

CHAPTER V

RESULTS AND INTERPRETATION

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5.1.0 INTRODUCTION

The development of Video Instructional Material has been given in the previous chapter. The present chapter is devoted to the presentation of results obtained after analyzing the data. This has been done objective wise in different captions.

5.2.0 COMPARISION OF MEAN SCORES OF ACHIEVEMENT IN EDUCATIONAL PSYCHOLOGY OF VIDEO INSTRUCTION MATERIAL GROUP AT PRE AND POST TEST STAGES

The first objective of the study 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 analyzed with the help of Correlated t test. The results are given in table 5.1

Table 5.1: Testing wise M, N, SD, Correlation coefficient and Correlated t-value of achievement in Educational Psychology of VIM Group

<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		

** Significant at .01 level of significance

From table 5.1 it is evident that correlated t-value is 11.47 that are significant at 0.01 level of significance with degree of freedom 73. It indicates that the mean scores of Achievement in Educational Psychology at Pre and Post test stages of subjects treated through Video Instructional Material differ significantly. Therefore 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 are significantly higher than that of before the treatment whose mean scores of Achievement in Educational Psychology were 37.98. It may therefore, be said that the Video Instructional Material on Educational Psychology was found to be effective in enhancing the achievement of B.Ed students.

5.3.0 COMPARISION 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 COVARIATES

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 one way Analysis of Covariance. The results are given in table 5.2

Table 5.2: Summary of One way ANCOVA of Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology and Intelligence as covariates

<i>Source of Variation</i>	<i>Df</i>	<i>SSy.x</i>	<i>MSSy.x</i>	<i>Fy.x</i>
Treatment	1	573.08	573.08	10.59**
Error	173	9355.05	54.07	
Total	174			

**Significant at 0.01 level of significance

From table 5.2, 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 were taken as covariates. In the light of this, the null hypothesis that “There is no significant difference in adjusted mean scores of Achievement in Educational Psychology of Video Instructional Material Group and Traditional Method Group by considering their Pre Achievement in Educational Psychology and Intelligence as covariates” 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 45.76. 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 Method 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.

5.4.0 EFFECT OF TREATMENT, GENDER AND THEIR INTERACTION ON ACHIEVEMENT IN EDUCATIONAL PSYCHOLOGY BY CONSIDERING PRE ACHIEVEMENT IN EDUCATIONAL PSYCHOLOGY AND INTELLIGENCE AS COVARIATES

The Third objective was to study the effect of Treatment, Gender and their interaction on Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology and Intelligence as covariates. There were two levels of Treatment namely, Video Instruction Method and Traditional Method. There were two levels of Gender, namely Males and Females Thus, there were two levels of Treatment and two levels of Gender. Therefore data were analyzed with the help of 2 X 2 Factorial design Analysis of Covariance. The results are given in table 5.3

Table 5.3: Summary of 2X2 Factorial Design of ANCOVA of Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology and Intelligence as covariates

<i>Source of Variation</i>	<i>Df</i>	<i>SSy.x</i>	<i>MSSy.x</i>	<i>Fy.x</i>
Treatment	1	470.83	470.83	8.63**
Gender	1	0.647	0.647	0.012-NS
Treatment X Gender	1	44.16	44.16	0.812-NS

Error	171	9304.48	54.07	
Total	174			

**Significant at 0.01 level of significance

NS- Not Significant at 0.05 level of significance

From table 5.3, it can be seen that the adjusted F-value for Treatment is 8.63, which is significant at 0.01 level of significance with $df=1,171$. 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 were taken as covariates. In the light of this, the null hypothesis that “There is no significant difference in adjusted mean scores of Achievement in Educational Psychology of Video Instructional Material Group and Traditional Method Group by considering their Pre Achievement in Educational Psychology and Intelligence as covariates” is rejected. Further, the adjusted mean score of Achievement in Educational Psychology of Video Instructional Method Group is 48.25, which is significantly higher than that of Traditional Method Group whose adjusted mean score of Achievement in Educational Psychology was 44.74. 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. It may, therefore be concluded that Video Instructional Material Method 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.

From table 5.3 it can be seen that the adjusted F- value for Gender is 0.012 which is not significant at 0.05 level of significance with degree of freedom 1,171. It indicates that adjusted mean scores of Achievement in Educational Psychology of males and females did not differ significantly when Pre Achievement and Intelligence were taken as covariates. It reflects that there was no significant effect of Gender on Achievement in Educational

Psychology when Pre Achievement in Educational Psychology and Intelligence were taken as covariates Thus; the null hypothesis that “There is no significant effect of Gender on Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology and Intelligence as covariates” is not rejected. It may therefore be concluded that no problem in achievement of male and female was found.

The adjusted F value for interaction between Treatment and Gender is 0.812 which is not significant at 0.05 level of significance with degree of freedom 1,171. It indicates that there was no significant effect of resultant of interaction between Treatment and Gender on Achievement in Educational Psychology when Pre Achievement in Educational Psychology and Intelligence were taken as covariates. In this context the null hypothesis that “There is no significant effect of Treatment, Gender and their interaction on Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology and Intelligence as covariates” is not rejected. It shows that both males and females can learn Educational Psychology equally well when taught through Video Instructional Material Thus, Video Instructional Material can be used to teach Educational Psychology to students irrespective of their Gender when Pre Achievement in Educational Psychology and Intelligence as covariates.

5.5.0 EFFECT OF TREATMENT, INTELLIGENCE AND THEIR INTERACTION ON ACHIEVEMENT IN EDUCATIONAL PSYCHOLOGY BY CONSIDERING PRE ACHIEVEMENT IN EDUCATIONAL PSYCHOLOGY AS COVARIATE

The Fourth objective was to study the effect of Treatment, Intelligence and their interactions on Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology as covariate. There were two levels of Treatment namely, Video Instructional Method and Traditional Method. There were three levels of Intelligence, namely, High, Average and Low. Thus, there were two levels of Treatment and three levels of Intelligence. Therefore data were analyzed with the help of 2 X 3 Factorial design of Analysis of Covariance. The results are given in table 5.4

Table 5.4: Summary of 2X3 Factorial Design of ANCOVA of Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology as covariate

<i>Source of Variation</i>	<i>Df</i>	<i>SSy.x</i>	<i>MSSy.x</i>	<i>Fy.x</i>	
Treatment	1	323.05	323.05	5.77**	**Significant at 0.01 level of significance NS- Not
Intelligence	2	1732.40	866.20	15.48**	
Treatment X Intelligence	2	118.30	59.15	1.05-NS	
Error	170	9507.60	55.92		
Total	175				

Significant at 0.05 level of significance

From table 5.4, it can be seen that the adjusted F-value for Treatment is 5.77, which is significant at 0.01 level of significance with $df=1,170$. 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 was taken as covariate. In the light of this, the null hypothesis that “There is no significant difference in adjusted mean scores of Achievement in Educational Psychology of Video Instructional Material Group and Traditional Method Group by considering their Pre Achievement in Educational Psychology 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. It may, therefore be concluded that Video Instructional Material Method 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.

