Chapter I

Introduction

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1.1 PREAMBLE

Academic Research is one of the fundamental components of human well-being and national productivity. Though research is not to be blamed for a country’s problem, it is a critical part of the solution. High quality academic research results can provide ways to develop solution to any of the issues.

Today, information has become a major economic commodity and citizens need to be educated for productive information use from pre-school through post-secondary education. Librarians play an important role in the education of people for effective and efficient information use by teaching them information skills at all levels of education to enable them to be informed citizen of the country. In the information-rich world, where the scope of available information appears limitless, there is a growing need for researchers, faculty members and students to become critical users of information. It not only includes knowing how to locate Internet resources but focuses upon developing the skills necessary in seeking information from a variety of resources. What information is found is not important, but to use that information to complete the assigned task or research is of great importance.

The educational institutions have an opportunity, and a challenge, to prepare faculty to meet the demands of the Information Age. The faculty members need to identify what graduates should know and be able to do. Recipients of a quality education share certain attributes like critical thinking, problem solving, a global vision and a multicultural perspective, preparedness for work, and good citizenship.
1.2 NEED OF INFORMATION LITERACY SKILLS

The fundamental goal of Information Literacy (IL) is to develop critical users of information. IL is considered as a powerful weapon for life-long learning. It is common to all disciplines, to all learning environments, and to all levels of education. It enables learners to master content and extend their investigations, become more self-directed, and assume greater control over their own learning. The central mission of educational institutions should be to develop life-long skills and provide the continued growth in the later career of the students.

The terms skills, knowledge, competencies and such other terms are used synonymously in this study. These terms differ only slightly in meaning from one another. Specifically, ‘Skills’ refers to do something well, arising from talent, training or practice. The ‘Knowledge’ refers to acquaintance with facts, truths, profession or with a particular subject or branch of learning. The ‘Competence’ refers to the quality or state of having sufficient skills, knowledge and requirements to do a certain job.

Information includes any data, evidence, inference, concept, or impression that is conveyable or obtainable by a variety of means or media, such as by print, digital sources, personal experience, experimentation, art, mathematics, history, literature, science, popular culture, and so on.

Literacy includes an individual’s abilities to actively and ethically access, recall, decipher, understand, synthesize, analyze, apply, critique, create, and communicate with materials and skills which are presented to and learned by that individual within her or his personal, professional, academic, or social contexts.

IL also aims to teach learners how to find information and prepare them for life-long learning because they can always find information needed for any task or decision at hand. IL has a great significance for economic growth, educational achievement and social, cultural and personal well-being. It emphasizes the skills,
attitudes and values required to locate, access, evaluate, manage, synthesize and use information effectively. IL links strongly the digital divide by closing the gaps. It also promotes education initiatives at all levels, the development of skills in the workplace and community, including regional economic development, e-commerce, and e-government.

According to CLIB, Skills required to be information literate require an understanding of:

- A need for information
- The resources available
- How to find information
- The need to evaluate results
- How to work with or exploit results
- Ethics and responsibility of use
- How to communicate or share your findings
- How to manage your findings

IL is exhibited by someone who can ‘demonstrate an awareness of how they gather, use, manage, synthesize and create information and data in an ethical manner and will have the information skills to do so effectively’ (SCONUL, 2011). That is experienced by someone who can effectively and purposefully perform these tasks in their day-to-day activity.

The academicians are expected to base their practice on research evidence, and it follows that IL must be a key component of evidence-based practice. Without the ability to identify, locate and interpret research evidence, academicians will be unable to research their subjects.
1.2.1 Academic Libraries in the Changing Environment

Higher education and research, which advances knowledge, thrives on the exchange and accumulation of information and ready access to new ideas and theories. The role of academic library in this regard is unique. It collects, consolidates, organizes, repackages and disseminates information – the recorded or communicated knowledge to the academic community and supports the generation of new knowledge. The continuous growth and competence of teachers and the quality of learning environment depend on how effective the academic library is in identifying and connecting information on latest developments in various branches of subject concerned with academic research and scientific community of the campus.

Today, digital technologies are bringing about revolutionary changes in the way the information is stored, retrieved and disseminated. These have profound impact on the ways academic libraries function and open up electronic access to information for millions of users. Academic scenario, over the years, has undergone tremendous changes, assuming new dimensions influenced by the technology driven applications, instead of a building that holds books, and the library is now evolving into an electronic portal and subject gateways to a growing global collection in digital content. The emerging demand for the electronic information resources may warrant the restructuring of the academic libraries to digital academic libraries. The doors of these libraries are open 24X7. The library’s holdings come to the user as and when needed.

