Research Design and Methodology

4.1 Introduction

This chapter is intended to describe the research design and methodology employed to analyse the non-use of college libraries and its services by the undergraduate students of Arts and Science colleges. Research methodology is the science of studying how research is done and research design is the plan of investigation carried out by the researcher to execute the research study systematically. The research design and methodology adopted for the present study is described in under various headings namely design of the study, conceptual framework, population of the study, sampling design, samples of the study, tools used for the study, pilot study, description of the questionnaire, procedure of the study and statistical techniques used for the study.

4.2 Design of the Study

Research design is the plan of investigation conceived so as to obtain solution to the research problem, as well as to test the research hypotheses. The present study is intended to measure the extent of non-usage of college libraries by the undergraduate students of Arts and Science colleges in Kanyakumari district. Non-usage and non-users of college library and its services are determined by either conducting user survey or from the data collected from the gate registers maintained in respective college libraries. Interview method is also useful to identify the non-users of college libraries. Since the scope of the study is not limited only to identification of non-users but also to analyse their characteristics and the reasons for non-use, the appropriate method to analyse the non-usage of college libraries and its services is survey method. Thus the researcher has adopted survey method to study use and non-use of college libraries by the undergraduate students of Arts and Science colleges in Kanyakumari district.
4.3 Conceptual Framework

The conceptual framework of the study to evaluate the non-use and non-users of the libraries involves the process of interaction between the individual and the information system (Library). Information seeking process among the user depends on many factors which can be grouped under three categories namely (i) the need (ii) the user (iii) the source (Library). The matching needs of the users with information system bring satisfaction and help to develop positive attitude and perception towards library. Once the information requirements of the users is satisfied, it develops a bond and affection towards library and its professional and it continues life-long in various form.

The users of libraries are categorized into different groups based on frequency and purpose of library visits as user, non-user, marginal user, delegated user and delegate user (Sridhar, 1994). The initiative, drive, self-motivation, achievement motivation, reading habits and style, previous experiences, social and cultural background, environmental factors, experience in handling modern technologies for searching information moving them towards sources of information. The effectiveness of library (source) depends on library collection, library professionals, interpersonal communication, existence or availability. Knowledge about existence, accessibility, ease of use, user friendly technology, perceived utility and similar will determine users approach towards library. There are barriers which affects the user to use the information sources freely. It includes physical barriers, psychological barriers, social factors influences the usage of library resources.

Individual skills, competency, familiarity with technology, information literacy among the learners influence their perception towards library and its services, and attitude towards uses of internet for academic and perceived barriers in accessing library resources.
Since the present study is intended to determine the non-use of libraries and its services by the undergraduate students. Information seeking process of undergraduate students depends on their information need and perceived usefulness of college libraries. The extent of usage and non-usage of college libraries by the undergraduate students of Arts and Science colleges is based on information needs and the effectiveness of the information system in fulfilling their requirements at their level of satisfaction.

Barriers in accessing library and its resources, perception towards library and its services and attitude of undergraduate students towards uses of internet for academic purposes determine the use and non-use of college libraries by the undergraduate students of Arts and Science colleges.

The independent variables of the study are gender, locality, age, discipline, type of college, nature of course, student category, paternal education, maternal education, occupation, monthly income, accessibility of public libraries, membership in public libraries and marks scored in previous examination.

The dependent variables of the study are usage of college libraries, barriers in use of library, information literacy, perception towards library and its services, and attitude towards uses of internet for academic related works. The conceptual framework of the thesis is presented in diagram 4.1.
Information Literacy

Barriers in Use of ICT

Attitude towards Uses of

Usage of College Library Resources

Regular User

Non-User

Non-Usage of College Library Resources

Need

User

Figure - 4.1: Conceptual Framework
4.4 Population of the Study

The scope of the present study is limited to Kanyakumari district of Tamilnadu and further to undergraduate students of Arts and Science colleges. Totally, there are 28 Arts and Science colleges in the district. All the Arts and Science colleges in the district are affiliated to Manonmaniam Sundaranar University, Tirunelveli and recognized by the Government of Tamilnadu. These colleges offer degree courses in Arts, Science, and Social Science disciplines at undergraduate level along with post graduate programme. The duration of undergraduate programmes is three years and the usage of college libraries among the undergraduate students is determined on the basis of usage of college libraries from the first year to the final year. Hence, the extent of usage and non-usage of libraries by the undergraduate students are effectively studied from the final year students only. Thus, the population for the present study is final year undergraduate students of Arts and Science colleges in Kanyakumari district.