From Table 5.4, it can be seen that the adjusted F-value for Intelligence is 15.48, which is significant at 0.01 level of significance with $df=2,170$. It indicates that the adjusted mean scores of Achievement in Educational Psychology of three groups namely High Intelligence, Average Intelligence and Low Intelligence differ significantly when Pre Achievement in Educational Psychology was taken as covariate. In the light of this, the null hypothesis that “There is no significant difference in adjusted mean scores Achievement in Educational Psychology of three groups namely High Intelligence, Average Intelligence and Low Intelligence differ significantly when Pre Achievement in Educational Psychology was taken as covariate.” is rejected. In order to know which groups adjusted mean scores of Achievement in Educational Psychology is significantly different, the data were further analyzed with the help of Bonferroni pairwise comparison and results are given in Table 5.5

Table 5.5: Group-wise adjusted M, SE, and Mean Difference of Achievement in Educational Psychology

Group	Adjusted Mean	Standard Error	High Intelligence Group	Average Intelligence Group	Low Intelligence Group
High Intelligence Group	52.61	1.73	-	5.08-NS	14.08**
Average Intelligence	47.53	0.66	-	-	9.00**

Group					
Low Intelligence Group	38.53	1.80	-	-	-

**Significant at 0.01 level of significance

NS-Not Significant at 0.05 level of significance

From Table 5.5, it can be seen that the Mean Difference for High Intelligence Group and Average intelligence group is 5.08 which is not significant at 0.05 level of significance. It indicates that adjusted mean scores of Achievement in Educational Psychology of High Intelligence Group and Average Intelligence Group did not differ significantly when Pre Achievement in Educational Psychology was considered as covariate. It may, therefore be concluded that Achievement in Educational Psychology of students belonging to High Intelligence Group and Average Intelligence Group was found to be of same extent when groups were matched with respect to Pre Achievement in Educational Psychology.

From Table 5.5, it can be seen that the Mean Difference for High Intelligence Group and Low intelligence group is 14.08 which is significant at 0.01 level of significance. It indicates that adjusted mean scores of Achievement in Educational Psychology of High Intelligence Group and Low Intelligence Group differ significantly. Further, the adjusted mean score of Achievement in Educational Psychology of High Intelligence Group is 52.61, which is significantly higher than that of Low Intelligence Group whose adjusted mean score of Achievement in Educational Psychology was 38.53. It may, therefore be concluded that Achievement in Educational Psychology of students belonging to High Intelligence Group was found to be superior to Low intelligence Group when groups were matched with respect to Pre Achievement in Educational Psychology.

From Table 5.5, it can also be seen that the Mean Difference for Average Intelligence Group and Low intelligence group is 9.00 which is significant at 0.01 level of significance. It indicates that adjusted mean scores of Achievement in Educational Psychology of Average Intelligence Group and Low Intelligence Group differ significantly. Further, the adjusted mean score of Achievement in Educational Psychology of Average

Intelligence Group is 47.53, which is significantly higher than that of Low Intelligence Group whose adjusted mean score of Achievement in Educational Psychology was 38.53. It may, therefore be concluded that Achievement in Educational Psychology of students belonging to Average Intelligence Group was found to be superior to Low intelligence Group when groups were matched with respect to Pre Achievement in Educational Psychology.

Therefore it may be conclude that there is a significant effect of Intelligence on Achievement in Educational Psychology when Pre Achievement in Educational Psychology was considered as covariate. Thus it may be said that students belonging to High and Average Intelligence were found to superior to students belonging to Low Intelligence students in Achievement in Educational Psychology when Pre Achievement in Educational Psychology considered as covariate.

From Table 5.4, it can be seen that the adjusted F-value for Interaction between Treatment and Intelligence is 1.05, which is not significant at 0.01 level of significance with $df=2,170$. It indicates that there was no significant effect of resultant of interaction between Treatment and Intelligence on Achievement in Educational Psychology when Pre-Achievement in Educational Psychology was taken as covariate. In the light of this, the null hypothesis that “There is no significant effect of Treatment, Intelligence and their interactions on Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology as covariate.” is not rejected. It may, therefore be said that Achievement in Educational Psychology was found to be independent of the interaction between Treatment and Intelligence when Pre Achievement in Educational Psychology was taken as covariate. That is, irrespective of level of Intelligence, Educational Psychology can be taught equally well through the use of Video Instructional Material as well as Traditional Method. It means the Video Instructional Material can be used to teach Educational Psychology irrespective of level of Intelligence of students when Pre Achievement in Educational Psychology is taken as covariate

4.6.0 EFFECT OF TREATMENT, MEDIUM OF INSTRUCTIONS AND THEIR INTERACTION ON ACHIEVEMENT IN EDUCATIONAL PSYCHOLOGY BY CONSIDERING PRE ACHIEVEMENT IN EDUCATIONAL PSYCHOLOGY AS COVARIATE

The Fifth objective was to study the effect of Treatment, Medium of Instructions and their interactions on Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology as covariate. There were two levels of Treatment namely, Video Instructional Method and Traditional Method. There were two levels of Medium of Instructions, namely, English and Hindi. Thus there were two levels of Treatment and two levels of Medium of Instructions. Therefore data were analyzed with the help of 2 X 2 Factorial design Analysis of Covariance. The results are given in Table 5.6

Table 5.6: Summary of 2X2 Factorial Design of ANCOVA of Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology and as covariate

<i>Source of Variation</i>	<i>Df</i>	<i>SSy.x</i>	<i>MSSy.x</i>	<i>Fy.x</i>
Treatment	1	637.22	637.22	9.104**
Medium of Instructions	1	99.27	99.27	1.41-NS
Treatment X Intelligence	1	111.09	111.09	1.58-NS
Error	172	12039.18	69.99	
Total	177	396700.00		

**Significant at 0.01 level of significance

NS-Not Significant at 0.05 level of significance

The result in respect of effect of Treatment on Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology as covariate is same as given in caption 5.5.0

