CHAPTER - IV

DATA ANALYSIS AND

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Chapter - 4

Data Analysis and Interpretation

Statistics is a body of mathematical technique or processes for gathering, organizing, analyzing and interpreting numerical data. Since research yields such quantitative data, statistics is a basic tool of measurement, evaluation and research. The word statistics is sometimes used to describe the numerical data that is gathered. Statistical data describe group behaviour or group characteristics abstracted from a number of individual observations which are combined to make generalisation possible. Statistical methods go to the fundamental purpose of description and analysis.It enables the researcher to analyze and interpret the data for drawing conclusions.

Analysis of data is a process of collecting personnel information about sample by means of statistical techniques preceding generalization about population. Interpretation of data refers to the important part of the investigator which is associated with the drawing of inference from the collected facts after an analytic study. It is extremely useful and important part of the study because it makes possible use of collected data. Statistical facts by themselves have no utility. It is the interpretation that makes it possible for us to utilize collected data in various fields of activity. The usefulness of the collected data lies in its proper iterpretation. It provides certain conclusion about the problem under study.

This chapter is designed to treat the collected data with different statistical procedures in order to draw the interpretations to achieve the interpretations to achieve the objectives and hypothesis of the present study.

1) The study was aimed to determine the relation between self evaluation skill and scholastic achievement among VIII class students.

2) Analysis has been done to compare the collected data in order to see a relationship that exists among high and low achievers in terms of their self evaluation skill.

Analysis also has been done to compare the collected data in order to see a relationship that exists between boys and girls in terms of their self-evaluation skill.

Hence statistical techniques such as mean, standard deviation, 't' test and pearson's coefficient of correlation were used.

4.1 Analysis of Data

The scores of the students of class VIII drawn from the Kendriya Vidyalayas of Bhopal city on self-evaluation skill questionnaire. Scholastic achievement of students were recorded from their half-yearly examination results.

4.4 Testing of hypotheses

a) Hypothesis 1

H_0 : There will be no significant relationship between self evaluation skill and scholastic achievement of students.

For testing this hypothesis, Perarson's coefficient of correlation was used.

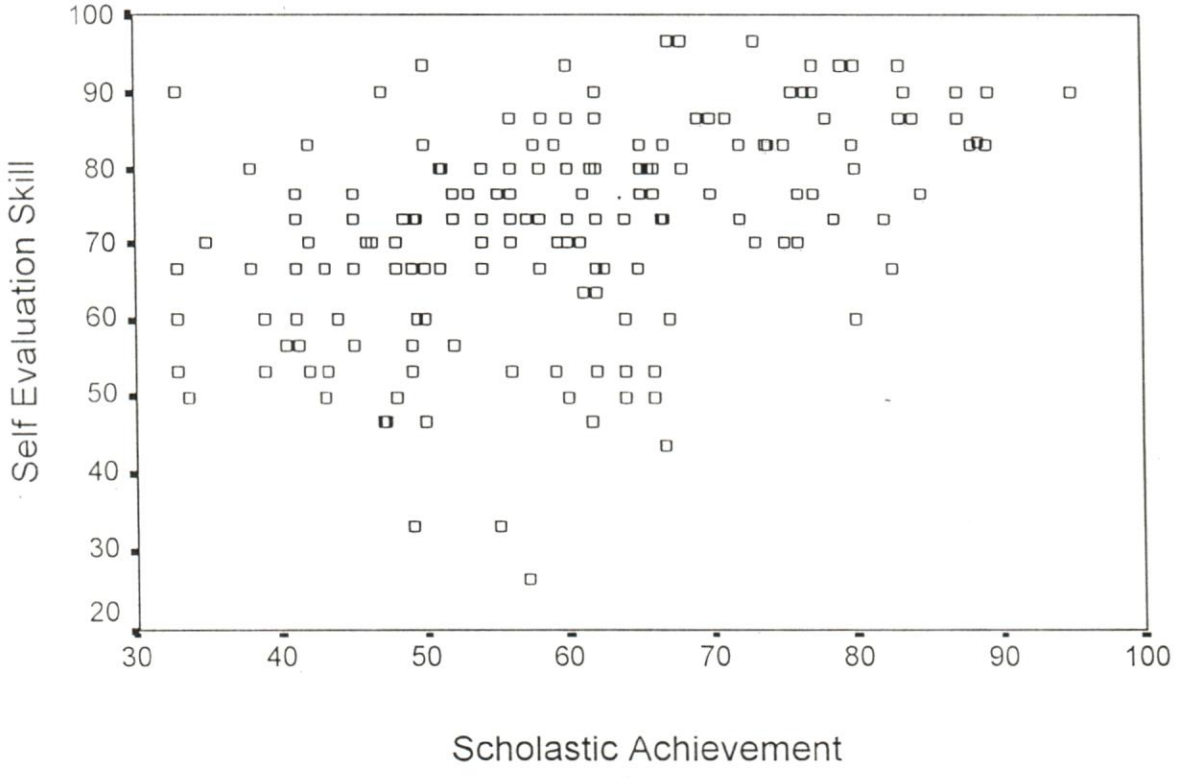
Table 4.1: Test of significance of correlation between the self-evaluation skill and scholastic achievement

Variables	N	'r'	Singificance (2-tailed)
Self-evaluation skill Scholastic achievement	171	0.476	0.00

From the above table(4.1), the Pearson's coefficient of correlation. between self evaluation skill and scholastic achievement was found to be 0.476 which reveals that there is a positive coorelation between both the variables .This correlation is also found to be significant at 0.01 level. Hence the null hypotheses is rejected.

