CHAPTER IV

RESEARCH METHODOLOGY
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Introduction

4.1 The methodology used is an integrated methodology, where traditional schedule based data collection and processing is integrated with the modern, statistical as well as qualitative analysis. The former complements the latter. The methodology, which follows the traditions of social science research and the latest developments in economic research have the following components:

1. Field survey (primary data).
2. Collection of documented data (secondary data).
3. Statistical approach to understanding socio-economic patterns and also impact, qualitatively.
5. Qualitative data collected from the officials and administrators of the area, and also teachers and parents, especially those who are involved in the SSA work and are beneficiaries too.
6. Proposals for resolving problems arising out of the situation under study.

Formulation of the Problem

4.2 The review of literature given in the Chapter III reveals that most of the authors have paid attention for the following issues.

a) Universalisation of Elementary Education especially enrolment and retention.
b) Intervention to ensure access of educationally deprived categories.
c) Teachers and Teacher Training
d) Decentralization and local greater autonomy in terms of Community participation.

e) Learner’s achievement especially emphasis on quality of education.

f) Provision of better infra-structure facilities in schools.

It is clear from the review of literature that the issues relating to sociological aspects of Sarva Shiksha Abhiyan are not focused and discussed particularly educationally backward district / region. The Sociological aspect of SSA are important for the success of SSA since the stakeholders viz., Parents and Teachers are instrumental in making the programme success in a particular village, block and district. The experience and their understanding about the local problems is inevitable to improve the effective implementation of the programme. Thus, there is a need to look into the sociological Study of SSA in educationally backward district of Haridwar.

**Aim of the Present Study**

4.3 The aim of the present study is to find out

(a) the possible extent of the various aspects of the impact experienced by the teachers, and parents on the SSA; and

(b) evaluate the implementation of SSA at different level through the experience of the teachers, and parents.

**Objectives of the Study**

4.4 The objectives of the study, following from the above, are:

- To assess the accessibility and availability of primary education to all, in the district of Haridwar of Uttarakhand;
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- To examine the impact and evaluation of the Sarva Shiksha Abhiyan in the district and the variations in the developed and under developed blocks;
- To analyze and assess the contribution to the effectiveness of primary education in enrolment, retention and increase in literacy among the local population.
- To determine the effects and impacts of infrastructure facilities on the stakeholders in the district;
- To understand and assess the role of community partnership in the management of the schools in the district and to suggest remedial measures for innovations and improvements in the SSA.

Approaches to the Study

4.5 Four approaches that can be used for predicting social impacts are:

1. Qualitative description;
2. Quantitative description;
3. The use and application of specific but simple statistical techniques; and
4. The use of interpretative aspects to determine the nature of the benefits and impacts of the SSA.

4.6 Application of these approaches for benefits and impact study will vary depending upon the socio-economic categories of people involved in the SSA and specific factors that might be impacting on the programme.

4.7 Quantitative description involves use of a numerical technique by the researcher to project benefits and impacts based on an understanding of the existing situation and unit impact information. This approach requires knowledge of the benefits and impacts
(effects) that have occurred in similar situations and the use of quantitative impact factors.

4.8 The assessment is basically "Who benefits and who is impacted on?" In selecting the most appropriate tool, the following considerations were useful: the Uses, Resources, Familiarity, Significance and Ecosystems involved. There are several ways of collecting the appropriate data which differs considerably in the context of money, cost, time and other resources at the disposal of the researcher. For the present study, both primary and secondary data have been collected and used for analysis.

**Methodological Issues and the Rationale**

4.9 While time constraints did not allow the use of the longitudinal approach, which is often the most preferred in such studies, the methodology, simple as it may sound, provides the opportunity to establish a baseline for a future longitudinal assessment. The present study, following the educational research tradition, takes on a descriptive as opposed to predictive approach. Similarly, in the process and outcomes analysis, the case study has been the dominant research design. By concentrating on real world case studies, not only the researcher can test the applicability of some framework and tools, but also he can assess such methods within a relevant context, which should enhance the replicability of the methodology and the results.

4.10 Hence, the study has used a post-positivist approach with less emphasis on benefit-cost analysis and analytical (statistical) approaches. This post-positivist approach is not biased towards quantification, but addresses adequately issues of uncertainty, values and socio-historical and behavioural contexts. The present methodology characterises phenomenological approaches as those that concentrated on the understanding of the human / environment interface by focusing on human attitudes, experiences and actions. The choice of a post-positivist methodology is not to
mean that the positivist approaches are not valid. They are very valid. In fact, the post-
positivist approaches are valid in as much as they contribute to the body of theory, of
course.