Distance learning is also one of the fastest growing trends in higher education today. Its growth has been enhanced by the increasing availability of electronic information resources accessible to distance learners at remote places. Academic librarians are playing a key role in supporting distance learners. The development of advanced networks such as internet will require academic librarians to become
technology experts, as materials are further developed, achieved, annotated and managed.

Academic libraries in India have been affected by an uncertain financial environment in which resource buying has been restricted, causing them to look at ways of extending their purchasing capabilities to compensate for reduced budgets. As a result, subscriptions to most of the important journals are being cancelled. To overcome this problem, libraries are switching over to consortium. Library consortium is the emerging toolkit for libraries to survive in the present circumstances. Co-operative purchase option through consortia provides wider access to information resources over the internet. So, when the library users are not aware much of electronic resources and their usage. The IL programme should pave the way for enabling them to fully utilize the electronic resources.

1.3 NEED FOR THE STUDY

Due to the advancement in the information and communication technology and its applications, there is a vast development and transformation in the structure and functions of the libraries. In this respect, there is an “organizational change” as the printed documents are converted into digital information sources and print based services such as circulation services in the libraries transformed as electronic information delivery service. Hence, along with the change in structure, functions and infrastructure in the libraries, the library and information professionals must change. In this context, these professionals must develop the skills necessary particularly for accessing e-resources in rural based universities and their affiliated colleges from time to time, as these skills are changing continuously. For this purpose, there is a need to know about the IL skills in the use of electronic resources among the faculty of Mother Teresa Women’s University, Dindigul District, Tamilnadu, its constituent colleges and affiliated colleges. Therefore, the present research sets to be useful and important in evaluating the IL Skills in the use of electronic resources among the
faculty of Mother Teresa Women’s University, Kodaikanal, Dindigul District, Tamilnadu, its constituent colleges and affiliated colleges.

1.4 STATEMENT OF THE PROBLEM

In view of the subject discussed above, the present study is planned to assess the present status of IL standards, IL skills, awareness and utilization, evaluation and assessment of the knowledge and skills by the faculty members of rural based universities and their affiliated colleges in southern districts of Tamil Nadu. Hence, the present research problem is stated as “Information Literacy Skills in the Use of Electronic Resources among the Faculty members of Mother Teresa Women’s University and its Affiliated Colleges: An Analytical Study”.

1.4.1 Operational Definitions of Key terms used in the Study

- **Information Literacy**: IL is a set of abilities requiring individuals to “recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information” (ALA, 1989). The term IL here means the ability of the faculty members to locate, evaluate and use effectively the needed information.

- **Computer Literacy**: Computer literacy can be defined as the understanding of what computer hardware and software can do. It is the competence to use computers to complete a task. Although computer literacy plays an important role in the accessing of information, IL goes beyond computer literacy. A computer literate person is not automatically information literate individual, because the latter requires cognitive skills and problem solving processes.

- **Electronic Resources**: An "electronic resource" is defined as any work encoded and made available for access through the use of a computer. It includes electronic data available by (1) remote access and (2) direct access
Remote access (electronic resources) refers to the use of electronic resources via computer networks. (AACR2, 2002 edition; glossary). Direct Access (electronic resources) refers to the use of electronic resources via carriers (e.g., discs/disks, cassettes, cartridges) designed to be inserted into a computerized device or its auxiliary equipment.

- **Faculty Members:** The term ‘Faculty Members’ here means the Assistant Professors, Associate Professors and Professors working under the selected institutions.

### 1.5 ASSUMPTIONS OF THE STUDY

The present study has got the following assumptions.

i. It is possible to assess IL skills of the faculty members.

ii. It is possible to improve the educational achievement of faculty members with IL skills.

### 1.6 OBJECTIVES OF THE STUDY

The primary objective of the present study is to examine the IL skills of the faculty members in the use of electronic resources in Mother Teresa Women’s University, Kodaikanal, Dindigul District, Tamilnadu, its constituent colleges and affiliated colleges.

i. To survey the academic profile of the faculty members of Mother Teresa Women’s University, Kodaikanal, Dindigul District, Tamilnadu, its constituent colleges and affiliated colleges;

ii. To survey the extent of awareness and use of library resources and services by the respondents under survey;

iii. To assess the IL competencies / skills of the respondents under study;

iv. To assess the ICT competency / e-literacy of the respondents;

v. To survey respondent’s need for IL instructions / training programmes;
vi. To survey the use of E-resources and the extent of satisfaction by the respondents under survey; and

vii. To suggest measures and strategies in the development IL Skills among respondents to promote the use of E-resources.

