CHAPTER – III

Methodology

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3.0.0 Introduction

Chapter – II dealt on the previous research findings related to the study under research. This chapter deals with the methodology of the research. the sample. the tools used for the collection of data and the statistical techniques used for the analysis of the data. Details of the above are given. here. under different captions.

3.1.0 Sampling

Incidental / accidental sampling technique was employed for the study. The sample consisted of 120 students of class – VIII. There were 30 boys and 30 girls from the tribal group and 30 boys and 30 girls from the non-tribal group. School-wise and sex-wise distribution of sample is given in Table- 3.1.

3.2.0 Tools

For the present study the variables like Attitude towards science and Interest towards science taken as dependent Variables. Sex and class were taken as Independent variables. For measuring these dependent variables the tools used were presented under different captions.

Table - 3.1: School wise, Sex wise distribution of Sample

S.No.	Name of School	Tribal		Non-tribal		Total
		Boys	Girls	Boys	Girls	
1	Dani Girls Hr. Sec.	-	7	-	10	17
2	Salam Girls Hr.	-	8	-	8	16
3	Govt Boys Hr.Sec.	10	-	8	-	18
4.	Nutan Hr. Sec.	5	2	5	2	14
5.	W.R. Lakha Hr.Sec.	9	-	7	-	16
6.	M.G.M. Hr. Sec.	2	1	2	2	7
7.	Shri Gujrati	2	2	2	3	9
8.	Crescent Hr. Sec.	3	2	3	3	11
9.	Little flower Hr.Sec.	3	3	3	3	12
	Total	**34**	**25**	**30**	**31**	**120**

3.2.1 Science Interest Inventory

For the assessment of students' interest towards science the standardized test was used. The test was developed by.Dubey and Dubey. The test consists of 64 items (32 positive and 32 negative). Each item having two options "Yes" or "No". One mark is allotted to every positive item for option "Yes" and zero for "No" option. While to negative items one mark to "No" option and zero mark for "Yes" option.

Reliability:

i) Coefficient of stability by test retest method interval of 6 months is 0.68.

ii) Coefficient of interval consistency by spilt half method is 0.71.

Validity:

i) The test score was validated against achievement scores in science is 0.63.

ii) It has been validated with teachers rating is 0.51.

3.2.2 Science Attitude Scale

An Attitude is an organization of motives around individual responses to a person, situation or instruction. Attitudes show an evaluative personal reaction. In the present study, student's Attitude towards science was taken variable. Although there were various tools but the investigator developed this scale taking into account the nature of the sample, that is, tribal and non-trebles.

Therefore, the investigator developed and attitude scale by following procedures tool construction. After the writing up of items for the scale, investigator submitted those to the experts for the verification and seeking their suggestions for the improvement of the scale, if any. The scale consisted of 15 items (9 positive and 6 negative). Likert's method of summated rating scale was used for this propose. There were three points in the scale as agree, undecided and disagree. The scoring for positive statement was 3.2.1 respectively. The scoring for negative item was just reverse of the positive item. All the 15 items are selected items out of 35 items on the consultations by subject experts of the various institutions.

3.3.0 Procedure of Data Collection

After selecting the appropriate tool, the tests were administered to collect information regarding concerned variables. Firstly, the attitude test was administrated then on the next day

interest test administered to the students. Before circulating the test to the students necessary instructions were given to the students and they were told that the results would keep confidential and will not have any effect on their academic achievement.

Subjects were asked to write correctly their names, grade, school name, age, date, sex, and category on the top of the school. Time limitation was given to the respondent according to the requirement of test. They were asked to read the statements attentively and put a tick mark on any of the options given in the test of attitude and interest. After attempting all the items from both the tools the researcher collected the sheets.

In this way, the researcher collected the desired data from 120 students of different schools (60 students each of tribal and non tribal students) of Raipur district.

3.4.0 Statistical Techniques used

The statistical techniques used in the present study for analyzing date are given here objective wise.

1. For comparison of attitude towards science of Tribal and Non-tribal students t-test is employed.
2. For comparison of attitude towards science of tribal boys and Non-tribal girls' t-test is employed.
3. For comparison of attitude towards science of tribal girls and Non-tribal girls' t-test is employed.
4. For comparison of attitude towards science of tribal boys and tribal girls t-test is employed.
5. For comparison of attitude towards science of non-tribal boys and non-tribal girls t-test is employed.

6. For comparison of interest towards science of tribal and non-tribal students t-test is employed.

7. For comparison of interest towards science of tribal boys and non-tribal boys t-test is employed.

8. For comparison of interest towards science of tribal girls and non-tribal girls t-test is employed.

9. For comparison of interest towards science of tribal boys and tribal girls t-test is employed.

10. For comparison of interest towards science of non-tribal boy and non-tribal girls t-test is employed.

11. For studying the relation between the attitude towards science and interest towards science co-relation is employed.

12. For studying the relation between the attitude towards science and interest towards science co-relation is employed.