CHAPTER – 4

RESEARCH METHODOLOGY

Research is a systematic inquiry to describe, explain, predict and control the observed phenomenon. Research involves inductive and deductive methods (Babbie, 1998).

Patton (1990) has classified four types of research based on different purposes:

- **Basic Research**: The purpose of this research is to understand and explain, i.e., the formation of theoretical research and the ideal time and place of the formal test plans and are interested in pursuing. Research of this type of knowledge to its contribution takes the form of a theory that explains the phenomenon under investigation. The research is descriptive in nature, exploring the what, why and how questions.

- **Applied Research**: The research objective of humans can more effectively control their environment so that people have to help to understand the nature of human problems. In other words, this type of research to pursue possible solutions to human and social problems. The research also what, why and how questions are more descriptive in nature exploring.

- **Evaluation Research**: Evaluation research effort aimed at solving processes and results of the study. There are two types of it - summative and formative. The purpose of the activities such as formative research, time, and specific groups of people, is to improve the human intervention; summative evaluation of a program, policy, or to judge the effectiveness of the product.

- **Action Research**: Action Research Program, within an organization or community aims to solve specific problems. Action research design and data collection are more informal, and the status of the people directly involved in the data collection and the study itself.

A research method is to explore the structural process but it is a collective term. However, the Research is usually used in a variety of research design, data collection and for data analysis which are given consideration in many different systems. We have various methods
for conducting a research. Important ones as suggested by Mishra (1993), Kumar (1985, 1999), Bhandarkar and Wilkinson (2000), Sinha and Dhiman (2002) and Dhiman and Rani (2005) may include the following:

- Interview method
- Questionnaire method for library survey
- Interpretation of library statistics over a period of time
- Comparison with other libraries
- Observation method, and
- Applying standards based on averages.

Each of above method has its advantages and disadvantages. Like, observation can be made by informing the informants or in a hidden or secret way. Here, the observer could make use of the notebooks, pre-designed proformas, cameras or tape recorders in both the observational method. First category is an easy method and the people under observation are cooperative, even sometime enthusiastic. However, the problem is that people are not really natural when being observed. Their behavior could be self-distorted or manipulated for good or bad. But the people are not natural when conscious of them is being observed by outsider. To avoid the above situation the observer may observe the participants in a secret manner without intimating them. To some extent it is possible. For example, you may sit in a corner of a library and see what reference sources the library users consult or how they use the catalogue. It also involves, in some cases, the question of ethics and legality. Also distant observation may not be correct at all the times.

*Questionnaire method* is a traditional and all pervasive instrument to collect and the record data. It is structured and formally written list of questions to be put to the respondents’ answer. It is easy and handy and can be administrated in many ways depending upon the convenience of the researcher and the respondent. To facilitate response it should have the following qualities:

- Questions whether close or open ended, should be brief, clear and to the point.
• Irrelevant or unnecessary questions, which may irritate the respondent, or may not be of any relevance to the research, should be avoided.
• Questionnaire should not be too lengthy. Return rate of lengthy questionnaire is low and respondents always take more time in filling them. Besides, the length may also repel the respondents.
• Anonymity should be promised and honoured, if desired by the respondent. They should also be assured that information would not be used for any other purpose than the declared one.
• Copy of the research results/report should be promised to the respondents, if asked for.

The present study is evaluative types of study, in which an effort has been made to focus on the current problems and factors, which affect the service pattern of the engineering college libraries. The main motto is to understand the present scenario of engineering college libraries with the help of data gathering processes, which would enable to describe it more adequately, and help to understand the phenomena.

For the present study, two questionnaires are prepared – one to collect information on the prescribed format from the Librarians and the other on the views to be collected from the Users – whether they are faculty members or the students. Suggestions from them can be included to improve the services in existing libraries. For example, students can give their views on the opening timings of the libraries, availability of the nodes for accessing Internet, on developing particular collection for the use or may give emphasis on the e-resource collection.

Thus the present study is based on Primary Data and Secondary Data. Primary data are collected through questionnaire containing the various question related to the evaluation of the library services such information need and behavior of the users, opening hours of library, attitude of library staff, total budget, staff and human resource development, and application of information technology etc. Secondary data in certain places are collected through various sources of publications such as Magazines of the College, Hand Book, Dictionaries, Encyclopedia, Reports, and Records etc, and also from the websites of selected colleges.
Additionally, primary data were also collected on critical points through observation such as attitude of library staff, physical condition of library, etc. These are used in defining the state of art of the college libraries undertaken for the study.

The data collected so far are analyzed and interpreted by the various angles for Evaluation of Library Services of the Engineering Colleges and a comparison is made with national and international norms of users’ need and library studies to conclude concrete results.

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