

**INFORMATION LITERACY OF
MANAGEMENT STUDENTS IN MUMBAI
METROPOLITAN AREA**

**A Thesis Submitted to
Tilak Maharashtra Vidyapeeth, Pune
For the Degree of Doctor of Philosophy (Ph. D.)**

**In Library and Information Science
Under the Faculty of Moral and Social Sciences**

**By
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**Under the guidance of
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Department of Library and Information Science

December 2016

DECLARATION

I hereby declare that the thesis entitled “Information Literacy of Management Students in Mumbai Metropolitan Area” completed and written by me has not previously formed the basis for the award of any degree or other similar title upon me of this or any other Vidyapeeth or examining body.

Place : Mumbai

Date:_____

Shivanand S. Sadlapur

Research Student

CERTIFICATE

This is certify that the thesis entitled “Information Literacy of Management Students in Mumbai Metropolitan Area” which is being submitted herewith for the award of the Degree of Vidyavachaspati (Ph.D.) in Library and Information Science Faculty of Moral and Social Sciences Tilak Maharashtra Vidyapeeth, Pune is the result of original research work completed by Mr. Shivanand S. Sadlapur under my supervision and guidance. To the best of my knowledge and belief the work incorporated in this thesis has not formed the basis for the award of any degree or similar title of this or any other university or examining body upon him.

Place : _____

Dr. Vinay B. Patil

Date : _____

Research Guide

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Executive Summary

Today information is an important resource for any organizations including Library & Information Science, business and every walk of social life. To identify, collect, retrieve, analyze and effective use of retrieved information require skills among employees, professionals or users and this is known as Information literacy skills. Information plays an important role in any sector of knowledge, without information no one can acquire knowledge and that is why generating qualitative knowledge and information everyone has to use qualitative information resources. The main role of library is providing required information to users. For users, it is necessary to understand required information for carrying out any work related to their profession. For gathering right information users and information society should know purpose of collecting information and awareness of information resources. Among various literacy programs information literacy plays an important role. Information literacy is nothing but knowing important of information, where it is available, in which format is available? How to acquire it and after acquisition how to analyse and synthesize information for effective use. Understanding needs of users and how they manage with the information explosion is need of the hour. Library and Information Centers are basically known as qualitative information providers. It is based on the users need, librarians try to support information needs of the users for various purposes. Librarians are no doubt information literates but users especially students are not aware of information retrieval skills. Hence they fail to retrieve proper information to succeed in their projects. In the information explosion and ICT era there is a need to understand quality of retrieving information and this can be possible only after proper training. It is need to find users requirements, how they are handling, how they are using information and based on this train the users to get proper information.

Business schools understood the need to train their users how to find analyze and use the information effectively from available vast of information. Understood the need of information in knowledge building and decision making in their profession. In this e-world today data is available in digital format, to overcome this B-schools training their users in using information communication technology tools that provide access to digital data and different types of digital resources are available in business schools.

Information and decision are always interlinked. People are able to make correct decisions only when they have access to relevant and correct information. In the same way organizations or business are able to make correct or effective decision when they have access to correct and cost effective information.

Information is very important for decision making. Today there is rapid increase in amount of information published on daily basis. As amount of available data grows, problem of managing the information is very difficult and users are confused what to use which leads to information overload. To overcome this business schools or organisations educates and training their users or employees to become information literate and are able to recognise needed information, able to find analyse and effectively use the information for their needs. The teaching of information literacy skill called Information Literacy Program. In business schools usually information literacy programs consists of detailed training on how to use the subscribed e-resources.

In present situation business school libraries are very keen to implement Information Literacy Programs for their students, so that they can make effective use of it. Since inception library professionals conduct Library orientation or demonstration and train the users to use library, resources and services more effectively.

In library from the beginning library orientation may be conducted to help the users assisting to use library teaching searching tools and accessing information effectively. Different terminologies like library instruction, bibliographic instruction and user education are used for library orientation. The main aim is to helps users in knowing physical location of document, library services and a staff information. Initially user educations is conducted for users to know the method of using library and its resources for educational purpose The main idea of user education revolved on different sources of information not on technology using for user education. Libraries along with teaching it teaches how to find information, teach critical thinking and resource selection skills so that users evaluate the different resources and select the best for their information needs,

In the information age Information literacy is the key competency and every user has a right to get information and access information. The importance of information is increased in the present times and information has become one of the commodities that

can be borrowed, purchased and sold, it is recognized as a natural resource in the information era.

ICT has made tremendous impact on information society, library and information centers. Users have drastically changed the way for information collection, storage, processing and retrieval of data or information and helping library staff to perform their tasks effectively and accurately. From early leaf to clay tablets, printed books and journals to online resources, library and information centers always striving to serve their different user category. The 21st century e- resources and information literacy tools helping librarians to provide content based information to their end users to fulfill their information need. Information literacy is bunch of competencies which helps users to take decisions intelligently in their tasks. An information literate person knows skills and techniques of using different information resources for their activities.

Information Literacy, it is a skill required to find retrieve analyze and use of information. For information age it is a key competency. Information literacy and information access is every individual's fundamental right. Present days, importance of information is increasing. Beginning of the 21st century known as Information age, because of explosion of information and information resources .It is fact that one cannot learn everything, they need to know in their field, here Information Literacy plays a big role with the technical skills necessary to become independent lifelong learners. Too much of information creates barrier in our lives and gives birth to Data Smog which will confuse the users. For data smog Information Literacy is the solution which provides necessary skills to retrieve the information at right time and right information.

The term Information Literacy is first used by Paul G Zurkowski in 1974.He used the term to describe the skills and techniques learned by information literate for utilizing a wide range of information tools available and primary resources for his information needs.

Management education plays an important role in the growth of information society in business environment, where in the 21st century changes so fast that it is very difficult for organizations to cope up with growing competition. This led to the need of management education to create young competent and dynamic managers to face the challenges. These management institutions should work with growing industry to produce quality and relevant young managers.

Considering above facts researcher has selected topic, “Information Literacy of Management Students in Mumbai Metropolitan Area”. In which researcher is identifying Information Literacy awareness among users especially students who are future leaders and help them for gathering proper, useful and qualitative information for different reasons and information literacy stage at institutions by librarians.

The research study consists of seven chapters, the chapters are as follows:

Chapter 1: Introduction: The chapter presents the introductory information about management education, the role of management institutions, need of information literacy, justification of the study, research problem, aim, objectives, hypothesis, scope, limitation and research methodology etc.

Chapter 2: Literature Review: The chapter highlights, various related research studies conducted in the field of Information literacy, education and information literacy, library and information literacy, information communication technology and information literacy, information literacy skills and national commission & information literacy. The researcher has consulted various resources in print and digital to collect the data scientifically.

Chapter 3: Management Education: The chapter includes management education importance, global trends in management education, overview of management education in India, Maharashtra and Mumbai, types of MBA programs. Also discuss issues in management education.

Chapter 4: Information literacy: The chapter focus the meaning & definitions of information literacy, library & information literacy, ICT & information literacy, information literacy standards, models, information literacy in higher education, information literacy in India and information literacy abroad.

Chapter 5: Resources Available in Management Institutions: The chapter includes different types of resources available in management institutions

Chapter 6: Data Analysis: The chapter includes data analysis of management institution users on Information Literacy skills, information communication technology in libraries, existing stage of information literacy program, Impact of information literacy program and librarian's opinion on information literacy stage in their respective institutions.

Chapter 7: Findings, Suggestions and Conclusion: The chapter contains findings and suggestions of the research work. It includes the best practices of adopting by the management institution for effective execution of information literacy, and includes scope for further research. Testing hypothesis, proposed model and conclusion.

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Abbreviations

ACRL	Association of College & Research Libraries
Ads	Advertisements
AICTE	All India Council for Technical Education
ALA	American Library Association
AMBA	Association of MBA's
ANCIL	A New Curriculum for Information Literacy
ASCE	American Society of Civil Engineers
ASME	American Society of Mechanical Engineers
AV	Audio Visual
BMI	Business Monitor International
CALIS	Computer Application to Library & Information Services
CBSE	Central Board of Secondary Education
CCTV	Closed Circuit Television
CILIP	Chartered Institute of Library & Information Professionals
CSU	California State University
DELNET	Developing Library Network
DIL	Digital Information Literacy
DOAB	Directory of Open Access Books
DOAJ	Directory of Open Access Journals
DRTC	Documentation Research Training Centre
DTE	Department of Technical Education
EIU	Economist Intelligence Unit
E-Resources	Electronic Resources
ESCEM	Ecole Superieure de Commerce et Management
EU	European Union
EXTC	Electronic & Telecommunication Engineering
HEC	Hautes Etudes Commerciales
HR	Human Resource
ICFAI	Institute of Chartered Financials Analysts of India
ICSE	Indian Certificate of Secondary Education
ICT	Information Communication Technology

IEDC	Innovation & Entrepreneurship Development Centre
IEEE	Institute of Electrical Electronic Engineers
IFLA	International Federation of Library and Institutions
IGNOU	Indira Gandhi National Open University
IIA	Indian Institute of Astrophysics
IIM	Indian Institute of Management
IIT	Indian Institute of Technology
IL	Information Literacy
ILP	Information Literacy Program
IMD	International Institute for Management Development
INFLIBNET	Information Library Network
INSDOC	Indian National Scientific Documentation Centre
IASL	International Association of School Librarianship
IT	Information Technology
JETRO	Japan External Trade Organizations
JISC	Joint Information Service Committee
LCSH	Library of Congress Subject Headings
LIS	Library & Information Science
LMS	Learning Management System
MBA	Masters of Business Administration
MeSH	Medical Subject Heading
MIT	Massachusetts Institute of Technology
MMRDA	Mumbai Metropolitan Region Development Authority
MNC	Multi National Company
NG	Normal Group
NMIMS	Narsee Monjee Institute of Management Studies
NPTEL	National Programme on Technology Enhanced Learning
OPAC	Online Public Access Catalogue
PPT	Power Point
QAW	Questions on Awareness
R&D	Research & Development
RFID	Radio Frequency Identifier

RG	Research Group
RSS	Rich Site Summery
SCONUL	Society of College National and University Libraries
SOUL	Software for University Libraries
SPSS	Statistical Package for Social Sciences
SSC	Secondary School Certificate
SSRN	Social Science Research Network
TV	Television
UCD	University College Dublin
UCLA	University of California Los Angeles
UGC	University Grants Commission
UK	United Kingdom
UNESCO	United Nations Educational Scientific and Cultural Organisation
URL	Uniform Resource Locator
USA	United States of America
USF	University of Soute Florida
XLRI	Xavier School of Management

CHAPTER 1

Introduction

"Rather than merely possessing data, we must also learn the skills necessary to acquire, collate, and evaluate information for any situation... Though we may know how to find the information we need, we must also know how to evaluate it. Over the past decade, we have seen a crisis of authenticity emerge. We now live in a world where anyone can publish an opinion or perspective, whether true or not, and have that opinion amplified within the information marketplace. At the same time, Americans have unprecedented access to the diverse and independent sources of information, as well as institutions such as libraries and universities, that can help separate truth from fiction and signal from noise. Now, therefore, I, Barack Obama, President of the United States of America, by virtue of the authority vested in me by the Constitution and the laws of the United States, do hereby proclaim October 2009 as National Information Literacy Awareness Month. I call upon the people of the United States to recognize the important role information plays in our daily lives, and appreciate the need for a greater understanding of its impact"

Barack Obama, American President

1.1 Introduction:

Today information is an important resource for any organizations including Library & Information Science, business and every walk of social life. To identify, collect, retrieve, analyze and effective use of retrieved information require skills among employees, professionals or users and this is known as Information literacy skills. Information plays an important role in any sector of knowledge, without information no one can acquire knowledge and that is why generating qualitative knowledge and information everyone has to use qualitative information resources. The main role of library is providing required information to users. For users, it is necessary to understand required information for carrying out any work related to their profession. For gathering right information users and information society should know purpose of

collecting information and awareness of information resources. Among various literacy programs information literacy plays an important role. Information literacy is nothing but knowing important of information, where it is available, in which format is available? How to acquire it and after acquisition how to analyse and synthesize information for effective use. Understanding needs of users and how they manage with the information explosion is need of the hour. Library and Information Centers are basically known as qualitative information providers. It is based on the users need, librarians try to support information needs of the users for various purposes. Librarians are no doubt information literates but users especially students are not aware of information retrieval skills. Hence they fail to retrieve proper information to succeed in their projects. In the information explosion and ICT era there is a need to understand quality of retrieving information and this can be possible only after proper training. It is need to find users requirements, how they are handling, how they are using information and based on this train the users to get proper information.

