

# **Chapter 3:**

# **Methodology Of The Research**

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The researcher has used the quantitative research for this study using Descriptive statistics methodology. Here the researcher used correlational survey method as the survey method gathers data from a relatively large number of cases at a particular time.

Co-relational survey method is selected because of following reasons.

1- It is most appropriate in collecting the data regarding, Intelligence and academic achievement to be studied in the research from a large area of sample.

2- This research problem doesn't deal with the past events and concentrates only on present situation.

3- Data could be easily collected after deciding the sample from the vast population using survey method.

4- Also quantitative techniques can be easily incorporated in survey method and generalization is possible.

### **3.1 Tools, Techniques and Data collection for the study**

1- Manual for General Mental Ability Test (For age group 23-28 years) constructed and standardized by:

Dr. Roma Pal, Post- Doctoral Fellow (Psychology), Agra University, Agra &

Dr. (Mrs.) Rama Tiwari, Post Doctoral Fellow (Psychology), Agra University, Agra

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AGRA PSYCHOLOGICAL RESEARCH CELL,

Tiwari Kothi, Belanganj, Agra-282004 (U.P.) India Phone :  
+915622465964 Mob: +9198370-55824

Email: vivekaprc@rediffmail.com, website : www.aprc.co.in

2- The academic achievement score is the final percentage of marks obtained by 1st year pupil teachers in B.Ed. course. It was collected using a self-made form from the corresponding B.Ed. institutions with the prior approval of the authority for the session 20192021.

### 3.2 Research Instrument

The Research Instrument is a 'tool' defined as "*Anything that becomes a means of collecting information for your study is called a research tool or a research instrument. For example, observation forms, interview schedules, questionnaires, and interview guides are all classified as research tools.*"

The researcher made tool was employed for the purpose of drawing necessary conclusions.

#### 3.2.1 Need for the Tool/ Justification of tool

It is necessary to adopt a systematic procedure to collect essential data for research. Relevant data, adequate in quantity and quality **should** be collected for the purpose of research to draw meaningful conclusions. The instruments thus employed as means for collecting data are called **tools**. The selection of suitable instruments or **tools** is of vital importance for successful **research**. The tools used may be standardized, but sometimes certain variables are studied such that a tool needs to be developed

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i.e., Researcher himself prepares the tool. Here, in this study since we had to find out common errors committed by students which are '*context-specific*'. Hence, researcher made tool was incorporated for the collection of data.

### **3.2.1 Development of Tool**

The investigator has adopted the standardized tool from the study titled "AGRA PSYCHOLOGICAL RESEARCH CELL, Tiwari Kothi, Belanganj, Agra-282004 (U.P.) India Phone: +91 5622465964 Mobile: +91 98370-55824".

### **3.2.1 Administration of Tool**

**3.2.1.1 Administration in the class-** The tool was printed on the sheet of paper to collect responses from the pupil teachers. Permission of the head of the department was taken duly to collect responses. And they were assured that it was only for the research purpose and the data collected will not be used against them in any form. The pupil teachers were explained about the purpose of test to avoid any misconceptions and make it easy for the pupil teachers to attempt test.

**3.2.1.2 Scoring of the Test-** A total 40 marks were allotted for the test administered. Which was further subdivided in several items.

**3.2.1.3 Analysis of samples-** The test was collected back from the pupil teachers for assessment and evaluation of them. Thereafter, marks were awarded as per the

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scheme of test. Pattern in wrong answers were analyzed to draw necessary conclusions.

### 3.3 Nature of Sample

A sample is a small proportion of population selected for observation and analysis. It is a collection consisting of a part of subset of the objects or the individuals of population which is selected for the exclusive of representing the population. The sampling technique used for the selection of school was '*Simple Random Sampling*'.

### 3.4 Sample of Study

The sample of study comprised of students from 2 institutes i.e., Sambalpur University and PMAISE, Sambalpur. The total no of pupil teachers who participated in investigation were 35 from all the two institutes.

### 3.5 Data Collection Procedure

The researcher had personally visited the institutes along with research tools. And after obtaining the permission from the Head of the department, the investigator introduced himself and explained the purpose of the study. The researcher also tried to clarify the doubts of the pupil teachers before the study research instrument was employed.

### 3.6 Statistical Techniques

For the purpose of data analysis, the following statistical techniques would be used-

1. To compare the intelligence and academic achievement coefficient of correlation was used.
  2. To check the level of significance the *p-value* were used.
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