CHAPTER IV

METHOD OF THE STUDY
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Methodology in research is a way to solve the problem, to unfold the probable answer, and to test the hypothesis stated. As there are many roads leading to a city, likewise there are many methods to solve the problem of research. The researcher has to select one of them which is appropriate and requires minimum efforts, time, energy and money.

The main purpose of the present study is to study the information needs and use pattern of faculty members and research scholars of Amravati university. This chapter includes the information regarding the sources of data, sampling procedure, tools for collection of data, construction, description of the questionnaire and data analysis.

Sources of Data:

Required data for the present study were collected from the faculty members and research scholars of different colleges/departments affiliated to Amravati University. The study is mainly based on the primary data collected from the faculty members and research scholars through a well designed questionnaire. In this process of collecting the data, faculty members and research scholars were interviewed personally to cover the gaps in the questionnaire and to clear doubts. Besides, the secondary data was collected from sources like text books, reference books, national and international journals and magazines.
Sampling Procedure:

Academic community of the university includes faculty members and research scholars i.e. Professors, Readers and Lecturers, who are involved in teaching on the one hand and research activity on the other. All the faculty members and research scholars of colleges/departments affiliated to Amravati University were taken into consideration for the present study.

For the selection of faculty members and research scholars of Amravati University, the researcher used random sampling technique. A total number of 236 colleges and 21 departments are affiliated to Amravati University. There are approximately 3431 faculty members of which 748 are research scholars working in the colleges/departments affiliated to Amravati University. Out of these 1200 faculty members and research scholars were selected for the present study.

Tools for the Collection of Data:

The problem of research is not solved unless a proper tool is selected and used for data collection. Data required to clarify all the ideas in the mind of the researcher are to be collected by the researcher properly. There are various tools available and described by previous researchers which are in use. To have a brief idea of these tools, it can be summed up through Figure 4.1 which is graphic presentation given by Wilkinson and Bhandarkar.¹

Out of the sources of data collection shown in the figure, the paper sources constitute a major part of library collection. They are used by majority of social researchers. Such documents not only describe contemporary events but also help to know these events occurred. As these documents provide the data either first-hand (i.e., primary sources) or second-hand (i.e., secondary sources), it is not necessary for a researcher to spend time, energy and efforts to
collect such a large available data through people sources. In the present survey, the researcher has used statistical records available with Amravati University. Apart from these text books, reference books, national and international journals and magazines were used.

**Figure 4.1**

*Tools of Research*

<table>
<thead>
<tr>
<th>Paper Resources</th>
<th>People Resources</th>
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<tbody>
<tr>
<td>Primary</td>
<td>Questionnaires</td>
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<tr>
<td>Letters</td>
<td>Interviews</td>
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<tr>
<td>Contracts</td>
<td>Observations</td>
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<td>Court records</td>
<td>Schedules</td>
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<td>Census</td>
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<td>Personal diaries</td>
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<td>Autobiographies</td>
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<td>Tapes</td>
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<td>Films</td>
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<td>Newspapers</td>
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<td>Reports of visits</td>
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<td>The case histories</td>
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</table>

Of the people resources mentioned above, the researcher has decided to use a questionnaire as a tool of research for data collection. The reason for this that it was difficult to visit each faculty members and research scholar and collect data required due to vast distribution of the respondents in five districts colleges affiliated to Amravati University.

The following tools were used for collection of data pertaining to the present study:

1. Questionnaire
2. Interview-schedule
3. Observation-schedule

Construction of Questionnaire for Faculty members and Research scholars:

1. Questionnaire:

To collect the information about the information needs and use pattern of faculty members and research scholars of Amravati University the investigator used a questionnaire.

At the outset a preliminary questionnaire was developed. The outline was discussed with the researcher's guide, faculty members/research scholars, college librarians, university librarian of Amravati University. After discussion the questionnaire was developed and given a trial run among the faculty members and research scholars of Amravati University. At last the questionnaires were circulated to all the faculty members and research scholars of Amravati University.
Follow up:

The final questionnaires (Appendix-I) was sent to all the faculty members and research scholars of Amravati University along with a request letter and a self addressed stamped envelop. The faculty members and research scholars from whom the questionnaires were not received within one month were given reminders and they were pursued for sending their responses.

The faculty members and research scholars within the reach of the researcher were visited personally and distributed questionnaire to respective respondents and passed on necessary instructions related to the filling up of a questionnaire. The present scholar assured that the information given by them would be used for the research purpose only. Thus researcher could finally gather 1259 duly filled-in by the faculty members and research scholars as per instructions.

The present researcher then scrutinised each and every forms filled-in by the faculty members and research scholars respectively. Researcher found that the faculty members and research scholars, a few items were not filled in and in this respect researcher dropped fifty nine (59) forms of respondents before applying further statistical techniques.

In this way, the present researcher collected data for tabulation and statistical analysis of 1200 faculty members and research scholars.

2. Personal Interview:

To have a face to face dialogue and to collect more reliable data, personal interviews were arranged with pre-intimation to the interviews. The interviews were conducted according to an interview schedule (Appendix-II).

While selecting the interviews, faculty members and research scholars of different disciplines and highly experienced persons were involved.
At the first stage their appointment was taken and then only respondent was approached at the appointed time for the interview. After completing preliminary formalities through informal talk, one after another the questions were asked and the responses given by the respondents were noted down in a format.