1.7 HYPOTHESES

- There is no association between designation and working sector of the respondents and their awareness and utilization of library services.
- There is no significant difference between designation, working sector and age group of the respondents and their IL competencies / skills.
- There is no association between internet learning methods and designation of the respondents.
- There is no association between IL training areas and designation and age groups of the respondents.

1.8 RESEARCH DESIGN

A research design is a plan of the proposed research work. It is a blue-print, and, therefore, at its best only tentative. Changes in the design are permitted and are dictated by considerations during the operations of the project. In other words, a research design is not a highly rigid plan to be followed without deviation, but rather a series of guide-posts meant to help one proceed in the right direction. The researcher has adopted survey design for the present study. It is a descriptive study.

The present research design consists of formulating the research problem, comprehensive review of the available literature, defining the scope of the study and its limitations, formulation of hypotheses, collecting, processing and analyzing the data and, finally, enumerating the inferences and conclusion (Kothari, 1985).
1.9 SCOPE AND LIMITATIONS OF THE STUDY

- There are three universities and affiliated colleges located in ‘other than district headquarters’ of southern districts of Tamil Nadu. The scope of this study is limited to the Mother Teresa Women’s University and its affiliated colleges.
- This study doesn’t include guest lectures and teaching assistants as the respondents.
- The output of the study depends on the self-evaluation of IL skills by the respondents.

1.10 QUESTIONNAIRE SURVEY

Questionnaire was designed using the IL Standards for Higher Education developed by Mike Eisenberg and Bob Berkowitz. The Big6 is the most widely known and widely used approach to teach information and technology skills in the world. The collection of Primary data is an important step in every research study. The researcher directly met the faculty members and collected the primary data through Questionnaires. To evaluate the IL skills, a pilot study was found necessary. The first draft of the questionnaire is distributed to all the post graduate students of Mother Teresa Women’s University, Kodaikanal. The responses received by them were briefly analyzed. Based on the feedback received, the questionnaire was then adequately and suitably modified. The Questionnaires cover different questions and scales like dichotomous, multiple choice, descriptive and rating.

The Questionnaire was designed to evaluate the IL Skills, Electronic resources, ICT skills and brief profile of the faculty members. The questionnaire consists of six parts;
Part-I General Information: It includes a brief description about designation, educational qualification, age, gender and professional details about the faculty members.

Part-II Academic Profile: It aims to elicit from the faculty members information like number of Ph.D/MPhil guided, number of projects completed and ongoing, number of publications published in national and international journals, conference proceedings, book chapters, research reports, books written/edited, number of seminars/conferences/workshop/symposia attended (national and International level) and number of short Term programmes (In-service/Orientation/Refresher Course) attended.

Part-III Library Services: It consists of variables like library services provided, level of awareness of libraries and user orientation programme conducted by university and college libraries.

Part-IV IL: It includes various components of IL competency assessment, such as information access, information search, information need assessment, evaluation, Communication and ethical use of information.

Part-V E-Literacy (Resources) Competency: It includes preference of search engines/strategies and level of satisfaction of electronic resources and so on.

Part-VI Suggestions: The questionnaire ends with seeking suggestions from respondents to improve the IL Skills.

1.11 DISTRIBUTION OF QUESTIONNAIRES

The researcher collected the primary data personally visiting the Mother Teresa Women’s university and its constituent and affiliated colleges. The interactions and discussions the researcher held with the faculty members also gave
him an insight on the IL skills of the respondents and their attitude towards the importance of IL skills in the use of electronic resources.

1.12 SAMPLE SIZE

Sample Size Calculator

(Source: www.raosoft.com/samplesize.html)

For calculating the sample size, the researcher used the sample size formula which is given below:

\[
Sample\ Size = \frac{Z^2 \times p(1-p)}{e^2} \times \frac{1}{1 + \left(\frac{Z^2 \times p(1-p)}{e^2 N}\right)}
\]

N = Population Size
Z = Z score (1.96 or 95% confidence level)
e = margin of error (e is the percentage, put into decimal form)
**Population size:** The total number of people in the group you are trying to reach with your survey is called your population size.

**Margin of error:** A percentage that describes how closely the answer your sample gave to the “true value” in your population. The smaller the margin of error is, the closer you are answering at a given confidence level.

**Confidence level:** A measure of how certain you are that your sample accurately reflects the population, within its margin of error. Common standards used by researchers are 90%, 95%, and 99%.

Using this formula, the sample size to be selected for the study is 249 at 95% confidence level and the margin of error is 5.

