



CHAPTER -3

Research Methodology



CHAPTER - III

RESEARCH METHODOLOGY

3.1 INTRODUCTION :

The previous two chapters have described the overall approach to the problem and review of the literature. This chapter deals with the details of the techniques adopted in the study. The design, sample tools and their description, administration and statistical techniques used will be discussed.

According to Turman (1978) "A research design as a perfection of operation for the testing of hypothesis under a given set of conditions".

No planning of educational research can be complete without design or investigation. The present study is a descriptive study based on "questionnaire survey" for evaluating the roles and functions of block and cluster resource centres and "achievement testing" of students.

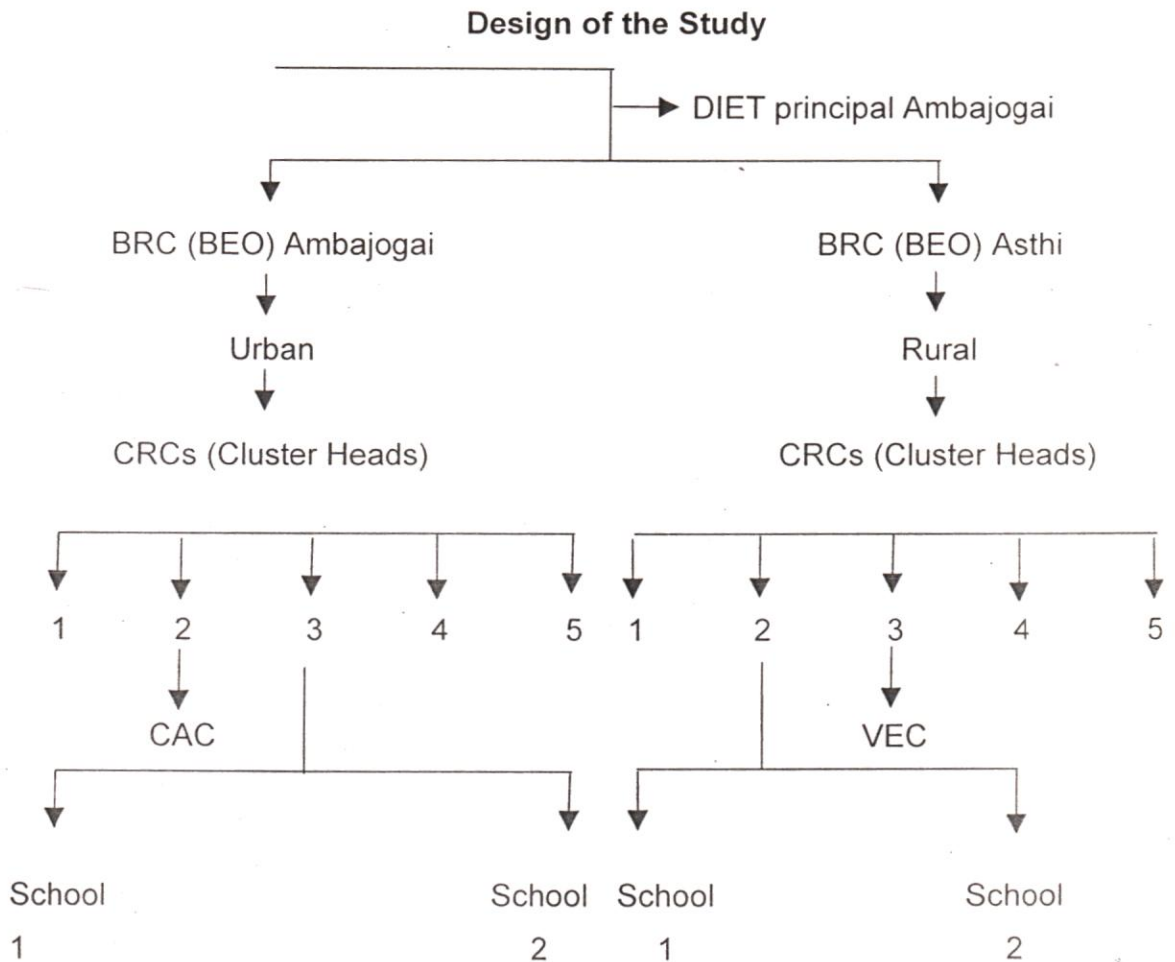
3.2 SAMPLING :

For the purpose of the study two Block Resource Centres were selected, one was from urban area and other was from rural area. Under the selected BRCs five CRCs were selected from urban and rural areas respectively. For the selection of BRCs and CRCs purposive sampling technique was used by the researcher. For the study of achievement of students, under selected clusters two schools from urban and two from rural were selected. "Lottery Method" of randomisation was used by the researcher.

