

# **CHAPTER - III**

## **DESIGN OF THE RESEARCH**

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### DESIGN OF THE RESEARCH

"Evolving a good design, of course, is much harder than criticising a bad one. It requires skills and ingenuity to use statistical theory effectively in solving specific problem of design. For solving specific problems, statisticians have evolved an elaborate and continually growing kit of techniques. While these techniques do not reduce statistical designs to the selection of a good recipe from a cook book, they and the ideas underlying them, are extremely useful in attacking new problems"

- Wallis and Roberts

#### 3.01 INTRODUCTION

The purpose of this study is to investigate dialect interference effects on various aspects of reading attainment (accuracy and comprehension) of tribal and non tribal children. It is assumed that the accuracy and comprehension of tribal children reading standard Hindi text may be affected by their mother tongue.

The research has been designed to investigate accuracy in the form of errors (i.e. substitution, omission, distortion, addition,

repetition, reversal, and hesitation and comprehension.)

Owing to constraints of time, manpower and money, the study is small scale. Since there are tribals of several linguistic regions, only the tribals children of Shahdol district of Madhya Pradesh has been selected for the study. For comparison purposes equal number of non tribal children from same locality, school, classes and age groups have been selected. In addition to cultural factor, Gender variable has also been included in the study.

Some researchers have maintained that 'dialect interference' is most discernible in poor readers whereas others have asserted that the effect of dialect interference will only emerge in more competent readers, because interference will occur in passages that involve complex structure (Edwards, 1976). Therefore, all types of readers are included in the study.

DI effects are likely to interfere with the pupil's reading accuracy and comprehension of standard Hindi text. Socioeconomic factors have also been controlled by selecting only those schools which have similar catchment areas in terms of parental occupation and status. Grade has been controlled by taking pupil from class IV, In the study of reading attainment, the age of 7-8 is of much importance. It is

known as a period of rapidly increasing reading fluency. Therefore, at this age level, it should be possible to identify dialect interference, if any, due to bilingualism. The effects of dialect interference are reduced in older children. An equal number of tribal and non tribal children are selected.

### 3.02 OBJECTIVES

1. To compare reading accuracy of tribal and non tribal children.

2. To compare reading comprehension of tribal and nontribal children.

3. To compare reading accuracy of tribal boys and girls.

4. To compare reading comprehension of tribal boys and girls.

5. To compare reading accuracy of tribal and non tribal boys.

6. To compare reading comprehension of tribal and nontribal boys.

7. To compare reading accuracy of tribal and nontribal girls.

8. To compare reading comprehension of tribal and nontribal girls.

### 3.03 VARIABLES

Variable is a property that takes on different value (kerlinger 1964) and which vary along

some dimensions. They are the conditions or characteristics that the experimenter manipulates controls or observes, variables taken into consideration in the present study are as follows :-

### 3.04 INDEPENDENT VARIABLE

The Independent variable (hereafter IV) are the conditions or characteristics that the experimenter manipulates in his attempt to ascertain their relationship to observe phenomena. (Best 1977) The variable from which predictions are made is called as IV. The IV of the present study are as follows :

- (i) Cultural group -----|
  - Tribal
  - Non tribal
  
- (ii) Gender -----|
  - Boys
  - Girls

### 3.05 DEPENDENT VARIABLE

The Dependent variables (hereafter DV) are the conditions or characteristics that appear, dissappear or change as the experimenter introduces, removes or changes IV. (Best, 1977) The DV is not manipulated, rather it is observed for variation as a presumed result of variations in the IV. The DV is that factor which is observed and measured to determine the effect of IV. Thus the variable that is being predicted is called DV. - Reading accuracy in the form of



following errors;

- Substitution
  - Omission
  - Addition
  - Repetition
  - Reversal
  - Hesitation
  - Distortion
- Reading comprehension
- by using teacher made test.

### 3.06 CONTROL VARIABLE

Controlled variables are those factors which are controlled by the experimenter to cancel out or neutralise any affect they might otheriwse have on observed phenomenon.(Best, 1977) The controlled variables are;

- Socioeconomic factor
- Age
- Grade

### 3.07 HYPOTHESIS

Hypothesis is a shrewd guess that is formulated and provisionally adopted to explain observed factors or conditions and to guide in further investigations (Best, 1977).

Hypothesis is an assumption or

proposition whose tentability is to be tested on the basis of compatability of its implications with empirical evidence and milk previous knowledge. (Mouly, 1970).

A hypothesis is an informed guess or interference with a reasonable chance of being rightly formulated and tentatively adopted to explain observed. The scientific hypothesis parallels the common man's personal opinion a truth. (Good, 1963).

### 3.08 1.NULL HYPOTHESIS (HO)

A null hypothesis states that no relationship exists between the variables studied. Ker nger (1973)

### 2. DIRECTIONAL HYPOTHESIS (HI)

The directional hypothesis states a relationship between the variables being studied or a difference between experimental treatments that the researcher expect to emerge. (Kerlin er, 1973)

Key :-

HO = Null Hypothesis ;

HI = Directional/Alternative Hypothesis.

