

CHAPTER-4

ANALYSIS AND

INTERPRETATION

OF DATA

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Analysis and Interpretation of Data

4.1 Introduction:

The analysis of data is the heart and soul of any research work. If the collective data are systematically arranged analyzed through appropriate scientific and statistical technique include gathering, organizing, analyzing and interpreting numerical data and draw conclusions.

Interpretation of data refers to that important part of the investigation, which is associated with the drawing of inference from the collected facts after an analytic study because it makes possible the use of collected data. Statistical facts by themselves have no utility, It is the interpretation, It provide certain conclusion about the problem under study.

After discussing the uses of remedial teaching and taking a brief review of researches conducted in this area to support the rationale of the present study , detailed to 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 detailed of statistical techniques employed for analysis of data, results obtained through this analysis and the designs regarding the rejection or non rejection of hypothesis are presented this chapter.

Statistical techniques are used for organizing analyzing interpreting numerical data. Statistics is a basic tool of measurement and evaluation,

when research has quantifiable data . Statistical method goes to the fundamental purpose of description and analysis. By statistics 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 investigation which is associated with the drawing of 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 hypothesis of study the data, the collected data were analyzed on the basis of score of the pre-test and post-test. The statistical method serves the fundamental purpose of description and analysis, and there 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 validly drawn from the analysis of 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 Verification of the Hypothesis

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

Analysis pertaining to total sample

Hypothesis(1)

There is no impact of remedial measures on class XII students in solving problems of Relations and Functions.

Table No.-4.3.1 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	54	30.89	7.59	52	5.02	significant
2.	Post	54	44	4.44			

The table shows that the computed value of the t-test is 5.02 and the table value of t-test is 2.68 at 0.01 level.

The computed value of t is greater than table value and hence the hypothesis is rejected.

It indicates that the students of experimental group do differ in their post-test achievement in comparison to pre-test.

The value of mean for post-test (AM= 44) is found to be greater than the pre-test (AM= 30.89) as mean difference is significant , it may be inferred that achievement of class XII students in solving problem of relations and functions increases with the help of remedial teaching.

Analysis pertaining to Gender in Pre-test

Hypothesis(2)

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

Table No. -4.3.2 Mean difference between pre-test scores of boys and girls.

Statistical Analysis of Differences							
S.No	Variables	No. of students	Mean	Standard deviation	df	t value	Significant
1.	Boys	27	28.74	8.03	52	.03	Not significant
2.	Girls	27	33.04	6.44			

The table shows that the computed value of the t-test is 0.03 and the table value of t-test is 2.01 at 0.05 level.

Thus, the computed value of t is less than table value and hence the hypothesis is not rejected.

It indicates that the students of experimental group do not differ in their learning difficulties. Hence it may be stated that there is no significant difference between boys and girls in their learning difficulties.

The value of mean for girls (AM= 33.04) is found to be greater than the boys (AM=28.74) as mean difference is not significant , it may be inferred that there is no generalized difference between the IQ and problem solving ability of girls and boys.

Analysis pertaining to boys performance

Hypothesis(3)

There is no impact of remedial measures on boys.

Table No.-4.3.3 Mean difference between pre and post-test scores of boys

Statistical Analysis of Differences							
S.No.	Test	No. of students	Mean	Standard deviation	df	t value	significant
1.	Pre	27	28.74	8.03	26	5.04	significant
2.	Post	27	43.51	4.32			

The table shows that the computed value of the t-test is 5.04 and the table value of t-test is 2.78 at 0.01 level.

Thus, the computed value of t is greater than table value and hence the hypothesis is rejected.

It indicates that the boys of experimental group do differ in their post-test achievement in comparison to pre-test. Hence it may be stated that there is significant difference between boys performance in pre-test and post-test.

The value of mean for post-test (AM=43.51) is found to be greater than the pre-test (AM= 28.74). As mean difference is significant , it may be inferred that remedial teaching improves achievement of boys of class XII at significant level.

Analysis pertaining to Girls performance

Hypothesis(4)

There is no impact of remedial measures on girls.

Table No. 4.3.4 Mean difference between pre 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	27	33.04	6.43	26	8.63	significant
2.	Post	27	44.48	4.50			

The table shows that the computed value of the t-test is 8.63 and the table value of t-test is 2.06 at 0.05 level.

Thus, the computed value of t is greater than table value and hence the hypothesis is rejected.

Hence it indicates that the girls of experimental group do differ in their post-test achievement in comparison to pre-test.

The value of mean for post-test (AM=44.48) is found to be greater than the pre-test (AM=33.04). As mean difference is significant, it may be inferred that remedial teaching improves achievement of girls of class XII at significant level.

Analysis pertaining to Gender in Post-test

Hypothesis(5)

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

Table No.-4.2.5 Mean difference between post-test scores of boys and girls

Statistical Analysis of Differences							
S.No	Variables	No. of students	Mean	Standard deviation	df	t value	Significant
1.	Boys	27	43.51	4.32	52	0.42	Not significant
2.	Girls	27	44.48	4.50			

The table shows that the computed value of the t-test is 0.42 and the table value of t-test is 1.68 at 0.05 level.

Thus, the computed value of t is less than table value and hence the hypothesis is not rejected.

It indicates that the students of experimental group do not differ in their achievement. Hence it may be stated that there is no significant difference between boys and girls in their achievement.

The value of mean for girls (AM= 44.48) is found to be greater than the boys (AM=43.48). As mean difference is not significant, it may be inferred that there is no generalized difference between the IQ and achievement of girls and boys.