



CHAPTER - III

METHODOLOGY

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3.1 INTRODUCTION

The present chapter provides an overall description of all the procedures followed by the investigator for conducting the study. Precisely they include :-

- Sample
- Variables of the study
- Tools used for data collection
- Procedure of administering and scoring of the tests.

3.2 SAMPLE

A sample is a small proportion of a population selected for observation and analysis. By observing the characteristics of the sample, one can make certain inference about the characteristics of the population from which it is drawn.

Due to lack of time, money and manpower every individual in the population can hardly be studied, the best way to study population is through representative sample by the suitable techniques.

A sample of about 41 boys and girls students from the VII grade in the age range from 11 to 13 years was drawn

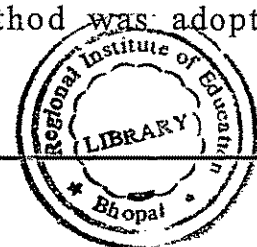
from the following schools of the B.H.E.L. area, Bhopal. Out of four schools, two were private and rest two were society schools. The children who were slow learners was identified using teacher's opinion. The teachers gave their opinion on the basis of checklist provided for the identification in classroom (Annexure-1).

Table 3.1

Sample suggested by the Teachers

S.No.	Name of the School	Total Students in the class	Total Number of slow learners (teacher's opinion)
(I)	Private Schools		
1.	School A	55	14
2.	School B	36	06
(II)	Society Schools		
1.	School C	52	10
2.	School D	56	11
		199	41

To Maintain the confidentiality of the school, name of the schools are kept secret. As the time was short at the disposal of the experiment, so Purposive sampling method was adopted by the investigator.



3.3 VARIABLES OF THE STUDY

Variables are attributes or qualities which exhibit difference in magnitude, and which vary along some dimensions. Variables taken into consideration in this study were as follows.

3.3.1. Independent Variables -

The study had been conducted on a selected sample of VII grade boys and girls of both society and private schools. Hence gender and grade were the independent variables.

3.3.2. Dependent Variable -

Characteristics of the slow learners were the dependent variables.

3.4 TOOLS AND TECHNIQUE

In order to identify the slow learners the following tools were used for the collection of data :

- Checklist (Self made) for the identification of slow learners in the classroom (Annexure-1)
- Shrinivasan's Intelligence test. (Verbal test)
- Raven's standard progressive Matrices. (Non Verbal test)

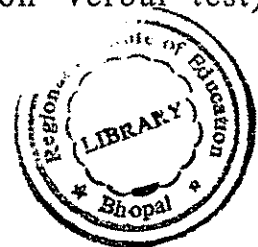




Table 3.2

Schedule of Data Collection for
Private and Society School

SOCIETY SCHOOLS

Sl. No.	Name of the School	Date	Test	Time	Class
1.	School A	3 rd Feb. 2001	Checklist for teachers	-	VII B
		5 th Feb. 2001	Intelligence test i). Verbal ii). Non Verbal	1.00 to 1.30 1.40 to 2.00	
2.	School B	3 rd Feb. 2001	Checklist for teachers	-	VII A
		5 th Feb. 2001	Intelligence test i). Verbal ii). Non Verbal	3.00 to 3.30 3.40 to 4.00	

PRIVATE SCHOOLS

Sl. No.	Name of the School	Date	Test	Time	Class
1.	School C	5 th Feb. 2001	Checklist for teachers	-	VII A
		12 th Feb. 2001	Intelligence test i). Verbal ii). Non Verbal	1.00 to 1.30 1.45 to 11.05	

2.	School D	12 th Feb.	Checklist	-	VII A
		2001	for teachers		
		14 th Feb.	Intelligence test		
		2001	i). Verbal	2.00 to 2.30	
			ii). Non Verbal	2.45 to 3.05	

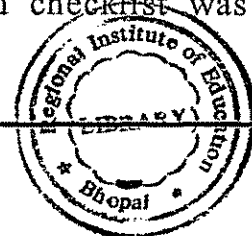
DESCRIPTION OF TOOLS :

Checklist

This Checklist (Self made) was used by the investigator to identify the slow learners. This checklist consists of 51 characteristics which was further divided into 5 aspects/problems i.e. intellectual problems, auditory perceptual problems, language related problems, behavioural problems and social and emotional problems which slow learners exhibit in the classroom. This checklist was based on 2 point scale (occasionally and frequently) The Checklist was prepared referring several books and on the basis of characteristics that slow learners possess.

As the checklist was self made i.e. not standardized; so it was necessary to check the reliability and validity of the checklist. For checking the reliability and validity the checklist was provided to three educational psychologist and one clinical psychologist. A pilot training was done in one school for the objectivity of the test.

On the basis of the suggestions given by different psychologists and teachers, again a modified checklist was developed by the investigator.



Shrinivashan's Intelligence Test

In the present study verbal intelligence test had been used for verification of slow learners. The scale was conducted in 1993 by P. Shrinivasan and L.N. Dubey. This is a standard test that can be given within a class period to a single individual or in group to yield a general assignment of intelligence development.

It has a retest reliability varying with age from 0.86 to 0.78

This test has 4 subsets.

