

**Chapter 4**  
**Analysis and**  
**Interpretation of Data**

## CHAPTER 4

### Analysis And Interpretation of The Data

The present chapter describes the presentation of data, so that data can be statistically analyzed. The data collected by administering the tests mentioned in earlier chapter.

#### 4.1 statistics used in the study

**(a). Mean**

To denote average

**(b). standard deviation**

To measure variability

**(c). level of significance**

It is a measure of the strength of the evidence that sample before you will reject the null hypothesis and conclude that the effect is statistically significant. The researcher determines the significance level before conducting the experiment.

**In this research the level of significance was 0.05.**

**(d). T test:-**

To determine the significance of difference between two means

#### **4.2 Presentation of data**

**In the following tables the data is represented**

**Table 4.1 Description of control group before treatment**

<b>Number of students 'N'</b>	<b>Mean 'M'</b>	<b>Standard deviation 'SD'</b>
22	10.4545455	2.9556608

**Table 4.2 Description of control group before treatment**

Number of students 'N'	Mean 'M'	Standard deviation 'SD'
26	10.53846154	3.849475489

**Table 4.3 Description of control group after treatment**

Number of students 'N'	Mean 'M'	Standard deviation 'SD'
22	10.8636364	2.43575459

**Table 4.4 Description of experimental group after treatment**

Number of students 'N'	Mean 'M'	Standard deviation 'SD'
26	13.7272727	3.26863621

### **4.3 Analysis of data**

After the calculations analyzed data is presented in following tables

**Table 4.5 Table 4.5 pre test comparison of control group and experimental group**

Group (N)	Degree of freedom 'df'	Mean 'M'	Standard deviation	SEm	T score	P score	Level of significance
Control Group (22)	46	10.45454	2.9556608	0.630008	0.0835	0.9338	difference is not statistically Significant.
Experimental Group (26)		10.53846	3.849475489	0.754929			

**Conclusion:** A reference to the table 4.5 shows that the obtained t score was lower than P score at 0.05 level of significance for df= 46. It means there is no significant difference in the mean of the groups. Therefore on the basis of

available evidences investigator concluded that students performed normal in achievement test, when teaching was done via traditional methods of teaching.

**Table 4.6 Post test comparison of control group and experimental group**

Group (N)	Degree of freedom 'df'	Mean 'M'	Standard deviation	SEm	t score	P score	Level of significance
Control Group (22)	46	10.86363	2.4357545	0.5193046 2388	3.3877	0.0015	difference is very statistically significant
Experimental course (26)		13.72727	3.2686362	0.6410323 0107			

**Conclusion:** A reference to the table 4.6 shows that the obtained t score was higher than P score at 0.05 level of significance for  $df=46$ . It means there is significant difference in the mean of the groups. Therefore on the basis of available evidences investigator concluded that students performed better in achievement test while teaching via activity based teaching.

#### 4.4 Analysis of Feedback form

In feedback maximum students were impressed with activity based teaching. For the 26 students, detailed description of points is given below,

Points	Number of students (26)	Total
35	1	35
34	6	204
33	2	66
32	10	320
31	04	124
30	03	90
		839

Maximum points for 26 students were 910. All the students got 839 points, which is 92.19 percentages.

With reference to it investigator concluded that the students were extremely happy with activity based teaching.