CHAPTER – 3

METHODOLOGY

3.1 Introduction:

The term research defines as it is an art of “scientific and systematic search for pertinent information on a specific topic investigation”. “The Advanced learner’s Dictionary of current English lays down the meaning of research a careful investigation or inquiry specially through search for new facts in any branch of knowledge”. “In the Encyclopedia of Social Sciences can also be define research as the manipulation of things, concepts or symbols for the purpose of generalizing to extend, correct or verify knowledge, whether that knowledge aids in construction of theory or in the practice of an art.”

There are many methodologies in research to solve the problem, to unfold the probable answer and to test the Hypothesis stated. Research therefore, need adequate and accurate data for this purpose. So the researcher has to prepare a research design. The researcher has to select one of them which is appropriate and requires minimum efforts time, energy and money with sufficient reliability accuracy. It is a plan to execute research project.

To study of the present research project of Engineering College Libraries in western vidarbha region in last two decades many private engineering colleges are permitted to run and spread education in every corner of country. It is also valuable to study whether they all fulfils the criteria imposed upon by All India Council for Technical Education to study their objectives about development and levels of standard and also to study available reading materials and facilities providing to the users.

The collection of data and information is an extremely important part of library science research because the conclusion of the study is based on what the data reveals. So the methods of data collection are very important.

There are many tools available and used by the researchers suitable to their purpose. As the final result of research, the solution to the research problem depends on analysis of this data collected, so the data collection in the research is the very crucial stage. If the source is reliable then the results are more correct. There are
different data sources which may be grouped as shown in the diagram by 3.1 which is a graphic presentation given by Wilkinson and Bhandarkar.

Figure no. 3.1 Data sources documents.
3.2 Methods of data Collection:

In order to gather the data on the problem for the research and to test the validity of the hypothesis stated.

The following methods are used-

1. Questionnaire.
2. Interview
3. Personal observation

3.2.1 Questionnaire:

Western Vidarbha Region is one of the parts of Maharashtra State. There are Fifteen Engineering Colleges libraries spread over a area of five districts the questionnaire as a tool for data collection is used.

After finalizing the research problem a preliminary questionnaire was prepared under the guidance of research supervisor, persons working in Engineering Colleges libraries going through questionnaires on allied subjects.

A preliminary questionnaire was prepared and circulated among 15th Engineering college libraries of five districts as pilot survey for the final set up of the questionnaire.

3.2.1.1 Construction of final Questionnaire:

To get the response, the questionnaire was not too long, it has only 82 questions. To understand the questions correctly and for getting the correct information the questionnaire is prepared in English language. So that the persons are encouraged to answer the questions and give the proper/ relevant information; the questionnaire is so constructed that it reflects the objectives of the study and to get the answers in writing.

For the data analyses following sections are divided to collect the expected data and its systematic study, analysis and interpretation.

The questionnaire is divided into 13 sections as-

1. Section A – General Information of College
2. Section B - Information of Library
3. Section C - Library Personnel
4. Section D-Library Hours
Section A hasten questions with Name of the college, full address of the college, establishment year of the college, Status of the college, Name of the principal, total working staff in the college.

This part of the data gives the primary information about the geographical location, Year of Establishment, Status of the college, name of the principal, total working staff in the college, college approved by A.I.C.T.E. and N.B.A, college library fulfills all rules regulation, norms laid down by A.I.C.T.E, information of each courses/branches are conduct in the college. This helped the researcher for coding and processing the data related to general information of the college.

Section B with eighteen questions is related with information of library, Name of library, Name of librarian, qualification of the librarian, phone, e-mail, library building, year and sq.m; extension of the library building, year and sq.m; number of rooms or section, Furniture and equipments.

Section C with six questions is related with library personnel, total staff, college organized workshop/ seminar/ conference, attended short term training programme, quality improvement programme, and workshop/ seminar/ conference, member of the professional body.

Section D with two questions is related with library hours, normal library working hours and additional library working hours.

Section E with four questions are related with acquisition Section, total staff members working in this Section, financial sources of the library, year wise financial details, any other generating financial sources, total collection of the library. The finance is very important for every institution/ organization for its maintenance, progress, development and innovations.
The data helped to researcher to know the financial status of the different Govt. Aided, Private non aided and Autonomous engineering colleges. Financial resources and efforts for higher collection is a constant need, not only to progressing library but also for the bare viability of many engineering college libraries.

Section F is concerned with library books, the information about course wise development of library in terms of books. This section and set of question helped to collect data to verify this condition also to knows about various subject or discipline on engineering education.

Section G is concerned with library journals, consortia of online journals and total amount spent on library collection since 2006-2011. The information about course wise development of library in terms of journals. This section and set of question helped to collect data to verify this condition also to knows about various subject or discipline on engineering education.

Section H related with information about newspaper subscribe in libraries. Newspapers are considered as an important communication channel through which flow of current information takes place. It acts as primary source of information to communicate their ideas, findings for making it known to others immediately indirectly influencing the users whereas the newspapers of varied levels and in different languages attract more users in the premises.

