CHAPTER-4

ANALYSIS AND

INTERPRETATION

OF DATA

CHAPTER IV

ANALYSIS AND INTERPRETATION OF DATA

4.1 Introduction

After discussing the uses of remedial teaching and taking a brief review of researches conducted in this area to support the rational of the present study detailed plan of the study was presented in the third chapter.

The hypothesis to be tested, variable involved, sample selected, tools employed and the manner in which the relevant data was collected and other methodological details are discussed in that chapter.

The data thus collected was subjected to appropriate statistical procedure to test the hypothesis with which this study was initiated. The details of the statistical techniques employed for analysis of the data, results obtained through this analysis and the designs regarding the rejection or non rejection of hypothesis are presented in this chapter.

Statistical techniques are used for organizing analyzing and interpreting numerical data. Statistics is a basic tool of measurement and evaluation, when research has quantifiable data. Statistical method goes to the fundamental purposes of description and analysis. By statistic we can analyze and interpret the data and can draw conclusion. If the collective data are systematically arranged, and analyzed through appropriate scientific and statistical technique, the results obtained are scientific and correct.

Interpretation of data refers to that important part of the investigation, which is associated with the drawing of the inference from

the collected facts after an analytical study. It is the interpretation that makes it possible for us to utilize collected data in various fields.

According to the hypothesis of the study the data collected were analyzed on the basis of score of the pre test and post test. The statistical method is based upon its own or specific assumption regarding the sample, population and research conditions and their proper application involves answering the following questions:

1. What facts need to be gathered to provide the information necessary to answer to test the hypothesis?
2. How are these data to be gathered, organized and analyzed?
3. What assumptions underlie the statistical methodology to be employed?
4. What conclusions can be drawn from the analysis of the data?

4.2 Statistical procedure employed

First to understand the distribution of variable, basic statistic such as mean and standard deviation were calculated for all the variables involved in the study. For the total sample based on gender was compared and t value for independent and co-related sample were calculated.

4.3 Analysis of hypotheses

"Analysis is the ordering - the breaking down of data into constituent parts in order to obtain answer to research questions".

F.N.Kerlinger (1964)

There are five hypotheses in the study. These entire hypotheses are tested and the results are interpreted as per the problem under investigation.

Verification of the hypotheses:
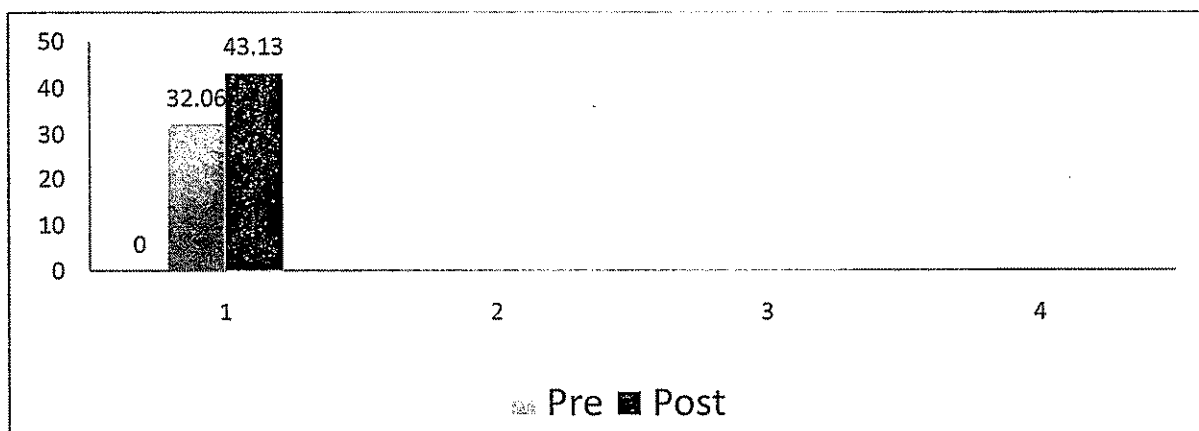
Analysis pertaining to total sample

Hypothesis (1)

There is no impact of remedial measures on class V students in solving problems of fraction.

Table No. 4.3.1 Showing mean difference between pre test and post test scores of total students.

Statistical Analysis of Differences							
S.No.	Test	No. of students	Mean	Standard deviation	df	t value	significant
1.	Pre	80	32.06	7.20	79	7.38	significant
2.	Post	80	43.13	6.95			

Comparison of means as shown in Graph 1

Graphical presentation of mean between pre test and post test scores of total students

The table 4.3.1 shows that the computed value of t test is 7.38 and the table value of the t test is 2.66 at 0.01 level. Thus, the computed value of t is greater than the table value and hence the hypothesis is rejected. It indicates that there is an impact of remedial measures on the achievement of students in solving problems of fraction. This conclusion is similar to the findings of the study done by **Gurusamy, S. (1990)**

Analysis pertaining to boys and girls before remedial measures

Hypothesis (2)

There is no significant difference between the learning difficulties of boys and girls.

Table No. 4.3.2 Showing mean difference between boys and girls before remedial measures

Statistical Analysis of Differences							
S.No	Variables	No. of students	Mean	Standard deviation	df	t value	Significant
1.	Boys	40	30	7.46	78	0.01	Not significant
2.	Girls	40	34.13	6.29			

Comparison of means as shown in Graph 2

Graphical representation of mean between boys and girls before remedial measures

37

The table 4.3.2 shows that the computed value of t test is 0.01 and the table value of the t test is 2.00 at 0.01 level. Thus, the computed value of t is less than the table value and hence the hypothesis is not rejected. It may be stated that there is no significant difference between boys and girls in their learning difficulties. Hence it indicates that boys and girls have same learning difficulties in solving problems of fraction.