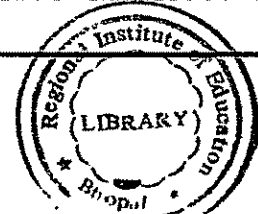
1. Classification
2. Analogy.
3. Assigning artificial value to arithmetical signs.
4. Reasoning ability.

This scale consists of 60 problems divided into sets of 15. The sequence of problems of each subsets goes from simple towards complex.

Raven's Standard Progressive Matrices

The students studying in society and private schools are of different backgrounds and socio-Economic Status. Therefore it was also necessary to select a test which might emphasize cultural freedom and non-verbal in essence.

A useful practice which is often adopted and which pertain to description of a scale to emphasize clarity of thinking and observation each problem in the scale is a source of system of thought, which derives its name a "Progressive Matrices".



This scale was conducted in 1938 but a small correction was made to the original item B-8, to improve its abstract order of difficulty and effective problematic range. It has a retest reliability varying with age from 0.83 to 0.93. It correlates 0.86 with the Terman Merrill scale and has been found to have a saturation of 0.62.

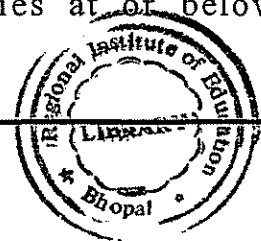
Raven's Progressive Matrices have 3 different parts

1. Standard progressive Matrices, sets A, B, C, D and E
2. Coloured Progressive Matrices, sets A, Ab and B.
3. Advanced Progressive Matrices, sets 1 and 2.

In the present study standard Progressive Matrices has been used for the identification of slow learning students. It has 5 sets of problems A, B, C, D and E. This is a test of apprehend meaningless figures presented for his observation and to determine the relationship between them.

The author has given following classification of person based on the performance of test scores Grade :-

- (1) "Intellectually Superior", if his scores lies at or above 95th percentile for people of his age group;
- (2) "definitely above the average in Intellectual capacity" if his score lies at or above the 75th percentile;
- (3) "definitely below average in intellectual capacity" if his score lie at or below 20th percentile;
- (4) "Intellectually defective" if his score lies at or below 5th percentile for his age group.



3.5 ADMINISTRATION AND SCORING OF TOOLS

The head of institution were contacted to administer the tools. After getting permission, the class teacher, science teacher and language teacher were contacted and checklist were provided to suggest the name of students. Then the intelligence test i.e. verbal and non-verbal test were administered on the students. Group test were conducted for saving the time.

1. Administration of checklist

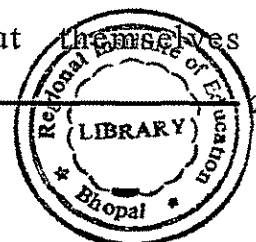
First of all, Investigator had given an information about slow learners in a nutshell, then provide copies of checklist to science teacher, English teacher and class teacher to go through and ask them to list out the name of students showing these characteristics frequently and occasionally.

Scoring

Checklist was based on 2 point scale i.e. occasionally and frequently, Investigator only accept those students who show these characteristics frequently and reject those students who show these characteristics occasionally because normal/average students can also show these characteristics occasionally.

2. Administration of Non-Verbal Test

Raven's standard progressive matrices was administered on the sample of 41 students of 10-12 yrs. age group belonging to private and society schools of B.H.E.L. area Bhopal. First of all record form were distributed. The students to be tested were asked to fill in the particulars about themselves on



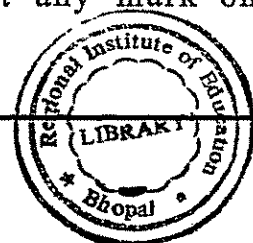
the record form and when this had been done the test booklet were distributed. The instructions for completing the test were given and students were asked to finish the test. Time for starting the test was the same, but the time of completing a task was noted individually when the students handed over the answer sheets. Average time taken by the students to complete the test was 20 min. Record answer sheets were collected by the investigator.

Scoring

The response sheets were scored with the help of scoring key given by Raven. Every problem had 4 alternatives out of these four alternate answers one answer was correct. Allot one mark for the correct answer and zero for the incorrect answer. Sum up all the marks and interpretation of test scores was based on percentiles depending on the norms based on the age of the child. From this test only the grade/category were find out in which students belongs.

3. Administration of Verbal Intelligence Test

The test was administered on students who were identified as slow learners, to verify them. They were seated at distance so that they could not copy. Then the instructions were properly given. Explain the questions of exercise in detail. Once the students had followed the procedure Investigator instructed that there are 60 such questions you have to solve in 30 minutes, write only the number of the answer you choose on the answer sheet against the question number. Do not put any mark on the test paper.



Scoring

The response sheets were scored with the help of scoring key given by shrinivasan. There were 60 problems, every problem had four alternate answered. Out of these 4 alternatives one answer was correct. Each correct answer had scored one marks and every wrong answer had scored zero marks. Then sum up all the marks and convert these row scores into mental age. Then compute the Intelligence quotient and interpret in terms of category of Intelligence.

3.6 STATISTICS USED

In the present study, Descriptive statistics is used. First the mean of the characteristics was found out and then the percentage were calculated. These are presented in graphical form also. It is discussed in detail in chapter IV.