For the evaluation of roles and functions of BRCs, Block Education Officers were taken into account and for the evaluation of roles and functions of CRCs Cluster Heads were included.

One Village Education Committee (VEC) for rural and one centre advisory committee (CAC) for urban included in the sample. The design of the study is shown below in a line diagram-

DIAGRAM 3.1



3.3 TOOLS USED :

For the study of roles and functions of BRCs and CRCs tools developed in the workshop held at MSCERT, Pune from January 17 to 21st 2000 were used. D. N.D. Jain was the co-ordinator of the workshop. Nine representatives from DPEP districts attended the workshop and developed the tools.

The tools were tried out in four blocks of Aurangabad, a DPEP district of Maharashtra State. It has 8 BRCs at block level and 128 CRCs at cluster level.

For the study of achievement of students question papers developed by the education department of Zillah Parishad Beed for annual examination of IV grade students in year 2000 were used.

3.4 DESCRIPTION OF TOOLS :

According to Good, "In general the word questionnaire refers to advice for the securing answers to questions by using a form which the respondent fills in himself." Barr, Davis and Johnson defined questionnaire as "systematic completion of questions that are submitted to a sampling of Population from which information is desired". Questionnaire is the most flexible for collecting qualitative and quantitative information.

The respondents fill in the answers to questions by using the proforma given to them. A good questionnaire should be prepared carefully brief and sharply focused on its specific purpose.

3.4.1 Questionnaire for Block Education Officer :

All the free response questions were there in the questionnaire. First part of the questionnaire was related to personal, qualifications, experience, physical facilities etc. Questionnaire was divided further into three parts, which are described as below in brief.

- I. **Academic** : There were 23 items in this section related to the various academic roles and functions of BEOs
- II. **Planning Management and Supervision** : There were 13 items in the questionnaire related to the planning, management and supervisory roles of BEOs.
- III. **Leadership** : In this section 11 free response questions were formulated related to the leadership roles of BEOs. Lastly suggestions for strengthening of BRCs were added in the questionnaire.

3.4.2. Questionnaire for the Cluster Head :

There were 47 items in the questionnaire divided into four parts. The first part was related to the personal information of cluster head e.g. name, educational qualifications, available facilities etc.

- I. There were 10 items in the questionnaire further subdivided into various sub-items related to the training programmes at cluster level.
- II. There were 19 items related to the teaching-learning process or the efforts of cluster head for improvement in education at cluster level.

3.4.3 Questionnaire for the DIET Principal :

Questionnaire for the DIET principal was related to the role of DIET in BRC, CRC activities. There were 9 items in the questionnaire. In the last part of questionnaire suggestions for strengthening of BRCs were added. (Appendix-C)

3.4.4 Questionnaire for the Members of Village Education Committee and Centre Advisor Committee :

There were twelve items in the questionnaire related to the contribution of VEC and centre advisor committee in the BRC/CRC activities. (Appendix-D)

3.4.5 Achievement Tests :

The achievement test for the four subjects of grade IVth was used. Each test carried 100 marks.

- a) Achievement test of Language
- b) Achievement test of Science
- c) Achievement test of Maths
- d) Achievement test of EVS.

3.5 COLLECTION OF DATA :

For the collection of data the researcher personally visited the BEOs, Cluster Heads, DIET Principal VEC and CAC members and requested them to fill the questionnaires. After fifteen days the researcher visited the concern persons but five Cluster Heads and one BEO expressed their helplessness to fill questionnaires within given time because of heavy work-load. So after 10 days the researcher visited them again and collected the filled questionnaires.

For the administration of achievement test firstly the researcher discussed with the Head Masters of the school and got the permission then the following dates were fixed.

Urban School :

School –1 16 to 19 February 2001

School –2 20 to 23 February 2001

Rural Schools :

School – 1 24 to 27 February 2001

School – 2 28 to 31 February 2001.

After assessing answer sheets of the tests the lists of marks of urban and rural students were prepared and used as a data.

3.6 TABULATION OF THE DATA :

After receiving the data the next task was the transformation of responses in the certain weights to make the easily understandable and meaningful. Tabulation is the process of transferring data from the data gathering instruments to the tabular form in which they may be systematically examined in the next chapter.

3.7 ANALYSIS OF THE DATA :

The researcher has presented descriptive analysis with the help of percentage.

3.8 STATISTICAL TECHNIQUE USED :

't' test was used to find the difference between the achievement of urban and rural students at 0.01 level of significance. At the end values were interpreted and compared with the research findings obtained earlier.

Following formulae were used :

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

σ = Standard deviation
 \bar{X} = Mean
 X = Raw Score

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

m_1 = Mean of 1st School
 m_2 = Mean of 2nd School
 σ_1 = S.D. of 1st School
 σ_2 = S.D. of 2nd School