

CHAPTER-IV

DATA ANALYSIS AND INTERPRETATION

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4.1 INTRODUCTION

This chapter deals with the presentation of data and their analysis to draw the result. It also deals with testing of hypothesis. The objective wise result also from the part of this chapter which also discussed below.

4.2 ACHIEVEMENT ANALYSIS

4.2.1 EFFECTIVENESS OF THE ICT BASED APPROACH IN TEARMS OF ACHIEVEMENT IN SOCIAL SCIENCE AND REACTION OF THE STUDENTS TOWARDS THE APPROACH

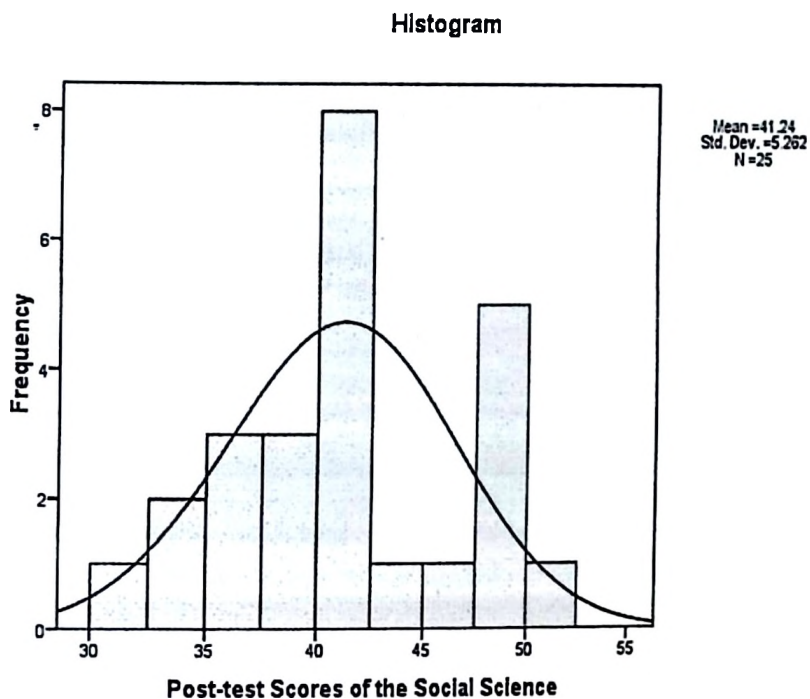
The first objective was to study the effectiveness of ICT based approach in terms of achievement in Social Science of students of class VII. The result of both, the achievement in Social Science and the reaction of the students towards the ICT based approach were presented separately in the following caption.

4.2.2 EFFECTIVENESS OF THE ICT BASED APPROACH IN TEARMS OF ACHIEVEMENT OF STUDENTS IN SOCIAL SCIENCE

The Effectiveness of ICT based approach was studied in terms of achievement of student's in Social Science based on Pre test and Post test. The achievement test was developed by the investigator to measure the achievement in Social science of students. The test consisted 6 Items. The total marks of achievement test were 40. The test was administered to both the group that is experimental and control group. The scores were analysed with the help of percentiles. Mean and Standard Deviation. The result are presented in the table 4.1

Table 4.1: Percentiles, Mean and Standard Deviation for Achievement in Social Science

N	Valid	25
	Missing	0
Mean		41.24
Std. Deviation		5.262
Variance		27.690
Kurtosis		-.831
Std. Error of Kurtosis		.902
Range		18
Percentiles	20	36.00
	25	37.00
	40	40.40
	50	41.00
	60	42.00
	75	46.50
	80	48.00



The graph Showing The Mean Post Score of Experimental Group

Table 4.1 reveals that the mean of scores of Achievement in Social Science on Pre test and Post test, is above 41. It may be observe that 50 Percent students scored more than up to 41 marks, 80 percent student scores up to 48 marks. Only 20 percent students scored below 36 marks. The Maximum marks of Achievement test was 50. The different demonstrated by the scores, here, substantiates the fact that the treatment given in terms of the develop the text material was more effective in enhancing the student Achievement then the traditional one.

Findings: ICT based Approach was effective in terms of Student's achievement in social science.

4.2.3 EFFECTIVENESS IN TERMS OF REACTION OF STUDENTS TOWARDS CONSTRUCTIVIST APPROACH.

The effectiveness of ICT based approach was studied in terms of student's reactions toward the ICT approach. That is indicated in chapter III, The investigator taught the

student of experiment group through ICT based approach. The scale was prepared by investigator and administered on experiment group after completion the teaching of all 5 lesson plan. The data of reaction scale was analysed by percentage.

There were 15 statements in the reaction scale. The statements were related to various aspects of the approach.