From Table 5.6 it can be seen that the adjusted F- value for Medium of Instructions is 1.41 which is not significant at .05 level of significance with df (1,172). It indicates that adjusted mean scores of Achievement in Educational Psychology of English Medium students and Hindi Medium students did not differ significantly when Pre Achievement in Educational Psychology was considered as covariate. It reflects that there was no significant effect of Medium of Instruction on Achievement in Educational Psychology when Pre-Achievement in Educational Psychology was taken as covariate. Thus the null hypothesis that “There is no significant effect of Medium of Instruction on Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology as covariate” is not rejected. It may therefore be concluded that English Medium students and Hindi Medium students were found to have Achievement in Educational Psychology to the same extent when Pre Achievement in Educational Psychology was taken as covariate. The adjusted F value for interaction between Treatment and Medium of Instructions is 1.58 which is not significant at .05 level of significance with df 1,172. It indicates that there was no significant effect of resultant of interaction between Treatment and Medium of Instructions on Achievement in Educational Psychology when Pre Achievement in Educational Psychology was taken as covariate. In this context the null hypothesis that “There is no significant effect of Treatment, Medium of Instructions and their interaction on Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology as covariate” is not rejected. It may, therefore be said that Achievement in Educational Psychology was found to be independent of the interaction between Treatment and Medium of Instructions when Pre Achievement in Educational Psychology was taken as covariate. That is, irrespective of Medium of Instructions, Educational Psychology can be taught equally well through the use of Video Instructional Material as well as Traditional Method. It means the Video Instructional Material can be used to teach Educational Psychology irrespective of Medium of Instructions of students when Pre Achievement in Educational Psychology was taken as covariate.

5.7.0 EFFECT OF TREATMENT, DISCIPLINE AND THEIR INTERACTION ON ACHIEVEMENT IN EDUCATIONAL PSYCHOLOGY BY CONSIDERING PRE ACHIEVEMENT IN EDUCATIONAL PSYCHOLOGY AS COVARIATE

The sixth objective was to study the effect of Treatment, Discipline and their interactions on Achievement in Educational Psychology by considering Pre Achievement in

Educational Psychology as covariate. There were two levels of Treatment namely, Video Instructional Method and Traditional Method. There were Three levels of Discipline, namely Science, Arts, and Commerce, thus, there were two levels of Treatment and Three levels of Discipline. Therefore data were analyzed with the help of 2 X 3 Factorial design of Analysis of Covariance. The results are given in Table 5.7

Table 5.7: Summary of 2X3 Factorial Design of ANCOVA of Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology and as covariate

<i>Source of Variation</i>	<i>df</i>	<i>SSy.x</i>	<i>MSSy.x</i>	<i>Fy.x</i>	
Treatment	1	1038.77	1038.77	15.00**	**Significant at 0.01 level of significance *Significant at 0.05 level of significance
Discipline	2	524.11	262.05	3.78*	
Treatment X Discipline	2	135.41	67.70	0.97-NS	
Error	170	11769.67	69.23		
Total	175				

cant at 0.05 level of significance

NS-Not Significant at 0.05 level of significance

The result in respect of effect of Treatment on achievement in Educational Psychology by considering Pre Achievement in Educational Psychology as covariate is same as given in caption 5.5.0

From Table 5.7, it can be seen that the adjusted F-value for Discipline is 3.78, which is significant at 0.05 level of significance with df=2,170. It indicates that the adjusted mean scores of Achievement in Educational Psychology of three groups namely, Science, Arts and Commerce differ significantly when Pre Achievement in Educational Psychology was taken as covariate. In the light of this, the null hypothesis that “There is no significant difference in adjusted mean scores Achievement in Educational Psychology of three groups namely Science, Arts and Commerce differ significantly when Pre Achievement in

Educational Psychology was taken as covariate.” is rejected. In order to know which groups adjusted mean scores of Achievement in Educational Psychology is significantly different, the data were further analyzed with the help of Bonferroni pairwise comparison and results are given in Table 5.8

Table 5.8: Group-wise adjusted M, SE, and Mean Difference of Achievement in Educational Psychology

Group	Adjusted Mean	Standard Error	Science	Arts	Commerce
Science	49.17	1.12	-	3.81*	3.67-NS
Arts	45.36	0.87	-	-	0.13-NS
Commerce	45.50	1.96	-	-	-

* Significant at 0.05 level of significance

NS-Not Significant at 0.05 level of significance

From Table 5.8, it can be seen that the Mean Difference for Science Group and Arts group is 3.81 which is significant at 0.05 level of significance. It indicates that adjusted mean scores of Achievement in Educational Psychology of Science Group and Arts Group differ significantly when Pre Achievement in Educational Psychology was considered as covariate. Further, the adjusted mean score of Achievement in Educational Psychology of Science Group is 49.17, which is significantly higher than that of Arts Group whose adjusted mean score of Achievement in Educational Psychology was 45.36. It may, therefore be concluded that Achievement in Educational Psychology of students belonging to Science Group was found to be superior to Arts Group when groups were matched with respect to Pre Achievement in Educational Psychology.

From Table 5.8, it can also be seen that the Mean Difference for Science Group and Commerce group is 3.67 which is not significant. It indicates that adjusted mean scores of Achievement in Educational Psychology of Science Group and Commerce Group did not differ significantly at 0.05 level of significance. It may, therefore be concluded that Achievement in Educational Psychology of students belonging to Science Group and

Commerce Group was found to be of same extent when groups were matched with respect to Pre Achievement in Educational Psychology.

From Table 5.8, it can also be seen that the Mean Difference for Arts Group and Low Commerce group is 0.13 which is not significant at 0.05 level of significance. It indicates that adjusted mean scores of Achievement in Educational Psychology of Arts Group and Commerce Group did not differ significantly. It may, therefore be concluded that Achievement in Educational Psychology of students belonging to Arts Group and Commerce Group was found to be of same extent when groups were matched with respect to Pre Achievement in Educational Psychology.

Therefore it may be conclude that there is a significant effect of Intelligence on Achievement in Educational Psychology when Pre Achievement in Educational Psychology was considered as covariate Thus, it may said that students belonging to Science was found to superior to students belonging to Arts in Achievement in Educational Psychology while students belonging to two pairs that is Commerce, Science and Commerce, Arts were found to Achievement in Educational Psychology of same extent when Pre Achievement in Educational Psychology was considered as covariate.

From Table 5.7, it can be seen that the adjusted F-value for Interaction between Treatment and discipline is 0.97, which is not significant at .05 level of significance. It indicates that there was no significant effect of resultant of interaction between Treatment and Discipline on Achievement in Educational Psychology when Pre-Achievement in Educational Psychology was taken as covariate. In the light of this, the null hypothesis that “There is no significant effect of Treatment, Discipline and their interactions on Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology as covariate.” is not rejected. It may, therefore be said that Achievement in Educational Psychology was found to be independent of the interaction between Treatment and discipline when Pre Achievement in Educational Psychology was taken as covariate. That is, irrespective of level of Discipline, Educational Psychology can be taught equally well through the use of Video Instructional Material as well as Traditional Method. It means the Video Instructional Material can be used to teach Educational Psychology irrespective of level of Discipline of students when Pre Achievement in Educational Psychology is taken as covariate.