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Management education plays an important role in the growth of information society in business environment, where in the 21st century changes so fast that it is very difficult for organizations to cope up with growing competition. This led to the need of management education to create young competent and dynamic managers to face the challenges. These management institutions should work with growing industry to produce quality and relevant young managers.

1.2 Background:

In various disciplines including social sciences, natural sciences, management science information plays a vital role. Without information users cannot take proper decisions. Hence it is necessary to find out user needs and understand their information behavior to enhance the use of information available in the library The researcher observed that changing trends in publication both print and digital and more usage of digital information available in the internet and databases searching information electronically, is different than searching in printed form. Natural Science, Management Science and Engineering Science are flood of digital information and getting desired information is a skill. For getting required information not only librarians but user is also have a proper information skills. Since last 10 years resolution takes place in management education

and lot of digital information is available in this digital era. Based on the experience researcher noticed that students awareness about information resources is very poor and hence they cannot pick up right information for their academic work like assignments, seminars, examination purpose etc. This cause researcher to undertake the study of management students only to understand weakness for collecting information and suggest them proper way so that they can aware of information resources, making use of information resources, collecting qualitative information and generate qualitative knowledge in terms of innovative concepts, awareness of global situations etc.

Management education is getting rising importance because of globalization. It is also observed that student community after clearing graduation are entering into management education, so to cater their needs at present several management courses are conducted in different organizations in India.

Management education is growing continuously since 1990. Researcher would like to understand weakness of students in information retrieval and improve on their information collection skills for quality use.

1.3 Justification of the Study:

Literacy is having knowledge in specific field or skills to gain the proper knowledge. It is fundamental human right and ground work for lifelong learning. It is mandatory for individual and professional growth, with advancement in technology literacy skills are constantly changing. Literate community is vibrant community that interchanges ideas for personal and professional growth. Literacy is very important concept for everyone and should be birth right of every citizen.

Types of Literacy:

- a) Information Literacy
- b) Financial Literacy
- c) Health Literacy
- d) Digital literacy
- e) Workplace Literacy

f) Prose literacy

g) Document literacy

- a) **Information Literacy:** Information Literacy is bunch of qualities required to recognise when information is needed and have the ability to find, access, and use efficiently for taking better decisions.
- b) **Financial Literacy:** Having skills, knowledge and confidence in talking financial decisions.
- c) **Health Literacy:** Skills of individuals to use health related information and able to take suitable decisions in maintaining good health.
- d) **Digital Literacy:** Ability to use the emerging technology effectively.
- e) **Workplace literacy:** Knowing the basic workplace skills to do jobs successfully and efficiently.
- f) **Prose Literacy:** Ability to recognise and use the information from brochures, texts, instructional materials, manuals etc.
- g) **Document Literacy:** Ability to recognise and use the information from specific materials like maps, charts and pictures etc.

Out of all these literacies researcher selected Information literacy that too related to Library users of management institutions because today's young managers are tomorrow's future leaders. In this industrial revolution country there is need of young and competent managers who can take effective decisions in business at right time. Information & decisions are interlinked. People are able to take decisions when they have access to relevant and correct information so it is compulsory for young managers to know the skills of identify the correct resource, retrieve the information and use it efficiently for their information need in decision making. These skills are effectively taught in information literacy programs. One more reason may be, today management institutions investing more than 50% of Library budget on e-resources and the same time management is very keen to know the ROI. ROI is justified with proper information literacy programs, because of this reason researcher selected topic information literacy of management students in Mumbai metropolitan area.

In the management education, all libraries are using ICT and digital resources for providing services. Libraries are acquiring qualitative resources by spending large budget and always busy in acquiring, processing circulating the resources for use. Now due to use of ICT a new type of collections i.e. e-journals, e-books and other research databases are being acquired. This information is very much required by researchers, faculty members and students for their research activities. This information is available in e- format i.e. e- journals, e- books, AV-materials and other research databases and it is very important that they should know how to use all these resources. To overcome the proper usage of resources, Information literacy training to users for selecting right information from right resources at right time is needed. In simple way information literacy is need of the time.

1.3.1 Information Explosion:

The information produced from different sources are increased day by day. It comes to us in all direction. The research information, which are published in the form of reports, proceedings, periodicals, etc. So the users need to find which is useful for them. The information Literacy is the solution to information revolution, it allows the user to cope by giving the users to know when we need information and where to locate it effectively and efficiently. It enables the user to analyze and evaluate the information they find, thus giving confidence in using that information to make a decision or create a product.

1.3.2 Advent of Information and Communication Technology:

Due to an advancement of information technology, users need training to manage information. The information is now available in various forms includes Databases, Internet, CD-ROMs, etc. The user can't retrieve the information from the Internet or Databases, they need knowledge about searching as well as Information Communication Technology. The user who does not know how to use technologies is considered as an illiterate, even though he is a literate. In the present era of e-learning education system importance is given to e-publications and ICT and hence user need to know these literacies.

1.3.3 Information Sources:

The information available in the form of printed and non- print medium which also includes e-resources. The printed version considered as books, periodicals, magazines, journals, reference books, etc. The non-print media now is considered as an Internet, Databases, CD-ROMs, e – Journals and e-books. The users before search information, users have to select the sources of information which suits useful and qualitative.

1.3.4 Changing Shape of Libraries:

The libraries are changing based on the advancement of technology, the technological changes helps the library also. Here the user can sit at home and find out the information they need, before they have to wait for the librarian and the library. Presently everything available in the desktop or the laptop.

1.3.5 Wide Dispersal of Information:

The information is dispersed in different format and different medium.

1.4 Research Statement:

The research statement entitles is “Information Literacy of Management Students in Mumbai Metropolitan Area”. In which researcher is identifying Information Literacy awareness among users especially students who are future leaders and help them for gathering proper, useful and qualitative information for different reasons and information literacy stage at institutions by librarians.

1.5 The Aim and Purpose:

The main aim of this research study is to understand information literacy skills among the management students and based on the study suggest best practice to improve information literacy skills for management students for various purposes may be for class room assignments, preparing for seminars for research etc. It is based on the study the purpose of the suggest best practices to understand the role of information literacy among management students and make use of proper resources for various purposes. It is found that information literacy is must among any student community so that they can use different information resources for productive work.

1.6 Objectives:

Following are objectives of the study.

- 1) To study the role of management education in society
- 2) To study the concepts of Information Literacy
- 3) To study information literacy skills for benefit of management students
- 4) To suggest best practice in Information Literacy
- 5) To propose conceptual model for information literacy for management institutions.

1.7 Hypothesis:

The Hypothesis considered for study are

- 1) Information Literacy program improves the usage of library resources
- 2) Information Literacy enhance the qualities of research among management students.

1.8 Concept Map

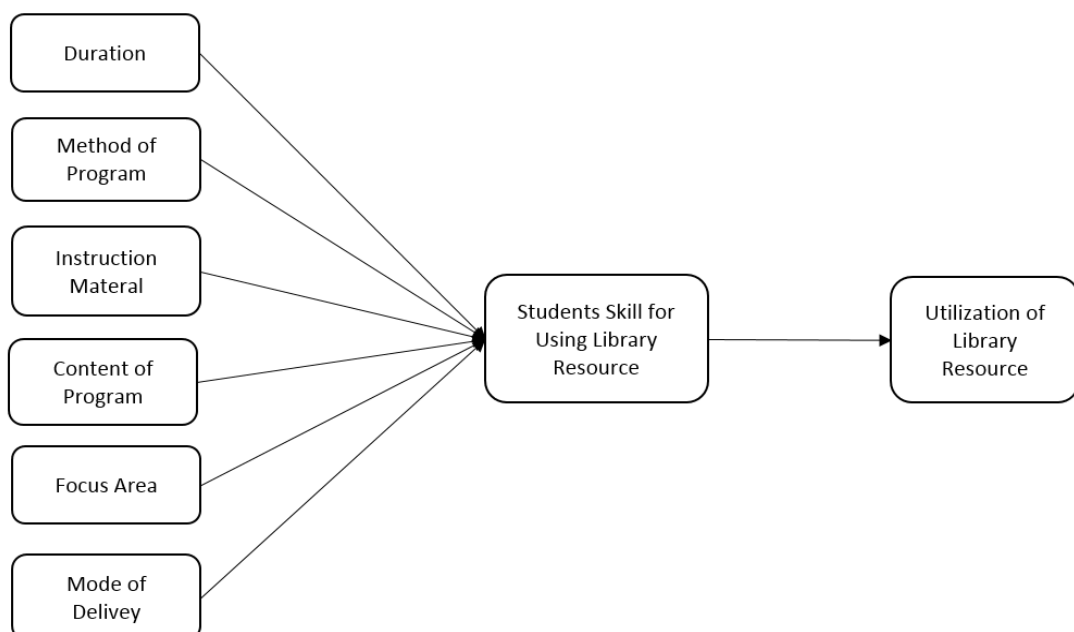


Figure 1.1: Concept Map

This model explains different parameters like duration of information literacy program, the method of program, kind of instruction material circulated during literacy program, and content of the program. Its focus area and mode of delivery of literacy programs definitely have impact on students information retrieval skills, if they have very good retrieval skills, utilization of library resources will increase automatically.

1.9 Scope and Limitations of the Study:

The scope of the study is mainly focused on to identify information literacy skills of students from management education and information literacy stage from librarians. The main reason is changing practices in information publications from print to digital. The Geographical area considered is Mumbai, where nearly 88 management institutions are located and providing the post graduate management programs, It is based on this following are the limitations of this study.

- a) The research study is limited to the geographical area of Mumbai metropolitan area of Maharashtra state
- b) The users selected from management institutions who are pursuing post graduate education in Management
- c) There are 88 institutions in Mumbai catering to the post graduate management education. Out of these 60% institutions have been established recently and are less than 10 years old. These institutions are in the state of development and hence not covered in the survey.
- d) For survey researcher has decided to consider the oldest and 10 years or more than 10 years old institutions and out of 88 institutions only 32 institutions are having status of 10 years or more than 10 years. Researcher started survey in 2013 that time 32 institutions were found with the status of 10 years or more than 10 years old. The list of colleges considered for the research study refer **Appendix 2**.

1.10 Mumbai Metropolitan Area:

Mumbai is considered as hub of industrial market and this is the reason for developing management and business schools to support need of the industry and also reason for undertaking above study.

A brief geographical coverage of Mumbai discussed below for general purpose but considered the information because researcher has the limitation as Mumbai Metropolitan area.

Mumbai metropolitan area is developing over a period of 20 years and spreads over 4533 sq. Km. Mumbai Metropolitan Region Development Authority (MMRDA) is responsible for balanced development of Mumbai metropolitan area. The MMRDA was formed to address the challenges of planning and development of infrastructure for the metropolitan area.

Mumbai Metropolitan area consists of 8 municipal corporations i.e. Greater Mumbai, Thane, Kalyan-Dombivali, Navi Mumbai, Ulhasnagar, Bhiwandi- Nizamapur, Vasai-Virar and Mira-Bhayandar; and 9 Municipal Councils i.e. Ambarnath, Kulgaon-Badlapur, Matheran, Karjat, Panvel, Khopoli, Pen, Uran, and Alibaug, along with more than 1,000 villages in Thane and Raigad Districts.

