CHAPTER – IV

ANALYSIS OF DATA & INTERPRETATION OF RESULT

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Analysis of Data and Interpretation of Result

4.1 Importance of Statistics

Statistics is a body of mathematical techniques or process of analysing and interpreting numerical data. Since in research fields for quantitative data, statistics is a basic tool of measurement, evaluation and research. The fundamental purpose of statistical method is description and analysis by statistics we can analyze and interpret data and can draw conclusion.

Interpretation of data refers to that important part of the investigation which is associated with the drawing of influence from the collected facts after on analytical study. It is extremely useful and important part of the study because it makes possible the use of collected data. The usefulness of the collected data lies in its proper interpretation. It provides certain conclusion about the problem under study.

4.2 Interpretation of Result

This part of the study deals with the presentation, analysis and interpretation of data. Since main objective of the study is to find out the comparison and relationship between self-confidence and academic achievement of children having low and high anxiety, quantitative analysis of data was done by the research scholar deriving conclusions.

4.3 Descriptive Analysis

In descriptive analysis the non-parametric statistical technique like **Mann-Whitney 'U' test and Rank Order Coefficient of Correlation** were used by the research scholar to find out the general picture of the finding regarding the comparison of self-confidence and academic achievement of children having low and high anxiety.

4.4 Testing of Hypothesis :

H_o1 There will be no significant difference in self-confidence of children having low and high anxiety scores.

Table 4.1 : Comparison of self-confidence of children having low and high anxiety using Mann Whitney 'U' test.

S. No.	Group	Self Confidence		Remarks
		Ranking	Mann Whitney 'U' value	
1.	Low anxiety	$R_1 = 314.5$	$U_1 = 14.5$*	Table value 'U' is 71
2.	High anxiety	$R_2 = 150.5$	$U_2 = 209.5$	

N = 30 '*' significant at 0.05 level of confidence.

The data presented in table 4.1 indicates the ranking and Mann-Whitney 'U' values of self-confidence. The obtained Mann-Whitney 'U_1' value is 14.5 in case of children having low anxiety whereas high anxiety group, obtained 'U' value is 209.5. The computed smaller value of U is 14.5. This value was found significant at 0.05 level of confidence. As the table value for this is 71 respectively. Therefore, it could be inferred that hypothesis H_ol of "no significant difference in self confidence of children having low and high anxiety scores" is rejected.

H_o2 There will be no significant difference in academic achievement of children having low and high anxiety scores.

Table 4.2 : Comparison of academic achievement of children having low and high anxiety using Mann Whitney 'U' test.

S. No.	Group	Self Confidence		Remarks
		Ranking	Mann Whitney 'U' value	
1.	Low anxiety	(R_1) 329	(U_1) 0 *	Table value 'U' is 71
2.	High anxiety	(R_2) 136	(U_2) 224	

N = 30 '*' significant at 0.05 level of confidence.

The data presented in table 4.2 indicates the ranking and Mann Whitney 'U' values of self confidence. The obtained 'U' value is O in case of children belonging to low anxiety whereas high anxiety group, obtained 'U_2' value is 224. The computed smaller value of U is O. This value was found significant at 0.05 level of confidence. As the table value for this is 71 respectively. Therefore, it could be inferred that hypothesis H_o2 of "no significant difference in academic achievement of children having low and high anxiety scores" is rejected.

H_o3 No significant relationship exist between anxiety and self-confidence of children of SOS village.

Table 4.3 : Relationship between anxiety and self-confidence of SOS village's children.

S. No.	Variables	N	Co-efficient of Correlation (r)	Remarks
1.	Self-confidence	30	0.64*	Table value of 'r' is 0.43
2.	Anxiety			

'*' Significant relationship at 0.05 level of confidence.

Table 4.3 shows that the computed value of 'r' is found to be 0.64 which is larger than table value i.e. 0.43. Thus, the hypothesis "No significant relationship exist between anxiety and self-confidence scores of SOS village's children" is rejected at 0.05 level of confidence.

