

# CHAPTER - III

## PROCEDURE AND TECHNIQUES

- 3.1 INTRODUCTION
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## 3.1 INTRODUCTION

A well designed study/research procedure & use of appropriate techniques defines the methodology of Research. It not only make the study scientifically sound & plausible but also gives credibility to the findings.

This chapter deals with the methodology used in the present study. A well thought & well-arranged plan plays its own important role.

Selection of an appropriate & representative sample is necessary for valid & reliable results. Similarly selection of good reliable tools is also very important for better results. Selection of appropriate techniques lead to produce valid results.

It is correctly defined by M-Varma "Research is an intellectual activity which brings to light, new knowledge, or correct previous errors & misconceptions & adds to the existing corpus of knowledge".

## 3.2 SAMPLE OF THE STUDY

In the words of Karlinger (1982) "Sample is a part taken from the population which represents the population wholly and truly".

For the selection of sample required identificaiton of schools, consulting the principal for permission, approaching teachers & obtaining a list of students having problems & supplying the checklist to the parents & the nursery teachers of the identified students. The purposiive sampling technique has been used for the selection of the sample. Bhopal city has been selected for the present study. The sample consist of 30 learners from seven public school of grade III, IV & V.

### 3.2.1 METHOD OF SAMPLING

Keeping in view the nature of the problem & population under investigation it avail-

ability suitability, suitable time, money & manpower purposive sampling method was used.

### 3.2.2 CRITERIA FOR SELECTION OF STUDENTS.

1. Selection of schools with nursery to primary classes.
2. Students continuing same school from pre-primary to primary.
3. School with students from families of economic status & not from slums.
4. Co-operative & committed & teachers of primary classes.
5. Experienced & dedicated Nursery teachers.

### 3.2.3 METHOD OF SAMPLE SELECTION

Keeping in view, the nature of the problem & population under investigation, its availability, time suitability, money & manpower the method of sampling should be adopted. The best way to study population is through representative sample by the suitable techniques.

As the time was short at the disposal of experiment. Therefore purposive sampling method was adopted by the researcher.

### 3.2.4 SIZE OF SAMPLE

For the attainment of subsequent objectives of study, a sample of 30 students (boys and girls) from the grades III, IV & V, in the age group of 8-11 yrs. was drawn from the seven (7) public schools of Bhopal, on the basis of their access & criteria for selection.

To maintain the confidentiality of the school & parents, name of the school & students are not disclosed.

The following methodology was adopted to identify the children with LP's

1) The students with learning problems were identified with the help of teacher opinion. The teachers gave their opinion on the basis of instructions given by researcher to identify such children.

2) Being a retrogressive study, the pre-primary teachers of these identified students was given/provided by the checklist developed by the supervisor & researcher, Regional Institute of Education, Bhopal to identify specific learning problems characteristics which the student performed was in Nursery / KG.

3) The same checklist was given to the parents of the identified student when their kid was 2-3 years of age.

**Table 3.2.1** Sample of the study as selected by the teachers

S.No.	Name of the School	Total No. of school identified as at risk
1	School A	12
2	School B	04
3	School C	02
4	School D	02
5	School E	05
6	School F	02
7	School G	03
		n = 30

**Table 3.2.2** Details of learners of each school

**I) School A**

S.No.	Class	Boys	Girls	Total Learners
1	III	01	02	03
2	IV	05	-	05
3	V	03	01	04
			<b>Total</b>	<b>12</b>

**II) School B**

S.No.	Class	Boys	Girls	Total Learners
1	III	01	01	02
2	IV	01	-	01
3	V	01	-	01
<b>Total</b>				<b>04</b>

**III) School C**

S.No.	Class	Boys	Girls	Total Learners
1	III	-	-	00
2	IV	01	-	01
3	V	01	-	01
<b>Total</b>				<b>02</b>

**IV) School D**

S.No.	Class	Boys	Girls	Total Learners
1	III	-	-	00
2	IV	02	-	02
3	V	-	-	00
<b>Total</b>				<b>02</b>

**V) School E**

S.No.	Class	Boys	Girls	Total Learners
1	III	04	01	05
2	IV	-	-	00
3	V	-	-	00
<b>Total</b>				<b>05</b>

**VI School F**

S.No.	Class	Boys	Girls	Total Learners
1	III	01	-	01
2	IV	-	-	00
3	V	-	01	01
<b>Total</b>				<b>02</b>

