



CHAPTER-III
METHODOLOGY

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3.0.0 INTRODUCTION

The background, objectives and the rationale of the study along with the delimitations of the study are presented in Chapter 1. The reviews of related literature are presented in Chapter II along with the summary. In the present Chapter, the methodology, sample, tools, the procedures of data collection and the techniques of analysis of data of the study are presented under separate heading, below

3.1.0 METHODOLOGY

Researches in the field of academic achievement have employed different methods of study for investigating different relationships. Method of research is also determined by the theory and objectives of the problem to be studied. The problem to be investigated for the present study concerns with academic achievement of scheduled tribe secondary school students in relation to their home environment, school environment and study habits.

The descriptive survey method is used in the present investigation. It describes the current position of the research work. It involves interpretation, comparison, measurement, classification, evaluation and generalization. All these direct towards a proper understanding solution of significant educational problem.

3.2.0 RESEARCH DESIGN

“A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure.” In fact, the research design is the conceptual structure within which research is conducted, it constitutes the blueprint for the collection, measurement and analysis of data. Research design stands for advance planning of the methods to be adopted for collecting the relevant data and the techniques to be used for their analysis keeping in view of the research objectives.

Design of the study is an essential part of a research project. Because design provides a picture of what and how to do the work before starting. It has been determined from time to time that a suitable research design guards against the collection of irrelevant data and grate more economy. So, in any research project, design provides the researcher a blueprint of research which dictates the boundaries of project and helps in controlling the experimental, extraneous error, variances of the problem under investigation etc.

3.3.0 POPULATION AND SAMPLE OF THE PRESENT STUDY

The population and the sample taken for the study is presented as under.

3.3.1 POPULATION

The target population for the study consisted of Class IX tribal students of secondary schools in Koraput district, Odisha. The sample included both these students and their teachers.

3.3.2 SAMPLE PARTICIPANT

Sampling is very important and crucial part of behavioural research. It is indispensable to educational research. The research work cannot be undertaken without the selection of sample. The study of entire target population is practically not possible. Cost, time and other factors come in the way of studying of the total target population. Sampling makes the research feasible within the available resources.

David S. Fox (1969) remarks, “It is not possible to collect data from every respondent relevant to our study, but only from some fractional part of the respondents. This process of selecting the fractional part is called sampling.

Table – 3.1: School wise Distribution of sample Teachers and Students

Sl. No	Name of the School	No. Student	No. Teacher
1	Govt. High School Koraput	5	1
2	Govt. Ug High School Nandigaon	5	1
3	Govt. Ug High School Borigumma	5	1
4	Shri Aurobindo School	5	1
5	Govt. High School Padwa	5	1
6	OAV Parajapukki	5	1
7	SVBV School Koraput	5	1
8	Govt. High School Dolopur	5	1
9	Govt. High School Dasmantpur	5	1
10	EMRS Pungar	5	1
11	Sangana High School Laxmipur	5	1
12	PM Shree KV Koraput	5	1
13	J E L C High School Jeypore	5	1
14	Govt. SSD High School Panchada	5	1
15	SSVM Mathalput	5	1
16	Govt. High School Kamta	5	1
17	Govt. High School Nandpur	5	1
18	OAV Jayantgiri	5	1
19	Modern School Jeypore	5	1
20	Anand Niketan School Lamtaput	5	1
	Total	100	20

The target population will consist of IX class tribal students enrolled in 20 schools across the Koraput district. Random sampling technique was employed for the study. Twenty secondary schools of Koraput, Odisha were selected for the study. As the study was related to the secondary school teacher and the students, so 20 teachers and 100 students, including were the sample for the study. The details description of the sample is given in Table – 3.1.

3.3.3 SAMPLE SIZE

Keeping in view the objectives as well as design of the study, approximately 100 students and 20 Teacher will be surveyed to obtain a reliable dataset.

3.3.4 SAMPLING METHOD

A stratified random sampling technique will be used to select participants from different schools to ensure representation from various tribal communities.

3.4.0 VARIABLES OF THE STUDY

There are Eight independent variable and one dependent variables in this study which are as under:

3.4.1 INDEPENDENT VARIABLES

These are the factors that may influence or effect the student's mathematics achievement.

- i. socio-economic background
- ii. Parental education
- iii. Parental occupation
- iv. Geographical location
- v. Attendance rate
- vi. Problems faced by the students
- vii. Distance to school
- viii. Well-constructed road to school

3.4.2 DEPENDENT VARIABLE

- i. Student Academic Achievement

3.5.0 TOOLS AND TECHNIQUES OF DATA COLLECTION

The following tools will be used for the study:

- i. Questionnaire for Student
- ii. Classroom Observation Schedule

3.6.0 PROCEDURE OF DATA COLLECTION

To collect the data, the researcher took written permission from the District Education Officer, Heads and Principals of the selected schools. Before using the tools, the purpose of the study was explained to them in advance in a clear and simple manner. This helped the teachers and students to participate honestly and without any hesitation. The written permission was properly signed by the concerned authorities.

The investigator requested the Principals/Head of the sample schools to grant permission to conduct the work. Before the collection of data in each sample school, one day spent in rapport establishment with the students. The objectives of the tests were explained to the students. They were taken into confidence that these tests will not affect in any way their annual results and the answers given by them will be kept confidential. The help of the concerned teacher was solicited to enlist the responses from the respondents and for proper administration of the test.

3.7.0 STATISTICAL TECHNIQUES USED FOR ANALYSIS OF DATA

Keeping in view the objectives as well as design of the study, Percentage, Percentiles, Mean, and SD will be employed for the analysis of data. Qualitative analysis will be done for the data related to the Observation Schedule.

The analysis and interpretations of the data are presented in Chapter- IV.