5.8.0 EFFECT OF TREATMENT, CASTE AND THEIR INTERACTION ON ACHIEVEMENT IN EDUCATIONAL PSYCHOLOGY BY CONSIDERING PRE ACHIEVEMENT IN EDUCATIONAL PSYCHOLOGY AS COVARIATE

The Seventh objective was to study the effect of Treatment, Caste and their interactions on Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology as covariate. There were two levels of Treatment namely, Video Instructional Method and Traditional Method. There were four levels of Caste, namely General, Other Backward Class, Schedule Caste and Schedule Tribe Thus, there were two levels of Treatment and Four levels of Caste. Therefore data were analyzed with the help of 2 X 4 Factorial design of Analysis of Covariance. The results are given in Table 5.9

Table 5.9: Summary of 2X4 Factorial Design of ANCOVA of Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology and as covariate

<i>Source of Variation</i>	<i>Df</i>	<i>SSy.x</i>	<i>MSSy.x</i>	<i>Fy.x</i>	
Treatment	1	844.12	844.12	12.71**	**Significant at 0.01 level of significance *Significant at
Caste	3	830.19	276.73	4.16*	
Treatment X Caste	3	397.36	132.45	1.99-NS	
Error	168	11157.29	66.41		
Total	175				

0.05 level of significance

NS-Not Significant at 0.05 level of significance

The result in respect of effect of Treatment on Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology as covariate is same as given in caption 5.5.0

From Table 5.9, it can be seen that the adjusted F-value for Caste is 4.16, which is significant at 0.05 level of significance with df=3,168. It indicates that the adjusted mean scores of Achievement in Educational Psychology of four groups namely, General, Other Backward Class, Schedule Caste and Schedule Tribe differ significantly when Pre

Achievement in Educational Psychology was taken as covariate. In the light of this, the null hypothesis that “There is no significant difference in adjusted mean scores Achievement in Educational Psychology of four groups namely General, Other Backward Class, Schedule Caste and Schedule Tribe differ significantly when Pre Achievement in Educational Psychology was taken as covariate.” is rejected. In order to know which groups adjusted mean scores of Achievement in Educational Psychology is significantly different, the data were further analyzed with the help of Bonferroni pair wise comparison and results are given in Table 5.10

Table 5.10: Group-wise adjusted M, SE, and Mean Difference of Achievement in Educational Psychology

Group	Adjusted Mean	Standard Error	General	OBC	SC	ST
General	48.41	1.09	-	0.714-NS	4.31-NS	4.50-NS
OBC	49.12	1.20	-	-	5.03-NS	5.21*
SC	44.09	1.64	-	-	-	0.18-NS
ST	43.91	1.37	-	-	-	-

* Significant at 0.05 level of significance

NS-Not Significant at 0.05 level of significance

From Table 5.10 it can be seen that the Mean Difference for General Group and OBC group is 0.714 which is not significant at 0.05 level of significance. It indicates that adjusted mean scores of Achievement in Educational Psychology of General Group and Arts Group did not differ significantly when Pre Achievement in Educational Psychology considered as covariate. It may, therefore be concluded that Achievement in Educational Psychology of students belonging to General Group and OBC Group was found to be of same extent when groups were matched with respect to Pre Achievement in Educational Psychology.

From Table 5.10 it can also be seen that the Mean Difference for General Group and SC group is 4.31 which is not significant at 0.05 level of significance. It indicates that adjusted mean scores of Achievement in Educational Psychology of General Group and SC Group did not differ significantly when Pre Achievement in Educational Psychology was considered as covariate. It may, therefore be concluded that Achievement in Educational Psychology of students belonging to General Group and SC Group was found to be of same extent when groups were matched with respect to Pre Achievement in Educational Psychology.

From Table 5.10 it can also be seen that the Mean Difference for General Group and ST group is 4.50 which is not significant at .05 level of significance. It indicates that adjusted mean scores of Achievement in Educational Psychology of General Group and ST Group did not differ significantly when Pre Achievement in Educational Psychology was considered as covariate. It may, therefore be concluded that Achievement in Educational Psychology of students belonging to General Group and ST Group was found to be of same extent when groups were matched with respect to Pre Achievement in Educational Psychology.

From Table 5.10 it can also be seen that the Mean Difference for OBC Group and SC group is 5.03 which is not significant at .05 level of significance. It indicates that adjusted mean scores of Achievement in Educational Psychology of OBC Group and SC Group did not differ significantly when Pre Achievement in Educational Psychology considered as covariate. It may, therefore be concluded that Achievement in Educational Psychology of students belonging to OBC Group and SC Group was found to be of same extent when groups were matched with respect to Pre Achievement in Educational Psychology.

From Table 5.10, it can be seen that the Mean Difference for OBC Group and ST group is 5.21 which is significant at 0.05 level of significance. It indicates that adjusted mean scores of Achievement in Educational Psychology of OBC Group and ST Group differ significantly when Pre Achievement in Educational Psychology considered as covariate. Further, the adjusted mean score of Achievement in Educational Psychology of General Group is 48.41, which is significantly higher than that of ST Group whose adjusted mean score of Achievement in Educational Psychology was 43.91. It may, therefore be concluded that Achievement in Educational Psychology of students belonging to OBC Group was

found to be superior to ST Group when groups were matched with respect to Pre Achievement in Educational Psychology.

From Table 5.10 it can also be seen that the Mean Difference for SC Group and ST group is 0.18 which is not significant at .05 level of significance. It indicates that adjusted mean scores of Achievement in Educational Psychology of SC Group and ST Group did not differ significantly when Pre Achievement in Educational Psychology considered as covariate. It may, therefore be concluded that Achievement in Educational Psychology of students belonging to SC Group and ST Group was found to be of same extent in Achievement in Educational Psychology when groups were matched with respect to Pre Achievement in Educational Psychology.

Therefore it may be concluded that Achievement in Educational Psychology of students belonging to OBC Group was found to be superior to ST Group when groups were matched with respect to Pre Achievement in Educational Psychology while Achievement in Educational Psychology of students belonging to five pairs namely General and OBC, General and SC, General and ST, OBC and SC, SC and ST was found to be of same extent in Achievement of Educational Psychology when groups were matched with respect to Pre Achievement in Educational Psychology.

From Table 5.9 it can be seen that the adjusted F-value for Interaction between Treatment and Caste is 1.99, which is not significant. It indicates that there was no significant effect of resultant of interaction between Treatment and Caste or Category on Achievement in Educational Psychology when Pre-Achievement in Educational Psychology was taken as covariate. In the light of this, the null hypothesis that “There is no significant effect of Treatment, Caste and their interactions on Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology as covariate.” is not rejected. It may, therefore be said that Achievement in Educational Psychology was found to be independent of the interaction between Treatment and Caste when Pre Achievement in Educational Psychology was taken as covariate. That is, irrespective of level of Caste. Educational Psychology can be taught equally well through the use of Video Instructional Material as well as Traditional Method. It means the Video Instructional Material can be used to teach Educational Psychology irrespective of level of Caste of students when Pre Achievement in Educational Psychology is taken as covariate.