4.11 The study in a way highlights the strengths and weaknesses of the structured
and un-structured interview format. It also concludes that structured interviews provide
a means to standardise responses, facilitate the verification of hypotheses, and provide
greater reliability than unstructured interviews. It notes that the structured interviews
can introduce bias, as the researchers may impose his or her own categories and may
have a tendency to oversimplify reality.

4.12 The methodology used in the study therefore suffers from a few deficiencies.
Interviews were conducted with the teachers and parents, and also the officials of the
district of Haridwar but in the select developed and underdeveloped blocks with the
structured schedule of questions. The interview schedules were administered soliciting
information but we could only do such administration with a small number of people
(300) as the interview schedule demanded responses of a nature that the respondent’s
people are able to answer with any precision.

4.13 The un-structured interviews, in participatory discussions and dialogues with
the officials, teachers and parents of the blocks / district, in various places and moments
during the survey, provided the researcher with greater flexibility and are more useful
for the study of the benefits and impacts of the SSA. The un-structured interviews with
certain people to gather inside information on the SSA and how they responded to the
situation created by the government programmes, without having to keep an interview
schedule focused in format, while the interview itself can be conventional and informal,
providing the researcher with a degree of latitude, regarding the range, depth and
specificity of inquiry.
Research Design

4.14 This study is based on the interview method. The investigator paid a visit to school and interact with teachers as well as parents and local community leaders through face-to-face interviews to elicit necessary information from the respondent. Hence, this study design is a descriptive design.

Propositions

4.15 The following proposition have been formulated thinking they could be tested with solid data. Such as

I. Effective SSA will promote universal participation of children meant for total enrolment and retention till the end of the course.

II. Excellent SSA ensuring the achievement of expected level of learning by almost all children.

III. Improved SSA will promote expanding access, raising learning achievement and reducing gaps in education outcomes.

IV. Innovative SSA boost zeal among teachers to improve quality education in schools.

V. Effective SSA will improve school infrastructure, with required level of teacher strength.

Area of The Study

4.16 The area of the study is limited to Haridwar district. Haridwar district is one of the educationally backward district in the State. Haridwar district has mixed/ floating population with adequate infrastructure. In this study, one economically developed block and one under developed block was covered. The two blocks selected, Roorkee
and Laksar, are represented by the primary school teachers, parents of children at school.

**Universe of the Study**

4.17 Haridwar district consists of six blocks. Out of which, two blocks namely Laksar and Roorkee blocks are selected for this study. The method of sampling adopted for this, stratified sampling. The main reason for selecting these two blocks is one economically developed (Roorkee) another block (Laksar) is economically under developed in the region. Besides, Haridwar district has 2027 teachers and 639 schools in its strength (Statement No.4). In Roorkee block 88 schools are in operation consisting of 318 teachers, of which 8 schools/villages are undergone this research study with 75 parents as well as 75 teachers from these schools. Similarly, in Laksar block 98 schools are in operation consisting of 278 teachers, of which 10 schools/villages are undergone this research study with 75 teachers as well as 75 parents from these schools. The chosen sampling is purposive sampling method.

**Sample Selection**

4.18 The sample of 300 has been chosen by purposive sampling method from the two blocks of Laksar and Roorkee in Haridwar district. Rural and urban areas of the blocks have been given representations in the approximate proportions of 75 per cent and 25 per cent for teachers – 113 rural teachers against 37 urban teachers. However, the number of teachers taken from the two blocks as samples equaled at 75 each. The same has been adopted for the parents of children at schools, although their numbers varied as follows
The Methods

4.19 The method of sampling adopted is the stratified random sampling. The selection of sampling units falls into the category of on-site sample. The size of sampling units selected is based on statistical sampling method, with as many as 300 samples chosen from the two select blocks of the district. The sample, if considered in the light of the population being affected by the SSA, is indeed a miniscule.

Why a Small Sample?

4.20 The researcher is aware that a sample of 300 is small, for a study of this nature. But the random selection of the sample has been done such that one rule of thumb was to take people who obviously knew about the problem of study, especially about the benefits and impacts they had experienced in their dealing with Primary education. The initial reluctance on the part of the people to talk about the benefits and impacts, because of livelihoods and general apathy, in some way or the other, led to seeking good respondents (hence purposive) from the villages around the schools. The researcher was able to get groups of teachers and parents and hence they were taken as the sample for the interviews.

How Participatory Appraisals Account for the Rest

4.21 Since the sample was limited in number, the alternative - but qualitative approach to collecting data - was adhered to, towards making up for the inadequacy that might be caused by the small number of samples. Participatory appraisals have indeed given more data and information than could be used in the thesis. A certain amount of this data is used in the writing of the thesis but such data were verbal and had to be used judiciously in developing a ‘big and rich picture’ of the situation obtaining in the area.
Data Collection

4.22 Both primary and secondary data sets have been used in the study to present a case study of the two blocks of Haridwar district and to show how benefiting and socially impacting is the SSA. The study, because it focuses on the SSA and benefits and impacts, has depended both on the interview schedules based data collection, albeit from a small number of people who are able to speak about and throw some light on the nature and extent of benefits and impacts, as they see and experience, being part of the developmental and social milieus.

