CHAPTER -3

METHODOLOGY
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This chapter seeks to explain the methods which have been adopted to conduct the investigation. The data collection tools and techniques for data analysis are also presented in this chapter.
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0. INTRODUCTION:

Survey and studies have become important techniques for investigation. Survey research is characterized by the selection of random samples from large and small population to obtain empirical knowledge of contemporary nature. Busha and Harter (1980) states that “Survey allows generalization to be made about characteristics, opinions, beliefs, attitudes and so on, of the entire population being studied. The methods of survey research allow investigator to gather information a complete enumeration”. Krishan Kumar (1992) also suggests that survey approach is considered more suitable than experimental approach for studying a large number of cases, which are geographically scattered.

Moreover, the principle methods for data collection as questionnaires and interviews are often used in survey.
The purpose of both is to elicit information from human beings which would otherwise be difficult to obtain. Thus survey approach is present oriented research.

3.1 **SURVEY METHOD:**

Present study made an attempt to investigate the information seeking behaviour of the social scientists in Marathwada, being empirical in nature, a survey method using questionnaire and interview techniques was adopted.

3.1.1 **Period of Survey:**

A survey was undertaken in July to December 2002 to ascertain the information seeking behaviour of social scientists in Marathwada region.

3.2 **METHODOLOGY/PROCEDURE:**

The steps involved in methodology/procedures are

1) Identification and selection of the sample to be studied.

2) Design of Questionnaire and interview schedules.
3) Data collection.
4) Data analysis.

3.2.1 IDENTIFICATION AND SELECTION OF THE SAMPLE.

It was found that the approximate total number of social scientists in Marathwada region was near about 600. The target was to cover 70% of these social scientists. Accordingly, 425 Questionnaire were distributed among social scientists in each discipline. The population surveyed consist of the faculty members and research scholars in University departments of Dr. Babasaheb Ambedkar Marathwada University and Swami Ramanand Teerth Marathwada University and their affiliated colleges.

3.2.1.1 Versality of the Sample:

The sample consisted of the respondents-

a) From all major social science discipline;

b) Belonging predominantly to Dr. Babasaheb Ambedkar Marathwada University and its affiliated colleges.
c) From all strata of the academic community;

d) of all age groups;

e) of both sexes.

The sample may therefore, be said to be of a representative group of academic social scientists of Marathwada region.

3.2.2 DESIGN OF QUESTIONNAIRE:

The basis of a questionnaire is a question. A Questionnaire, Krishan Kumar (1992) defines "is a written "documents listing a series of questions pertaining to the problem under study to which the investigator requires the answers". Moreover he suggests that "the success of questionnaire depends on drafting skill of the investigator. Thus drafting should be done with due care. In case a good questionnaire is available, then same may be used. If required necessary clarification may be made. However avoid modification".

Further Singh (2002) states that "questionnaire must be designed keeping a structured inview the mode of tabulation and analysis of the data gathered likely to be used". Questionnaire was designed after thoroughly scanning the relevant literature. There were certain studies where questionnaire were also given, some of the relevant questions from the concerned studies were thoroughly read and incorporated in the questionnaire of the present study. Due care was taken to make the questionnaire specific and comprehensive.

3.2.2.1 Contents of the questionnaire:

**Personal data** :- Includes Questions on name, age, gender, academic qualifications, field of specialization, areas of research, knowledge of Indian and foreign languages.

**Information seeking procedure** :- The social scientists were asked to rank all the thirteen options according to their priority. It intended to find out how the social scientists start their work.
Method of Seeking Information :- The Question on field trips, foreign trips, conferences etc. were included in this section.

Use of Sources of information :- Maximum possible sources of information were enumerated and social scientists were asked to indicate the purpose and degree of use of sources of information. This section also contains questions on use of periodicals and secondary sources.

Use of library :- The next section highlights the use a library. This section includes various sub-questions as frequency of the use of libraries, adequacy of library collection and library services with regard to awareness and usages.

Suggestions :- At the end of the questionnaire the respondents were asked to write their suggestions for the improvement of the information centres and libraries which they are using for their studies.
3.2.2.2 Development of the Scale:

The questions were designed in such a manner that the answers could be easily and quickly analysed. Some of the questions involved simple calculation of number and percentage. To tackle other complex issues, scaling techniques such as, rating scale and rank order scale have been used. Analysis of responses to such questions has been done on the basis of weighted averages.

