# **CHAPTER - III**

# RESEARCH DESIGN FOR FIELD STUDY

### 3.0 INTRODUCTION

This chapter discusses the methods and design used in the field study, sampling procedure, description of the samples, instruments used, procedural details and approaches used for analysis. A sample study approach was selected for the study to find out how the effects of Haryana's implementation of quality interventions under RMSA, chiefly teacher training intervention, are being felt in the schools and how it is manifested in classroom transactions in the school. Although outcomes and effectiveness of the implementation of quality interventions under RMSA can perhaps be evaluated for the different types of quality interventions, owing to the variety of interventions with different inputs and varied outputs and outcomes for each of the quality interventions, different tools and techniques would have had to be used for the same.

This study looks at the implementation of RMSA quality interventions in government schools using questionnaires, interviews and observation methods, it also looks at classroom practices in these schools with the objective to find out association of teacher training and better classroom practices with the expectation that it will throw up findings that may prove useful as inputs for RMSA implementers. The study also documents observations from the visits to the schools on the effect of RMSA on School Infrastructure, School Leadership. Teacher Professional Development, Classroom Transaction, Student Achievement and Community Involvement.

### 3.1 DESIGN OF THE STUDY

It is fundamental to any research that an adequate methodology is adopted and a well-articulated design be developed to enable a researcher to answer research questions, objectively and effectively. The purpose of a research design is to provide a plan or framework for answering the research questions. This study employed a mixed methods design, of document study and included collecting, analysing and interpreting qualitative data from a sample of school in a single study to answer

research questions. The present study adopts an exploratory approach with a study of schools in Gurugram district of Haryana to look at implementation of quality interventions, mainly teacher training. The study also uses descriptive analysis methods, with information from documents, questionnaires and observation methods to look at the implementation of RMSA quality Interventions in the state of Haryana with a major focus focussing on teacher Training. The design adopted in the study is a combination of document study, observation during field visits and interviews with stakeholders (students, teachers, principals, SMDC members and one teacher training institute (SCERT). The starting point of the study was to look at the interventions and activities approved and sanctioned under RMSA for Haryana since 2009, with special reference to the quality interventions and more specifically, teacher training, how much has been approved, how much implemented and effects or influence in the classroom and at school level.

# 3.2 DESCRIPTION OF THE POPULATION AND SAMPLING PROCEDURE

While the population includes all 118 Government Secondary and Higher Secondary Schools in the district of Gurugram which have been covered under RMSA quality interventions, 10 government secondary schools in Gurugram were randomly chosen on the basis of convenience sampling. The reason behind selection of Secondary (and Higher Secondary) school is because RMSA covers intervention only in the Secondary Stage (the subsumed components of ICT@ Schools, Vocational Education and IEDSS cover the Higher Secondary School). Secondary School Teachers also teach higher classes, but depending on the discretion of the Principal, some of the Secondary school teachers teach Middle school classes too. Of the ten government secondary schools visited, three schools are located in urban area and seven are rural schools.

- (i) Being Government schools and also covered for all interventions under RMSA (List of Schools attached in Annexure -I).
- (ii) Proximity to Delhi and convenience of access for the school visits to meet the teachers and students.

- (iii) Random selection of Classes IX to XII students, boys and girls, on the basis of availability on the days visited.
- (iv) From the same schools, random selection of secondary school teachers for interviews on the basis of these teachers having undergone RMSA training and on the basis of their availability on the days of the school visits.
- (v) In the same schools, interviews with Principals.
- (vi) In the same schools, interviews with available SMDC members on the basis of availability during the school visits.
- (vii) In two urban schools of the ten schools visited, Focussed Group Discussion with the teachers

#### 3.3 TOOLS FOR THE DATA COLLECTION

- 3.3.1. During the field work data was collected employing participant and non-participant observation technique, structured interview and document analysis. This research work is planned to be conducted by adopting the mixed methodology. Researcher adopted multiple sources for data gathering. Three sources of primary data used in the study were questionnaires, focus group discussion and interviews. The following tools were used for data collection:
- **3.3.2 Interview Schedule:** Interviewing is a valuable assessment tool because it allows the participant to share their experiences, attitudes, and beliefs in their own words. The use of direct quotations in the assessment finding helps the researcher present an accurate depiction of what is being evaluated. To be able to speak to multiple stakeholders in a short period of time, the method of interviewing and interacting with all the selected stakeholders (Principals, teachers, students, SMDC members) of that school in the school premises itself was used.
- 3.3.3. **Questionnaire**: Six questionnaires designed for Student, Teacher, Principal, SMDC members, SCERT and RMSA State/ District level official were used.
  - (i) Student Questionnaire This questionnaire has 52 mostly open-ended questions and was designed to elicit information mainly about Classroom teaching, teaching methods, subjects the students like, subjects the students do

not like, the teachers teaching them, the methods they use, teaching -learning material, the assessment tests in these subjects and the marks obtained. The questionnaire also contains questions on infrastructure, and other co-scholastic activities in the school. These are mainly open- ended questions designed as a means to understand perception of students on Class room transaction, teaching methods and subject knowledge. With regard to the students interviewed, since the intention was to find out about teachers' classroom practices and whether there were any marked or noticeable change in their teaching methods or practices before a training and after training, students from Class 9<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup> and 12<sup>th</sup> only were selected on a random basis and asked about their observations on teachers' methods of teaching in class. The students were not explained the background of the interview/ interaction but straight-away questioned on the lines of the questionnaire prepared. 29 students across the 10 schools were interviewed using the questionnaire as a guide.