Secondary Data Sources

4.23 The best-known secondary sources of data are the Census, statistics, geographical data, relevant government agency publications, and routine data collected by state and central agencies. Examples of other secondary data sources include agency caseload statistics; published and unpublished historical materials (often available in local libraries, historical societies, and school district files); compendiums produced by service organizations (such research institutions); and the files of local newspapers. These secondary sources can be used in conjunction with teacher / parent interviews, to allow for verification of respondent responses and to be alert for potential sources of bias in other data.

4.24 The secondary sources of data include all the collateral data that are already available, that is, they refer to the data, which have already been collected and analyzed by someone else:

1. Various publications of central, state and local governments;
2. Books, magazines and newspapers;
3. Reports and publications of various associations connected with education and research; and
4. Public records and statistics.

4.25 The secondary data have been collected from different organizations, particularly from the Department of Education, the local and regional government agencies concerned with education and the SSA programmes.

<table>
<thead>
<tr>
<th>Block Name</th>
<th>Number of School</th>
<th>Student Enrollment</th>
<th>Working Teacher</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Head Teacher</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Bahadarabad</td>
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<tr>
<td>Roorkee</td>
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<tr>
<td>Bhagwanpur</td>
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<td>100</td>
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<tr>
<td>Narsan</td>
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<tr>
<td>Laksar</td>
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</tr>
<tr>
<td>Khanpur</td>
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<td>5082</td>
<td>15</td>
</tr>
<tr>
<td>Total(Rural)</td>
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<td>100569</td>
<td>496</td>
</tr>
<tr>
<td>Haridwar M.B.</td>
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<td>5284</td>
<td>44</td>
</tr>
<tr>
<td>Roorkee M.B.</td>
<td>19</td>
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<td>16</td>
</tr>
<tr>
<td>Manglaur M.B.</td>
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<td>11</td>
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<tr>
<td>Total(Urban)</td>
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<td>71</td>
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<tr>
<td>Grand Total</td>
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</tbody>
</table>

The Interview Schedules

4.26 The two schedules, one for the teachers and another for the parents of children at schools and the community leaders who are either grandparents or parents of children at school themselves, have been designed with a view to get them to give their perceptions, ideas and perspectives on the Sarva Shiksha Abhiyan. The schedules have been designed with more or less similar segments but at the same time care has been taken to introduce relevant areas of primary education.

4.27 The teachers’ schedule has 40 questions, some of them with several sub-questions, covering the areas given below:
1. Personal and professional information on teachers 16
2. Knowledge about SSA and its implementation 12
3. Role of community participation 03
4. Infrastructure facilities at schools 09

4.28 While most questions solicited straightforward answers to the questions, there are certain other questions, which go rather deep into the problem and asks the teacher-respondent to express views (for example, questions under Knowledge about SSA and its implementation). The questions under the role of community participation pry into their understanding of what the community people do with the SSA. The questions on infrastructure are by way of check-listing the facilities available in the schools and on offer for the students of the various classes of elementary education.

4.29 The parents’ schedule has 36 questions, some of them again with several sub-questions. The details sought are given below:

1. Personal and professional / occupational information 13
2. Knowledge about the SSA and its implementation 11
3. Role of community participation 03
4. Infrastructure facilities at schools 09

4.30 The questions sought straightforward answers and most answers are qualitative and rarely, if any quantitative. There are some scaled questions and the scaling is not of Likert type but arbitrary. Nevertheless the scaled questions provide better understanding of the nature of the SSA and its implementation, community participation and infrastructures available at the schools, enabling the Government, teaching community and the community to implement the SSA and benefit from.
Strengths and Weaknesses of the Schedules

4.31 Typical questions of the interview schedule have been enabled to account for sufficient information and data for the present problem of study and for testing hypotheses. These are the strengths of the interview schedule used in the study.

4.32 Although the interview schedule had a number of strengths, some limitations have also been there, as well. The interview schedule focused only on the assessment of the benefits and impacts of the SSA. The wording of questions has been simplified such that even an ordinary layman of the society should understand them easily. It was not indeed difficult to administer nor difficulty of comprehension.

Interview Schedules and Interviews

4.33 The primary research tool for the present study is indeed the interview schedule. The interview schedule is for the teachers and the parents in the villages and towns of the two blocks and it is for collecting the primary data from the people whose wards, and they themselves, has been affected by the programme of Sarva Shiksha Abhiyan.