CORRELATION

Self Evaluation Skill & Scholastic Achievement



b) Hypothesis 2

H0: There will be no significant diference between the means of self-evaluation skill of high achievers and low achievers.

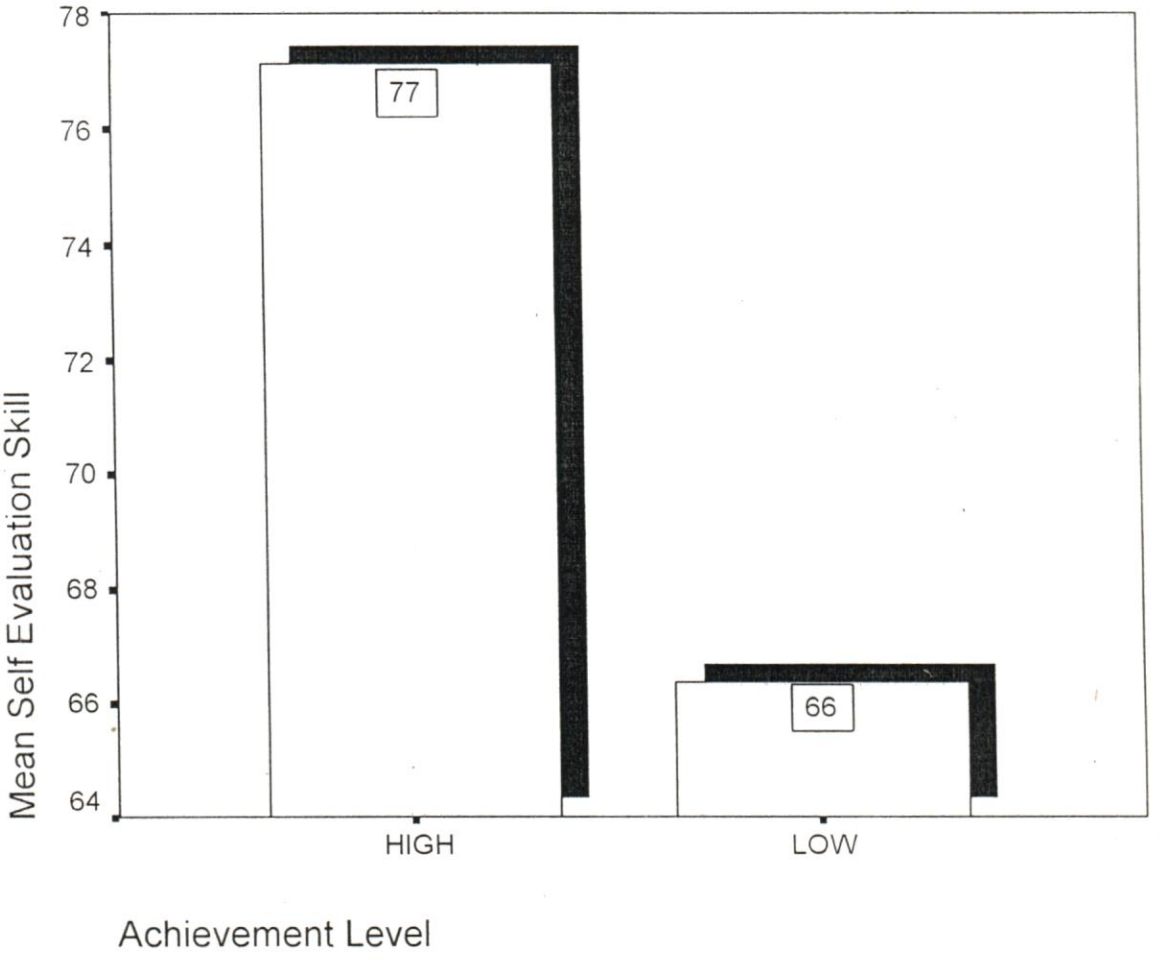
In order to test this hypotheses, two levels of sholastic achievement were taken (high and low). The students, who secured 60% and more than 60% in their half-yearly exams, were lebelled as high achievers and low achievers wher as who secured less than 60%, were lebelled as low achievers. Statistics such as mean, standard deviation and 't' test were used to test this hypothesis.

Table 4.2 : Test of significance of 't'between self evaluation skill of low and high achievers in respect to their scholastic achievement.

Category	Mean	S.D	N	df	't'	significance
High	77.10	12.63	87	169	5.307	.000
Low	66.43	13.66	84			

From the table 4.2, the 't'value for the high and low achievers, with respect to their self evaluation skill scores, was found to be 5.307, which is significant at 0.01 level with degree of freedom 169. The mean values of high and low achievers were 77.10 and 66.43 respectively. This shows the significant difference between high and low achievers in respect to their self evaluation skill.