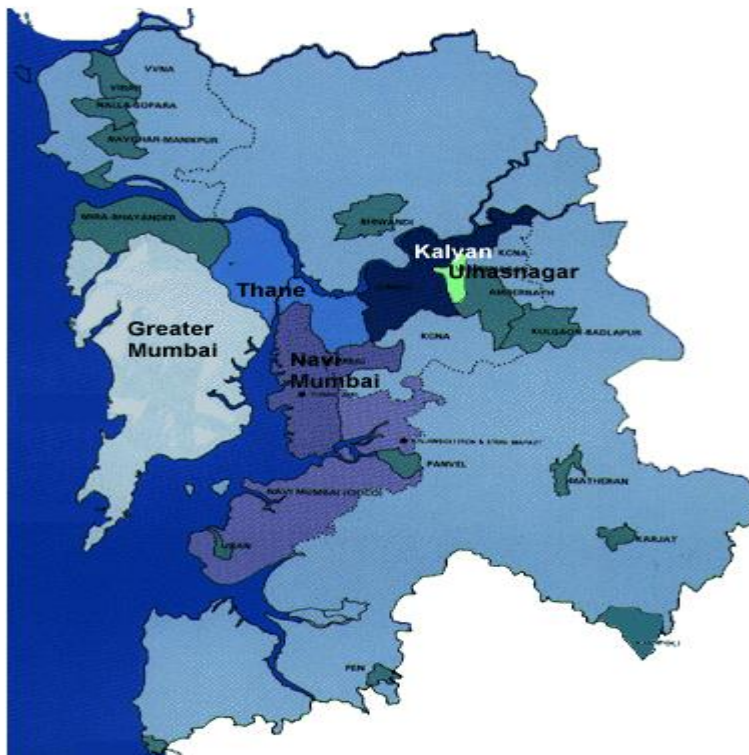


Figure 1.2: Mumbai Metropolitan area
(Source: mmrda.maharashtra.gov.in/about-mmr)

1.11 Research Method:

Selection of Research method depends on the nature of research topic, for this research study Descriptive research method in which survey method is applied to review the students.

In addition to this to get opinions of librarians of 32 institutions researcher has conducted survey on the theme of research topic.

1.11.1 Design Map of Study:

The research methodology including the data collection process, analysis and hypothesis testing are summarized in the design map presented below.

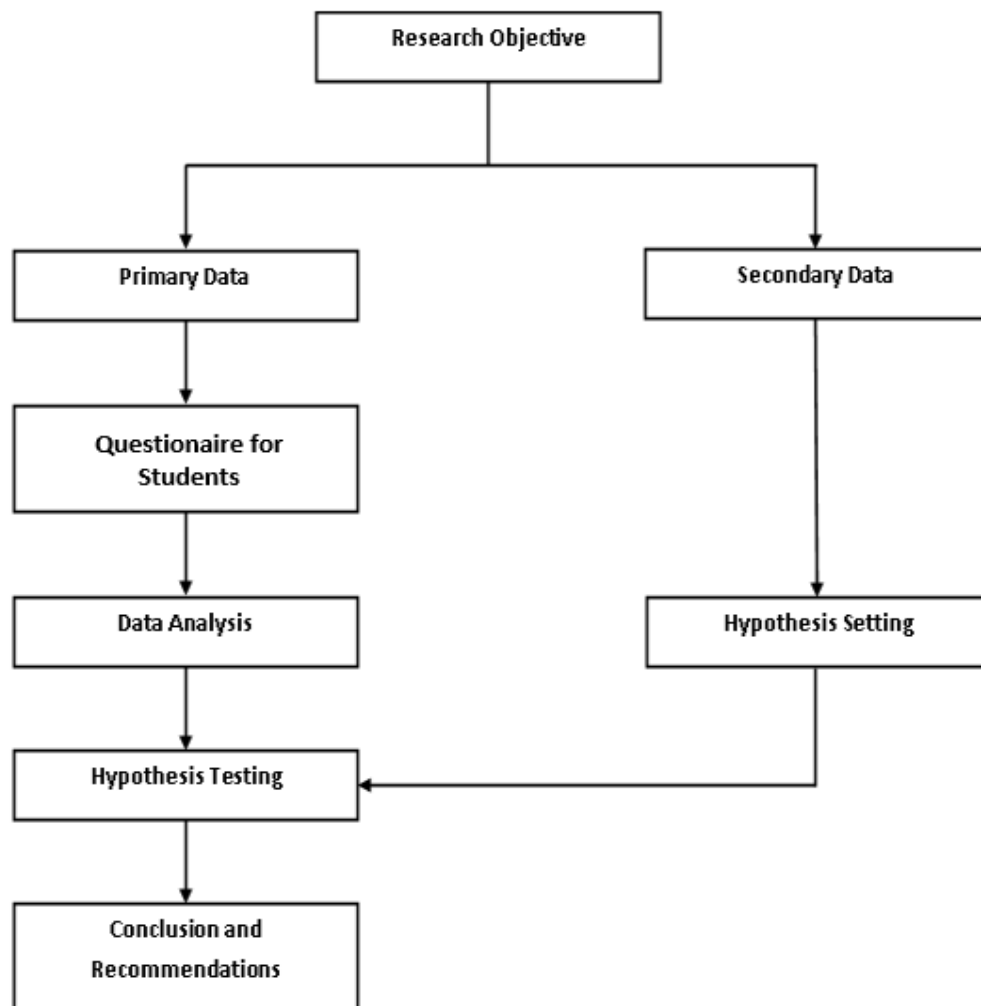


Figure 1.3: Design Map

1.11.2 Tools for Data Collection:

Tool finalization, it is necessary to study the variables or options involved in study and establish their validity and reliability. It is decided to get the views of senior library professionals and questionnaire is prepared keeping in mind identified variables and suggestions of experts.

1.11.3 Tool Construction:

It is very important to construct one tool to measure all the factors related to variables to be studied.

1.11.4 Choice of Tool:

It was decided that the tool in the form of Questionnaire to be used to collect data from students and librarians. Five point scale was used to prepare questions along with multiple choice.

1.11.5 Validation of Tool:

Validity is whether an indicator that is created to gauge a concept really measures the concept. Validity tests indicate how well as instrument measures a particular concept. Questionnaire content validity is done by senior library professionals and methodology experts. All recommended changes were accommodated in a tool or questionnaire.

1.11.6 Sampling

The intake of Post graduate students in Management education in 32 institutions is detailed in **Appendix 2**.

Sample size from 32 institutions decided based on Creative research system's sample calculator which is considered as standard sampling method used in research method.

Figure 1.4: Determine Sample Size
(Source: <http://www.surveysystem.com/sscalc.htm>)

Sample size was decided based on

Confidence level: Normally 95% values is taken for research analysis

Confidence Interval: Two options were considered for this value. 1% and 5 %. For 1% confidence interval, however sample size was coming very high as 5200 and for 5% confidence interval sample size coming very low as 370. Both these values are either very high or very low for data collection. Hence Confidence interval 2.5% value was considered which resulted in sample size of 1351. This 1351 sample size distributed among selected 32 institutions, sample size per institution comes around 42. Expecting some responses as non-usable or incomplete, finale sample size was decided as 50 respondents per institution which comes to total 1600.

Questionnaire is circulated to all 32 institutions selected but in 2 institutions researcher did not allowed to undertake the survey and hence 30 institutions with sample size of 1500 for survey. Random sampling technique is used in this study.

Researcher also surveyed librarians of these institutions to get their opinion and understand status of information literacy programs.

1.11.7 Data Collection:

Data collection was done by using questionnaire. Data collection was the most challenging task because access students was problematic. Sometime researcher spent whole day in single institution to collect the data, out of 32 institutions 30 institutions were responded remaining two institutions were not responded. Hence our sample size is 1500 respondents.

1.12 Review of Prominent Research Study:

While searching literature researcher came across the following research studies which are either near to topic or related to topic and hence my topic different than past studies in this area.

Table 1.1 Research Study in Information Literacy

Researcher	Topic
Vasudevan T.M	Information literacy of research scholars of universities in Kerala
Anjali Kale	Developing information literacy skills in student teachers an experimental study
Lata Suman	Information literacy among faculty and students of medical colleges of Haryana Punjab and Chandigarh
Vijay Pattar	Design and Development of Information Literacy Programmes and Practices in the Electronic Environment with special Reference to Engineering College Libraries in Mumbai
Juin Dutta	The role of school librarians in promoting information literacy among school students
Rajagoli, I.U.	Role of information literacy in maximising the use of information for productivity and development a case study of selected library and information centres of higher learning and research in Bangalore city
Kamatchi,S.	Development of a Web Enabled Information Literacy Module and its Effectiveness Among the Students in Colleges of Education in Chennai

From the above study it is observed that the research study conducted by prominent researchers is different than this. The present topic is to understand information literacy skills among the management students and based on the study suggest best practices

improve information literacy skills of students. It is not covered in any of the study. Today management science is a focal area where after graduation every one try to enter in to this stream. Today information literacy is a social concern. In this present industrial era there is a lot of demand for young and talented managers and are able to take right decision on the field. This is possible only when they know how to select the source for information, retrieve the information and analyse it for effective use while taking right decisions and this is possible only with effective information literacy skills.

Use of the Study: This study is more useful for library professionals and library users from management institutions as well as other institutions to undertake effective literacy programs. Similarly this is useful to all library professionals, faculties, information forecasters and management of institution etc.

1.13 Structure of the Thesis:

The present research thesis is consists of seven chapters, the chapters are as follows:

Chapter 1: Introduction: The chapter presents the introductory information about management education, the role of management institutions, need of information literacy, justification of the study, research problem, aim, objectives, hypothesis, scope, limitation and research methodology etc.

Chapter 2: Literature Review: The chapter highlights, various related research studies conducted in the field of Information literacy, education and information literacy, library and information literacy, information communication technology and information literacy, information literacy skills and national commission & information literacy. The researcher has consulted various resources in print and digital to collect the data scientifically.

Chapter 3: Management Education: The chapter includes management education importance, global trends in management education, overview of management education in India, Maharashtra and Mumbai, types of MBA programs. Also discuss issues in management education.

Chapter 4: Information literacy: The chapter focus the meaning & definitions of information literacy, library & information literacy, ICT & information literacy, information literacy standards, models, information literacy in higher education, information literacy in India and information literacy abroad.

Chapter 5: Resources Available in Management Institutions: The chapter includes different types of resources available in management institutions

Chapter 6: Data Analysis: The chapter includes data analysis of management institution users on Information Literacy skills, information communication technology in libraries, existing stage of information literacy program, Impact of information literacy program and librarian's opinion on information literacy stage in their respective institutions.

Chapter 7: Findings, Suggestions and Conclusion: The chapter contains findings and suggestions of the research work. It includes the best practices of adopting by the management institution for effective execution of information literacy, and includes scope for further research. Testing hypothesis, proposed model and conclusion.

Summary of the chapter:

This chapter aims to analyse Information literacy of management students in Mumbai metropolitan area. Covers role of management education in development of society. Justification of the study is discussed. Methodology of the study described in length and adopted descriptive research method for the study. Concept map and design map for the study is constructed

References:

- 1) Creative Research Systems sample size calculator accessed at <http://www.surveysystem.com/sscalc.htm>. Accessed on 3rd January 2015.
- 2) Information Literacy accessed at http://en.wikipedia.org/wiki/Information_literacy, Accessed on 13th August 2014
- 3) Kothari.C.R. (1990). Research Methodology: Methods & Techniques. - 2nd Ed.- New Delhi:Wishwa Prakashan.
- 4) Mumbai Metropolitan area accessed at mmrda.maharashtra.gov.in/about-mmr. Accessed on 10th November 2014.
- 5) Paul G. Zurkowski (1974). "The Information Service Environment: Relationships and Priorities. Related Paper No.5.". National Commission on Libraries and Information Science. Retrieved December 3, 2014.
- 6) Prominent research study in Information Literacy accessed at <http://shodhganga.inflibnet.ac.in/simple-search?query=%22information+literacy%22&go>. Accessed on 18 June 2016.

CHAPTER 2

Literature Review

2.1 Introduction:

Basically Literature review gives a birds view of the research concept. It helps researcher to get acquainted with his research problem and also helps in finding out research gaps in existing the existing literature. This helps researcher in fine tuning his research methodology and problem.

2.2 Facets of study:

Researcher reviewed the literature of 124 research articles from 1974 to 2015 on Information Literacy and found articles on following five sections.i.e.

- a) Education & Information Literacy
- b) Library & Information Literacy
- c) Information Communication Technology & Information Literacy
- d) Information Literacy skills
- e) National commission & Information Literacy

2.2.1 Education & Information Literacy:

Information Literacy term is widely accepted in education system. Initially it was known as information skills knowing how to use various tools to retrieve information. In this information age information literacy plays major role in education system which enables students to independently find information and use it whenever need arises to complete his academic assignments. Information literacy in education system makes students a lifelong learners. Following are reviewed literature on information literacy and education.

According to Kemp, Barbara E.; Nofsinger, Mary M (1988) describes growing concern over the concept of articulation of educational programs and services. Survey results of Washington State University on the level of library skills/retrieval skills of students and faculties, problem faced by library professionals in teaching library skills and key to achieve its goal of lifelong learning or information literacy for all.

Burrell, Jennifer; Foster, Jennifer. (1991) describes importance of cooperation between public and school libraries for ensuring to build the foundations for information literacy for students in Australia.