- (ii) Teacher Questionnaire –The Teacher Questionnaire has 42 questions designed mainly to elicit information about Classroom transactions, Student participation, student levels, teaching methods adopted, teaching learning material used, difficulties they face in class, teacher training details such as number of days, content used, methods of training used, evaluation if any, utility of teacher training, whether they have learnt anything new in the training, ability to handle adolescent students and whether they have applied what they learnt in training in class. The questionnaire also contains questions designed to get an idea of teachers' communication channels with Principals and with Parents. 13 teachers across 10 schools were interviewed using the questionnaire designed for teachers' responses.
- (iii) Principal Questionnaire This questionnaire contain 72 questions designed to get a comprehensive understanding of the school, school infrastructure, funding, staffing, profile of students, school and student performance, student behaviour and ability, teacher training, community relations and support, communication channels with teachers, parents, and special practices that are followed in the school, etc. Principals of the 10

schools visited were interviewed along the lines of the questions in the questionnaire.

- (iv) SMDC questionnaire- This questionnaire has 24 questions designed to elicit information as to the level of awareness of SMDC members and the activities they are given in the school as well as the extent of their involvement in the school activities. Only two members of the SMDC could be met and they were interviewed along the lines of the questionnaire.
- (v) SCERT questionnaire This questionnaire has 25 questions chiefly to elicit information about teacher training. This was sent to the official in charge of RMSA training at the SCERT and was responded though mail.
- RMSA State level/District level official questionnaire-(vi) questionnaire has 52 questions with wide ranging open-ended questions to elicit information about the implementation of the programme and especially the implementation of quality interventions in the State. The dimensions that are included in the questionnaire include Planning for teacher training, data used for planning and monitoring, Planning and implementation at the State, district and School level. Questions were also included to find out the role and the extent of this role that the State RMSA Implementation Society allots to the community/ SMDC. Whether the state is leveraging the community support for RMSA at the school level. Question to get information on Community Relations, Infrastructure and other resources, Curriculum transaction in classroom, Teacher's Professional Development, Student's Achievement were included. The researcher had a long interaction of about half a day with the RMSA official in charge of Planning and Quality interventions in the state.

The same questionnaires were used as guides for interactions with the other teachers, students and Principals during the visits to the schools. Due to limited time and resources, keeping in mind that to access and interview parents would need a larger window of time for the research, availability and cooperation of the parents and larger financial resources, parents were left out of the research and only the

Stakeholders who could be more easily accessed in the school premises itself were interviewed.

3.3.5 **Focussed Group Discussion:** A focus group is a small-group discussion guided by a trained leader. It is used to learn more about opinions on a designated topic, and then to guide future action. The focus group is a qualitative method of assessment, encouraging a free flow of ideas. It is typically led by one moderator but can sometimes be assisted by other team members. Around 63 teachers took part in 3 focus group discussions held in the urban schools of Gurugram. The questionnaire designed for teachers' interview was used as a guide for interaction with the teachers in the discussion.

3.3.6 **Observation:** The researcher herself made note of School Infrastructure, such as Boundary Wall, Buildings, Classrooms, Blackboard, other Teaching Learning Material (TLM), Furniture, Playground, Maths and Science Labs and their use, Science and Maths kits, Computer availability, Use of Drinking water and Toilet facilities, General Cleanliness, Teachers availability, Principal's role and activeness, Students general behaviour, School environment, etc.

#### 3.4 LIMITATIONS

The initial intention of the researcher while starting out with the proposal was to look at the implementations of quality interventions in Haryana as a case study in Gurugram, with the intention of evaluating whether the implementation was carried out as intended in the RMSA guidelines, the extent of implementation and the impact of these interventions.

When the work started, it became clear that the intended work would entail a more comprehensive study involving a bigger research team, more resources, and more time, which was not available to the researcher.

Thus, the decision to scale down to a summary examination of RMSA quality interventions in Gurugram in the form of a study of 10 government schools in Gurugram.

It was also decided that to examine and to look at multiple interventions of the quality interventions would involve too many variables of many interventions, thus it had been decided to focus on teacher training while making a cursory assessment of the signs of the other quality interventions too in the schools.

While searching for the data of teachers who have undergone training, it was found that information of only numbers have been maintained at the State RMSA level. Moreover, this information is not available at the school level since Principals do not have the information as to which training the teachers have been called to. Though the SCERT, which is the agency responsible for training of the teachers in Gurugram, does have the information as to which teacher is called for which training as most of the trainings are organized on the basis of Subject teaching, however this information has not been collated in a way that it facilitates the tracking of teachers who have undergone training. So far, the monitoring at the SCERT level, the State RMSA level and the District level is focussed on numbers. Thus, the approach adopted in this study is to ask the teachers themselves whether they have undergone RMSA Induction or In- Service training.

There are other limitations such as, the sample schools are drawn on the basis of a convenience sampling. The schools were selected mainly due to the accessibility of the schools. Though 3 urban schools and 7 rural schools have been selected, yet these may not be representative enough to apply the findings to the whole of the State.