**VII) School G**

S.No.	Class	Boys	Girls	Total Learners
1	III	02	-	02
2	IV	01	-	01
3	V	-	-	00
<b>Total</b>				<b>03</b>

# BHOPAL

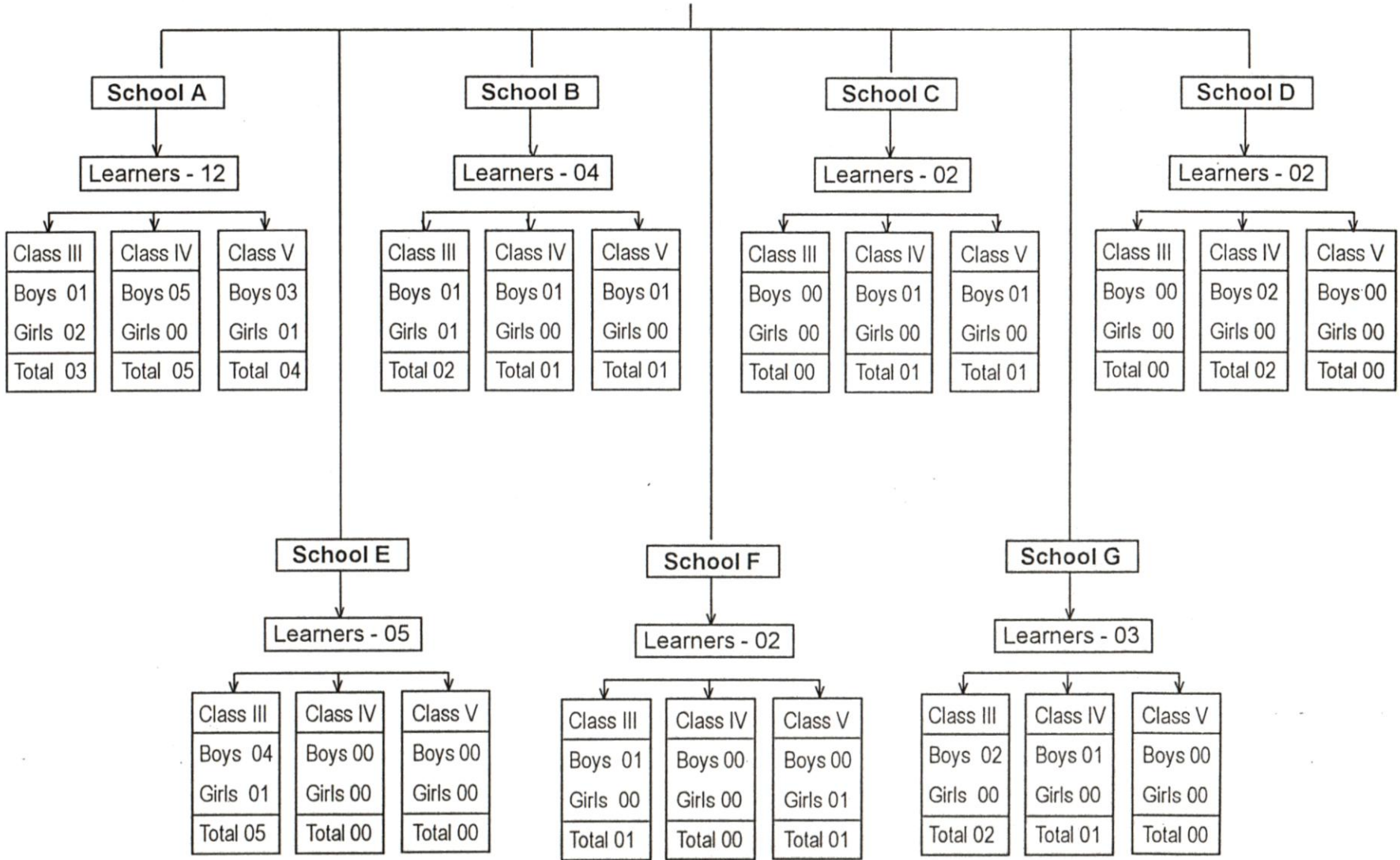


Fig. 1 : Showing Sampling Distribution

**Table 3.2.3** Class wise Total No. of Boys & Girls in all schools

Class	Boys	Girls	Total
III	09	04	13
IV	10	00	10
V	05	02	07
<b>Total</b>	<b>24</b>	<b>06</b>	<b>30</b>

### 3.2.5 VARIABLES of THE STUDY

Variables are attributes/qualities which exhibit difference in magnitude & which vary along certain dimensions. Variables taken into consideration in this study were-

#### a) Independent Variables

The study had been conducted on a selected sample of Grade III, IV & V boys & girls of public school. Therefore gender & grade were the independent variables

#### b) Dependent Variables

Characteristics of Learning problems were the dependent variables.