American Library Association, Chicago, IL (1989) Article discuss information literacy as a tool in reaching personal professional goals. The importance of being information literate in business demonstrated through examples and the role of information literacy in taking effective decisions in business. Information literacy also considered as main central element in practice of democracy with responsibility on both side of government and users. Government should make available the information and users use it effectively for effective decision making. A new education curriculum is suggested depends on available information resources.

As described by Kester, D D (1994) this article is a study of survey at East Carolina University, to identify student's information skills. The study focused on: training on library use in school; reasons for library usage, methods used to access information and identification of standard reference terms. Statistical analysis of the study is presented and it is observed only a few students are benefited by library orientation, library curriculum in course content is very less, most of the students are unable to use online catalogue and search strategies. Author recommended that more research to be conducted on problem solving skills.

Grover, R. (1994) as in school library 'library instruction/orientation has changed to 'information skills instruction' and is part of school's curriculum. Several models were developed for imparting information skills Because of the library media specialist's roles as teacher and instructional consultant, it is imperative that the library media specialist is able to design and assess information skills instruction. While several models have been advanced for the teaching of information skills, needed are guidelines for the assessment of information skills.

Bailey, L (1995): Since 1990 The Cheltenham and Gloucester College of Higher Education has used an information skills workbook as part of its first year student's skills program. This article describes changes to be made in user manual/workbook by adding new learning or teaching styles.

Rader, H B (1996), this article deals with, in an information age all the citizens must become smart and efficient in managing the information. Everyone should need training

in organizing, evaluate and analyze available information in print and e format and retrieving skills taught from school to university level. Librarians worldwide should know the latest skills and technologies to impart effective information literacy programs.

Fox, L M; White(1996), this article deals with nursing college students, main goal of information literacy program is to develop users skills in locating, evaluating and applying information for problem solving. After literacy program indicate improvement in students' information. In 1988, the University Of Northern Colorado School Of Nursing began working with a librarian to integrate an information-literacy component, entitled Pathways to Information Literacy, into their curriculum.

Baker, Robert K. (1997), Most academic librarians endorse the development of information literacy skills for undergraduates and equate these skills with effective use of the library. Many studies, however, show that few students use the library, and that most of their use is a function of faculty expectations. Consequently, further research into the reasons why faculty decide to require their students to do library research is important. An exploratory single-case descriptive study is presented that explores this area of inquiry by identifying and describing the purposes, levels of importance, and self-perceived roles of faculty at a large urban multi-campus community college (Pima Community College, Tucson, AZ) in making student library assignments.

Julien, Heidi (1998) this article deals with practices of user orientation in New Zealand's higher education sector and comparing similar study conducted in Canada and discusses research in the US on same topic. Article also address questions of Who has responsible for user education in academic libraries, what are resources allotted for user education, Evaluation policy, Curriculum of user education, Methods and objectives of user education etc.

Furlong, Katherine; Roberts, Franklin D. (1998), author describes pro-activeness of Maine university in providing information literacy to their users. Actions taken to teach students in better information retrieval skills and helping them to become lifelong learners. Also discusses outlines, goals and objective of IL Program and tips to academic librarians on providing effective information literacy program.

Spitzer, Kathleen L (1999), article presents strategies for the implementation of Information Literacy Standards for school Student. Resources and checking of various websites that can help in the understanding of standards or to locate relevant standards. Collaboration with library professionals to integrate information literacy with the school curriculum.

Engeldinger, Eugene A (1999), author is of opinion that fundamental of higher education is to prepare students for the future. To face this high tech world graduates of today and tomorrow must have effective information seeking and technology skills. They must be information and technology literate. For this it is necessary for the institution to develop and maintain high class information technology infrastructure, network infrastructure and service infrastructure. Concludes how high class infrastructure of an institution plays a very important role in creating effective information literates.

Higgins, Carla; Face, Mary Jane Cedar(1999), author writes at Southern Oregon University information literacy was developed and implemented during the year 96-97 for fresher. The content designed with writing speaking and critical thinking skills. Role of information literacy program in university's learning process.

Giannini, Grace (1999), Monash University recognized the need to revised existing user education, or library orientation. Traditionally, librarians had offered a program of general and specialist user education tailored to the disciplinary needs of students in the form of classes and in the revised one-on-one reference interview and hands on session were created.

Rader, Hannelore B (2000), Because of data smog, in beginning of new millennium information environment is changing greatly. These changes affect the libraries specially its reference services. Previously librarians have been concerned with library orientation or library instructions now they are responsible for teaching users other valuable e resources and technology skills to cope effectively in changing information society. In 21st Century teaching effective information retrieval skills will become an important component of reference service. Article concludes challenges in academic libraries and success in these areas means effective professional survival.

Halverson, Aniko L.; Volker, Joye.(2000), two institutions --the Institute of Arts at the Australian National University, and the US-based California Institute of Arts--have implemented information literacy in their curriculum and are addressing the following areas of opportunity: the help desk; a formal, for-credit course in information literacy; and the concept of the information laboratory. Identified required skills for the librarian to manage such facilities. These include the development and delivery of literacy courses which cover variety of library resources; the use of a variety of software packages.

Iannuzzi, Patricia (2000)- Article focuses on Information literacy standards implementation developed by Association of College and Research Libraries in the United States to promote use of standards in education. Discusses need of information literacy competency standards, application of these standards in college and role of librarian in building information literate user.

Walker, Clare M (2001) - Author discusses standards for assessing information literacy which includes Association of College and Research Libraries (ACRL)'s Information Literacy IQ test and competency standards. SAQA Grid and its eight outcomes developed by University of the Witwatersrand, South Africa. Argues information literacy partly depend on Information technology literacy.

Julien, Heidi (2000) - Article examines information literacy program in academic libraries in Canada also observes method, content and challenges faced by librarians in providing information literacy program and comparison of same with United States and New Zealand.

Black, Christine; Crest, Sarah; Volland, Mary. (2001) Author describes faculty and librarian collaboration at Towson University in teaching and developing information literacy program. Article also indicates that that the collaboration brings effective curriculum for information literacy program and required searching skills.

Fiegen, Ann M; Cherry, Bennett; Watson, Kathleen (2002), article deals with model where information literacy competencies are adopted as learning outcomes for an undergraduate business curriculum. Develops an assessment instrument to measure students learning of information literacy competencies tied to the objectives of the course then uses the performance measures and learning outcomes to plan an

information literacy curriculum for higher education in management. Concludes how learning outcomes helps instructors in designing information literacy curriculum in business course.

Ivey, Ruth (2003): Report of a study conducted to investigate librarians and academics efforts to develop information literacy at the university of Waikato .Information literacy programs depends on provision of technical staff to develop and deliver the program. Effective communication and positive working relationships are some conditions essential to the success of collaborative teaching partnerships. Identifies strategies for initiating, developing, and sustaining such partnerships.

Entorf, Regina P.; Ye, Fred Y.(2004) The article presents an investigation undertaken while one of the authors was a visiting scholar during the spring of 2004 at the Zhejiang University Department of Information Resources Management, Hangzhou, China. The other author is Chairman of that department. The study presents a brief overview of information literacy instruction in China and then focuses on how it is actually carried out at one large, representative university. The Zhejiang University library system boasts five libraries at present, with a total of about 5,500,000 titles. Among the electronic resources available are e-book databases, including Net Library, that include over 100,000 titles, mostly in Chinese. The great majority of students surveyed were third year undergraduates, but also included four seniors and two graduate students. Students were asked how many term papers they had to write in the past year, as a means of gauging how much library research they may have had to do. The students surveyed generally expect to figure out how to operate databases by themselves or with the help of online instructions, instruction from professors, or help from their peers, not with help from librarians. Students wish they were more skilled at putting together an effective search strategy, including being able to choose appropriate keywords, but no great distress was expressed about the research process either.

Jones, Rebecca (2005): Author describes how Malvem Girls College has promoted information literacy as part of independent learning program. Continuous developments in information and communication technology change the education system and greater emphasis on how users use technology as a media for accessing information. This gave birth to Information literacy and librarians took lead role in delivering the program. To

conclude in order to develop the information retrieval skills there need to be introduce information literacy skills teaching across the curriculum along with practical exposure.

Singh, Neena and Klingenber, Andreas (2009) are of the opinion that the academic libraries promoting and developing information skills of students in modern automated and hybrid libraries and their role in developing a knowledge society. It defines information literacy and major information literacy skills required by students. Information literacy in India and Germany – university libraries as activators of life-long learning.

Pattar, Vijay; Kanamadi, Satish (2010): This article represents findings of a survey of the information literacy programs provided at the engineering colleges in New Mumbai, India. The content and execution of these literacy programs to the users are examined: Found that majority of libraries are providing information literacy programs at the beginning of the academic year by librarian Methods used for execution are limited to brief introduction by lecture method and library tours. Web based tutorials are not provided. Majority of libraries agree that ICT has had great influence on information literacy programs. Study also revealed that majority of libraries are not evaluating these literacy programs. Recommendations & suggestions are given to improve the Information Literacy programs.

Stewart, Christophe (2011) this article deals with importance of measuring information literacy (IL) effectiveness over and above the use of case studies. The author discusses examples of library outcomes for IL among research universities including the development of context research skills at the University of Illinois Libraries and the Competencies for Online Research Education (CORE) at Purdue University. He also discusses the need to devise broad methods for measuring effectiveness.

Smale, Maura A. (2011): Article deals with in all levels of education game based learning is an innovative pedagogical strategy employed which motivates and increase student learning. Many libraries have incorporated games into their collection. Academic Libraries begun to use games for information literacy programs. They use commercial games, create their own games apply these games to enhance their information literacy program, the benefits of this approach outweigh obstacles. Using

games in literacy program has strong potential to increase users' involvement in the program.

Diehm, Rae-Anne; Lupton, Mandy. (2012): This article deals with students' behavior to find and use the information wherever needed. In this article author interviewed Australian university students where he uses phenomenography as its methodological & theoretical basis and finds students use 3 strategies for learning information literacy. 1) Learning by trial and error. 2) Learning by discussing with others and 3) Learning by doing or practicing this outcome will help library professionals to design and develop literacy curriculum accordingly.

Al Awadhi, Suha; Rehman, Sajjad Ur (2012): This article deals with importance of information literacy course in helping students to develop skills and capabilities needed to use information effectively. It is observed that information literacy course made a significant difference in skills and capabilities of a user who took this course. Also discuss with students groups benefits and obstacles with students while taking this course. Examine the course content and facilities supporting delivery of the course.

Haji, Haji Ali; Mwitumbe, Khamis Hamad; Omar, Abbas Mohamed (2014): The article describes current situation and information literacy level and awareness at Zanzibar University. Also discusses frequency of literacy programs and role of library professionals in promoting the program. Author conducted survey at three universities of Zanzibar where university teaching staff, library staff, deans, Head of Depts. and students were involved in this study. About 200 users participated in the study and data analyzed quantitatively. Result shows bit of information literacy awareness exists among teaching staff and library though its promotions and required skills are still at nascent stage. It was found inadequate number of professionally qualified library professionals, lack of background in teaching literacy programs and lack of cooperation between teaching staff and library professionals were source of the problems. Respondents made recommendations to address the shortcomings which includes Creating awareness programs, Information literacy workshops/ seminars. Effective information literacy curriculum in all levels of education.

Lawal, Vicki; Akintunde, Stephen. (2014): Authors examine the potential role of information literacy (IL) within the changing context of the e-learning environment at the University of Jos in recent years. It focuses and emphasizes the role of the

University library in facilitating teaching and learning through the use of e-learning platforms in teaching information retrieval skills. The article aims to identify gaps in students' information skills that could be addressed through IL program. The study employed a case study research design while the methodology involved the administration of structured questionnaires to the two groups of respondents. Findings from the study provide useful insights to the skills challenges experienced by students and point to a need for effective collaboration between the library, faculty and management in order to promote a better approach to learning at the institution.