3.2.2.2.1 Rating Scale

Rating scale can be of several types. The most usual is simply a form of precoded questions, e.g.,

Do you find the collection in your subject in libraries you use adequate enough to meet your demands?

Please tick mark (✓) the appropriate columns.

Excellent?----Adequate?-----Partially Inadequate?--------Poor?----

The number of categories affects the dispersion of answers. A variation on the verbal expression scale may be
used to elicit the extent of agreements with various statements. It is a normal practice to have a range of four answers, from positive to negative, with a neutral midpoint. The above responses may be assigned weights 4,3,2,1 at the stage of analysis of data. Numerical rating scale is easy to construct and use. The numbers can be directly used for the purpose of statistical analysis.

The procedure of Likert scale essentially involves allocating scores to statements for which the respondents can select a range of responses from 'Frequently' use to 'Never' use, Example:

Give names of the Libraries/Institutional library/ Research Institute used by you. Please tick mark (✓) the appropriate answers. Frequently ?----Often?---- Sometimes?---- Rarely?----Never?----.

In this example, choice that are most favourable to the use of libraries are assigned the greatest weights, and the least favourable responses are assigned the lowest
weights. In this method to weighted index has been created by multiplying the number of respondents with the numerical value assigned to all the scales (e.g. Frequently=4, Often=3, Sometimes=2, Rarely=1 and Never=0) and then dividing the product by the total of respondents. Next the averages of all the variables in different scales are calculated according to weighted index and are rearranged according to the rank order.

The responses are assigned weights like 5,4,3,2 and 1 or 4,3,2,1 and 0 in 5-point scale and 4,3,2 and 1 in a 4-point scale. A four-point scale is developed for the adequacy of library collection. 3,2 and 1 in a three point scale is developed for degree of use of library services. The following Tables 1 to 3 clarify the point. Example.

Table -1

Three Point Scale

<table>
<thead>
<tr>
<th>Scale</th>
<th>Weights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree of use of library services</td>
<td>Frequently Sometimes Never</td>
</tr>
</tbody>
</table>
Table -2

Four Point Scale

<table>
<thead>
<tr>
<th>Scale</th>
<th>Weights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adequacy of library collection</td>
<td>Excellent</td>
</tr>
<tr>
<td></td>
<td>Adequate</td>
</tr>
<tr>
<td></td>
<td>Partially Adequate</td>
</tr>
<tr>
<td></td>
<td>Poor</td>
</tr>
</tbody>
</table>

Table -3

Five Point Scale

<table>
<thead>
<tr>
<th>Scale</th>
<th>Weights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>Frequently</td>
</tr>
</tbody>
</table>

3.2.2.2.2 Rank Order Scale

Another rating scale used in the questionnaire is rank scale. It is a simple and most useful form of scale. Here the respondents rank a list of items in order of preference.

Example -
Which methods would you adopt to find out the sources of information the library possesses on your topic
of research? Mark 1,2,3 etc. Indicating your preferences (1 stands for first preference and 2 for second etc.)

Table – 4
Rank-Order Scale

<table>
<thead>
<tr>
<th>Methods</th>
<th>Order of Preference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consult the Librarian</td>
<td></td>
</tr>
<tr>
<td>Consult the Library Staff</td>
<td></td>
</tr>
<tr>
<td>Consult the subject Bibliography</td>
<td></td>
</tr>
<tr>
<td>Consult subject catalogue</td>
<td></td>
</tr>
<tr>
<td>Searching the shelves</td>
<td></td>
</tr>
</tbody>
</table>

3.2.2.3 Pre-testing of the Questionnaire

Krishan Kumar (1992) states “Pretest is concerned with administration of the questionnaire to a few persons comparable to respondents from whom final answers will be sought for a study and also a joint review with such persons is carried out to determine whether or not they understood the questions correctly and also whether interpretation of answers by the investigator was correct”
Singh (2002) describes "By pre-testing the questionnaire, errors can be rectified and unwanted questions can be deleted, un-clear language and wording can be corrected and improved."

Prior to the administration of the questionnaire to the sample population the questionnaire was pre-tested with a view to find out if the questionnaire could yield appropriate results. questionnaire was pre-tested on 8 faculty members and 2 research students of social science departments of Dr. Babasaheb Ambedkar Marathwada University. Some useful suggestions were incorporated and final version was printed. The data received through pretest Questionnaire was excluded from the main survey. The final Questionnaire which has been analysed for this study has been reproduced in Appendix I.