H_o4 There will be no significant relationship exist between anxiety and academic achievement of SOS village's children.

Table 4.4 : Relationship between anxiety and academic achievement of SOS village's children.

S. No.	Variables	N	Co-efficient of Correlation (r)	Remarks
1.	Anxiety	30	0.75*	Table value of 'r' is 0.32
2.	Academic achievement			

'*' Significant relationship at 0.05 level of confidence.

Table 4.4 shows that the computed value of 'r' is found to be 0.75 which is larger than table value i.e. 0.32. Thus, the hypothesis "There will be no significant relationship exist between anxiety and academic achievement of SOS village's children" is rejected.

$H_0$5 No significant relationship exist between self-confidence and academic achievement of children having high anxiety scores.

Table 4.5 : Relationship between self-confidence and academic achievement of children having high anxiety scores.

S. No.	Variables	N	Co-efficient of Correlation (r)	Remarks
1.	Self-confidence	16	0.17**	Table value of 'r' is 0.96
2.	Academic achievement			

'**' No significant relationship.

Table 4.5 shows that the computed value of 'r' is found to be 0.17 which is smaller than table value i.e. 0.96. Thus, the hypothesis is accepted i.e. "No significant relationship exist between self-confidence and academic achievement of children having high anxiety scores" of SOS village.

$H_0$6 There will be no significant relationship between self-confidence and academic achievement of children having low anxiety scores.

Table 4.6 : Relationship between self-confidence and academic achievement of children having low anxiety scores.

S. No.	Variables	N	Co-efficient of Correlation (r)	Remarks
1.	Self-confidence	14	0.04**	Table value of 'r' is 1.08
2.	Academic achievement			

'**' No significant relationship.

Table 4.6 shows that the computed value of 'r' is found to be 0.04 which is smaller than table value i.e. 1.08. Thus, the hypothesis i.e. "No significant relationship exist between self-confidence and academic achievement of children having low anxiety scores" is rejected at 0.05 level of confidence.

$H_0$7 There will be no significant difference in academic achievement in science children belonging to low and high anxiety.

Table 4.7 : Comparison of academic achievement in Science of children belonging to low and high anxiety groups using Mann Whitney 'U' test

S. No.	Group	Academic achievement in science		Remarks
		Ranking	Mann Whitney 'U' value	
1.	Low anxiety	329	0*	Table value of 'r' is 0.96
2.	High anxiety	136	224	

N = 30 '*' Significant at 0.05 level of confidence.

The data presented in table 4.7 indicates the ranking and Mann Whitney 'U' values of academic achievement in science. The obtained 'U' value is 0 in case of low anxious children whereas in case of high anxious children, value of U is 224. The computed smaller value of 'U is O. this value was found significant at 0.05 level of confidence. As the table value of this is 71 respectively. Therefore, it could be inferred that hypothesis $H_0$7 i.e. "no significant difference in academic achievement in science of children belonging to low and high anxiety" is rejected.

H_o8 There will be no significant difference in academic achievement in mathematics of children having low and high anxiety scores.

Table 4.8 : Comparison of academic achievement in Mathematics of children belonging to low and high anxiety groups using Mann Whitney 'U' test

S. No.	Group	Academic achievement in science		Remarks
		Ranking	Mann Whitney 'U' value	
1.	Low anxiety	329	0*	Table value of 'U' is 0.71
2.	High anxiety	136	224	

N = 30 '*' Significant at 0.05 level of confidence.

The data presented in table 4.7 indicates the ranking and Mann Whitney 'U' values of academic achievement in mathematics. The obtained 'U' value is 0 in case of low anxious children whereas in case of high anxious children, value of U is 224. The computed smaller value of 'U is O. this value was found significant at 0.05 level of confidence. As the table value of this is 71 respectively. Therefore, it could be inferred that hypothesis H_o8 i.e. "no significant difference in academic achievement in mathematics of children belonging to low and high anxiety is rejected".