5.9.0 EFFECT OF TREATMENT, MARITAL STATUS AND THEIR INTERACTION ON ACHIEVEMENT IN EDUCATIONAL PSYCHOLOGY BY CONSIDERING PRE ACHIEVEMENT IN EDUCATIONAL PSYCHOLOGY AS COVARIATE

The eighth objective was to study the effect of Treatment, Marital Status and their interactions on Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology as covariate. There were two levels of Treatment namely, Video Instructional Method and Traditional Method. There were two levels of Marital Status, namely married and Not Married. Thus there were two levels of Treatment and Two levels of Marital Status. Therefore data were analyzed with the help of 2 X 2 Factorial design of Analysis of Covariance. The results are given in Table 5.11

Table 5.11: Summary of 2X2 Factorial Design of ANCOVA of Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology as covariate

<i>Source of Variation</i>	<i>Df</i>	<i>SSy.x</i>	<i>MSSy.x</i>	<i>Fy.x</i>	
Treatment	1	1005.39	844.12	14.20**	**Significant at 0.01 level of significance NS-Not Significant
Marital Status	1	57.74	276.73	0.816-NS	
Treatment X Marital Status	1	85.26	132.45	1.20-NS	
Error	172	12173.35	70.77		
Total	175				

cant at 0.05 level of significance

The result in respect of effect of Treatment on Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology as covariate is same as given in caption 5.5.0

From Table 5.11 it can be seen that the adjusted F- value for Marital Status is 0.816 which is not significant at 0.05 level of significance with df 1,172. It indicates that

adjusted mean scores of Achievement in Educational Psychology of Married B.Ed students and Non Married B.Ed students did not differ significantly when Pre Achievement in Educational Psychology considered as covariate. It reflects that there was no significant effect of Marital Status on Achievement in Educational Psychology when Pre-Achievement in Educational Psychology was taken as covariate. Thus the null hypothesis that “There is no significant effect of Marital Status on Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology as covariate” is not rejected. It may therefore be concluded Married B.Ed students and Non Married B.Ed students were found to have Achievement in Educational Psychology to the same extent when Pre Achievement in Educational Psychology was taken as covariate. The adjusted F value for interaction between Treatment and Marital Status is not significant at 0.05 level of significance with df 1,172. It indicates that there was no significant effect of resultant of interaction between Treatment and Marital Status on Achievement in Educational Psychology when Pre Achievement in Educational Psychology was taken as covariate. In this context the null hypothesis that “There is no significant effect of Treatment, Marital Status and their interaction on Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology as covariate” is not rejected. It may, therefore be said that Achievement in Educational Psychology was found to be independent of the interaction between Treatment and Marital Status when Pre Achievement in Educational Psychology was taken as covariate. That is, irrespective of Marital Status, Educational Psychology can be taught equally well through the use of Video Instructional Material as well as Traditional Method. It means the Video Instructional Material can be used to teach Educational Psychology irrespective of Marital Status of students when Pre Achievement in Educational Psychology is taken as covariate.

5.10.0 EFFECT OF TREATMENT, PERSONALITY AND THEIR INTERACTION ON ACHIEVEMENT IN EDUCATIONAL PSYCHOLOGY BY CONSIDERING PRE ACHIEVEMENT IN EDUCATIONAL PSYCHOLOGY AS COVARIATE

The ninth objective was to study the effect of Treatment, Personality and their interactions on Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology as covariate. There were two levels of Treatment namely, Video Instructional Method and Traditional Method. There were three levels of Personality, namely Extrovert, Introvert and Ambivert. Thus there were two levels of Treatment and Three levels

of Personality. Therefore data were analyzed with the help of 2 X 3 Factorial design of Analysis of Covariance. The results are given in Table 5.12

Table 5.12: Summary of 2X3 Factorial Design of ANCOVA of Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology as covariate

<i>Source of Variation</i>	<i>Df</i>	<i>SSy.x</i>	<i>MSSy.x</i>	<i>Fy.x</i>	
Treatment	1	959.32	959.32	13.28**	*Significant at 0.01 level of significance NS- Not
Personality	2	45.86	22.93	0.318-NS	
Treatment X Personality	2	11.46	5.73	0.079-NS	
Error	170	12276.78	72.21		
Total	175				

Significant at 0.05 level of significance

The result in respect of effect of Treatment on Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology as covariate is same as given in caption 5.5.0

From Table 5.12 it can be seen that the adjusted F- value for Personality is 0.318 which is not significant at 0.05 level of significance with df 2,170. It indicates that adjusted mean scores of Achievement in Educational Psychology of Extrovert, Introvert and Ambivert B.Ed students did not differ significantly when Pre Achievement in Educational Psychology was considered as covariate. It reflects that there was no significant effect of Personality on Achievement in Educational Psychology when Pre-Achievement in Educational Psychology was taken as covariate. Thus the null hypothesis that “There is no significant effect of Personality on Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology as covariate” is not rejected. It may therefore be concluded that Extrovert, Introvert and Ambivert B.Ed students were found to have achievement in Educational Psychology to the same extent when Pre Achievement in Educational Psychology was taken as covariate. The adjusted F value for interaction between Treatment and Personality is not significant at 0.05 level of significance with df 2,170. It indicates that

there was no significant effect of resultant of interaction between Treatment and Personality on Achievement in Educational Psychology when Pre Achievement in Educational Psychology was taken as covariate. In this context the null hypothesis that “There is no significant effect of Treatment, Personality and their interaction on Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology as covariate” is not rejected. It may, therefore be said that Achievement in Educational Psychology was found to be independent of the interaction between Treatment and Personality when Pre Achievement in Educational Psychology was taken as covariate. That is, irrespective of Personality, Educational Psychology can be taught equally well through the use of Video Instructional Material as well as Traditional Method. It means the Video Instructional Material can be used to teach Educational Psychology irrespective of Personality of students when Pre Achievement in Educational Psychology is taken as covariate.

