

CHAPTER - III
PLAN AND PROCEDURE

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CHAPTER - III

PLAN AND PROCEDURE

This is an important chapter, because it gives an outline and direction to conduct research without which a large amount of irrelevant data collected and vital data may have been omitted resulting in wrong conclusions. Hence the plan of this research is given in detail and the procedure adopted is spelt out clearly in this chapter for understanding this piece of work.

RESEARCH DESIGN

This is a descriptive research. There are various methods of research that is historical, experimental, case study, survey etc. used in social sciences and education, for present study survey method was used for collection of the required data.

SAMPLE DESIGN

In Kolhapur city there are 72 Highschools. Among that Ten Highschools are English medium, One Urdu medium and One Gujarathi medium.

Excluding English medium school Urdu medium school and Gujarathi medium school there are 65 Marathi medium schools.

Random sampling design was used for selection of schools, by lottery method.

Randomly 20% of the Marathi medium schools were selected that is thirteen schools.

Random sampling design was used for selection of divisions of VIII and IX standards from each school.

From each school randomly one section of standard VIII and one section of standard IX was selected and group Intelligence test was administered.

In some schools two sections of standard VIII and two sections of standard IX were selected as there were no slow learners in first section.

Finally from each school for standard VIII a sample of 1 to 10 students was drawn. Similarly for standard IX a sample of about 5 to 10 students was drawn.

Again on the basis of school record of mathematics subject from among them those who have scored less than the average in the class in annual examination in Mathematics in previous year, were selected as slow learners in mathematics.

NATURE OF SUBJECT SAMPLE

The students whose I. Q. is in between 60 to 90 were selected as slow learners again among them who score less than average marks in mathematics in class in previous year. Annual examination those were selected as slow learners in mathematics.

Data regarding problems in learning mathematics was collected by using questionnaire and interview.

SAMPLE SIZE

Table No. 1
Schools Selected for the Study

| Sr. No. | Name of School |
|---------|----------------------------------|
| 1. | Sankalp Highschool |
| 2. | Rajmata Jijabai Girls Highschool |
| 3. | New Highschool |
| 4. | Jivan Kalyan Highschool |
| 5. | Sou S. M. Lohiya Highschool |
| 6. | Samata Highschool |
| 7. | Jai-Bharat Highschool |
| 8. | Prin. Padmaraje Girls Highschool |
| 9. | Indumati Girls Highschool |
| 10. | Korgaonkar Highschool |
| 11. | M.L.G. Highschool |
| 12. | N.P. Highschool |
| 13. | Kolhapur Highschool |
| 14. | Indira Gandhi Vidyaniketan |
| 15. | Maharana Pratap Highschool |

The Group Intelligence test was administered on 778 students in standard VIII and 763 students in standard IX. There were 117 slow learners in standard VIII and 115 slow learners in standard IX. Among them there were 69 slow learners in Mathematics in standard VIII and 71 slow learners in Mathematics in standard IX.

TOOLS USED FOR RESEARCH

1. Test :

A standardised group intelligence test was selected that is “A Group test of Intelligence” for children by Dr. R. K. Tandon and administered.

2. School Record :

Annual examination marks in mathematics of previous year.

3. Questionnaire for Slow Learners :

The investigator prepared the questionnaire for slow learners in mathematics in consultation with subjects experts, school head masters, educational experts and educational administrator.

The list of experts is show in table No.

A taking into consideration that this questionnaire is for the slow learners, both open and closed ended questions were included in questionnaire to collect the real information.

4. Interview of Slow Learners :

To know the more about slow learners they were interviewed.

And investigator discuss with their teachers also.

For Questionnaire see Appendix.

PROCEDURE

To collect data from schools an authority letter was obtained from education department Shivaji University, Kolhapur and as the investigator was going to see the school record an authority letter from Education Officer of Z. P. Kolhapur was obtained.

The Head Master directed the investigator to the classroom with a Assistance teacher for help. The Group Intelligence test was administered under the supervision of investigator and one Assistant teacher. Data was collected from standard VIII and standard IX from each school.

The Group Intelligence test was administered in limited time schedule in the class room. Each student was provided with separate test booklet and separate answer sheet. The test was under the strict supervision of the researcher and one assistant teacher from respected school. The students were not allowed to consult and copy the answer one another. The papers were removed after certain time limit. It was found that the some students were able to answer all the questions within the time limit but some students can't complete within the given time limit.

After the Group Intelligence test answer were checked and the students whose I.Q. is in between 60 to 90 were selected as slow learners.

To find out the slow learners in mathematics the investigator go through the school record. The slow learners who score less than average marks in mathematics in the previous year annual exam were selected as slow learners in mathematics.

The questionnaire was prepared in consultation with subjects experts, Head Masters, Educational Experts and Educational administrator.

The questionnaire was divided into four parts -

- A) Personal Information
- B) Family Background
- C) About the School and School Environment
- D) About Subject Mathematics

There were 54 questions in questionnaire.

Every slow learner fill up questionnaire at his own. There was no time limit to fill up questionnaire.

Investigator discussed with slow learners, their teacher and Head Masters about the problem of slow learners in mathematics.

thus the required data was collected. After that a letter to that effect was obtained from respective school.