4.5 Sampling Design

The sampling design is prepared by considering strength of undergraduate students in Arts and Science colleges in various disciplines. Out of 28 Arts and Science Colleges, 12 are aided colleges, one is a Government College; one is a constituent college of Maononmaniam Sundarnar University and the remaining are self-financing colleges. There are four women’s colleges under aided category, two women’s colleges under self-finance category and the remaining colleges are co-education colleges. Since, there are no final year students in newly started colleges during 2017-18 and so they are excluded from the sampling design. The intake capacity of final year undergraduate students of Arts and Science colleges in Kanyakumari district is 11300, out of which 11074 students are undergoing undergraduate programmes of various discipline namely Arts, Social
Science and Science. The researcher has decided to collect responses from 1200 students. Hence, the sampling design for present study is in table 4.1.

<table>
<thead>
<tr>
<th>S.No</th>
<th>Total intake capacity</th>
<th>Actual Strength</th>
<th>Proposed Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>11300</td>
<td>11074</td>
<td>1200</td>
</tr>
</tbody>
</table>

### 4.6 Samples for the Study

Arts and Science colleges in the Kanyakumari district are spread over the district along its length and breadth. Hence, stratified random sampling technique is used to collect required number of sample respondents based on sampling design by giving due representation to all categories of variables under study. The researcher has selected six Arts and Science colleges in the district for collection of data from the sample respondents. It includes two co-education colleges, two self-financing colleges and two women’s colleges. The final version of the questionnaire was administered among the final year undergraduate students of Arts and Science colleges in Kanyakumari district. Equal numbers of questionnaires were distributed among the undergraduate students of selected six colleges 200 each and hence 1200 questionnaires were distributed among the undergraduate students. Out of 1200 questionnaire, only 1069 questionnaires complete in all aspects were returned and hence selected for analysis of data. Thus, the sample for the present study consists of 1069 final year undergraduate students of Arts and Science colleges in Kanyakumari district.

### 4.7 Pilot Study

User-researches were mainly conducted on extent of usage of library collection and its services by the users. Only very few studies were conducted on non-use of libraries by the users in academic library environment. They have followed different approaches to study the non-use of libraries and identification of non-users of academic libraries. User-researches were mainly conducted on extent of usage of library collection...
and its services by the users. Even though, few similar studies were conducted on non-use of libraries, no standardized tool has been used or developed so far. Hence, the researcher has developed a well structure questionnaire in consultation with experts in the field to evaluate the non-usage of college libraries by the undergraduate students. The questionnaire includes questions to assess the reading habits of undergraduate students, frequency of library visits, information seeking behaviour of marginal users among undergraduate students, barriers faced by the undergraduate students, information literacy tools to measure information literacy of the respondents, perception tool to measure perception towards college libraries, attitude towards uses of internet and suggestions to maximize the usage of college libraries. A pilot study was conducted by administering among 100 undergraduate students and modifications were made accordingly and ensure its validity before the final administration. Thus, the questionnaire for the final study is prepared.

4.8 Description of the Final Questionnaire

To evaluate the extent of non-usage of college libraries by the undergraduate students of Arts and Science colleges, the investigator has developed a well-structured questionnaire after conducting pilot study. The final version of the questionnaire includes demographic variables, reading habits of undergraduate students, information literacy skills, perception of undergraduate students towards library and its services, attitude towards uses of internet and suggestions for effective utilization of library resources. The detailed description of the questionnaire is presented as follows.

The first part of the questionnaire deals with demographic variables of the study namely gender, locality, age, type of institution, discipline, type of college, nature of course, student category, socio-economic conditions of the respondents, marks scored in
previous examinations, accessibility of public libraries in their locality and membership in public libraries.

The second part deals with reading habits of undergraduate students, it includes questions on reading habits of undergraduate students, preferred choice for reading, their arrival and departure timings from colleges, dependency of college libraries, frequency of library visits, reasons for using college libraries, questions to measure information seeking behaviour of non-users, familiarity with internet, reasons for non-use of college libraries and tool to measure the barriers while accessing library resources.

