CHAPTER- IV

ANALYSIS AND STATEMENTS OF RESULTS

4.1Introduction

This chapter deals with the analysis of the data. The analysis of the data was undertaken to draw logical inferences concerning the tentability of the hypotheses, Data were collected with a view to study the effect of cooperative learning method in comparison to traditional method of teaching.The whole sample was divided into groups and sub-groups in order to determine the effect of cooperative learning on experimental and control groups and on boys and girls.

This was essential to compare the effect of cooperative learning with that of methods of teaching being currently used in schools. In analysing the data exploratory methods were used to have a feel of the data. Descriptuive statistics was used to describe the performance of experimental and control students in pretest and posttest achievement score. Where appropriate, inferential statistics was used to test the hypotheses stated in chapter one. The mean and the standard deviation values were calculated to describe the results of pretest scores and protest scores of cooperative students. The t-test was used to test the hypothesis relating to experimental group and control group of boys and girls. The analysed information has been presented in the following tables.

Table 4.1

Breakdown of genders in experimental and control students.

Experimental group			Control group			Total
Valid N	Male	Female	Valid N	Male	Female	
32	16	16	32	16	16	64

Missing observation No.

Table 4.2

Pretest scores of experimental group (25 items)

Gender	Number of correct answers	Valid N
Boys	62 (16.53%)	12 (75%)
Girls	98 (26.18%)	13 (78.12%)
Total	160 (42.18%)	25 (78.12%)

Missing observations No.

Table 4.2 indicates that the performance of girls in pretest achievement scores {98(26.18%)} was higher than the pretest achievement score of boys{62(16.53)}.

Table - 4.3

Pre-test scores of control group (25 itesms)

Gender	Number of correct answers	Valid No
Male	82 (21.86%)	13 (81.25%)
Female	84 (22.4%)	14 (8700%)
Total	166 (44.26%)	27 (84.37%)

Missing observation No.

Table 4.3 suggests that the performance of girls was better inpretest achievement scores [84(22.4%)] than the pre-test achievement socres of boys [82(21.86%)]

Table 4.4

Post test scores of experimental group (25 items)

Gender	Number of correctanswers	Valid No
Male	183 (48.8%)	16 (100%)
Female	290 (77.33%)	16 (100%)
Total	473 (59.12%)	32 (100%)

Missing observation NO.

Table 4.4 performance of females in post-test achievement scores [290(77.33%]) was higher than the post test achievement scores of males {183(48..8%)}.

Table 4.5

Post test scores of control group (25 items)

Gender	Number of correctanswers	Valid No
Male	181 (48.26%)	16 (100%)
Female	151 (40.26%)	16 (100%)
Total	332 (44.26%)	32 (100%)

Missing observation NO.

Table 4.5 demonstrates thaat the performance of Females [151(40.26%]) is lower than the males {181(48.26%)} in post test achievement scores.

Table 4.6

Mean and standard deviation values in pre test achievement scores (Experimental group only).

Gender	Valid No	Mean	SD
Boys	16	3.88	2.90
Girls	16	6.13	3.53
Combined man	32	10.10	

Table 4.2 indicates that the performance of girls in pretest achievement scores [98(26.18%)] was higher than the pretest achievement score of boys [62(16.53%)].

Table 4.7

Mean and standard deviation values in pretest achievement scores (Control group).

Gender	Valid No	Mean	SD
Boys	16	5.12	3.99
Girls	16	5.25	3.74
Total	32	5.18	3.87

Table 4.7 shows that the mean scores of girls (M=5.25) was slightly higher than the mean scores of boys (M=5.12) suggesting that their was not much difference in the performance of girls and boys of control group in the pre-test achievement scores .

Table 4.8

Mean and standard deviation values of post- test achieve ment scores (Experimental group only)

Gender	Valid No	Mean	SD
Boys	16	11.43	8.98
Girls	16	14.78	10.87
Total	32	14.78	10.41

Table 4.8 indicates that the mean scores of girls (M=18.12) was higher than the mean scores of boys (M=11.43) in post test achievement scroes.

Table 4.9

Mean and standard deiviation values of post test achievement scores (control group only)

Genden	Valid N	Mean	SD
Boys	16	11.31	3.94
Girls	16	9.7	3.77

Table 4.9 also suggests that the performance ofgirls (M=18.12) was better than boys (M=11.31) in their post test achievements scores.

HYPOTHESES TESTING

In the following tables the hypotheses relating to experimental group and control group of boys and girls were tested.

Table 4.10

Test of hypotheses relating to effect of cooperative learning

Group	Valid N	Mean	SD	Tvalue	df	sig
Experimental	32	10	4.4	4.86	62	.01
Control	32	5.2	2.78			

Table 4.10 clealy indicates that the obtained t-value 4.86 is more then tabulated t-value 2.66 with 62 degree of treedom is significant at 0.01 level. The P value (0.01) shown in the table is less than 0.05 there fore the null hypothesis (Ho) cooperative learning approach and traditional teaching methods have the same effect on the learning of students is strongly rejected in favour of alternative hypothesis(H1). cooperative learning and traditional teaching methods have different effect on the learning of students.

Table . 4.11

Test of hypothesis on learning of boys and girls of experimental group

Gender	Valid N	Mean	SD	T-Value	df
Boys	16	4.3	2.65	1.10	30
Girls	16				

Table 4.11 suggests that the obtained t-value 1.10 is less than tabulated t value 2.04 with 30 degress of freedom is not signficant at 0.05 level. The hypotheses was not rejected in favour of alternative hypothesis suggesting that their is no significant difference between boys and girls while learning through cooperative approach.

Hence cooperative learning and traditional teaching methods have different effect upon the learning of students and the gender differences have no effect on the learning of students.