at pre and post test stagesThe first objective was to compare mean scores of achievement in Educational Psychology of video Instruction Material Group at pre and post test stages.The data related to this objective were analzed with the help of Correlated t test. The results are given in table 3

<i>Test</i>	<i>M</i>	<i>N</i>	<i>SD</i>	<i>Correlation</i>	<i>t-value</i>
Pre Test	37.98	75	8.89	0.59	11.47**
Post Test	49.20	75	9.71		

Table 3: Testing wise M, N, SD, Correlation and Correlated t-value of achievement in Educational Psychology of VIM Group

Significant at .01 level of significance

From table 3 it is evident that correlated t-value is 11.47 that is significant at 0.01 level of significance with degree of freedom 74. It indicates that the mean scores of achievement in Educational Psychology at pre and post stages of subjects treated through Video Instructional Material differ significantly. In this light the null hypothesis that there is no significant difference in mean scores of achievement in Educational Psychology before and after treatment is rejected. Further the mean score of achievement in Educational Psychology after the



treatment was found to be 49.20 that is significantly higher than that before the treatment whose mean scores of achievement in Educational Psychology is 37.98. It may therefore, be said that the Video Instructional Material on Educational Psychology was found to enhance the achievement of B.Ed students.

Comparison of adjusted mean scores of achievement in educational psychology of students belonging to video instructional material group and traditional method group by considering pre achievement in educational psychology and intelligence as covariate

The second objective was to compare the adjusted mean scores of achievement in Educational Psychology of Video Instructional Material Group and Traditional Method Group by considering pre achievement in Educational Psychology and Intelligence as covariate. The data related to this objective were analyzed with the help of Analysis of Covariance. The results are given in table 4

<i>Source of Variance</i>	<i>df</i>	<i>SS<sub>YX</sub></i>	<i>MSS<sub>YX</sub></i>	<i>F<sub>YX</sub></i>
<b>Treatment</b>	1	573.08	573.08	10.59**
<b>Error</b>	173	9355.05	54.07	
<b>Total</b>	177			

Table 4: Summary of ANCOVA of achievement in Educational Psychology by considering pre achievement in Educational Psychology and Intelligence as covariate

Significant at 0.01 level of significance

From table 4, it can be seen that the adjusted F-value is 10.59, which is significant at 0.01 level of

significance with  $df=1/173$ . It indicates that the adjusted mean scores of achievement in Educational Psychology of Video Instructional Material Group and Traditional Method group differ significantly when pre achievement in Educational Psychology and Intelligence was taken as covariates. In the light of this, the null hypothesis that “There is no significant difference in adjusted mean scores achievement in Educational Psychology of Video Instructional Material Group and Traditional Method Group by considering their pre achievement in Educational Psychology and Intelligence as covariate” is rejected. Further, the adjusted mean score of achievement in Educational Psychology of Video Instructional Method Group is 48.44, which is significantly higher than that of Traditional Method Group whose adjusted mean score of achievement in Educational Psychology was 44.76. It reflects that the treatment of Video Instruction was found to be significantly superior to the Traditional Method of teaching Educational Psychology when both groups were matched with respect to pre achievement in Educational Psychology and Intelligence. It may, therefore be concluded that Video Instructional Material was found to be superior to Traditional Method in facilitating achievement in Educational Psychology of students when groups were matched with respect to Pre Achievement in Educational Psychology and Intelligence.

### **XIII. FINDINGS**

The followings were the findings of the experimental study.

- (a) Video Instructional Material method of teaching Educational Psychology was found to be significantly superior to Traditional Method in improving Achievement in Educational Psychology when groups were matched with respect to Pre Achievement in Educational Psychology and Intelligence.
- (b) The Achievement in Educational Psychology of both Males and females was found to be same extent when pre achievement in Educational Psychology and Intelligence were taken as covariates.

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