Section I with seven questions are related with information about reference books and other reading materials i.e. books, their number, classification, reference books, stock verification, periodicity of stock verification, policy about lost of books, maintained catalogue and circulation section. This section and set of questions helped to collect data to verify this condition and also to know about variety, maintenance, cataloguing as addition of new reading material is essential. This growth in the size of collection affects both the quality and quantity.

Section J with four questions are related with information about readers, total number registered members, the numbers of users of the library per day, categories of the users, book reservation facility. The reader is the most important component of this research project. Library is a heart of any academic institution and reader is a heart of any library. He is beneficiary of the academic library the main purpose of academic libraries is to serve the users. So the interests are to be considered of primary importance in planning and organizing services. The data of total registered
members help to know about fulfilling the minimum requirement of membership. It also helps to know about subscription of the collection. The number of users helps to know daily working while remaining questions helps to know about users coming from different courses offered by academic institution.

Section K with four questions are related with information about services, various services provided by library, ready reference service, internet facility and type of connectivity, total computers internet facility is available for users. The library services have only one motto i.e. to satisfy the user needs, to organize and involve management, staff and user to make academic library a more useful institution for the society. The data related to questions of section K helped researcher to identify the status, development and management of academic libraries in this regard.

Section L with seven questions are related with information about computerization of library, present operational status of the library, how many computers are use for computerization in the library, which library software do you use for library operation, do you developed digital library, infrastructure facilities for library computerization, do you apply bar code technology in your library, RFID technology and other technology you are applying in the library. The data related to questions of this section, researcher helped to identify the development of computerization or digitization of the library.

Section M with three questions is related with information about others, library associated with AICTE- INDEST consortium scheme, member of the library any INDEST consortium and AICTE- DELNET scheme. The data related to questions of this section, researcher helped to identify the development of the library as per AICTE rules and membership, resource sharing of AICTE- DELNET scheme.

The data help the researcher to know about the fulfillment of minimum requirement of development and management of engineering college libraries. The researcher will also be receiving the data through these questions related to the participation of the engineering college librarian.

In brief the questionnaire is so prepared to cover all aspects necessary to fulfill the objectives of the research problem.

3.2.1.2 Mailing the questionnaire:

The up to date engineering college list is collected from Directorate of technical education: Maharashtra State, (2009-10), Admission Information Brochure,
Government of Maharashtra, Mumbai. Accordingly the questionnaire was sent to all these engineering college libraries.

For mailing the questionnaire, a cover letter was prepared explaining the importance and purpose of questionnaire, to motivate and to respond frankly, confidentiality and anonymity was assured. To return the questionnaire within the due given date, a request was made and to facilitate the quick return, a self addressed, stamped, envelop was enclosed with questionnaire.

The follow up through appeal in conferences / workshops, personal messages and reminders through post and telephone were used to collect the belated questionnaires.

3.2.2 Personal Interview:

The method of personal interview is used, to explain the purpose and importance of the research and convince them the necessity for their full cooperation and response, because face to face meeting helps to clarify the doubts and so more accurate and exact data is collected.

For interviews and interviews schedule was prepared. Librarian of 15th Engineering College libraries in five districts of Western Vidarbha Region, the interview schedule coin sided with it.

Interviews were without any pre intimation, unguided and of short contact type (so the data collected is spontaneous, more reliable as they are borne out of direct practical and personal experiences and without giving any chance for biased information).

3.2.3 Personal Observation:

The researcher visited all engineering college libraries for actual on ground observation of their working. Personal observation on both the services provided to readers by library, circulation and infrastructure, reading material available in the library as per AICTE rules regulation, was equally made so as to ascertain the veracity of information provided in the questionnaires and during the unstructured interviews.
3.3 Participation in conferences, seminars and workshops related to academic library:

The conferences, seminars or workshops are the occasions where the recent development, progress, problems and researchers going on in the field are discussed and are the feasts for the research students. The participation is an opportunity to meet, discuss and exchange the views with the other participants and also seek advice or solution.

On certain personal difficulty the list of participation in various conferences/seminars and workshop is given in (Appendix-IV).

The participation in the state level conference organized by shri shivaji arts & commerce college, Amravati, VLA & SGB Amravati University college librarian’s Association, International conference organized by JJT University, Rajasthan, like that so many national and International conferences attend by researcher. These conferences are more helpful to my research work and developed academic libraries.

3.4 Data Analysis:

The data collected by the various methods used is consolidated and analyzed which is used for the conclusion of the study. The data collected through the questionnaire were analyzed with the help of the computer. The advancement of electronic tools especially the computers have given added motion to this activity. Computer is positively one of the nearly all useful and creative developments of the present technological age. The researcher used the Microsoft office 2007 software to analyze the data.

MS office 2007 is a product developed for managing information or data stored on the computer in an efficient and optimum manner. MS Office is one of the most widely used data base managing system software with programming facility. The steps followed by a researcher for data analysis are given below;

1) Selected Microsoft excels software.
2) Created a programs in Microsoft excel software to analyses data.
3) After analysis, data was framed in the tabulation form.
4) Calculated percentages and arithmetic mean wherever necessary.
5) Chi-square test is used to analyze data wherever it is necessary.
6) The analyzed data was used for the conclusion of the present study.
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