The third part of the questionnaire is the information literacy tool, standardized tool to assess the information literacy of the research scholars. The tool consists of 12 statements covering various components of information literacy on a five point scale ranging from ‘do not know at all’ to ‘excellent’. The statements for assessing information literacy skills are adopted from big six information literacy skills of Eisenberg; Lowe and Spitzer (2004). Information literacy skills of the undergraduate students are determined on the basis of information literacy score, low score on information literacy score reveals low in information competency skills and vice versa. Second part of the questionnaire also includes a tool to determine the perceived barriers among the students while using college libraries. More score on barriers scale indicates the perceived barriers are more and low score reveals the perceived barriers are low.

The fourth part of the questionnaire is to determine the perception of undergraduate students towards library and its services. Perception towards library is not a single entity but it is a combination related to information system, satisfaction of the users on library and information system, individual ability to satisfy the information requirements and degree of acceptance of modern technology in libraries including e-resources. Perception towards library and its services vary from individual to individual.
and it depends on their experience and satisfaction of perceived uses. In order to
determine the perception of undergraduate students towards library and its services,
standardized tool prepared by Doyle (1995) namely Perception of Library Service
Questionnaire (PLSQ) is used. PLSQ is a summated rating scale, it consists of 16
statements on various dimensions of perception towards library namely helpfulness of
library staff, physical conditions in the library, ability to find information and knowledge
of e-resources and related services. It consists of both positive as well as negative
statements; scoring procedure is reversed for negative statements. PLSQ also gives total
perception score towards library and its services and on its dimensions. Each statement of
PLSQs is rated on a five point scale ranging from ‘strongly agree’ to ‘strongly disagree’.
High score in perception indicates the usage of libraries is more.

The fifth part of the questionnaire is intended to determine the attitude of the
undergraduate students towards uses of internet for their information needs. The tool used
for the determination of attitude towards library and its services is an adopted version of
standardized attitude scale developed by Slate, Manuel and Brinson (2002) and Usun
(2003) to quantify undergraduate students’ attitude towards educational uses of internet.
The tool used for the present study consists of 17 statements appropriate to the present
study are selected. Each of these statements are of Likert type of summated rating scale,
these are rated on a five-point scale ranging from ‘strongly agree’ to ‘strongly disagree’.
Attitude scale consists of both positive as well as negative statements; scoring procedure
is reversed for negative statements. High score in attitude scale indicates the respondents
have favorable attitude towards use of internet among the undergraduate students.

The final part of the questionnaire is regarding the suggestions to minimize the
non-usage and maximize the usage of college libraries and its services.
The secondary data pertaining to the study are collected from the institutional website of Manonmaniam Sundaranar University, annual report of the university and affiliated college’s institutional websites.

4.9 Collection of Data

The method adopted for the present study is the survey of descriptive as well as inferential in nature. The investigator has personally visited the colleges after seeking permission from the heads of the institutions, conducted interview with library professionals on the extent of usage of college libraries by the undergraduate students, and students on usage of library resources. After giving self introduction and establishing rapport with the final year undergraduate students, the investigator explained the purpose of research and encouraged them to be free and frank to give responses based on their experiences in their respective libraries for the last six semesters. Selection of the sample is done on the basis of stratified random sampling technique by giving due weightage to various personal variables such as gender, locale, age, discipline, type of institution, and socio-economic conditions of the respondents of the study.

Then the investigator administered the questionnaire to the respondents and they were asked to read all the items carefully and put appropriate entries in relevant places. The investigator collected the filled-in questionnaires. The filled in questionnaires were edited and the incomplete ones were removed. Finally, 1069 questionnaires complete in all respect were selected for the final study. The response rate is 89.1 per cent. The collected data was analysed using Software Package for Social Sciences (SPSS) version 22.0 and interpreted accordingly.

4.10 Statistical Analysis used for the study

Both descriptive as well as inferential statistics are used for the present study. The specific statistical techniques employed for the analysis and interpretation of data are:
1. Descriptive statistics like mean, standard deviation, percentage, maximum, minimum and percentiles.

2. Student ‘t’ test, to test the significance of difference between the means for independent variables. When ‘t’ value exceeds a cut-off point at 5% level, then the difference is considered to be significant and null hypothesis is rejected.

1. One way Analysis of Variance (ANOVA) ‘F’ test of the significance of difference between the means for more than two variables.

2. Garret method of Ranking Analysis.

All the calculations except ranking analysis were carried out by using Statistical Package for Social Science (SPSS) ver.22.0. Ranking analysis is carried out with the help of Garret ranking table. All the null hypotheses are tested for its significance at 0.05 level.

The collected data were analysed and interpreted using appropriate statistics and the details are presented in chapter five of the thesis.
References


