

## **CHAPTER - III**

# **DESIGN OF THE RESEARCH**

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### 3.0 Introduction -

The planning of the educational research cannot be completed without a detailed design of investigation. This is to be considered as the heart and soul of the investigation. Infact it is the blue print of the detailed procedure of testing the hypothesis and analyzing the obtained data. A systematic research study calls for appropriate selection of sample and planned usage of tools and statistical design.

According to Tuckman (1978), "A research design is a specification of operations for the testing of hypothesis under a given set of conditions".

The purpose of this study was to know the learning difficulties in English as a second language.

### 3.1 The Research design includes -

- (i) Objectives of study.
- (ii) Research question & hypothesis
- (iii) Terms defined & variables.
- (iv) Sample
- (v) Tool & use of tools.
- (vi) Statistics used
- (vii) Data collection

Objectives, research questions, hypotheses, definition of terms and variables have already been discussed in earlier chapters.

### **3.2 Sampling -**

Sample for the present study consist of 65 students of D.M. School, Bhopal studying in class-III, 33 students were from section A and 32 students from section B.

Out of 65 students only 43 students provided the information related to their personal background i.e. (i) Sex, (ii) Father's education, (iii) Mother's education, (iv) Pre-primary (Nursery) edu.

### **3.3 Sampling Procedure -**

Sampling used in the study was purposive sampling. When the researcher meet with the students of D.M. School (Bhopal), he found that most of students have learning difficulty in English language and most of the students had not achieved the mastery level of learning. So the researcher decide to select the D.M. School for sampling procedure.

### **3.4 Development and use of tools -**

The tools used in this study were self-prepared test papers. The paper was prepared keeping in views the competencies of second standards, syllabus completed in class III and the level of the students.

One paper in English and a background information blank was prepared. A background information blank was for collecting data related to personal information such as sex, parents' education and their pre-primary education. These were then showed to the teachers concerned and the guide. Pilot study was done on 10 students of central school. Students were selected purposively.

After the approval of the teachers of D.M. School, tools were used for administration of test.

### 3.5 Description of test for English language :

Test consist of 54 marks, contain six components. Each component had further some items, which were to be solved by the students as per instruction & example provided. The following are the components included in the test.

**3.5.1 Semantics** : Semantics is the system of meaning in language. The components consists of synonyms (words with same meaning) & antonyms (words with different meaning). Each contain four items and one mark is allotted for each item.

**3.5.2 Syntax** : Syntax refers to the grammar system of language. This component consists of fill in the blanks related to general knowledge of tenses, subject of the sentence and helping verbs. It contains three items each of 2 marks.

**3.5.3 Word Formation** : In this section alphabets had been given in jumbled manner. Students had to arrange them to form correct word. This part of tool consists of four items each of two marks.

**3.5.4 Sentence Formation** : Students was required to write four sentences on any one topic i.e. cow/school/your class teacher. Each sentence contains three marks.

**3.5.5 Comprehension** : Consists of paragraph and five questions from the paragraph. Appropriate answer was to be selected for each question after understanding the whole paragraph. Every right answer contains two marks.

**3.5.6 Dictation** : Consists of ten words which was dictated by the researcher. Students were required to write correct spelling

of the word after listening each word. Each correct spelling contain one mark.

### **3.6 Description of background Information blank -**

Consists of four items :

- (i) Name
- (ii) Sex
- (iii) Mother's education
- (iv) Father's education
- (v) Pre-primary (Nursery) education

### **3.7 Task Administration -**

After making a good rapport with the children English Language test paper was distributed to each students for answering.

The students had to answers in the space provided in the booklet after every question. They were told to read the instruction carefully and were also explained by the researcher, so that no one remains confused once they were clear with the instruction, they were asked for further clearance if required. While answering the questions, no one was allowed to talk or ask to other students or to cheat from somewhere.

After a gap of one day "A background information blank" was provided to the students for collecting data related to personal information such as sex, parents' education and pre-primary (Nursery) education. The information was to be filled by parents. On the next day it was collected from the children.

### 3.8 Statistics used –

For the analysis & interpretation of data, following statistics were used

(i) Percentage

(ii) Mean ( $\bar{x}$ )

$$\bar{x} = \frac{\sum X}{N} \quad \text{where } \sum X = \text{sum of total marks}$$

$N = \text{No. of items}$

(iii) Standard Deviation (S.D.)

$$\sigma = \sqrt{\frac{\sum X^2}{N} - (\bar{x})^2}$$

$\sigma$  = Standard deviation  
 $\bar{x}$  = Mean  
 $X$  = Raw Score

(iv) t - test

$$t = \frac{m_1 - m_2}{\sqrt{\frac{\sigma_1^2}{N_1} + \frac{\sigma_2^2}{N_2}}}$$

$m_1$  = Mean of 1<sup>st</sup> Group  
 $m_2$  = Mean of 2<sup>nd</sup> Group  
 $\sigma_1$  = S.D. of 1<sup>st</sup> Group  
 $\sigma_2$  = S.D. of 2<sup>nd</sup> Group

(v) Correlation - By Product Moment Method ( $r$ )

$$r = \frac{N \sum XY - \sum X \cdot \sum Y}{\sqrt{[N \sum X^2 - (\sum X)^2][N \sum Y^2 - (\sum Y)^2]}}$$

Where  $\sum XY$  = Sum of Product of  $X$  and  $Y$   
 $X$  = No. Obtained in 1<sup>st</sup> component.  
 $Y$  = No. Obtained in 2<sup>nd</sup> Component.

Percentage of marks in each component and total mark of all components were calculated.

Mean, S.D. and t-value were calculated for :

- (i) Marks obtained by the students of two section.
- (ii) Marks obtained by girls and boys from the whole sample.
- (iii) Marks obtained by the students with high educated parents and low educated parents.
- (iv) Marks obtained by the students who got pre primary (Nursery) education and who did not get pre primary (Nursery) education.

Coefficient of correlation by product moment method were calculated between each component of English language test (tool).

### **3.9 Data Collection -**

Data were collected from the students of class III of D.M. School Bhopal, who were assured to have well command over the competencies of class II. The test constructed in English languages was based on the competencies already acquired in class II. Also the test prepared was based upon the type of test paper given to these children in earlier tests conducted by the school.

Data were collected in two session. Firstly, data for English language test were collected from those students who were present in the class at the time of test.

Secondly, data for background information such as sex, parents' education and pre primary education were collected. Background information blank was provided to each students who had been given the test of English language, which was to be filled by their parents. This data were collected from the students on the next day.