Blas, Elise A (2014) sociocultural literacy guides an instructor's pedagogy in the multicultural university classroom. By employing sociocultural literacy in the information literacy classroom, the instruction librarian can better teach students from all cultures including international students, first generation students, or students from a wide array of socio-economic status. Sociocultural literacy goes beyond cultural sensitivity and awareness. Through small changes in the classroom environment, communication behaviors, and ways to teach information literacy, students are encouraged to relate the presented material to their own lives. Such changes require effort on the part of the sociocultural literate instructor to learn more about each student and teach in a wider perspective

Ilogho, Julie, E, & Nkiko, C. (2014): This article is a survey of students in 5 private universities in Ogun state Nigeria on information literacy awareness and searching skills. Also examined students level of distinguish information according to their needs and level of information program. The sample consists of 359 respondents, descriptive survey method was used. Data analysis done with simple percentages. It was found that respondents have low knowledge of Information literacy programs, skills etc. Lack of skills in identifying right resources. The study concludes effective information literacy skills are part of everyone's life in this 21st century. Cooperation of teachers and library staff is must to deliver effective information literacy programs and awareness.

Sadlapur, Shivanand & Patil, Vinay (2014) It is case study of database usage at NMIMS University. Author discuss students' information literacy skills, impact of information literacy programs on utilization of library resources and future user needs.

2.2.2 Library & Information Literacy:

Library & Library professionals plays a very import role in imparting quality information literacy program. In educational institutions students are surrounded by rich information environment. They need integral system to manage the information. At the beginning students have less exposure for internet and e-resources this results in mismatch between students behavior and academic expectations. Here librarians are natural in-house experts in teaching ICT applications to information for students and faculties, how to find select and use required information effectively. Researcher reviewed following literature on role of library & Library professionals in information literacy.

Taylor, (1979) introduced the term in the library literature (Library Journal) defining the elements of information literacy and role of librarians in effective execution of information literacy. Martin Tessmer defined “information literacy is ability to retrieve, access and evaluate information for their needs.” List of information literacy skills are also described.

Deekle, P V; De Klerke,(1992)This paper is a result of survey undertaken to determine whether the roles responsibilities of the librarian have really changed, in promoting information literacy what are the roles of library staff and computer center. Role of library professionals in curriculum development.

Keefer, J. (1993) In this article author discusses 2 recurring themes in reference information: Whether reference is only the delivery of information or helping users in dealing with system, and the debate concerning the merits of content-oriented as opposed to process-oriented, programs. Some of the implications of the concept of library anxiety within the content of information literacy and the delivery of reference and instruction service in academic libraries are studied. Findings from the realms of psychology for the physical and intellectual organization of academic libraries are also presented.

Brock, Kathy Thomas (1994) article deals with making a library literature-based model for developing information literacy through the information intermediary process and librarian and teachers plays the role of information intermediaries also deals with Methodology, Process involved in model development, Refining of model; Interaction between information intermediaries and library users.

Bruce, Christine Susan. (1995) describes information literacy and examines the areas of primary concern. Few definition of information literacy and information literate person; Role of library professionals in information literacy program and content of information literacy education.

Baker, Robert K (1995) this article deals with what librarians can do for teaching faculties to increase library's involvement in their curriculum development. Describes the characteristics of Information literate person and also considered as information literacy is must for educated person.

Ercegovic, Zorana (1998), Information Literacy, library and information science literature becomes interesting subject for many. In particular national goals for education 2000 and emerging world digital library researchers do invest in the area of Information literacy. Reports case study in Information literacy and elaborate information literacy skills for college students.

Poustie, Kay(1999), Author describes role of public libraries in implementing information literacy through the internet and details on the construction of Mirrabooka Library and Information Technology Center in the City of Sterling, Australia cope with handling information literacy programs

Caravello, Patti Schifter (2000), article deals with the library instruction course offered by university of California-Los Angeles. Goals of the course; Availability; Course format; Lecture and online demonstrations offered; Evolution of the course; Course approach and offers for providing practical skills for learners/users.

Cunningham, Thomas H; Lanning, Scott (2002): In this knowledge age information literacy is essential. Describes definitions of information literacy, challenges in promoting IL Role of faculties and librarian in designing information literacy.

Nyamboga, Constantine M (2004), this article deals training opportunities for Library and Information science professionals arise due to information literacy program in India. The need for training to users is to make appropriate use of resources available in the libraries. Library professionals need continuous training, professional development courses to cope with emerging digital resources.

Galvin, Jeanne. (2005): This article deals with strategies for promoting information literacy rather than traditional library orientation. Library collection, infrastructure and services like digital resources, web pages and technology infrastructure will be useful in imparting effective information literacy programs.

Gayathri Mahapatra (2006) Author describe the concept of e information literacy, which helps in delivering user education or information training through electronic media. Which required internet, intranet, LCD's. Broad band facility, DVD, VCD etc. Discusses effect of e learning platform in distance education stress on paradigm shift from teacher to learner. Discussing new role and responsibilities of library and librarian because of introducing ICT in libraries. Further article elaborates status of e learning/ education programs along with course curriculum and techniques used in effective delivery and implementation in India. Library professionals and web technologists' plays important role in implementing e information literacy program in the society.

Florea, Mona (2008): Author describes librarians as a service providers always looking for innovative ways of using technology for delivering library services and information literacy skills. Online learning and teaching tools offer librarians enormous opportunities to enhance face to face information literacy program. Concludes librarians experience with using WebCT Campus Edition and Vista, e-Portfolios, and Wikis to deliver online information literacy program.

Ramesh Babu (2008) states, the information literacy is an area of interest to librarians and information professionals and it is pivotal to the pursuit of lifelong learning process. Information literacy competency standards and performance indicators.

Norris, Tiffany Davis. (2009): This article discussed challenges faced by librarians in providing Information Literacy program. The author points out that to address Gen Y users' information needs librarians should well verse with technology that can be used in academic environment, also emphasis role of librarian to help users in finding appropriate databases according to their information needs.

Sanderson, Heather. (2011): Author is of the opinion that many librarians are using different learning styles in their literacy programs. Research reveals that theory of learning styles is problematic and complex. It is important to delivery information literacy program with sound knowledge.

Dunaway, Michelle. (2011) Author describes Information literacy program created new openings for freshers in Library and information Science field across the world. Article also describes role of web 2.0 in delivering effective information literacy program. Author engage the students in critical thinking which helps them to recognize social and political aspects of creation of knowledge or information. The School of Information Science at Pittsburgh University provide education to traditional librarians to become knowledge managers, where they should handle effective information literacy programs. School offers graduate degree program in Library & Information science with specialization in information literacy so that they should deliver effective literacy programs. Master's program is offer on campus and also online and is accredited by ALA (American Library Association).

Buckley Owen, Barbara (2012): This article deals with authors insights on role of the libraries in improving information literacy. Owen is worried that information literacy is being missed, citing the observed innocence regarding the issue. Owen mentions the need for information professionals to develop skills to be involved in the agenda. Owen adds that public libraries must ensure that they integrate information literacy.

Sadlapur Shivanand (2014): Author is of opinion that. In this ICT age Libraries are spending huge amount of money on their collection development and for proper utilization marketing is must for getting better ROI on the investment and it is possible only through information literacy or user education.

Klipfel, Kevin Michael (2015) this article articulates and defends a student-centered approach to reference and instructional librarianship defined by authentic engagement with students' interests. A review of the history of the construct of authenticity in philosophy, humanistic and existential psychology, and contemporary educational psychology is traced. Connections are drawn between the philosophy of authentic engagement and the tradition in librarianship of "Counselor Librarianship." Recommendations for applications to the library context are then outlined.

2.2.3 Information Communication Technology & Information Literacy:

Information Communication Technology with literacy means thinking analytically and innovatively about information and information communication as citizens of global community while using ICT reliably and ethically.

Now a day's technology is a part of every one's life and learning which makes work and communication for business and pleasure always with strong importance on softwares, hardwares, applications and portable devices. In this 21st century it is not enough to be merely ICT literate but one should need literacy that helps the use of these application and tools. Researcher reviewed following literature on Information communication technology and information literacy.

Horton, F W Jr- (1983) described Information literacy as beyond computer literacy and defined as “,as raising level of awareness of individuals and enterprises to knowledge explosion and how machine-aided handling systems can help identify, access, and obtain data and documents needed for problem-solving and decision-making”.

Mioduser, D.(1985) in his paper discusses the concept of information literacy as the main framework and within computer literacy may be defined, describes in detail the design and curriculum of Information literacy for elementary and junior high school students with an example for grade 6 entitled 'Information in-Formation. ‘and is consists of four chapters i.e. (1) The World of Information; (2) Information Processing; (3) Information Processing in the Human Brain; and (4) The Computer-- An Information Processing Machine. Materials are briefly described, including a textbook containing various activities and reading excerpts, models to be built and operated, games, computer software, enrichment notebooks, and kits for assembly.

Doyle, Christina S (1995) describes the concept of information literacy which is the ability to access, evaluate and use information from a different sources and also include definitions for information literacy, ICT, Terminology impact and information literate etc.

Perkins, Michael; Bosseau, Don L(1996), author is of opinion that information competency is more than computer literacy and not only involves how to

access information, but involves awareness of information available, how it is organized and how to use for one's information need and this activity needs proper education and training.

Thomas, N R (1997), the author discusses merits and demerits of licensed software's in providing Information Literacy and proper planning in arranging information literacy program so that most of the students should benefited from this.

Dupuis, E A (1997), the article describes in this technological world most of students will be techno savvy and they prefer to refer e resources in completing their assignments. Some students are reluctant to adopt new technologies; by considering the technological developments, computer access and Internet resources available to elementary school students today, one can only imagine user expectation from libraries tomorrow. It is found although college students may arrive with sound technological skills but their knowledge in using digital information is lacking. Author's opinion that to overcome this, information literacy is must for every student, there they should know how to retrieve the information from digital resources

Herrington, Verlene (1998). Author discusses impact of information technology on library orientation. Paradigm shift in e library. Limitation and problems with existing Library orientation and importance of information literacy skills into the system.

Saunders, Laverna M; Saunders, Laverna M. (1999), authors writes concepts of virtual library and describes how dependence on computers and digital information has effected the users. Impact of technology on libraries have evolved library jobs, organizational structure and working conditions have changed. Need of highly technical librarians to teach information literacy skills and to help users to cope with changing technology.

Squire, Jan S (1999), author is of the opinion that with advancement of technology more and more information is available and is need of the hour and library should provide these materials and train the user on usage of these material. Academic libraries become place where information literacy programs takes place involving access, evaluation and use of information.

Negishi M (2000) in the age of digital contents, information literacy has become widely acclaimed as the indispensable skill for every citizen. It is regarded as being comparable

to conventional literacy and arithmetic, and its content is discussed by checking governmental documents and information-related qualification examinations. Examines the importance of the distinction between business-oriented information and entertainment-oriented information, and suggests that the usual discussions about information literacy have only been applied to the former. Maintains that recent developments in mobile telephone services and gaming machines for entertainment use should be seriously considered as constituting an important part of information literacy.

Sato, Kazuyo; Shiota, Masayuki (2001) – Author describes in this growing information age information literacy is very important part of any organization. To overcome this corporate libraries providing with information literacy program to their users. At Asahi Breweries installed necessary hardware and software in their library to operate digital information, arranging training programs to their end users on internet and commercial databases for effective retrieval.

White, Marjorie V. (2003), author opinion that with rapid advances in information technology increase in variety in information resources and increasing complexities of access and evaluate the information and libraries recognize the necessary of Information literacy program for its users, universities took initiative in information literacy training workshops and deployed successful models in this regard.

Karsidappa.C.R. and Iqbalahmad (2007) Author is of opinion that revolution in technology and application of same to information has opened new age in the mankind history. Along with increase in e commerce, e health, the internet has been considered as boon to learning society. The revolution in information technology creates new form of electronic interactive education for lifelong learning and learning makes simple allows anyone to learn anything from anywhere any time.

Katz, Irvin R (2007). Author is of the opinion that in this information age users at all level lack of ICT skills and were confused in selecting, evaluating available information. This article describe available ICT infrastructure for internet based information literacy programs. From beginning to present library professionals involved in design, development of information literacy programs

Jackson, Pamela Alexondra. (2007): This article deals with using leaning management systems like Blackboard in delivering library services and through Blackboard it is

possible to include online course of Information literacy. Concludes utilizing LMS platform for providing library services remained underdeveloped and recommends suggestions to improve students' awareness/learning.

Knecht, Mike; Reid, Kevin. (2009), Article describes how LMS Software Blackboard is used by the librarians at Hinderson Community College to deliver Information literacy program and students feedback. Advantages of information Literacy program through black board are greater collaboration with faculty, instant feedback from users, global access from remote locations and compliance with accreditation guidelines.

Tariq Ashraf and et.al (2009) state that the emerging virtual learning environment, the information literacy (IL) instruction is alive and functional on campus today. It needs to be treated differently from the usual programmes.