5.11.0 EFFECT OF TREATMENT, ADJUSTMENT AND THEIR INTERACTION ON ACHIEVEMENT IN EDUCATIONAL PSYCHOLOGY BY CONSIDERING PRE ACHIEVEMENT IN EDUCATIONAL PSYCHOLOGY AS COVARIATE

The tenth objective was to study the effect of Treatment, Adjustment and their interactions on Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology as covariate. There were two levels of Treatment namely, Video Instructional Method and Traditional Method. There were five levels of Adjustment, namely Excellent, Good, Average, Unsatisfactory and Very Unsatisfactory. Thus there were two levels of Treatment and Five levels of Adjustment. Therefore data were analyzed with the help of 2 X 5 Factorial design of Analysis of Covariance. The results are given in Table 5.13

Table 5.13: Summary of 2X5 Factorial Design of ANCOVA of Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology and as covariate

<i>Source of Variation</i>	<i>Df</i>	<i>SSy.x</i>	<i>MSSy.x</i>	<i>Fy.x</i>
Treatment	1	244.54	244.54	3.46-NS

Adjustment	4	86.87	21.71	0.307-NS	NS - Not Signifi cant at 0.05
Treatment X Adjustment	4	498.11	124.52	1.76-NS	
Error	166	11731.77	70.67		
Total	175				

level of significance

From Table 5.13 it can be seen that the adjusted F- value for Treatment is 3.46 which is not significant at 0.05 level of significance with df 1,166. It indicates that adjusted mean scores of Achievement in Educational Psychology of VIM Group and Traditional Method Group students did not differ significantly when Pre Achievement in Educational Psychology considered as covariate. It reflects that there was no significant effect of Treatment on achievement in Educational Psychology when Pre-Achievement in Educational Psychology was taken as covariate. Thus the null hypothesis that “There is no significant effect of Treatment on Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology as covariate” is not rejected. It may therefore be concluded that VIM Group and Traditional Method Group students were found to have Achievement in Educational Psychology to the same extent when Pre Achievement in Educational Psychology was taken as covariate.

From Table 5.13 it can be seen that the adjusted F- value for Adjustment is 0.307 which is not significant at 0.05 level of significance with df 4,166. It indicates that adjusted mean scores of Achievement in Educational Psychology of Excellent, Good, Average, Unsatisfactory and Very Unsatisfactory B.Ed students did not differ significantly when Pre Achievement in Educational Psychology was considered as covariate. It reflects that there was no significant effect of Adjustment on Achievement in Educational Psychology when Pre-Achievement in Educational Psychology was taken as covariate. Thus the null hypothesis that “There is no significant effect of Adjustment on Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology as covariate” is not rejected. It may therefore be concluded that Excellent, Good, Average, Unsatisfactory and Very Unsatisfactory B.Ed students were found to have Achievement in Educational Psychology to the same extent when Pre Achievement in Educational Psychology was taken as covariate.

The adjusted 'F' value for interaction between Treatment and Adjustment is 1.76 which is not significant at 0.05 level of significance with df 4,166. It indicates that there was no significant effect of resultant of interaction between Treatment and Adjustment on Achievement in Educational Psychology when Pre Achievement in Educational Psychology was taken as covariate. In this context the null hypothesis that "There is no significant effect of Treatment, Adjustment and their interaction on Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology as covariate" is not rejected. It may, therefore be said that Achievement in Educational Psychology was found to be independent of the interaction between Treatment and Adjustment when Pre Achievement in Educational Psychology was taken as covariate. That is, irrespective of Adjustment, Educational Psychology can be taught equally well through the use of Video Instructional Material as well as Traditional Method. It means the Video Instructional Material can be used to teach Educational Psychology irrespective of Adjustment of students when Pre Achievement in Educational Psychology is taken as covariate.

4.12.0 EFFECT OF TREATMENT, SOCIOECONOMIC STATUS AND THEIR INTERACTION ON ACHIEVEMENT IN EDUCATIONAL PSYCHOLOGY BY CONSIDERING PRE ACHIEVEMENT IN EDUCATIONAL PSYCHOLOGY AS COVARIATE

The Eleventh objective was to study the effect of Treatment, Socio Economic Status and their interaction on Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology as covariate. There were two levels of Treatment namely, Video Instructional Method and Traditional Method. There were Three levels of Socio Economic Status, namely High, Medium and Low, Thus, there were two levels of Treatment and Three levels of Socio Economic Status. Therefore data were analyzed with the help of 2 X 3 Factorial design of Analysis of Covariance. The results are given in Table 5.14

Table 5.14: Summary of 2X3 Factorial Design of ANCOVA of Achievment in Educational Psychology by considering Pre Achievement in Educational Psychology as covariate

<i>Source of Variation</i>	<i>df</i>	<i>SSy.x</i>	<i>MSSy.x</i>	<i>Fy.x</i>
Treatment	1	439.29	439.29	6.45**
Socio Economic Status	2	755.51	377.75	5.54**

Treatment X Socio Economic Status	2	7.17	3.58	0.05-NS
Error	170	11563.45	68.02	
Total	175			

*

*Significant

at 0.01 level of significance

NS-Not Significant at 0.05 level of significance

The result in respect of effect of Treatment on Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology as covariate is same as given in caption 5.5.0

From Table 5.14, it can be seen that the adjusted F-value for Socio Economic Status is 5.54, which is significant at 0.01 level of significance with $df=2,170$. It indicates that the adjusted mean scores of Achievement in Educational Psychology of Three groups namely High, Medium and Low SES differ significantly when Pre Achievement in Educational Psychology was taken as covariate. In the light of this, the null hypothesis that “There is no significant difference in adjusted mean scores Achievement in Educational Psychology of three groups namely High, Medium and Low differ significantly when Pre Achievement in Educational Psychology was taken as covariate.” is rejected. In order to know which groups adjusted mean scores of Achievement in Educational Psychology is significantly different, the data were further analyzed with the help of Bonferroni pair wise comparison and results are given in Table 5.15

Table 5.15: Group-wise adjusted M, SE, and Mean Difference of Achievement in Educational Psychology

Group	Adjusted Mean	Standard Error	High SES	Medium SES	Low SES
High SES	54.37	2.71	-	7.33*	9.97**
Medium SES	47.04	0.77	-	-	2.63-NS
Low SES	44.40	1.23	-	-	-

**Significant at 0.01 level of significance

* Significant at 0.05 level of significance

NS-Not Significant at 0.05 level of significance

From Table 5.15 it can be seen that the Mean Difference for High SES Group and Medium SES group is 7.33 which is significant at 0.05 level of significance. It indicates that adjusted mean scores of Achievement in Educational Psychology of High SES Group and Medium SES Group differ significantly when Pre Achievement in Educational Psychology considered as covariate. Further, the adjusted mean score of Achievement in Educational Psychology of High SES Group is 54.37, which is significantly higher than that of Medium Group whose adjusted mean score of Achievement in Educational Psychology was 47.04. It may, therefore be concluded that Achievement in Educational Psychology of students belonging to High SES Group was found to be superior to Medium SES Group when groups were matched with respect to Pre Achievement in Educational Psychology.