1. Hyperactivity
2. Difficulty following Verbal Instruction
3. Difficulty following Visual Perception
4. Difficulty in conserving
5. Spatial Orientation (Spatial temporal relationship)
6. Auditory blending .
7. Unable to organize information.



8. Distractibility.
9. Perseveration.
10. Memory.
11. Poor gross motor coordination
12. Clumsy in mobility.
13. Poor Eye Hand Coordination
14. Impulsivity.
15. Lack of interest
16. Difficulty in oral expression.

### 3.3 SELECTION of TOOLS

In any research work importance of tools is well known. During research process efficient use of tools with due precautions leads to produce reliable results.

Checklist for teachers & parents have been developed according to study & indicators to Learning problems by J. Narayanan & of Learning Disabilities by Roa Lynn(1979) & Bill R.Gearheart (1981) & according to the need of the study by the investigator under the noble guidance of subject experts of RIE, Bhopal.

Text-books, T-L material of pre-primary of local public schools, & several magazines & journalists were consulted during the development process of tests.

Each early indicator was studied & behaviour attributed to each indicator was converted into items. In all 25 early indicators had been worked out. These were converted tool items & the checklist was prepared.

Due to overlapping & after suggestions by experts the items were rearranged, corrected and arrived at 25 items in the model check list i.e. in all 16 early indicators were finally

selected for the check list.

The tool is mainly based on developmental milestones of the child & behavioural pattern in pre school years. A self made checklist was prepared by the investigator to know the extent of identified early indicator and its attributes present in the selected sample. Two sets of tools were made. One set was provided to the pre school teachers of the student & the second tool to their parents.

Two options including 'Yes' or 'No' were given for response. The items included were based on the reported early indicators in literature (Fawcett & Nicolson, 1995 ; CCLD, 1997 & Johnson, Gallagher, Cook & Wong, 1995) & the frequent observations were made.

A column for reporting any other significant observation of the parent was included.

The early indicator for the check list were selected by an independent study by Prof. J. Narayanan & Pupil Behaviour rating scale by Gearheart (1973). A field trial of the tool was conducted on 15 parents to ensure clarity of language & relevance of information asked. Suitable modification were made accordingly.

### **3.4 DESCRIPTION OF CHECKLIST FOR THE IDENTIFICATION OF EARLY INDICATORS OF LEARNING PROBLEMS AMONG CHILDREN.**

#### **3.4.1. Hyperactivity :**

Learning disabled children may be hyperactive. This is particularly true among those with actual brain insult. These children have been described as restless, fidgety, unable to sit still. It is not always that any action is much a problem in triple-time is problem to others. Because he is doing so much he is certain to cause trouble sooner or later. Also with so much movt. it is difficult for him to attend to anything long enough to achieve much academically.

### 3.4.2. Difficulty in Verbal Instruction

Unable to follow instructions & thus needs to be told repeatedly & responses are also confused & delayed.

### 3.4.3. Difficulty following Visual Perception

These might include disorders of visual, auditory, actual or kinesthetic perception. Less likely are disorders of orfactory or gustatory perception, however these result in lesser academic problems.

The child with visual perceptual problems may not be able to copy letters correctly, or to perceive the difference between a hexagon & an octagon. He may reverse letters or produce mirror writing. The child with auditory perception problems may not perceive the difference between various consonant blends or be able to differentiate between the front door bell & the first ring of the telephone.

### 3.4.4. CONSERVATION

According to Piaget's theory the ability to retain a concept of area, mass, length etc., when superficial changes are made in the apperarnace of an object / scene.

### 3.4.5. SPATIAL ORIENTATION

This refers to the understanding of position in space & the relationship between themselves & the objects around them. Children with poor spatial orientation cannot recognize objects. shapes when placed in different positions. He sees letters transposed Eg. 'd' as 'b', 'p' as 'q', 'm' as 'w' etc or viceversa.

### 3.4.6. AUDITORY BLENDING

This early indicator hinders the enhancement capacity & ability to understand,

follow and comprehend spoken language, frequently sees letters transposed or in reverse order.