Shiao-Feng Su; Kuo, Jane (2010) Authors describes ,the current study conducts a thorough content analysis of currently prepared or up-to-date high-quality digital information literacy programs conducted by academic libraries in a peer-reviewed resource, PRIMO. This article describes PRIMO's topics or skills and their teaching skills and strategies considered as very effective and suggest to deploy these techniques in information literacy programs.

Shri Ram (2010): The article deals with Web 2.0 application as information awareness tool about the resources available in library and connecting all other Jaypee Group of Educational Institutions' libraries also discuss influence of Web 2.0 application on library services. Web 2.0 technology provides users a virtual environment. It enables users to interact with users of similar interest through networking and present myriad of resources and information in the form of multimedia, blogging, tagging, book marking, messaging, and social networking.

Click, Amanda; Petit, Joan. (2010): This article deals with using available open source applications and internet tools in executing information literacy programs by librarians with focus on Web 2.0 and social media technologies.i.e. Social networking websites Facebook and Twitter, blogs, RSS, wikis, video sharing etc. Many users are already using these technologies which made them simple to grasp when applied these technologies to library services.

Magnuson, Marta L (2013): This article deals with how Web 2.0 tools in an online information literacy instruction course gel with ACRL's Information Literacy Competency Standards for Higher Education. For graduate courses, a qualitative case study was undertaken on an online information literacy program. Collected data includes assignments, course activities, online discussions, surveys and emails. Theory of constructivism, active learning and social interaction was used to find data patterns. Activity theory provides frame work for data analysis while students using web 2.0 tool. It is found Web 2.0 supports five information literacy standards i.e. collaboration, information organization, creativity, discussion and technology education.

Koltay, Tibor; Špiranec, Sonja; Karvalics, Laszlo Z (2015) in this article author describes the important feature of Research 2.0 and its relationship to information literacy. Research 2.0 is combination of various technological innovations and Web 2.0 applications. This will transform research activities. Author is of the opinion that impact of research 2.0 on information literacy is fantastic but still it is not widely adopted.

Chalmers, Wendy. (2015): The article deals with Digital and Information Literacy (DIL) framework of the Open University (OU). Topics discussed include creation of Digital and Information Literacy framework to support a structured and consistent approach in the development of Digital and Information Literacy skills for students, this framework endorsed by faculties is being used by academic staff and librarians to integrate skills into modules, enables systematic building of skills through qualifications and focuses on creating a student-friendly version of the framework.

Ram, Shri (2015): Article discuss the application of tag clouding for information visualization and information retrieval over social cataloguing tool such as Shelfari. A case study where tag cloud is being used as a tool for information visualization and information retrieval to create awareness about new arrivals in the library. For the purpose of creating awareness amongst the user of the library and promote the use of newly catalogued resources, an online social cataloguing system 'Shelfari' has been used. The new arrivals are catalogued through social cataloguing system. The Library of Congress subject heading (LCSH) and Medical Subject Headings (MeSH) are being used as tag words for each resource. The tag cloud created

in this way has been evaluated for the effectiveness of the social cataloguing. The results suggest that tag clouding helps to create a visual effect and help users to learn about availability of the resources in the library along with the collaborative activities such as reviews and feedbacks, to choose right kind of reading materials. Social cataloguing activities are now getting momentum in online social network system. The use of internet and social network activities are increasing day-by-day so as the use of reviews and feedback for choosing right reading material. This study shall be valuable for those who are interested in choosing right reading materials based on popularity.

2.2.4 Information Literacy skills:

Skills defined as abilities of a person to perform the tasks effectively. In information literacy skills are required to be information literate requires an understanding of following.i.e. Should be able to understand the need of information, available resources, how to find required information, knowledge to evaluate the results, how to use the available information effectively, ethics of information, and how to communicate and manage the findings or outcome. Researcher reviewed following articles on information literacy skills.

Burchinal (1976) states that information literacy as a set of skills and linked information literacy with 1. Skills which include using and finding information. 2. Role of information in decision making and problem solving.3. Effective and efficient location of information and utilization.

Lubans (1978) author defined competences for library with special references to selecting perfect resources for their information needs.

Garfield (1979) in his paper 'The Industry Association' (IIA), defined information literate person as a person who knows the techniques and skills for using information tools in molding solutions to problems.

Demo, W. (1986) - examines certain characteristics of information technology which might actually hinder information literacy for many. i.e. 1) Oversupply of information; 2) cost of information tools ; 3) cost of information access; 4) invisibility of

information revolution to average person; 5) the 'demassification' of mass media. The function of school libraries and public libraries for those who are pre-information literate is considered, as are certain problems which must be overcome in these resource areas, such as underuse and underfinancing.

Wittkopf, Barbara (1990) author states Importance of critical thinking skills and information literacy to librarians for providing effective users' needs and his vision of model research library in 21st century.

Behrens, S and J. Mousaion (1992) this article deals with concept of information literacy, also describes how user education becomes base for information Literacy. However, since information literacy is beyond library skills which will limited to location skills, user education curricula need to be modify for teaching information literacy.

Johnson-Cooper, G (1994) author is of the opinion that information literacy is critical for African Americans. It is very basic and is extension of literacy skills required in today's world. The article begins with a discussion on Afro centricity, and moves to discussion on racism and also discuss the responsibilities of Afrocentric librarians.

Behrens, Shirley J. (1994) describes in brief 'information literacy'. Mentioning some definitions and describe concept also discuss skills required to deliver effective information literacy.

Arp, Lori (1996) author discusses ways of Library instruction and information literacy in technical and academic colleges, challenges faced in information literacy and innovations in literacy program.

Bruce, Christine Susan (1999), author Investigates the information literacy (IL) skills among various types of professionals. Exploration of differences and interrelations between individual and organizational literacy; Identification of ways of experiencing IL; Implications of individual and organizational IL in professional education.

Christian, Gayle R.; Blumenthal, Caroline (2000) in looking for answers to their learning and information needs, adult learners face an information explosion as one component of their complex world. While adult learners represent a wide variety of developmental stages for information literacy and for a successful search for

electronic information, each one must learn to cope with the burgeoning explosion of information. Explores the challenges of information gathering, and examines the specific needs and characteristics of the adult learner in relation to information gathering. Presents strategies to assist the reference librarian in developing the necessary skills as well as methods to assist the adult learner.

VanderPol, Diane; Taranto, Cheryl. (2002) – Article deals with need of information literacy skills at music library discusses importance of information literacy standards in music library that address lifelong learning and critical thinking. Also discuss on the question is information literacy is different for the music library.

O'Sullivan, Carmel. (2002): Article deals with corporate sectors awareness of information literacy which is solution to overloaded information. Industries invest huge, they should know how to use the available information for company's benefit. Concludes that there is little awareness of the term information literacy incorporates as a result many corporates are poorly equipped with required infrastructure to deal effectively retrieval of information in their everyday work.

Williams, Peter (2006) Author criticizes the emergence of the information literacy (IL) movement in the U.S. and in Great Britain. According to the author, he is an IL practitioner who is becoming increasingly disillusioned with both the term and some arguments made by its more prominent advocates. He states that the key to successful information-skills teaching is precisely to make a connection with the research that students are about to embark upon. He adds that all that talk by IL proponents about information in abstract terms holds little appeal for non-librarians.

Amudhavalli (2008) states, information Literacy is not limited to information centers and libraries, so what the dimensions of IL instruction beyond libraries should be requires a wider discussion. A multidisciplinary approach to IL research and instruction will create opportunities for substantial, curriculum-integrated and long-lasting instructional experiences.

Heider, Kelly (2009): Author is of opinion that, in this 21st century information age it is impossible to educators to prepare students for the future without teaching them effective information retrieval skills. The American Library Association define those students who manage information effectively as information literates. Since American

Association of School Libraries published the Information Literacy Standards in 1998 many adopt information literacy program on priority. These standards were written for early childhood education still Information literacy sidelined in many schools. Concludes that early information literacy instructions promotes critical thinking and increases the ability to solve problems and these two skills are necessary to cope with information explosion.

Pranali B. Gedam and Ajay T. Agashe (2009) Authors are of the opinion that information literacy is a very important concept in this modern changing world. Information technology becomes part of everybody's life and is taking new shape. More and more information is generating. For this user should know how to make use of this information. Information Literacy makes them lifelong learners, Information literacy makes user to recognize, evaluate and use the right information for his needs and he can search independently, effectively for his information needs. Conclude the article with need of information literacy in India.

Leavitt, Laura L. (2011): This is case study of information literacy program in 21st century and discusses importance of research skills and proper training on library web based resources. . It studied a graduate level organizational behavior class, focusing on strategic analysis of a company, company and industry research, and quality information. Author also discusses importance of 21st century skill sets required for utilizing library and web based resources.

Johnson, Anna Marie; Sproles, Claudene; Detmering, Robert (2013): In this article author discuss selected bibliography on information literacy. Periodical articles, monographs and AV materials examined for information literacy and findings provide information about each resources. This information may be used by library professionals as a quick reference to literature on information literacy.

Dooley, Jim. (2013): Author discuss the Credo Student Survey, which researched students attitude topics, their research abilities, their use of resources, seeking assistance in finding information. Students use of e resources are discussed as well as library usage, Reference books usage, database usage and use of smart phones in this process are discussed.

Jinadu, Iliasu; Kaur, Kiran (2014): This paper critically review and identify issues in the literature relating to Information Literacy and how it is being assessed. It provides arguments that the existing information literacy conceptualization and subsequent models do not support the perspective and understanding of information literacy at the workplace, especially in developing countries like Nigeria. Key literature and common models of information literacy are examined to identify the conceptualization of the construct of information literacy and its relevance to practices in the workplace. Further points out that existing information literacy models are not inclusive of the theoretical perspective of the person-in practice workplace information environment and proposes a model that sets the basis for empirical studies on information literacy in the workplace, specifically in developing countries. The proposed model will assist researchers to understand the major components of workplace information literacy and how to assess information literacy of a person in practice at the workplace.

Price, Elizabeth; Richardson, Rebecca. (2015): This article review selected publications in library-related literature and discuss the thematic approach to course design in colleges and universities and how it has been implemented into information literacy (IL) courses. A literature review of peer-reviewed journals, professional journals, magazines and blogs contextualizes the thematic approach to instruction at the college and university levels. Search terms included "thematic approach", "thematic approach in education" and "theme-based instruction"; the search was restricted to articles published in the past 20 years. Findings, In addition to the IL courses, thematic-based instruction has been used in biology, chemistry, English, French literature, history, mathematics, philosophy and sociology courses in college and university campuses. While instructors report that the thematic approach enhances student learning, few studies have directly tested the impact. No studies have been published within the library science literature. Thematic approach is a newer concept in the world of IL instruction. While many professional journal articles and blog posts provide in-depth case studies of how thematic-based instruction has been implemented, this article draws from all disciplines and features a succinct summary of what works, what does not work and how to best implement a thematic approach in an IL course.

2.2.5 National commission & Information Literacy:

For the growth of information literacy, required national commissions across the country on Information literacy. They should work towards government policies and procedures, inclusion on information literacy in course curriculum at all levels of education. Curriculum should be revised on regular basis. Should regulate information literacy programs in educational institutions. Researcher reviewed following literature on role of National commission on information literacy.

Zurkowski, Paul G (1974) in his paper discussed, the relations of the national program for library and information services to information industry literacy and the information literacy and traditional relations of libraries with information are described. It is suggested that on top priority national commission on libraries and information science should be directed to establish a major national program for information literacy by 1984.

Fjallbrant, N (1995) this paper deals with EDUCATE Project--End-user Courses in Information Access with information Communication Technology. The aim of the Project is to produce a new type of model for user education by using information tools. The author discusses in the article progress made, goal, objective and evaluation of the EDUCATE Project.

Huang, S H. (1996) author describes future of information literacy is very bright and will be the very important part of user education programs. In this coming era of the information society made available information tools or networks throughout the world. Information literacy is a very important skill for teaching users on selecting, evaluating and analyzing needed information also describes information literacy program development and its concept in Taiwan.

de Jager, Karin; Nassimbeni, Mary.(1998) , this article presents information on south African government paper entitled “The Information Society and the Developing World: A South African Approach”, which describes information literacy course offered by school librarians also deals with policies and purposes of the literacy course and impact of Literacy program on students.