3. Personal Observation:

To study the information needs and use pattern of faculty members and research scholars of Amravati University the researcher had a personal observation. The researcher visited departments of Amravati University, Amravati University library, Shri Shivaji Science college library Amravati, Kalani Vanijya mahavidyalaya library Yavatmal, Amolakchand mahavidhyalaya library Yavatmal, Shri Shivaji Arts, Commerce and Science college library Akola, Jijamata mahavidyalaya library Buldhana, Shivshakti mahavidyalaya library Babhulgaon and Shri Shivaji mahavidyalaya library Akot etc. space of library, collection, services, availability of electronic sources, any special facilities and services provided to research scholars, their use patterns, displaying material etc. were observed and also how faculty members and research scholars access information through electronic sources were observed while visiting the colleges/departments of Amravati University.

Description of the Questionnaire used:

The questionnaire is essentially a skillful translation of objective into a set of questions intended to be answered in writing. It is a written list of questions requiring answers in writing.
The questionnaire used in the present survey was divided into eleven parts, having 71 main questions with multiple options. These eleven parts were:

1. General information
2. Allied specialisation
3. Information needs
4. Use pattern
5. Information sources/services
6. Information gathering behaviour
7. Nature of information needs
8. Adequacy of collection
9. Information channels
10. Constraints of information
11. Suggestions

The first part of the questionnaire was having eleven general questions like name of the faculty members and research scholars, category, faculty, educational qualification etc. This part gave the researcher an idea for coding the data, to find out the faculty, whether the person is a research scholar, paper presented in national and international conferences, books published and experience of teaching and experience of research guidance.

The second part contained nine questions related to the allied specialisation in different disciplines. These pertained to the specialisation, research topics, interdisciplinary topics, work activities and attended conferences, seminars of allied subjects etc. This information helped the researcher to know the allied specialisation in different disciplines of faculty members and research scholars.
The third part was about the information needs of the faculty members and research scholars. It was having the questions like different types of information sources meeting research/teaching needs i.e. formal sources, informal sources and electronic sources, periodicals consulted, use of foreign/national periodicals, indexes/abstract periodicals, microfilm, microfiche, internet etc. As to know the information needs of faculty members and research scholars, these questions were included in this part. From this the researcher could find out which information sources or collection of the library at what extent met the research/teaching needs of the faculty members and research scholars.

The fourth part included questions regarding the use pattern followed by faculty members and research scholars. The questions like how they manage to know the current literature, how they search interest material, seek advice for research, facing difficulty due to non-availability of required documents, visit other libraries, advice about network of libraries, possessing of skills in using catalogues and electronic databanks. This information helped the researcher to find out the pattern used for current literature, requirement of libraries network and whether the faculty members and research scholars seek help of librarian in using catalogues and electronic banks for desired information.

The fifth part was about different factors which facilitates information/sources/services to the faculty members and research scholars. The respondents were asked whether they are aware and used the services from the library. Further, it was asked the services used from national and international bodies and does their library provide Internet services. This has helped to know the awareness of mostly used services and whether the libraries provide Internet services.
The sixth part was related to the information gathering behaviour. It was having questions like timing, use, comfortable in the library, gathering information, method of teaching etc. From this the researcher could find out the timing of the library which suits the respondents, whether feel comfortable in reading in library and how often make use of the library.

The seventh part is related to the nature of information needs of faculty members and research scholars. The questions included like asking the purpose of the visit to library, reasons for seeking information. From this it helped to know the nature of information needs of purpose of visiting library for seeking information.

The eight part is regarding the adequacy of the collection with the research needs. The questions mainly include whether collection of library is adequate, required library services, level of satisfaction, reasons of dissatisfaction, non-availability of documents, satisfaction of Internet facility. This information has helped the researcher to know the satisfaction and dissatisfaction of available documents and services.

The ninth part, which concerned to the various channels through information is accessed by the faculty members and research scholars. The questions were asked about getting reading material, media, or through other various channels etc. This part gave the researcher the information of getting the material from their local libraries, outside libraries, and other channels.

The tenth part is related to constraints faced in using/searching information in libraries. The questions were asked the respondents about the difficulties encountered in access to use of information. Multiple choices were given to tick out. From this information the researcher came to know what difficulties the respondents face in using or searching information.
The last part of the questionnaire was having the questions of asking the suggestions/remedies which may help the faculty members and research scholars to use the library in an efficient way. From this the researcher could find out the ideal time of the library required by the respondents, what type of techniques should research scholar follow. Further it was also found the ideal number of books issued and number of days to keep the book with the respondents.

In short, through the questionnaire, care was taken to cover almost all areas of information needs and use pattern of faculty members and research scholars for requirement of sources, services, channels and new environmental technology i.e. electronic sources for keeping themselves up-to-date.

Data Analysis:

The data collected through the questionnaire was analysed with the help of the computer. The development of electronic devices, specially the computers, has given added impetus to this activity. Computer is certainly one of the most versatile and ingenious developments of the modern technological age. The researcher used the Foxpro data base management system (DBMS) software to analyse the data.

Foxpro is a product developed for managing information or data stored on the computer in an efficient and optimum manner. Foxpro is one of the most widely used database management system software with programming facility.

The steps followed by the researcher for data analysis are given below:

1. Selected Foxpro software
2. Created 2 database files with fields for data entry i.e. vgc1.dbf and vgc2.dbf
3. First file (vgc1.dbf) contain data from part A to E
4. Second file (vgc2.dbf) contain data from part F to I
5. Created a program in Foxpro to analyse data.
6. After analysis, data was framed in the tabulation form.
7. Calculated percentages and arithmetic mean wherever necessary.
8. Chi-square test was used to compare an observed group of frequencies with an expected group of frequencies. This led to deduce the expected frequencies from the null hypothesis.
9. The analysed data was used for the conclusion of the present study.

REFERENCES