

CHAPTER - 3

RESEARCH METHODOLOGY AND RESEARCH DESIGN

3.0. Introduction

There are different methods and procedures used to gather data for quantitative research that include experimental research, survey method, historical method, descriptive method and case study method. Each method has its own strength and weakness. To fulfil the objectives of the present study, survey method was adopted with questionnaire as a tool for collection of data. Survey method is very popular as it allows for standardization and uniformity both in the questions asked and in the method of the approaching the subjects. It is easier to compare and contrast the answers given by the respondents. It also ensures higher reliability, efficiency and accuracy in determining the information about the given population. The results can be relatively quickly depending on the sample size.

The study is based on the survey carried out by the researcher with aims to focus on the status of collection development and ICT application in the libraries of higher educational institutions of Sikkim.

3.1 Methodology

In this study, “Survey Method” of research was adopted using questionnaire as primary data collection tool which has been supplemented by interview of librarian

and observation of the libraries to collect data from the libraries of higher educational institutions of Sikkim; which consists of Central University, Private Universities, Govt. Colleges, Private Colleges, Medical College, Teachers Training College, Polytechnics and ITI. The survey has been conducted in two parts; the first part was to gather data from the Librarian/ In-charges of selected libraries of higher educational institutions with regards to status of collection development and ICT application. The second part was to study of the user's response on aspects of library resources; collection, ICT Application, library services, and satisfaction level regard to the libraries of higher educational institutions of Sikkim.

3.2 Population/ Size and Area of the Study

The study has attempted to find out the status of collection development and ICT application in the libraries of higher educational institutions of Sikkim. The area of the study selected for the research is "Sikkim" state of India located in North East. In Sikkim there are twenty nine higher educational institutions (universities, colleges, polytechnics). The population of the study further consists of 25 higher educational institutions. The sample of the study for user was drawn on the basis of random sampling technique and it was decided to take 300 samples from the population that is selected colleges and universities (50 from each six selected higher institutions) for the present study. The details of sampling have been mentioned in the sampling procedure survey.

3.3. Sampling Procedure for Survey

Table – 6: Sample Design of Present Study (Libration/ In-Charges)

| Universe of Study | Sample Framework | Sample (Librarian/ In-charges) |
|-------------------|---|---|
| Sikkim | Higher Educational Institutions of Sikkim | <ol style="list-style-type: none"> 1. Sikkim University 2. ICFAI University 3. EIILM University 4. Vinayaka Missions Sikkim University 5. Sikkim Manipal Institute of Medical Sciences 6. District Institute of Education and Training 7. Rhenock Government College 8. Sikkim Government College, Tadong 9. Namchi Government College 10. Government College, Geysing 11. SHEDA College, Deorali 12. Damber Singh College 13. Palatine College, Pakyong 14. Sikkim Manipal Institute of Technology 15. Sikkim Government B.Ed. College 16. Loyola College of Education 17. Harkamaya College of Education 18. Advanced Technical Training Institute 19. Centre for Computers & Communication Technology 20. Industrial Training Institute 21. Himalayan Pharmacy Institute 22. College of Agriculture Engineering and Post Harvest Technology 23. National Institute of Technology 24. Institute of Hotel Management, Catering Technology 25. Sikkim Government Law College |

Table – 7: Sample Design of Present Study (Users)

| Universe of Studies | Sample Framework | Sample (50 Users from each) |
|--|---|---|
| Library Users of Higher Educational Institutions of Sikkim | Library Users of Selected Higher Educational Institutions of Sikkim | <ol style="list-style-type: none"> 1. EIILM University 2. Government College, Geysing 3. Sikkim University 4. Sikkim Manipal Institute of Technology 5. Rhenock Government College 6. Namchi Government College |

Table – 8: Questionnaire Distribution Design for the Present Study (User Study)

| Higher Educational Institutions | Questionnaire Distribution | | | District |
|--|----------------------------|------------|------------|--------------|
| | Faculty | Student | Total | |
| EIILM University | 10 | 40 | 50 | West Sikkim |
| Government College Geysing | 10 | 40 | 50 | West Sikkim |
| Sikkim University | 10 | 40 | 50 | East Sikkim |
| Sikkim Manipal Institute of Technology | 10 | 40 | 50 | East Sikkim |
| Rhenock Government College | 10 | 40 | 50 | East Sikkim |
| Namchi Government College | 10 | 40 | 50 | South Sikkim |
| Total | 60 | 240 | 300 | |

3.4. Design and Administration of Questionnaire

Keeping in view of the objectives, problems and limitations of the study the efforts have been made to evolve a suitable questionnaire for the research. In the study two sets of questionnaires one for the Librarian / In-charges and other for the Users were

designed for collecting the data. The descriptions of the contents in both the questionnaires have been given section.

The librarian questionnaire has sought information about the institutions library. It has therefore covered following aspects:

Section-A: *Institutions Background:-* This part deals with the information regarding the institutions background and it contains seven items such as name of the institution, name of the library, affiliation of the institution, year of establishment, website address, library website and type of institutions. Necessary instructions were given at appropriate places to help the respondents in filling the questionnaire.