- Students like learn through ICT are 56% highly satisfied, 20% satisfied, 20% not satisfy and 4% highly not satisfied.
- Students are like Learn through Traditional approach are 36% highly satisfied, 16% satisfied, 40% not satisfy and 8% highly not satisfied.
- ICT Creating Learning situation more interesting are 60% highly satisfied, 20% satisfied, 12% not satisfy and 8% highly not satisfied.
- ICT helps you to understand the essence of the subject Social science are 52% highly satisfied, 28% satisfied, 8% not satisfy and 12% highly not satisfied.
- ICT based learning enhance your self confidence are 52% highly satisfied, 16% satisfied, 16% not sure 8% not satisfy and 8 % highly not satisfied.
- ICT has no effect on Social science learning are 20% highly satisfied, 68% not satisfy and 12% highly not satisfied.
- ICT based learning decreases student's interest towards lesson are 8% highly satisfied, 20% satisfied, 56% not satisfy and 16% highly not satisfied.
- ICT facilitates students learning are 60% highly satisfied and 40% satisfied.
- ICT approach increases the interaction between the students are 48% highly satisfied, 24% satisfied, 24% not satisfy and 4% highly not satisfied.
- ICT approach decreases the interaction between the students are 56% highly satisfied, 12% satisfied, 16% not satisfy and 16% highly not satisfied.
- ICT based learning approach enables students to relate knowledge with the life experiences are 16% highly satisfied, 48% satisfied, 24% not satisfy and 24% highly not satisfied.
- Students able to understand other concepts of Environment through Videos are 64% highly satisfied, 16% satisfied, 12% not satisfy and 8% highly not satisfied.
- Students able to evaluate yourself through ICT are 28% highly satisfied, 56% satisfied, 8% not satisfy and 8% highly not satisfied.

- ICT help to increase your understanding of concept are 60% highly satisfied, 20% satisfied, 12% not satisfy and 8% highly not satisfied.
- ICT help you to think in a better way are 56% highly satisfied, 16% satisfied, 12% not satisfy and 16% highly not satisfied.

4.2.4 EFFECT OF TREATMENT, GENDER AND INTERATION ON ACHIVEMENT IN SOCIAL SCIENCE

The second Objectives of the study was to study to study the effect of treatment, gender and their interaction on achievement in social science of students by talking their pre test score as covariate. There were to levels of treatment, first level is ICT based approach and second one is traditional approach. The students were also categories into two levels on the basis of gender i.e. male and female. Thus there, were two level of treatment and two levels of gender. Therefore the data were analyse were followed by the statistics 2x2 Factorial design ANCOVA.

The result are presented in the table 4.2 and 4.3 and interpretation are given in caption 4.2.5 and 4.2.6

4.2.5 EFFECT ON TREATMENT ON ACHIEVEMENT IN SOCIAL SCIENCE

Table 4.2 F-Value for effect and interaction of treatment and gender on achievement in Social Science

Source	Type III Sum of Squares	Df	Mean Square	F
Gender_CD	.327	1	.327	.019
Group_CD	2014.871	1	2014.781	114.499**
Gender_CD * Group_CD	4.428	1	4.428	.252
Error	791.880	45	17.597	
Total	62041.000	50		

****Significant at 0.01 Level**

From table 4.2 it can be seen that the adjusted F- value is 114.499 which is significant at 0.01 level with the df 1/45. It indicates that the adjusted mean score of achievement in Social Science of ICT approach and traditional group differ significantly when pre test scores in Social Science were considered as covariate.

So, there was a significant effect of treatment on achievement in Social Science. In the light of this, the null hypothesis that there is no significant effect of treatment on achievement in Social science when their pre test score are taken as covariate'' is rejected.

Table 4.3: Mean, and SD of the Boys and Girls of Experimental and control group for Achievement in Social Science

Group of the Students	Gender of the Students	Mean	Std. Deviation	N
Experimental	Girls	40.92	5.265	12
	Boys	41.54	5.456	13
	Total	41.24	5.262	25
Control	Girls	27.30	7.573	10
	Boys	26.60	4.437	15
	Total	26.88	5.754	25
Total	Girls	34.73	9.341	22
	Boys	33.54	9.000	28
	Total	34.06	9.077	50

Further, Table 4.3 shows that the mean achievement score in Social science of the student thought through ICT approach (41.24) is higher than the student thought traditional approach of teaching (26.88). It refers that the ICT approach was found to be effective in terms of student's achievement in Social Science then the traditional approach of teaching.

Findings: It may, therefore be concluded that ICT approach is effective in terms of students achievement in Social science.

4.2.6 EFFECT OF GENDER ON ACHIEVEMENT IN SOCIAL SCIENCE

Table 4.2 reveals that the F- value for gender is .019 which is not significant at 0.05 levels with df equal to 1/45. Indicates that the gender did not produce any significant differential significant effects on students' achievement in Social Science. It shown that the students' achievement in Social science is independent of gender.

Therefore, the null hypothesis namely, 'there is no significant effect of gender on students achievement in Social Science when their Pre test scores are taken as covariate', is not rejected. It signifies that the achievement in social science is independent of the gender.

Findings: gender did not produce any differential effect on the achievement in social Science.

4.2.7 INTERACTION OF TREATMENT AND GENDER ON ACHIEVEMENT IN SOCIAL SCIENCE

Table 4.2 reveals that the F- value for interaction between treatment and gender is 0.253, which is not significant at 0.05 level with df equal to 1/45. it indicates that there was not significant influence of resultant of interaction of treatment and gender on achievement in Social science when pre test score in social Science were taken as covariant. In this context, the null hypothesis that 'there is no significant interaction of treatment and gender on achievement in Social Science of students when pre test scores are taken as covariate'' is not rejected. It may be therefore, be said that achievement in Social Science was found to be independent of the interaction of treatment and gender when pre test scores in Social science were taken as covariates.

Findings: There was no significant interaction of treatment and gender on achievement in Social Science.

Estimated Marginal Means of Post-test Scores of the Social Science