Arai, Mariko (2001) - The Japan External Trade Organization (JETRO)’s business library is a special library provides current business information to their internal users

and public. To cope with growing e/digital information library try to provide latest infrastructure and constant information literacy programs for effective retrieval. Also discusses JETRO's instruction programs and future plans.

Martorana, Janet; Curtis, Sylvia; DeDecker, Sherry; Edgerton, Sylvelin. (2001) - Describes how University of California at Santa Barbara librarian developed information literacy programs for local school teachers and librarians, how they introduced teachers to information literacy standards, provided technology training and added activates for incorporating critical thinking into the research process. Also worked with teachers for incorporating these literacy methods in their curriculum and their ultimate goal was to enhance students research skills.

Webber, Sheila; Nixon, Carol (2003) , article highlights the developments in information literacy worldwide, gives definitions and examples where latest trends are bringing information literacy to people's attention.

Johnson, Wendell G (2004): article deals with library instruction oriented towards the outcome attached to ACRL's (Association of college & Research Libraries) competence standards. Online resources and WWW (World Wide Web) are integral part of this program. Library orientation cannot fulfill all the standards. Information literacy demands the cooperation of institution, faculty, library and users.

Karisiddappa, C.R. (2004) in this article author has discussed concept and characteristics of information literacy program. Also discuss need and importance of information literacy program and also suggested to include information literacy curriculum in all level of education and must be part of Library and information Science program, Information literacy improves one's searching skills.

Moore, Penny (2005) Author describes facilitate and hinder the drive while implementing information literacy across the world by consulting publications of International Association of School Librarianship (IASL) between 1998 to 2002. Initiative taken by schools discussed along with level of literacy program and available technological infrastructure to conduct the literacy program. The shift from literacy to information literacy, practices in delivering literacy program to students, learning needs etc. are explored. Government role in this regard are discussed and recommendations were made for future development.

Elmborg, James (2006): Author uses critical literacy theory to define information literacy. Discuss that to be educators, librarians must focus less on information transfer and more on developing critical awareness in students. Using concepts from literacy theory, the author suggests ways library practice would change if librarians redefined themselves as literacy educators.

Newton, Angela; Boden, Debbi (2006): An interview with Australian librarian Christine Bruce. When asked about her views on the state of information literacy in Australia, she stated that there is a strong interest in student learning. Australia has also strong relationship with Great Britain and Sweden in the area of education. She also stressed importance of information literacy because the quality of learning in educational institutions is at stake.

Suresh K. Chauhan, Prem Chand and TAV Murthy (2006) Author describes awareness of INFLIBNET programmes on Information literacy throughout the country through UGC Infonet and e-journals consortium. Describe the initiative of INFLIBNET in training and creative awareness about available e resources through consortium among academicians community.

Ghosh, S. B.; Anup Kumar (2006) Article describes importance of information literacy in effective use of available information in the institutions. Information Literacy will bridge the gap between digital divide that will found in India as Village information center, community information centers etc.

Varalakshmi, R. S. R (2007): Author describes an overview of the information literacy model for library trainers, undergraduates and post-graduates in India. Discuss the issue of information explosion at a faster pace. The model helps empower individuals to convert information into knowledge. Helping them to acquire and use information lifelong. A need is expressed to find ways to link the library and technology to create challenging learning experiences.

Babu, B. Ramesh (2008): Author explains the concept of Information literacy, UNESCO & IFLA's standards and performance indicators for schools and higher education. Role of information literacy in education at India and international level.

Concludes with development of Information Literacy policy in the Indian education system.

Swati Bhattacharyya (2009) Author describes information literacy is very important vertical of knowledge society. Also describes need of developing information literacy programs and were integrated with class room learning as a mandatory subject. Concludes with the opinion that effective execution of information literacy programs possible only when there is strong faculty and librarians' collaboration.

Shesh, Mishra et. al. (2010) Author is of the opinion that the world is witness information age and with the development in information and technology, there is great demand for cost effective tools to handle this increasing information. India is moving towards knowledge and information based society, it is necessary for everyone to have competencies and information retrieval skills to satisfy their information needs.

Uribe Tirado, Alejandro; Castaño Muñoz, Wilson.(2012) This article deals with Nonaka & Takeuchi's cycle of knowledge generation and find out how expected results in Information Literacy standards and different indicators contribute to this cycle. Each standard and its interrelation is analyzed with four options to generate knowledge of Nonaka's cycle. It is observed that these standards are more inclined towards explicit knowledge and need to work on other activities and proposed new Information Literacy standards which promote generation of tacit knowledge.

Bhatti, Rubina (2012) Author highlights the importance of information literacy for promoting higher education in Pakistan. Author of the opinion that Pakistani university libraries seriously consider in formulating a proper policy and mission statement on making their users information literate. It is based on the assumption that information environment is complex and is changing rapidly. University libraries at Pakistan have not developed any formal policy on information literacy to enable its users to meet their information need independently. They have to acquire these skills independently. Training users on effective retrieval skills is of great value in finding required information for their research. Various factors were identifies in implementing effective information literacy program. I.e. Lack of proper policy by authorities, lack of assessment of user's information need, lack of library professionals technical

knowledge, poor response from students and faculties and insufficient budget for setting infrastructure. It reviewed various Information literacy models of advanced countries and proposed for the formation of a national committee for creation of knowledge society.

Seale, Maura (2013): 'This article deals with upcoming revision of the Association of College and Research Libraries' (ACRL) Information Literacy Competency Standards for Higher Education in marketing information literacy. New version is expected to the revision is expected to address some of the weaknesses of the original standards. Also discussed discourses of the information society deployed by a white paper from the Aspen Institute and the threshold concepts of library science.

Summary of the chapter:

It was found that lot of literature is available on information literacy, on education & information literacy, ICT & Information literacy, Library & information literacy, information literacy skills and role of national commission on information literacy. However literature available in Indian context is very limited also find very limited research on information literacy and education in India. Researcher found tremendous scope for research in information literacy in India.

Observing the above literatures hypotheses were formed and which were outcome of literature review and are as follows.

- 1) Information Literacy program improves the usage of library resources.
- 2) Information literacy enhance the qualities of research among management students.

In a nutshell literature review helps the researcher to identify the different social implications, barriers and ways of improvements and there is need to educate management students on effective information literacy skills

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CHAPTER 3

Management Education

3.1 Introduction:

The word management represents administration of business concerns. The term evolved back in the 16th or the 17th century. The word Management is derived from Latin word 'Manus', French 'Mesnagement/Menagement' and Italian 'Manegiare'. All the words which are starting with 'Management' means controlling subordinates, especially staff members or workers and get things done from staff or workforce. Management education is very important for the growth of society which creates the wealth and avenues and improve living conditions.

The present age is a competitive world, new ideas and technologies are emerging everyday which turns towards globalization and in such situation only survivors are young managers with management degree and is biggest challenges for the corporate world to fill this gap.

Reputed or well-known institutions management degree certifies one's managerial skills and competencies to face the competition in the society. Management education produces skilled workforce and are leaders of tomorrow.

3.2 Management Education:

Management is modern construct, gained popularity in European countries by reforms, renaissance, industrial revolution and scientific revolution and mainly because of Entrepreneurial spirit. At the same time authority body developed for management education by considering other disciplines like Economics, law and Psychology etc.

At the beginning of the 20th century management education gave birth and considered as elite educational stream only for business people. That time it attracts many because of ever growing demand from corporates or industries.

Management education become very important vertical of the society in the most of countries in Europe. It is defined by reforms, industrial revolutions, renaissance,

mercantilism, scientific revolution, and very important is entrepreneurial spirit. Gradually, a body of knowledge developed around the thought of 'Management' even though the contributions came from various academic disciplines like sociology, psychology, economics, accounting, mathematics, and law. Management education started in the early 20th century, during that time already large amount of literature was available for education, training and further research.

Initially management education was deliberated as an elite stream solely for business people. By that time millions of individuals attracted to management education by promising better future and to become successful entrepreneurs.

In the history of business school, EMLYON is the first business school, it was established by Lyon Chamber of Commerce & Industry Establishments in France in 1872. Joseph Wharton established, Wharton business school at the University of Pennsylvania in 1881, who is American Entrepreneur and Industrialist. In 1898 Booth School of Business was promoted by University of Chicago. In 1900 Tuck School of Business in Dartmouth College was started. Harvard University established Harvard Business School in 1908. During the same year Kellogg School of Management was established by North-Western University in Chicago with part time MBA programme. Following MIT Sloan established in 1914, Columbia School of Business established in 1916, and Stanford Graduate School of Business established in 1925 etc.

Later on other universities in USA, in second half of the 20th century, Europe and in Asian countries started management schools to support management education, INSEAD was established in 1957. In 1958 IESE Business School was established. Indian Institute of Management, Ahmedabad was established in 1961. In 1964 London School of Business came into an existence. In 1965 National University of Singapore's School of Business came in to existence. I.E. Business School was established in 1973. Yale School of Business started in 1976. At these are reputed business schools of the International level.

In the last decade of the 20th century, however management education gained impetus because of Globalisation, liberalization, and privatization, it increase in number of good corporations labour market internationalization, capital market and commodity market created ample of opportunities for all, it increased quality of life, service sector

expanded by creating decent employment opportunities for millions of youth. Information Communication Technologies (ICT) brings revolution in the business world. All these developments ensured great development for qualified professionals. To overcome this situation management schools were come up in big way across the country to generate qualified managers with required skills and knowledge. Management education improves in strategic planning, action, decision making, leadership qualities, team spirit, corporate culture, standardization of process and policies. During that same period well known business schools gave birth to many schools they are: in 1990 IMD Switzerland, Hong Kong UST Business School in 1991, China Europe International Business School in 1994, in 1996 Said Business School at Oxford University and Indian School of Business.

Due to the Globalization, Management education receives greater critic from wider group of stake holders, technology demographics true management education has emerged compared to other academic disciplines. Management education across the world signifies professionalism, symbolises elasticity in learning, revolutions in programme/curriculum design are value for money. All these qualities of management education made management education as first priority of the students across the world.

Today at the global level, the management education makes a significant role & valuable contribution to the society but somehow suffering from stakeholders of management schools. There is very big gap between theory and practice, the Management schools design and develop their curriculum according to the needs of the industry. Management schools are criticised for putting more efforts on research which is irrelevant and impractical. There are evidences of management researches which are very little relevance to management practice. Today management schools have the responsibility to critical study of the business requirements and accordingly curriculum should be designed and developed.

In the context of free economy Comuel said, “Management institutions have a important role to play in enhancing the way organisations are managed with the aim of safeguarding level of growth and there by confirming improvement in people’s life”. Over all Management education institutions undergo deep change particularly redefine the research they conduct and effective curriculum according to industry standards.

Today across the world Management institutions are mushrooming not only in advanced countries but in under developed countries also. This increase in number of business schools raised new issues and challenges. Curriculum of business schools should be updated according to industry need and it may be possible only when business institutes are free to function themselves. Because of this reasons autonomous institutions are providing quality management education.

Today a major issue in management education is lack of industry and academic interface. Already across the world renowned business schools like IIM's Harvard, MIT etc. are revised their curriculum according to industry standards. Management institutions should caution that the students have mix of field knowledge and decision-making skills which are basic norm for successful managers. Effective curriculum according to industry standards is required for successful organizations.

3.2.1 Europe:

In Europe INSEAD became the first management school, it was established in 1957 and offered MBA degree. In 1964 IESE was established in Spain, same year UCD Smurfit Business School was established in Dublin. In 1965 London Business School and Manchester Business School were established. The Rotterdam School of Management was established in 1966. In 1967 the Cranfield School of Management was established and HEC School of Management in 1969 and the Institut d'Etudes Politiques de Paris. AGH University of Science and Technology Poland start a degree similar to the MBA in 1974. IEDC-Bled School of Management became the first school in the ex-socialist block of the Central and Eastern to offer an MBA degree in 1991. French Business School ESCEM became the first to offer the MBA degree through distance mode in European continent.

3.2.2 Germany:

Germany was the last country to adopt management education in the western countries. In 1998, The Hochschulrahmengesetz (Higher Education Framework Act), a German federal law regulating higher education with the types of degrees offered, it was modified to permit German universities to offer master's degrees. In 1999 traditional German degree in business management was started, traditional degrees were gradually

replaced by bachelor and master degrees. Today most of business schools offer the MBA degree and these degrees should be accredited by any one of six accreditation bodies officially accepted by the German Accreditation Council.

