

CHAPTER-III

RESEARCH DESIGN

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3.1 INTRODUCTION

The need to lay down minimum levels of learning emerged from the basic concern that irrespective to caste, creed, location or work, all children must be given access to education of a comparable standard. This will provide equity and reduce the existing disparities in the levels of learning.

To obtain the goal of attaining minimum level of learning it was necessary to access the present level of learning at the elementary school level, particularly of the science students.

The Problem :

The present study aimed at accessing the level of academic achievement in environmental studies, particularly in science. The problem states as-

"To Study the Level of Achievement of 5th Grade Students of Tribal and Non-Tribal Areas in Some Selected Completencies of Environmental Studies"

3.2 OBJECTIVES OF THE STUDY

Following were the objectives of the study.

1. To study the level of achievement of 5th grade students in some selected competencies of environmental studies,
2. To study, the levels of achievement of the students from tribal and non-tribal areas.
3. To study the levels of achievement of male and female students.
4. To study the effect of parental education on the levels of achievement.
5. To study the effect of parental occupation on the levels of achievement.
- 6 . To study the effect of family size on the levels of achievement.

3.3 SAMPLE SELECTION.

For the Present study 5th grade students from 12 primary schools were selected on stratified random sampling basis. Out of these 12 schools, 7 schools were from tribal area of Shahdol district and 5 schools were from non tribal area i.e. Bhopal district. The details of the sample are given in table 3.1

Table - 3.1

Details of the sample included in The study.

S. No.	Area	School	Sample		
			Boys	Girls	Total
1.	Tribal Area	1. Shishu Bharti School Kotma	7	7	14
2.		2. Govt Primary Girls School, Sakola	-	15	15
3.		3. Gulab Vidyalaya Kotma	10	5	15
4.		4. Vivek Shishu Niketan Kotma	8	7	15
5.		5. Govt. Primary School Kotma	7	7	14
6.		6. Primary School Basti	5	10	15
7.		7. Saraswati Shishu Mandir Kotma	14	2	16
8.	Non- Tribal Area	1. Saraswati Central Academy Bhopal	10	11	21
9.		2. Shiva School Kamla Nagar Bhopal	11	10	21
10.		3. Avantika Shiksha Mandir Bhopal	12	9	21
11.		4. Raja Bhoj School Arera Colony Bhopal	6	14	20
12.		5. Saviour Convent School Bhopal	10	9	19
		Total Sample	100	106	206

मध्यप्रदेश के जिलों में
साक्षरता का प्रतिशत





Parental Education wise details of sample are given in Table No. 3.2

Table - 3.2

Parental Education wise distribution of sample

S.No.	Parental Education	No of Students		Total
		Tribal Area	Non Tribal Area	
1.	Upto Primary Level	38	22	60
2.	Upto Higher Secondary Level	46	56	102
3.	More than Higher Secondary level	20	24	44
	Total	104	102	206

Parental occupation was divided into three categories i.e. Bussiness, service and other occupation. The detail of the sample are shown in Table No 3.3 .

Table - 3.3

Parental Occupation wise distribution of sample

S.No.	Parental Education	No of Students		Total
		Tribal Area	Non Tribal Area	
1.	Service	46	57	103
2.	Bussiness	33	16	49
3.	Other Occupation	25	29	54
	Total	104	102	206

Family size included the parents and number of dependent members. Family size was divided into four categories. The details are given in table No 3.4

Table - 3.4

Family size wise distribution of the sample

S.No.	Family Size	No of Students		Total
		Tribal Area	Non Tribal Area	
1.	Upto 4 members	9	10	19
2.	Upto 6 Members	48	44	92
3.	Upto 8 members	23	36	59
4.	More than 8 members	24	12	36
	Total	104	102	206

3.4. GEOGRAPHICAL LOCALE

The present study was conducted in two areas i.e. tribal area and non tribal area. Kotma tahsil of Shadol district, which is a tribal district, was selected for collection of data. Kotma is in coal mines area. Most of the parents were in service in coal mines. They were also aware about the education of their children.

Bhopal city was selected for collection the data from non tribal area. From Bhopal only those schools were included in sample where the students from middle class families were studing.

3.5 TOOL

For the assessment of level of achievement in environmental studies objective type questions based achievement test was prepared. The questions were framed on the four competencies. These were based on minimum level of learning at primary stage in class V. These competencies were suggested by the committee set up by the ministry of Human Resource Development, Govt. of India and Published by National Council of Educational Research and Training, New Delhi. Following are the four competencies-

- Competency 7. The pupil understands the factors contributing the preservation of good health.
- Competency 8. The pupil develops skill in gathering and classifying information about living things from one's environment and drawing simple inferences.
- Competency 9. The pupil observes and examines some common characteristics of non-living things
- Competency 10. The pupil observes simple phenomenon on the earth and in the Sky and draws inferences.

3.6 METHODOLOGY

For construction of achievement test 30 questions were framed from the text book prescribed for environmental studies in Madhya Pradesh. The test paper was modified according to the suggestions given by educationist working in the field of M.L.L

The question paper was tried out in a local school, on 40 students, 20 boys & 20 girls.

Finally 24 questions were selected, in such way that 6 questions were from each competency.

Students were asked to give information about their family size, parental education and parental occupation.

One mark was awarded for each right answer. No mark was awarded for the wrong answer or left out question.

3.7 BASIC ASSUMPTIONS

The study was based on the following basic assumptions.

1. Parental education has positive impact on the academic achievement of a child.
2. Parental occupation has great bearing on building up the scientific attitude of the students. This effects the academic achievement.
3. All the members of a family share the physical facilities of the home. This effects the academic achievement of the school going children.

3.8 DELIMITATIONS

The study was subjected to the following delimitations :

1. The study was conducted in the coal mines area of Kotma block of the tribal district Shadol
2. The study was conducted on the V grade students only.

3. Questions were framed only on the competencies related to environmental studies.

3.9 STATISTICS USED

For the interpretation of the data, raw scores were classified & tabulated into different categories.

Category-wise and competency-wise mean score, and percentage score, S.D. and co-efficient of variation was calculated.

Significance of difference among the categories was determined by calculating critical ratio.

3.10 TECHNICAL TERMS DEFINED

1. LEVEL OF ACHIEVEMENT

Raw scores of achievement test in environmental studies, particularly in science, was taken as level of achievement.

2. TRIBAL AREAS

Areas where population of schedule tribes is in majority and are also tribal areas by the Govt. of India.

3.11 HYPOTHESES

The study is based on the following hypotheses

- Ho¹. There is no significant difference in the level of achievement of the pupils on the basis of gender.
- Ho². There is no significant difference in the level of achievement of the pupils of tribal and non-tribal areas.
- Ho³. Parents occupation does not effect the level of achievement of the pupils.
- Ho⁴. Parental education does not effect the level of achievement of the pupils.
- Ho⁵. Family size has no effect on pupils' achievement.