The sample was drawn from Mother Teresa Women’s University and its constituent and Affiliated Colleges. Since the faculty members’ number that is, user’s population size is high, so the simple random sampling method has been applied in order to assess the faculty members’ perception about the impact of IL skills and use of electronic resources. Table 1.1 reveals the distribution of questionnaires in Mother Teresa Women’s University and its affiliated colleges. The highest, response rate comes from the MTWU with 95.00 per cent, followed by Autonomous colleges affiliated to MTWU with 92.50 per cent, Self Financing Colleges with 83.64 per cent and constituent Colleges of MTWU with 83.33 per cent.

The researcher visited the MTWU and 11 of its affiliated colleges. Questionnaires were distributed among the faculty members. A total of 290 questionnaires were distributed among users and 254 duly filled in questionnaires were received, thus resulting into a response rate of 87.59 per cent. The faculty
members’ viz., Assistant Professors, Associate Professors and Professors from MTWU and its affiliated colleges form the sampling frame.

While distributing questionnaire, care was taken to ensure that faculty members of all Arts and Science departments and different age groups were represented adequately in the population.

Table 1.1: Sample size

<table>
<thead>
<tr>
<th>Sl. no</th>
<th>University and its affiliated Colleges</th>
<th>No. of Questionnaires Distributed</th>
<th>No. Responded</th>
<th>Rate of response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mother Teresa University</td>
<td>40</td>
<td>38</td>
<td>95.00</td>
</tr>
<tr>
<td>2</td>
<td>Constituent Colleges</td>
<td>60</td>
<td>50</td>
<td>83.33</td>
</tr>
<tr>
<td>3</td>
<td>Autonomous Colleges</td>
<td>80</td>
<td>74</td>
<td>92.50</td>
</tr>
<tr>
<td>4</td>
<td>Self Financing Colleges</td>
<td>110</td>
<td>92</td>
<td>83.64</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>290</strong></td>
<td><strong>254</strong></td>
<td><strong>87.59</strong></td>
</tr>
</tbody>
</table>

Table 1.2: List of Constituent and Government Colleges

<table>
<thead>
<tr>
<th>Sl. no</th>
<th>Name of Constituent College</th>
<th>No. of Distributed</th>
<th>No. Responded</th>
<th>Rate of response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mother Teresa Women’s University College</td>
<td>10</td>
<td>9</td>
<td>90.00</td>
</tr>
<tr>
<td>2</td>
<td>Women’s University College of Education</td>
<td>10</td>
<td>5</td>
<td>50.00</td>
</tr>
<tr>
<td>3</td>
<td>M.V.Muthiah Govt. Arts College for Women</td>
<td>20</td>
<td>17</td>
<td>85.00</td>
</tr>
<tr>
<td>4</td>
<td>Govt. Arts College, Nilakottai</td>
<td>20</td>
<td>19</td>
<td>95.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>60</strong></td>
<td><strong>50</strong></td>
<td><strong>83.33</strong></td>
</tr>
</tbody>
</table>

Table 1.3 List of Government aided with Autonomous Colleges

<table>
<thead>
<tr>
<th>Sl. no</th>
<th>Name of the Autonomous College</th>
<th>No. of Distributed</th>
<th>No. Responded</th>
<th>Rate of response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Jayaraj Annapackiam College for Women</td>
<td>55</td>
<td>51</td>
<td>92.73</td>
</tr>
<tr>
<td>2</td>
<td>Arulmigu Palaniyandavar Arts College for Women</td>
<td>25</td>
<td>23</td>
<td>92.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>80</strong></td>
<td><strong>74</strong></td>
<td><strong>92.50</strong></td>
</tr>
</tbody>
</table>
Table 1.4: List of Self Financing Colleges

<table>
<thead>
<tr>
<th>Sl. no</th>
<th>Name of the self financing colleges</th>
<th>No. of Distributed</th>
<th>No. Responded</th>
<th>Rate of response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>St. Antony's College of Arts and Science for Women</td>
<td>20</td>
<td>16</td>
<td>80.00</td>
</tr>
<tr>
<td>2</td>
<td>Nadar Saraswathi College of Arts &amp; Science</td>
<td>20</td>
<td>18</td>
<td>90.00</td>
</tr>
<tr>
<td>3</td>
<td>Sri Adi Chunchangiri Women’s College</td>
<td>20</td>
<td>17</td>
<td>85.00</td>
</tr>
<tr>
<td>4</td>
<td>Sakthi College of Arts and Science for Women</td>
<td>30</td>
<td>27</td>
<td>90.00</td>
</tr>
<tr>
<td>5</td>
<td>Thiravium College of Arts and Science for Women</td>
<td>20</td>
<td>14</td>
<td>70.00</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>110</strong></td>
<td><strong>92</strong></td>
<td><strong>83.64</strong></td>
</tr>
</tbody>
</table>