From Table 5.15 it can also be seen that the Mean Difference for High SES Group and low SES group is 9.97 which is significant at 0.01 level of significance. It indicates that adjusted mean scores of Achievement in Educational Psychology of High SES Group and Low SES Group differ significantly when Pre Achievement in Educational Psychology considered as covariate. Further, the adjusted mean score of Achievement in Educational Psychology of High SES Group is 54.37, which is significantly higher than that of Low SES Group whose adjusted mean score of Achievement in Educational Psychology was 44.40. It may, therefore be concluded that Achievement in Educational Psychology of students belonging to High SES Group was found to be superior to Low SES Group when groups were matched with respect to Pre Achievement in Educational Psychology.

From Table 5.15 it can also be seen that the Mean Difference for Medium SES Group and Low SES group is 2.63 which is not significant at 0.05 level of significance. It indicates that adjusted mean scores of Achievement in Educational Psychology of Medium SES Group and Low SES Group did not differ significantly when Pre Achievement in Educational Psychology considered as covariate. It may, therefore be concluded that Achievement in Educational Psychology of students belonging to Medium SES Group and Low SES Group was found to be of same extent when groups were matched with respect to Pre Achievement in Educational Psychology.

Therefore it may concluded that High SES Group was found to be superior to Medium and Low SES Group in Achievement of Educational Psychology when groups were matched with respect to Pre Achievement in Educational Psychology while Medium SES and Low SES Group was found to be Achievement in Educational Psychology of same extent when groups were matched with respect to Pre Achievement in Educational Psychology.

From Table 5.15 it can be seen that the adjusted F-value for Interaction between Treatment and Socio Economic Status is 0.05, which is not significant at 0.05 level of significance with df 2,170. It indicates that there was no significant effect of resultant of interaction between Treatment and Socio Economic Status on Achievement in Educational Psychology when pre-Achievement in Educational Psychology was taken as covariate. In the light of this, the null hypothesis that “There is no significant effect of Treatment, Socio Economic Status and their interactions on Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology as covariate.” is not rejected. It may, therefore be said that Achievement in Educational Psychology was found to be independent of the interaction between Treatment and Socio Economic Status when Pre Achievement in Educational Psychology was taken as covariate. That is, irrespective of level of Socio Economic Status. Educational Psychology can be taught equally well through the use of Video Instructional Material as well as Traditional Method. It means the Video Instructional Material can be used to teach Educational Psychology irrespective of level of Socio Economic Status of students when Pre Achievement in Educational Psychology is taken as covariate.

5.13.0 EFFECT OF TREATMENT, RESIDENTIAL BACKGROUND AND THEIR INTERACTION ON ACHIEVEMENT IN EDUCATIONAL PSYCHOLOGY BY CONSIDERING PRE ACHIEVEMENT IN EDUCATIONAL PSYCHOLOGY AS COVARIATE

The twelfth objective was to study the effect of Treatment, Residential Background and their interactions on Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology as covariate. There were two levels of Treatment namely, Video Instruction Method and Traditional Method. There were two levels of Residential Background, namely Rural and Urban, Thus, there were two levels of Treatment and Two levels of Residential Background. Therefore data were analyzed with the help of 2 X 2 Factorial design of Analysis of Covariance. The results are given in Table 5.16

Table 5.16: Summary of 2X2 Factorial Design of ANCOVA of Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology and as covariate

<i>Source of Variation</i>	<i>Df</i>	<i>SSy.x</i>	<i>MSSy.x</i>	<i>Fy.x</i>	
Treatment	1	741.01	439.29	10.69**	*Significant at 0.01 level of significance
Residential Background	1	348.05	377.75	5.02*	
Treatment X Residential Background	1	131.80	3.58	1.90-NS	
Error	172	11913.07	69.26		
Total	175				

Significant at 0.05 level of significance

NS-Not Significant at 0.05 level of significance

The result in respect of effect of Treatment on Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology as covariate is same as given in caption 5.5.0

From Table 5.16, it can be seen that the adjusted F-value for Residential Background is 5.02, which is significant at 0.05 level of significance with $df=1,172$. It indicates that the adjusted mean scores of Achievement in Educational Psychology of Two groups namely Rural and Urban differ significantly when Pre Achievement in Educational Psychology was taken as covariate. In the light of this, the null hypothesis that “There is no significant difference in adjusted mean scores Achievement in Educational Psychology of two groups namely Rural and Urban differ significantly when Pre Achievement in Educational Psychology was taken as covariate.” is rejected. In order to know which groups adjusted mean scores of Achievement in Educational Psychology is significantly different, the data were further analyzed with the help of Bonferroni pairwise comparison and results are given in Table 5.17

Table 5.17: Group-wise adjusted M, SE, and Mean Difference of Achievement in Educational Psychology

Group	Adjusted Mean	Standard Error	Rural	Urban
Rural	45.00	0.94	-	3.06*
Urban	48.07	0.93	-	-

* Significant at 0.05 level of significance

From Table 5.17 it can be seen that the Mean Difference for Rural Group and Urban group is 3.06 which is significant at 0.05 level of significance. It indicates that adjusted mean scores of Achievement in Educational Psychology of Rural Group and Urban Group differ significantly when Pre Achievement in Educational Psychology considered as covariate. Further, the adjusted mean score of Achievement in Educational Psychology of Urban Group is 48.07, which is significantly higher than that of Rural Group whose adjusted mean score of Achievement in Educational Psychology was 45.00. It may, therefore be concluded that Achievement in Educational Psychology of students belonging to Urban Group was found to be superior to Rural Group when groups were matched with respect to Pre Achievement in Educational Psychology.

From Table 5.16 it can be seen that the adjusted F-value for Interaction between Treatment and Residential Background is 1.90, which is not significant at 0.05 level of significance with df 2,170. It indicates that there was no significant effect of resultant of interaction between Treatment and Residential Background on Achievement in Educational Psychology when pre-Achievement in Educational Psychology was taken as covariate. In the light of this, the null hypothesis that “There is no significant effect of Treatment, Residential Background and their interactions on Achievement in Educational Psychology by considering Pre Achievement in Educational Psychology as covariate.” is not rejected. It may, therefore be said that Achievement in Educational Psychology was found to be independent of the interaction between Treatment and Residential Background when Pre Achievement in Educational Psychology was taken as covariate. That is, irrespective of level of Residential Background. Educational Psychology can be taught equally well through the use of Video

Instructional Material as well as Traditional Method. It means the Video Instructional Material can be used to teach Educational Psychology irrespective of level of Residential Background of students when Pre Achievement in Educational Psychology is taken as covariate.