### **3.4.7. UNABLE TO ORGANISE INFORMATION**

Highly disorganized manner of working careless, inexact, very slovenly

### **3.4.8. DISTRACTIBILITY**

Tendency to be easily drawn away from any task at hand & to focus an extraneous stimulus of the moment.

### **3.4.9. PERSEVERATION**

A may persevere or repeat persistently, in almost any behavioural area, but this is mostly seen in writing or copying. A child may copy a word over & over again involuntarily. He may also persevere in oral response.

### **3.4.10. MEMORY DISORDERS**

This may include either auditory/visual memory. Memory is a complex process & is not fully understood, although various individuals have established theories that explain various observable facets of memory.

Eg. Children - cannot repeat a simple sequence of 3 words immediately after hearing them. This kind of auditory memory deficit seriously affects the learning process.

### **3.4.11. POOR GROSS MOTOR CO-ORDINATION**

Although highly coordinated children may have learning problems, lack of coordination is often observed in children with LD's. The younger school child with LD's is often slower to develop the ability to throw or catch a ball, to skip, to run. He is also likely to have difficulty in writing & other fine motor skills. He may be just generally clumsy in mobility, he may stumble or

fall frequently. Some coordination problems are actually related to kinesthetic perceptual problems, an inability to properly assess position in space, balance or both.

#### **3.4.12. Clumsy in Mobility :**

Its major attributes are frequent accidents or frequently bumped in to things or people or got hurt physically.

#### **3.4.13. POOR EYE-HAND COORDINATION**

It is the inability to integrate body movements & visual skills.

#### **3.4.14. Impulsivity**

Iniciation of sudden action without sufficient forethought or prudence.

#### **3.4.15. LACK OF INTEREST :**

It is a matter of actual inability to focus on any particular activity for any length of time. The child has over anxiety, careless, talks too much & loudly, which are not child's playfulness but characteristics of Attention Deficit Disorder (ADD)

The main reason for this factor is a minor injury to brain or dysfunction. The % of such children in an average class is 3 to 5% & majority of parents & teachers are unable to recognize them. These children are unable to concentrate hence are not able to do their work timely & effectively. Such children are not able to continue their studies for longer time & face problems in learning anything.

#### **3.4.16. Difficulty in ORAL EXPRESSION**

Difficulty in pronouncing specific syllables or sound while speaking

### 3.5 SCORING

Checklist was based on one point scale i.e. yes or No. The scores were allotted to each item for 'yes' as 1 and 0 for 'no'. Scores to each early indicator was the no. of items included under each.

Table 3.5.1 Scoring for each attribute or item

S.No.	Item No.	Marks Alloted	Description of early indicator
1	1	1	Hyperactivity
	2	1	
	3	1	
	<b>Total</b>	<b>3</b>	
2	4	1	Verbal instruction
	5	1	
	<b>Total</b>	<b>2</b>	
3	6	1	Visual Perception
	a		
	b		
	c	1	
	<b>Total</b>	<b>3</b>	
4	7	1	Conservation
	a		
	b		
	c	1	
	<b>Total</b>	<b>3</b>	

5	8		Spatial orientation
	a	1	
	b	1	
	c	1	
	d	1	
	e	1	
	<b>Total</b>	<b>5</b>	
6	9		Auditorial Blending
	a	1	
	b	1	
	c	1	
	d	1	
	<b>Total</b>	<b>4</b>	
7	10	1	Unable to organize information
	<b>Total</b>	<b>1</b>	
8	11	1	Distractibility
	<b>Total</b>	<b>1</b>	
9	12		Perseveration
	a	1	
	b	1	
	<b>Total</b>	<b>2</b>	
10	13	1	Memory
	<b>Total</b>	<b>1</b>	
11	14	1	Poor Gross Motor Coordination
	15	1	
	16	1	
	17	1	
	<b>Total</b>	<b>4</b>	

12	18	1	Clumsy in mobility
	<b>Total</b>	<b>1</b>	
13	19		
	a	1	
	b	1	Poor Eye-Hand Coordination
	20	1	
	<b>Total</b>	<b>3</b>	
14	21	1	Impulsivity
	<b>Total</b>	<b>1</b>	
15	22	1	
	23	1	Lack of Interest
	<b>Total</b>	<b>2</b>	
16	24	1	Oral Expression
	25	1	
	<b>Total</b>	<b>2</b>	

### 3.6 STATISTICAL TECHNIQUE

Various statistical technique were used i.e. mean, SD, percentage, frequencies, t-test, one-way ANOVA for knowing all the distributions & difference between categories, gender and influence of class on early indicator.