1.13 ANALYSIS OF DATA

The primary data collected through the questionnaire was coded using MS Excel spread sheet. All the coded data were exported into SPSS (Statistical Package for Social Science, Version 17) to get the quantitative analysis. The tables are analyzed with the percentages, to carry out analytical study and to help the comparison of different kinds of the data. The statistical techniques such as simple percentage, WAM, standard deviation, chi-square, independent sample t test, Mann Whitney U Test, Kruskal Wallis Test, One Sample KS test of normality and One way ANOVA etc. were used wherever necessary, to interpret the collected primary data. Further, based on collected data, certain generalizations were stated as findings. Based on the present study, certain suggestions and recommendations were made and the study was concluded with suitable remarks. For reference to other publications, APA (American Psychological Association 6th edition) style format was used.
1.14 SIGNIFICANCE OF THE STUDY

IL has become an important concept since the arrival of the information age. As there are very few studies in India, the present study will contribute, to a limited extent, to the field of IL research in India.

The techniques and principles used in the study will have important bearings on attempts for developing IL skills in faculty members and the use of electronic resources.

The results of the study will also have implications for learning society like students, researchers, librarians and faculty members. The academician will get a better understanding of their IL skill levels. Faculty members and administrators may consider incorporating IL skills, IL instruction and use of electronic resources in the regular curriculum and offering courses after getting a picture of the student’s competency level. NAAC, NBA and other accredited agencies which give Guidelines on Quality indicators in Library and Information Services have listed IL program as the best practice to enhance the academic information environment and usability.

The findings of this study will provide data, which can be used as a base for Information Instruction. In the present study the researcher has suggested methods for assessing IL skills of faculty as well as IL instruction methods.

These suggestions as a guide will be a ready-made source for future researchers who wish to conduct similar type of studies. The instructional design prepared by the researcher will prove to be a guide to other researchers and educational institutions who wish to develop IL instruction guidelines. The study has developed an IL instruction guideline which has proved that it can enhance the IL skills for accessing electronic resources of the faculty members. This knowledge gained by the faculty members of the researchers would help them to develop IL skills
of their students. It will further help them to share their knowledge with colleagues in their educational institutions as well as the prospective students which will help them to bring about a change in their attitude towards IL skills. It will also enable faculty members to rethink and modify their teaching strategies in the classroom. Thus, this study will help to develop an interest among faculty members to learn more about IL.

To understand the importance of the IL instruction in use of electronic resources, training of teachers is necessary. The program developed can be used in schools to train in-service teachers at pre-primary, primary and secondary levels.

1.15 CHAPTERIZATION

This study divided into five chapters; a brief overview of each chapter is given below:

Chapter One: Introduction

The chapter is an introduction to the research problem of the study. It specifies the need, objectives, hypotheses, scope and limitations of the study, sampling strategy, data collection tool used, research methods and techniques adopted.

Chapter Two: Review of Related Literature

The chapter covers the literature review on different Information search skills and electronic resources from published and unpublished literature and studies on Information Literacy. It was done using books, journal articles, and internet resources.

Chapter Three: Information Literacy Skills and Electronic Resources: A Brief Note

The chapter presents theoretical and conceptual framework on IL Skills and Standards. It also briefly discusses the concept, meaning and impact of various forms
of electronic resources. It discusses the meaning and concept of IL Skills and electronic resources.

**Chapter Four: Data Analysis and Interpretation**

The most important part of every research study is analysis, interpretation and discussion of primary data. The fourth chapter, data analysis and interpretation, covers the primary data collected on demographic details, academic profiles, publication, research activities, ICT skills, IL Skills and use of electronic resources among the respondents. Here, the tables, charts and necessary figures are presented to analyze the primary data and statistical techniques are used to discuss and interpret the primary data.

**Chapter Five: Findings, Suggestions and Conclusion**

This chapter presents the summary of findings, suggestions, feasible further studies and conclusion based on the findings of the study. This study ends with Bibliography and Appendices.

**1.16 SUMMARY**

This first chapter has set the scene for the current research by providing the background of the study with respect to information literacy. The statement of the problem is followed by the purpose of the study, research questions and rationale for the study. The delimitations of the study, definitions of terminology used in the study and the nature of the research are provided. Overview of the structure of the study in terms of the content of the chapters is presented. The next chapter presents the review of theoretical and conceptual framework, case studies which underpinned the current research.