Section-B: *Employee's Profile (Library Professionals):-* This part of questionnaire deals with library employee's (librarian) profile and it contains name, academic qualification, age, gender, experience, professional membership, no of publications, number of staff.

Section –C: *Collection Development Status:-* This part of questionnaire deals with collection status of library it includes category wise collection general books, text books, reference books, journals, back volume journals, manuscripts, theses/dissertations, AV materials, newspapers, maps, atlas and others. In this part of questionnaire it was also deals with book selection policy, library committee, type of committee, book ordering frequency, mode of purchase, journal and e-resource procurement, services, classification, cataloguing, weed out policy, problem faced in the library for collection development etc.

Section-D: *Development of ICT Infrastructure and Library Automation: -* This part contains about the status of ICT infrastructure, status of library automation,

operating system, library software adopted in the libraries and services given in automated environment.

Section-E Internet / E-Resources Facilities: - The fifth part deals with the internet connection in the library, type of service provider, LAN facility, network membership, and problem faced to use ICT application in the library.

Section-F: Usage of Library: The sixth part contains about the usage of library, number of users, working hours, working days, visitors etc.

Section- G: Human Resource Planning/ Development: - The seventh part deals with human resource development/management, professional membership, promotion, training program etc.

Section-H: Database Creation: - The eighth part contains about the database creation of records, number of records recorded in automated environment.

The questionnaires for users were used to collect information focused on the use of library collection. Users were thus asked question regarding their visiting pattern, their awareness, usage, preferences, perceptions, preferred practices and attitudes. It had been covered with following aspects:

Section – A: Personal Background /Characteristics of the Respondents

Section - B: Library visiting pattern

Section – C: Library Collection

Section –D: Library Services

Section – E: Suggestion / feedback to improve the library collection/ resources.

3.5. Tools used for Data Collection

3.5.1. Questionnaire Method

The two different set of questionnaires were administered one for the librarian and the other to the library users consisting of faculty and students. Some of these questionnaires were collected personally. However the responses have been 100% in the case of librarians/ in-charges. Repeated attempts were made to have maximum response rate. Some of the respondents refused to complete the questionnaires due to other unexpressed reasons. In the case of users study random sampling has been taken and personally collected data from the library users of six selected institutions.

In the study it had been used both primary and secondary data for the research work for secondary data were collected from the brochures, prospectus, newsletters, records, websites, articles and different publications.

3.5.2. Personal Interview Method

The personal interview method supplemented the questionnaire method and include interview with some of the authorities like Librarians of the concerned institutions. During the study researcher visited and made an appointment with the Librarians/ in-charges for the study related data information about their library services, automation status, etc. Finally, the information collected on the basis of the personal contact with the interview personally.

3.5.3. Observation Method

To gather the data/information observation is the most natural way. The researcher visited the selected institutions of Sikkim in study period and observed the organisational and administrative practices, functioning, facilities and resources of the institutions and analysed for the study. It helped the researcher to get a clear picture/

status of the collections and ICT infrastructure in the higher educational institutions of Sikkim. Besides, it was also availed as an opportunity to meet the faculty members, students and library employees to solicit their suggestions and feedback to improve an appropriate model of library and information science education.

3.6. Data Collection procedure

It was prepared sufficient numbers of copy of the questionnaire initially and posted to all the twenty five institutions and as the remote area personally it was contacted with the librarian/in-charge of the institutions to fill the questionnaire and return to sender/researcher. The researcher received some filled questionnaire from the librarian as quick responses and in maximum case it was needed to follow up through phone and finally received through post and e-mail within eight months of time.

In the second part of user study and evaluation of the libraries conveniently due to time shortage it was selected some institutions in which three from East Sikkim, two from West Sikkim and one from South Sikkim. In the selected institutions 300 (Three Hundred) questionnaires have been distributed amongst students and faculties. Finally, the researcher received/collected only 257 (Two Hundred Fifty Seven) filled questionnaires from the respondents/users and the experience was encouraging.

3.7. Period of Data Collection

The questionnaires were posted on 17th January 2014 through Indian Post to the Librarian/ In-charges of the selected higher educational institutions in Sikkim. IT was taken eight months to return back the responses and in August 2014 finally collected twenty five responses from librarians. Later the user study was started with

purposively from the users of selected institutions. Finally, the data was collected during the period of **January 2014 to December 2014**.

3.8. Consolidation of Data

On the basis of filled up questionnaire from the librarian/ in-charges and users the data have been analyzed and tabulated in Microsoft Excel with in simple. All the results have been shown in tabular and / or graphical representation and for the data analysis only simple percentage technique has been adopted.

3.9. Conclusion

Keeping in the view of the aims and objectives of the study questionnaires have been designed on the basis of published studies in professional journals, help of supervisor for population area/ size of the study. The questionnaires were divided in to different parts comprising, background of the institutions, collections, information and communication technology application in libraries, professional strengths, working hours, classifying, cataloguing techniques, library automation software, library networking, staff development, collection development policy, weed out policy, users satisfaction level, rating of the library by the library users. The questionnaires were distributed as per sampling design and responded data collected for data analysis, interpretation and conclusion.