3.2.2.4 Administration of the Questionnaires:

For the survey which took place between July-December 2002, questionnaire were distributed personally through the staff of the Social Science Departments and
Libraries of Universities and colleges particularly to those available within the city of Aurangabad. Frequent visits to the social Science Departments and Affiliated colleges helped in heavy distribution of the questionnaire. Refresher courses and Orientation courses conducted by the Academic Colleges of both Universities were the opportunity for investigator to contact the Junior an Senior Lecturers for the purpose. This enabled the investigator to contact the respondents from the colleges of rural areas also.

3.2.2.5 Collection of the questionnaires:

The length of the questionnaire was the major hurdle in getting back the responses in time. The collection of the questionnaires was not smooth. Personal requests were repeatedly made and regular visits were undertaken to persuade the academic community to fill in the questionnaires. Some respondents desired that the investigator should sit before them to get the questionnaire filled-in, perhaps owing to the technicalities of the
questionnaire from information science perspective. The respondents to whom questionnaires were mailed by post were again reminded by a letter for an early dispatch of filled in questionnaires. The persons who lost their questionnaires were supplied with the fresh one. Some even returned the blank ones with an excuse of time-constraint. Despite all these hurdles a total 270 filled in questionnaires were received back out of 428 distributed, thus having response rate of (63.08%).

Table – 5

Response rate of Social Scientists

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Universities and their affiliated colleges</th>
<th>No. of Questionnaire Distributed</th>
<th>No. of Responses Received</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dr. Babasaheb Ambedkar Marathwada University</td>
<td>278</td>
<td>204</td>
<td>73.38</td>
</tr>
<tr>
<td>2</td>
<td>Swami Ramanand Teerth Marathwada University</td>
<td>150</td>
<td>66</td>
<td>44.00</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>428</td>
<td>270</td>
<td>63.08</td>
</tr>
</tbody>
</table>
3.2.3 Interview Method:

Singh (2002) defines interview as "a personal interaction (usually face to face) between the researcher and the respondent. It is an act of direct communication wherein interviewer is in face to face situation asked questions from the respondent".

Krishan Kumar (1992) defines interview as "In case the personal interaction is used, then the technique available for questioning is an interview".

Krishan Kumar further points that, "Researcher can personally explain and clarify the questions. If needed a respondent can amplify or qualify his answers".

Hence in the present study interview method was used to supplement the data gathered through the questionnaires both quantitatively and qualitatively.
3.2.3.1 Contents of the Interview:

Structured interview was conducted, questions relating to methods of collecting information, delegation of information gathering work and keeping up-to-date, questions related to library collection, services were asked to supplement the data gathered through questionnaire.

A list was prepared of the social scientists who were to be interviewed. Then appointment was sought with these persons according to their convenience. 6 Professors, 8 Lecturers & 2 research scholars from Dr. Babasaheb Ambedkar Marathwada University from Social science departments were interviewed, because these social scientists attached to Dr. Babasaheb Ambedkar Marathwada University were well identified and accessible.

The response of the social scientists to the interview was quite encouraging. The interviews were jotted down on the interview sheets, number of issues were clarified which could not have been possible only by depending on questionnaire.
3.2.4 TYPES OF DATA COLLECTED:

The data collected through questionnaires were then scrutinized and their consistency was checked before analysis.

The data collected was systematically grouped into the following areas related to the objectives of the study.

1) User characteristics
2) Methods of seeking information
3) Use of sources of information
4) Use of libraries
5) Suggestions for the improvement of the library

3.2.5 DATA ANALYSIS:

The questions were designed in such a manner that the answers could be easily analysed. Some questions involved simple calculation of number and percentage. To tackle complex questions, scaling techniques such as rating scale, rank order scale have been used, analysis of
responses to such questions have been done on the basis of weighted averages.

An enormous data was collected through questionnaire and interviews. The analysis of Data would help in drawing certain findings which in turn, helped to reach at some important conclusions on the information seeking behaviour of social scientists.

Data has been represented in Tabular and graphical form.

Data handling, validation, processing and analysis have been carried out with the help of computer, for this Windows XP-Professional, Windows-2000 was picked up as this is a quite advanced version for the statistical calculation and tabulations.