Thus the second null hypothesis is also rejected and on the


78
76
74
72
70
68
66
64
77
66
Mean Self Evaluation Skill
HIGH
LOW
Achievement Level

Graph

basis of above results we can say that high achievers are better in self evaluation skill than low achievers. This is also clear from the graph obtained.

C) Hypothesis 3

H_0 : There will be no significant difference between the means of self evaluation skill of boys and girls.

Table 4.3 : Test of signficance of "t" between boys and girls in respect to their self evaluation skill.

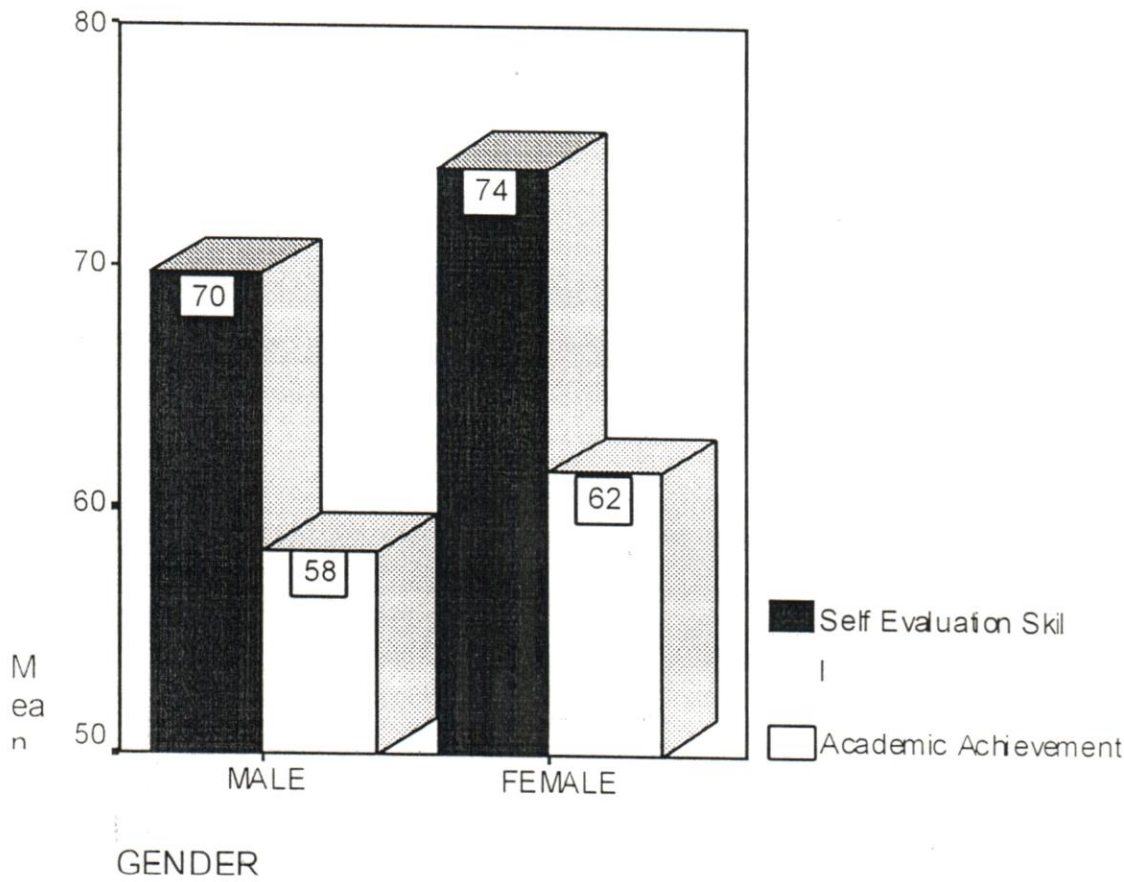
Category	Mean	S.D	N	df	't'	significance
Boys	69.71	16.40	88	169	2.06	.041
Girls	74.13	10.97	83			

From the above table 4.3, the 't' value of self evaluation skill of boys and girls was found to be 2.06 which is significant at 0.05 level. The means of self evaluation skill of boys and girls were 69.71 and 74.13 respectively. The girls score higher on self evaluation sikll questionnaire than the boys. It is also clear from the graph obtained.Hence the third null hypothesis is also rejected.Thus we can say that girls are better in self evaluation skill than the boys.

Conclusion:

On the basis of the results obtained by data analysis , it was found that self evaluation skill plays a very important and significant role in scholastic performance of the students . These

Graph


80
70
60
50
Mean
70
58
74
62
MALE
FEMALE
GENDER
Self Evaluation Skil
l
Academic Achievement

results also supports the findings of the studies conducted by R.Saraswat (1982), R.S Pathani (1985), R. Ramaswamy (1978), Nicholles (1978) and Kunn (1977) who found that students of elementary stage possess self-evaluation skill leads to high academic achievement.