5.14.0 REACTIONS OF STUDENTS BELONGING TO VIDEO INSTRUCTIONAL MATERIAL GROUP TOWARDS DEVELOPED VIDEO INSTRUCTIONAL MATERIAL IN EDUCATIONAL PSYCHOLOGY FOR B.Ed STUDENTS

The thirteenth objective was to study the Reaction of Students belonging to Video Instructional Material Group towards Developed Video Instructional Material in Educational Psychology for B.Ed. students. The Reaction towards Video Instructional Material was assessed at the end of Treatment of VIM Group. The data related to this were analyzed with the help of Frequency Percentage, Mean, Standard Deviation and Coefficient of Variation. The results are given in Table 5.18

5.18: GroupWise Mean, Standard Deviation and Coefficient of Variation values of students Reaction towards Video Instructional Material

<i>Group</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Coefficient of Variation</i>
VIM	80.53	17.62	21.88%

From Table 5.18, it can be seen that the Mean Score of Reaction towards Video Instructional Material Group was found to be 80.53. The Reaction towards Video Instructional Material Scale contained 20 statements related to different aspects of Video Instructional Material. Against each statement a five point scale was given on which students were to give there responses. Thus, the score of the students could range between 20 and 100. The Mean score of Reaction towards Video Instructional Material was towards 100 signifying strong favourable Reaction towards Video Instructional Material. The Coefficient of Variation for Video Instructional Material Group was found to be 21.88% which was quit low. It indicates that, as a group, the Reaction towards Video Instructional Material were almost invariant and strongly favorable. It may, therefore be concluded that the students of Video Instructional Material Group expressed favorable Reaction towards different aspects of Video Instructional

Material and on the whole. In order to probe into Reaction towards Video Instructional Material, the data were further analyzed by computing statement wise favorable mean and favorable Percentage and frequency falling under the five given choices in Table 5.19 The percentage of favorable Reaction was calculated by multiplying frequency of different choice by 5,4,3,2,1 to positive statements and 1,2,3,4,5 to negative statements then total score of each statement was divided by 5 to get Favorable Mean. The favourable mean more than 3 showing favourable Reaction towards different aspects. The favorable mean percentage was calculated by dividing Favorable Mean by 77 (VIM Group Sample Size) and multiplying it by 100, the favorable percentage was computed. The favourable percentage is showing percentage of favourable reaction out of 100 towards a particular aspect.

Table 5.19: Statement wise frequency of Reaction, Mean of Favorable Reaction and Percentage of Favorable Reaction of B.Ed. students towards Video Instructional Material in Educational Psychology

S. No.	Statement	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Mean of Favourable Reaction	Percentage of Favourable Reaction
01	Visuals are clear	18	51	-	07	01	4.01	80.25
02	Voice is clear	26	30	02	17	02	3.79	75.84
03	Content of Video Film is not presented systematically	06	09	02	24	36	3.97	79.48
04	In starting all points are not explained in Video Film	04	14	04	23	32	3.84	76.88
05	Pace speed of content presentation is proper	07	38	21	96	100	3.40	68.05
06	Video Instructional Material is not useful in learning of educational psychology	03	08	04	17	45	4.21	84.15
07	Pronunciation of presenter is correct	37	35	00	03	02	4.32	86.49
08	Duration of film is appropriate	25	40	03	06	03	4.01	80.25
09	Complex/ difficult content is not made simple in the film	07	10	03	29	29	3.86	77.14
10	Presenter used proper stimulus variation	27	38	05	04	03	4.06	81.29
11	Video Instructional Material is helpful in self learning	25	33	04	09	06	3.81	76.10
12	Language of teacher is proper in Video Instructional Material	36	36	00	03	02	4.31	86.23

S. No.	Statement	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Mean of Favourable Reaction	Percentage of Favourable Reaction
13	Concepts are explained properly in Video Instructional Material	30	38	02	04	03	4.14	82.85
14	Video Instructional Material is useless	05	06	02	25	39	4.13	82.59
15	In Video Instructional Material concepts are explained with proper illustrations	47	20	02	04	04	4.32	86.49
16	In Video Instructional Material definitions and main points are not shown	06	08	01	20	42	4.09	81.81
17	Video Instructional Material is not helpful in teaching Educational Psychology	05	03	01	34	34	4.27	85.45
18	Video Instructional Material is not helpful in understanding and learning of Educational Psychology	05	07	00	31	34	4.06	81.29
19	In Video Instructional Material Teacher is not teaching properly	05	08	02	22	40	4.09	81.81
20	With the help of Video Instructional Material teaching is possible even in absence of teacher	27	31	03	09	07	3.81	76.10
Overall Mean of Favourable Reaction and Percentage of Favourable Reaction							4.02	80.53

It is evident from Table 5.19 that 80.25% were of the opinion that Video Instructional Material was having clear Pictures. 75.84% were of the opinion that Video Instructional Material was having clear sound. 79.48% were of the opinion that in Video Instructional Material the content was presented sequentially. 76.88% were of the opinion that all the topics given in Video Instructional Material in starting were clearly explained. 68.05% were of the opinion that in Video Instructional Material presentation of content is with proper pace. 84.15% were of the opinion that Video Instructional Material is helpful in teaching Educational Psychology. 86.49% were of the opinion that Pronunciation of Presenter in Video Instructional Material is proper. 80.25% were of the opinion that duration of Video film is proper. 77.14% were of the opinion that in Video Instructional Material efforts were done to make easy to difficult content. 81.29% were of the opinion that in Video Instructional Material presenter was used proper stimulus variation in speech and with proper sign of hands. 76.10% were of the opinion that Video Instructional Material could be used as self learning material. 86.23% were of the opinion that in Video Instructional Material the language of Teacher is good. 82.85% were of the opinion that in Video Instructional Material concepts are clearly explained. 82.59% were of the opinion that Video Instructional Material is useful. 86.49% were of the opinion that in Video Instructional Material concepts of Educational Psychology was illustrated properly. 81.81% were of the opinion that in Video Instructional Material definitions and important points are clearly shown. 85.45% were of the opinion that Video Instructional Material is helpful in teaching of Educational Psychology. 81.29% were of the opinion that Video Instructional Material is helpful in learning Educational Psychology. 81.81% were of the opinion that in Video Instructional Material teaching of teacher is proper. 76.10% were of the opinion that teaching is possible even in absence of teacher with the help of Video Instructional Material.

From Table 5.18, it can be seen that Percentage of favorable Reaction was 80.53 out of 100. It is also clear from the above table is that all the statements which are related to different aspects of Video Instructional Material have mean 4.02. The Mean score of the students on each statement could range between 1 and 5. The Mean score of Reaction towards Video Instructional Material was towards 4.02 signifying strong favourable Reaction towards Video Instructional Material on each aspect. It indicates that majority of students expressed strongly favorable Reaction towards different aspects of Video Instructional Material and Video Instructional Material as whole.