

CHAPTER-4

ANALYSIS OF DATA AND INTERPRETATION OF RESULT

Analysis of Data and Interpretation of Result

4.1 Introduction

Analysing research data is an important step in the dissertation process. It is the time when the researcher may reach to important fact for which the data was collected, to uncover facts that one might not otherwise have known, facts to support the hypothesis of his study.

By doing such test of comparison one can begin to identify relationship between various variables that will help to understand about respondent and guide the researcher towards better decisions. In analysis, relationships or differences that support or conflict the original hypothesis are subjected to test of significance to determine the validity by which conclusion can be made. By statistics, researcher can analyse the data. After analysing, interpretation and conclusion can be drawn.

After analysis of data, researcher interpret the results. Interpretation is not a routine and mechanical process. This last step in treatment of data requires careful, logical and critical examination of the results obtained. After analysis keeping in view the limitation of the sample chosen, the tool selected and used in the study.

4.2 Scheme of Analysis

The numerical data gathered by the investigator from the experimental and the control group was organized, analysed and interpreted using various statistical methods. Statistical data describes group behaviour or group characteristics abstracted from a number of individual observations that are combined to make the generalizations possible.

In the present study the data was collected from 58 children of class VII. Among them 28 children were classified as control group and another 30 children were classified as the experimental group. Their performances were compared to find the effectiveness of Activity based teaching learning strategies.

The data collected was analysed by employing statistical methods to arrive at meaningful conclusions. The data collected was subjected to appropriate statistical procedures to test the hypothesis with which the study was initiated.

Descriptive Analysis was done. It provides information about the nature of a particular group. To compare the two groups of children, who were taught in two different methods in terms of their achievement, mean and standard deviations were calculated.

Researchers find it important to determine whether the difference between means of samples is significant. The test of significance of the difference between two means is known as 't'-test. In the present investigation, 't'-test was used to test the significance of the difference between the means of two samples taught by different methods.

The details of the statistical technique employed for the analysis of data, result obtained through the analysis regarding the acceptance and rejection of hypothesis is presented below.

4.2.1 Testing of Hypothesis

Hypothesis was tested for significant relationship that existed in the mean difference in scores of the children taught by Activity based teaching learning Strategies and traditional approach.

Objective of present investigation is to study the effectiveness of activity based teaching learning strategies in terms of students' achievements.

Hypothesis

There is no significant difference between achievements in mathematics taught by activity based teaching learning strategies and traditional teaching.

4.2.2 Statistical Presentation of Data

It is evident from the table 4.1 that experimental group has mean scores more than that of control group.

Table 4.1: Computation of 't' value at the degree of freedom 56 with the mean scores of the students of Experiment Group and Control Group

Group	No. of Students	Mean Scores	Standard Deviation	Std. Error of Mean	't' Value
Experimental	30	22.63	3.65	1.1724	2.6124
Control	28	19.57	5.10		

4.3 Interpretation

As the calculated value of 't' i.e. 2.61 is greater than table value at 0.01 level of significance for degree of freedom 56 i.e. 2.39, therefore, 't' value is significant at 0.01 level of significance and null hypothesis is rejected. Thus, it can be stated that there is a significant difference in the achievement scores of two groups taught by activity based teaching learning strategies and traditional method respectively.

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