Qualitative Data

4.34 To make up for the insufficiency of quantitative, schedule-based data, participatory methods have been extensively used in the neighborhood, in the two blocks of Laksar and Roorkee, to generate information, hard facts and experiences of the people like the teachers and parents of the children at schools.

4.35 And so, the researcher has decided to speak to the people in the villages and towns of the select blocks, to individuals and groups, of men and women and even children who could say something about the SSA. The researcher has therefore consciously met with a cross section of teachers and parents and also government officials in participatory appraisals, in which he has worked with a set of simple
questions about the nature and extent of impacts, primarily to understand whether or not the people indeed know something real about the benefits and impacts: such as the benefits and impacts on the performance, enrolment and so on. These appraisals have then been followed with participatory appraisals, where groups of government officials and administrators rather than individuals have been involved.

4.36 Participatory Rural Appraisal (PRA) tools have been used in the process of evaluating the benefits and impacts of Sarva Shiksha Abhiyan in the rural and urban areas. It is expected that the management structure evolved after the PRA would be more sustainable and the process of decision-making would be participatory. PRA techniques have the potential to study the complete relationship between the local people (various interest groups) and primary school management.

4.37 It is also important to mention that PRA is a very delicate approach to learn from and with the people to investigate, analyze and evaluate the constraints and opportunities and make informed and timely decisions regarding the development processes and structures. While conducting PRA, important dimensions to be kept in mind by the facilitators are ‘behaviour and attitude’, ‘methods’, and ‘sharing’. It is critical to evaluate the participatory and community mobilization process by using participatory learning methods.

4.38 PRA sessions were conducted with the following interest groups out of the total stakeholders in the sampled teachers and parents and by using the above tools. In this way, the primary data and information have been gathered from various sources. The qualitative data have been collected through the PRA along with the interviews and discussions with various district level functionaries.
Discussions and Meetings

4.39 The researcher has on several occasions during the last two years walked into villages and towns to meet with people and ended up meeting groups of women, men and children who could spare their time for a few minutes to several minutes at times. Invariably, in all such meetings the topic of discussion has always been the Sarva Shiksha Abhiyan, especially its benefits and impacts. At no time, during the discussions and meetings, has the researcher taken any notes, lest the flow of discussion could be disturbed and spontaneity could be gone. The group discussions have indeed given perspectives he would otherwise not have had. The parents and teachers could give him rich and big pictures of what has been happening in the district and in their own localities. Often their oral accounts of impacts have been accompanied by testimonies, both oral and material.

Analysis of Data

4.40 There are thus two basic approaches to research, namely, quantitative approach and qualitative approach. Quantitative approach involves generation of data in quantitative forms such as inferential approach, experimental approach, simulation approaches. Qualitative approach is concerned with subjective assessment of attitudes, opinions and behaviors. The choice of techniques or methods used in an assessment depends on the time and the resource available. Approaches to educational problems have evolved greatly in the last few years.

Frequency and Percentage Analysis

4.41 For the purpose of description of sample and respondent-related characteristics and also the SSA and its benefits and impacts, a simple frequency and percentage analysis has been done for all variables extracted from the schedules of questions and put into the datasets. First, a simple frequency of each of the fields with column
percentages has been made, in order to show variations. The tables so generated are numerous, only select tables are included in the report while others are described so as to show the variations there are. From what the descriptions provide for, the significant things that could be extracted are the seemingly complex variations across the variables and across the individual samples.

**Limitations of the Study**

4.42 As the study is focusing on the elementary education, especially SSA and related aspects, the evaluation and impact is limited to the stakeholders of primary education only, namely, teachers and parents of the children at the primary schools across the district of Haridwar of Uttarakhand. The study is concerned more on the benefits and impact of the programme rather than the theoretical dimensions of the concepts and innovations in the tools of imparting education at the primary schools under Sarva Shiksha Abhiyan. The one limitation in the research is that the children have not been consulted in regard to the benefits and impacts, recognizing the fact that they may not be able to be articulate about the SSA. Instead, the research has considered the views of the teachers and parents, who matter most in SSA.

**Conclusions**

4.43 This chapter has dealt with the research methodology of the present thesis. A simple methodology, of frequency and percentage analysis, has been developed for assessing benefits and impacts of the SSA. The primary data collection has been planned with sample based interview schedules, which put across several questions to the randomly chosen samples from amidst the villages and towns of Laksar and Roorkee blocks of Haridwar district. The interview schedules designed for the study have been described as to the content and the intent. The sources of secondary data
have also been indicated. Importantly, the chapter has described the methods of simple statistical analysis, notably frequency and percentage analysis used in the study. The following chapter embarks on the results and discussion of data / information on the revealed perceptions of the teachers of the Primary schools.
References


Sidhu, Kulbir Singh – “Methodology of Research in Education”, Sterling Publishers (P) Ltd., New Delhi, 1984, p. 252-301