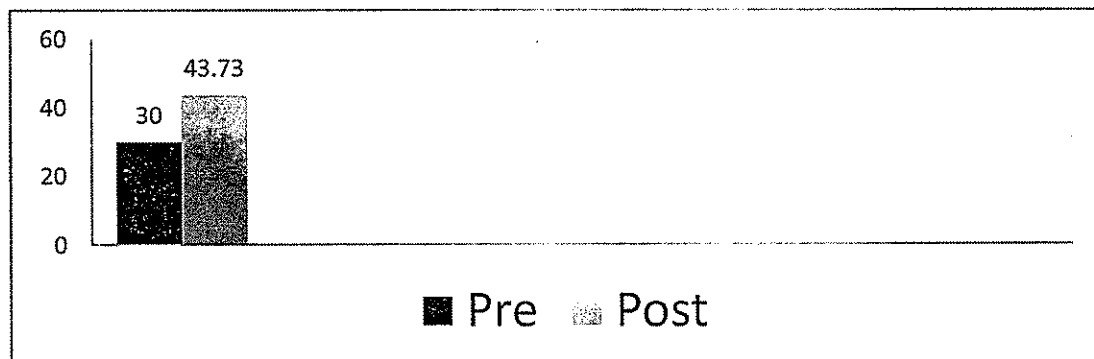**Analysis pertaining to total boys**

Hypothesis (3)

There is no impact of remedial measures on boys.

Table No: 4.3.3 Showing mean difference between pre test and post test scores of boys.

S.No.	Test	No. of students	Mean	Standard deviation	df	t value	significant
Statistical Analysis of Differences							
1.	Pre	40	30	7.46	39	5.79	significant
2.	Post	40	43.73	5.99			

Comparison of means as shown in Graph 3

Graphical presentation of mean between pre test and post test scores of boys

The table 4.3.3 shows that the computed value of t test is 5.79 and the table value of the t test is 2.70 at 0.01 level. Thus, the computed value of t is greater than the table value and hence the hypothesis is rejected. It indicates that there is an impact of remedial measures on boys in solving problems of fraction.

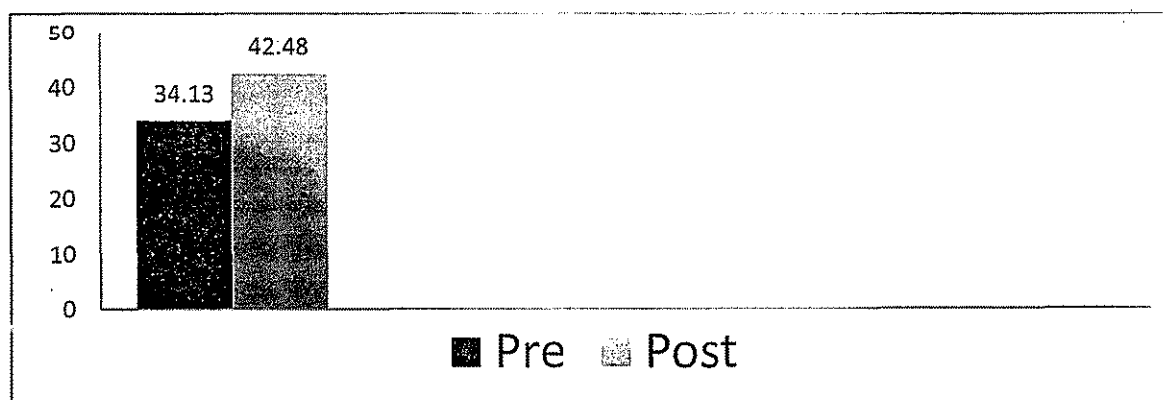**Analysis pertaining to total girls**

Hypothesis (4)

There is no impact of remedial measures on girls.

Table No.4.3.4 Showing mean difference between pre test and post test scores of girls

Statistical analysis of differences							
S.No.	Test	No. of students	Mean	Standard deviation	df	t value	significant
1.	Pre	40	34.13	6.29	39	9.01	significant
2.	Post	40	42.48	7.74			

Comparison of means as shown in Graph 4

Graphical presentation of mean between pre test and post test scores of girls

The table 4.3.4 shows that the computed value of t test is 9.01 and the table value of the t test is 2.70 at 0.01 level. Thus, the computed value of t is greater than the table value and hence the hypothesis is rejected. It indicates that there is an impact of remedial measures on girls in solving problems of fraction.

Analysis pertaining to boys and girls after remedial measures

Hypothesis (5)

There is no significant difference between boys and girls of class V students in their achievement after remedial measures.

Table No.4.3.5 Showing mean difference between boys and girls after remedial measures

Statistical Analysis of Differences							
S.No	Variables	No. of students	Mean	Standard deviation	df	t value	Significant
1.	Boys	40	43.73	5.99	78	0.48	Not significant
2.	Girls	40	42.48	7.74			

Comparison of means as shown in Graph 5

Graphical presentation of mean between boys and girls after remedial measures

The table 4.3.5 shows that the computed value of t test is 0.48 and the table value of the t test is 2.00 at 0.01 level. Thus, the computed value of t test is less than the table value and hence the hypothesis is not rejected. It indicates that boys and girls do not differ in their achievement after remedial measures in solving problems of fraction.