HO(I) : There is no real difference between the mean scorers of the tribal and non tribal children on the dependent variable (DV) accuracy.



HI(1) : There is a real difference between the mean scores of the tribal and nontribal children on the (DV) accuracy.

HO(2) : There is no real difference between the mean scores of the tribal and non-tribal childrens - comprehension.

HI(2) : There is a real difference between the mean scores of the tribal and nontribal children - comprehension.

HO(3) : There is no real difference between the mean scores of the tribal boys and girls on the DV - accuracy.

H1(3) : There is a real difference between the mean scores of the tribal boys and girls on the DV - accuracy.

HO(4) : There is no real difference between the mean scores of the tribal boys and girls on the DV - comprehension.

H1(4) : There is a real difference between the mean scores of the tribal boys and girls on the DV - comprehension.

HO(5) : There is no real difference between the mean scores of tribal boys and nontribal boys on the DV - accuracy.



H1(5) : There is a real difference between the mean scorers of tribal boys and nontribal boys on the DV - accuracy.

HO(6) : There is no real difference between the mean scores of tribal boys and nontribal boys on DV - comprehension.

H1(6) : There is a real difference between the mean scores of tribal boys and non tribal boys on DV - comprehension.

HO(7) : There is no real difference between the mean scores of tribal girls and non tribal girls on DV - accuracy.

HI(7) : There is a real difference between mean scores of tribal girls and non tribal girls on DV - accuracy.

HO(8) : There is no real difference between the mean scores of tribal girls and on tribal girls on the DV - comprehension.

HI(8) : There is a real difference between the mean scores of tribal girls and nontribal girls on DV - comprehension.

The level for significant differences between the mean for all the hypothesis is set at 5% ( $P = .05$ ).

### 3.09 TOOL USED

A self developed test was used by the investigator as tool

### 3.10 STATISTICS USED

Descriptive statistics in the form of means and standard deviations has been used to organise summarise and describe scores on dependent variable (reading accuracy and reading comprehension) for different independent variables.

Inferential statistics in the form of 't' test has been used in order to generalise the findings.

### 3.11 POPULATION

The population/target group used in a test/interview /questionnaire study is that group from which the researcher is interested in gaining information and drawing conclusion.

The population comprises of tribal and non tribal children of grade IV both boys and girls from primary schools (in tribal block of Shahdol district of M.P.) having similar catchment areas in terms of parental occupation and status.

### 3.12 SAMPLE

The technique of selecting sample

together with its size is an important aspect of research and thus enhance reliability and validity of research findings. The adequacy of a sample depend upon inverstigator's knowledge of the population or supply as well as upon themethod based in drawing the sample. Sample are of four types - Random stratified /representative, incidental and purposive. In this study a simple random sampling technique has been used. A sample of 32 students was selected (Please see table No.1) From 4 government schools of Shahdol District.

#### Random Sampling

Random sampling is that method of drawing a portion of a population or universe so that all possible samples of fixed size have the same probability of being selected (Fetter,)All the pupils are numbered from one upto the total number involved and the required number of subjects were then randomly selected. All the pupils were selected for accuracy scores and comprehension. The schools were selected on the basis of report produced by the tribal welfare department showing the number of tribal children in different primary and junior schools of that district.

The study was in two phases:

Phase I : Visited to the school that  
would be involved and selected  
the children for study.

Phase II : Individual testing of the student.

TABLE NO.1 :-SAMPLE

Tribal (N= 16)	Boys (N= 8)
	Girls (N=8)
Non Tribal (N=16)	Boys (N=8)
	Girls (N=8)
Total	N= 32

### 3.13 EXPERIMENTAL METHOD

#### FOR READING ACCURACY

The reading accuracy scores of all the 32 pupils were obtained through an oral reading assessment each pupil was given three passages developed by the investigator and was asked to read aloud one by one. Any error made by the pupil noted and marked on the record sheet by the investigator. The oral reading of the pupil was tape recorded as well.

#### FOR READING COMPREHENSION.

The subjects were allowed to read the passage aloud. The questions testing comprehension were asked immediately and comprehension scores were obtained.

### 3.14 SCORING OF RESPONSES AND TABULATION OF DATA

The criteria of scoring in reading accuracy was the number of mistakes/errors made and for comprehension was the number of correct answers given by the student. Errors and correct answers given by the students in this study has been depicted in tabulated form in table no 2. and table no. 3.

### 3.15 DELIMITATION

Every research work has some delimitations and the delimitation of this study are :

1. The sample of this study was confined to 32 tribal and non tribal children of Shahdol district only.

2. The identification of the tribal and non tribal children was done from the information given by the school.

3. Problems in reading accuracy and comprehension were identified, other skills like writing, spelling and arithmetic were not taken into consideration.

4. The test developed by the investigator for reading accuracy and comprehension has not been standardised, its validity and reliability has not been checked due to shortage of time.

5. Only few threats to validity (internal, external) has been controlled by the investigator.