3.2.3 United Kingdom:

In 1967, AMBA, UK based Association of MBAs was established. AMBA's Accreditation is recognised for DBA, MBA, and Masters in Business and Management (MBM) courses. For MBA students and management professionals AMBA is offering professional membership.

3.2.4 Japan:

MBA program in Japan was offered by many universities and their quality is recognized internationally. Generally MBA from public universities like Tsukuba, Kyushu University and Kyoto are more prestigious than private institutions.

3.3 Management Education: Indian Scenario:

In the 19th Century India recognised Management education. In 1886 the first Business school was set up in Chennai i.e. Commercial School of Pacchiappa Charities. In 1903 British Government started higher level commerce classes at Presidency College in Kolkata on Secretarial Practice, Business Communication, Accounting, Shorthand and Typing. In 1913 Sydenham College was founded and is the first Management College in Mumbai.

The commerce college was established in Delhi in 1920, and is known as Sri Ram College of Commerce. In 1948 Indian Institute of Social Science came into existence to train manpower for corporates. XLRI (Xavier Labor Relations Institute) founded in 1949 by Catholic Community at Jamshedpur. In 1953 Indian Institute of Social Welfare & Business Management (IISWBM) was established and was deliberated India's first management institute.

In 1961 Government of India with grant from Ford foundation launched two Indian Institute of Management (IIMs) one at Ahmedabad and other one at Kolkata. The main purpose of the grant was helping American Business education knowledge & models to other countries and association with American Business Schools for providing

exchange of an ideas in education & learning. For faculty development and focusing on quantitative and operational issues of management, IIM Kolkata was established in association with MIT Sloan.

Two more IIM's were started in Lucknow and Bangalore in 1973. In 1982 Indian Institute of Forest Management was established in Bhopal with the help of IIM Ahmedabad, to promote forestry education in India. In 1990 IIM Kozhikode and IIM Indore were setup.

During 1990 large number of MNCs started their business in India and same time national companies also followed to compete with Multinational companies. These companies witnessed commerce graduates fell significantly lack of demands of the executive managerial positions in a competitive world and they are lack of marketing skills, leadership qualities, communication and technological skills even though they have good accounting knowledge. Consequently, rather spending on commerce graduates for training companies start offering huge salary to MBA graduates. By the success of management education and demand was increased from students and employers universities started management education as independent vertical and started offering bachelors and master degree programs.

To cope with the situation, Government has taken initiatives in this direction and today total No. of IIM's are 20.

Apart from IIMs, university's across the country offered management education in their campus and affiliated colleges.

Autonomous organizations approved by AICTE, distance learning program started by Central and State universities and open mode like IGNOU , Kurukshetra University, ICFAI and several others institutions are also offering management education courses. Deemed to be universities like NMIMS, Symbiosis providing world class high quality education in Management education. For working executives some reputed and recognized institutes and universities are also offering three years part time MBA program. Foreign universities have collaborations in Indian management institutions and are having students exchange program for limited-time studies abroad are also imparting management education.

Several private universities like Amity are coming up to impart quality management education in India.

3.4 Issues in Management Education:

Management education in India are facing multiple issues. Management education in India has not transformed/ changed according to industry requirement, before this gap escalations proper steps to be taken. Following are various emerging issues which can help in reducing the gap and produce efficient manager as per industry requirement.

- a) Dedicated accreditation/government body for management education
- b) Proliferation of Management institutions
- c) Quality of faculty
- d) Quality of education
- e) Curriculum design & development
- f) Research
- g) Governance and Business schools
- h) Specialization
- i) Real business exposure
- J) Internationalize management education

3.4.1 Dedicated Accreditation body for Management Education:

In India AICTE (All India Council for Technical Education) is responsible for technical education and management education. Both technical and management education has different requirements so it is necessary to have an independent body which should deal with management education issues for providing quality management education. Issues are like quality of education, research, curriculum, industry exposure etc.

3.4.2 Proliferation of Management Schools:

Management education in India started the early 1950's with the resolution of generating professional managers to become entrepreneurs and to run industries. In the beginning the growth of Business schools was very slow, during 2000-2010 rose to alarming level. Proprietors of institution least bothered about infrastructure and quality.

Taking cues from industries many promoters created number of education institutions and their intention was suspicious. Quick Money making idea lured many players to start management institutions. This explosion of management institutions has slaughtered noble purpose of management education in India. Today several Management institutions are run like teaching shops, short of quality faculty, no proper infrastructure or proper learning supports. Thus pupil lose money as well as precious time behind these bogus institutions.

3.4.3 Quality of Faculty:

Authorative bodies have given permission and affiliation to large number of management institutions but they didn't think of providing quality faculties to teach management education which created a very big gap in management institutions. The shortage of efficient faculties is a major concern for B schools. Most of the institutions are appointing faculties on lower pay scale with heavy teaching load which further worsen the quality. In some institutions they depends on visiting faculties, their involvement in the institution matter is very less, they prepare from text books and their quality of teaching remains inferior. Authorative bodies should address this issue immediately for quality management education.

3.4.5 Quality of Education:

The aim of Business institutions is to develop pertinent management knowledge and served as a basis of serious thought. Unfortunately most of the management institutions busy in marketing promotions and advertising rather than scholarly activities. AICTE is a statutory body to regulate Management schools in India. AICTE has given authority to management institutions on curriculum development, employment of faculties, tuition fees etc. However there are no frequent checks on these issues. AICTE has laid down standards but many institutions do not fulfill with the recommended standards once they get the approval. Now it is high time management institutions should improve their quality of education if they want to serve management education.

3.4.6 Curriculum Design & Development:

For any stream of education to be successful, it is very much important its curriculum should be continuously updated according to advancements. Curriculum should

periodically reviewed to match the industry standards. But in most of B schools it takes year's together to revise the syllabus. This is because of bureaucratic approach of b schools and also they may appoint new faculties to teach revised portion. Today many good institution adopted case study teaching method but most of the cases referred are foreign cases which has limited relevance to Indian scenario.

3.4.7 Research:

It is observed that research in management institutions is very less rather no conducive environment that support research. Research is very much important to update existing knowledge, it creates new knowledge in that particular subject. Institutions should promote research culture among faculties and students, they should adopt yardstick to measure research in the institution which may also help in future promotions of the staff members. Accreditation bodies make research as a compulsory norms while giving affiliations to improve the quality of management education.

3.4.8 Governance and B schools:

Corporate Governance is very important factor after financial turndown in USA and Satyam's matter in India. Deficiency of awareness on this in management institute is one of the issue. In management institutions corporate governance made part of accreditation norms. Government should thought of having strong independent accreditation body for management institutions. Corporate governance should include mandatory disclosure by institution on infrastructure, faculty qualification, library, computer lab etc. that could be useful to students while choosing the institution. According to UGC all institution display this information on their website but there is a big difference in actual and displayed information. Government should act against these malpractices.

3.4.9 Specialization:

Change or customization is need of the hour. Every industry need customization to cope with requirements. This could be done by introducing specialization in concerned field. Today management education/curriculum is not only limited to areas like Finance, Marketing or HR, as industry needs they may require specialization in Operations, Hospital management, Hotel management, Disaster management etc. Management

school must have revised syllabus and qualified faculties according to the specialization.

3.4.10 Real Business Exposure:

Real industry exposure is must to tackle real life situations which are more composite, demanding, critical messy. Management education should be more industry oriented instead of theoretical oriented. The budding managers should know the ground reality to take better decisions and to become successful managers.

3.4.11 Internationalize Management Education:

Today success in any field depends on how fast one enhancing his knowledge, sharpening his skills. In this today's globalization world information is increasing like anything, to cope with this increasing information skills are necessary. If India to compete with global standards we need world class talented managers. Global mind set needs to be developed. Business schools should inculcate teaching skills to develop not general managers but international recognized managers.

The outcome all these issues, management education appears to be more relevant than ever in the global era. Main challenge should be more of practical approach.

3.5 Management Education in Maharashtra:

Maharashtra state is biggest state in India. It has many industries and recognized as industrial business hub. In Maharashtra state different types of management courses are introduced at different levels. These management institutions are controlled by Director of Technical Education (DTE) and All India Council for Technical Education (AICTE). Deemed Universities and Private universities are also providing quality management education in the state.

3.6 Management Education in Mumbai:

Mumbai being a capital city and educational city in Maharashtra, it has received great value for Management education. Mumbai being a corporate hub received a great need of young managers with high perks to fulfill this need many management institutions came up. Today we have about 88 management institutions affiliated to Mumbai

University, DTE, AICTE and autonomous organizations are providing quality post graduate management education. Few top institutions were providing 100% placements also. Being a corporate hub the future of management education in Mumbai is very bright. List of Management institutions in Mumbai as in **Appendix 1** and list of top 10 management institutions in Mumbai were listed in **Appendix 2.1**

Summary of the Chapter:

In this chapter research scholar discussed in detail management education international and India in particular Maharashtra and Mumbai, also discussed many issues in management education.

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CHAPTER 4

Information Literacy

Information literacy is characteristics qualities essential to recognize when information is needed and have the capability to find, assess, and use efficiently the information required to take better decisions.

4.1 Definitions of Information Literacy:

National Forum Information Literacy of United Nations defines, “The capability to know when there is a need for information to be able to recognize, find, evaluate, and efficiently use that information for the solution”.

Chartered Institute of Library & Information Professionals (CILIP) defines, Information Literacy as, “Information Literacy is knowing when and why you need information, where to find it, and how to evaluate, use and interconnect it in a moral manner”.

SCONUL (The Society of College, National and University Libraries) defines, Information Literacy as “Information literate person will show an awareness of how they collect, use, manage, produce and generate information and data in a moral manner and will have the information skills to do so effectively”.

JISC (Joint Information Services Committee) defines, Information Literacy as “the ability to recognize, assess, retrieve, evaluate, adapt, organize and communicate information”.

The American Librarian Association’s (ALA) (1989) Presidential Committee on Information Literacy report Information Literacy is “A set of capabilities demanding individuals to identify when information is required and have the talent to locate and use effectively the needed information.” In other words, Information Literacy is a required skills, which facilitates the user to identify his/her information requirement. In addition, it also allows to find, assess and use the required information efficiently.

According to Bruce (1994) Information Literacy is a organized information utilization which deals with:

1. Significant tasks
2. Strategy to develop information- pursuing policies
3. Searching, recovering the information
4. Effective utilization of information
5. Generating and judging the information.

Shapiro and Hughes (1996) defines, “Information literacy should in fact be considered generally as a new liberal art that ranges from knowing how to use computers and access information to critical reflection on the nature of information itself, its technical infrastructure, and its social cultural and even philosophical context and as essential to the mental framework of the educated information age citizen as the trivium of basic liberal arts(grammar, logic and rhetoric) was to the educated person in medieval society”.

According to Barefoots (2006) Information Literacy is ”One should be information literate to resolve difficulties related to information and to become information literate one should learn technology skillset which includes how to find and use the information for their problems and effective and efficient decision making”.

Bruce and Candy defines, “Information literacy is the ability to locate, evaluate, manage and use information from a range of sources for problem-solving, decision-making and research”

Association of College and Research Libraries defines, “Information literacy is the basis for lifelong learning. For all disciplines it is common, to all learning environments, and to all levels of education. It makes user or learners to master content and extend their investigations, become more self-directed, and assume greater control over their own learning”.

President Committee on Information Literacy defines, “information literacy as a bunch of skills, which require user to: “identify when information is required and have the capability to locate, evaluate, and use efficiently the desired information”.

The American Association for Higher Education and the Council of Independent Colleges defined Information Literacy as “The Standards describe that an information literate person:

- **Determines** the extent and nature of required information.
- **Accesses** the required information efficiently and effectively
- **Evaluates** information and its sources critically and adopt selected information into his or her knowledge base and value system
- **Uses** information effectively for his needs
- **Understands** or knowledge of legal, economical and social issues of the use of information, and accesses and uses information legally and ethically”.

ICT knowledge or ability is one’s capability to use digital technology, communication technology, or networks to correct access, manage, evaluate and use the required information from several sources. Capable to create a new information and communicate the same with others.

Overnight one will neither become information literate or information communication technology literate.” Just as with writing & speaking skills, ones skills will develop over time as one gain expertise in the topics choose to study”. “This method will give practice in searching for, choosing and assessing the information one come across and will allow him to create new thoughts, which he communicate to others using a variety of technical tools”.

According to Chartered Institute of Library & Information Professionals “Information Literacy is knowing when and why one need information, where to find it, and how to evaluate, use and communicate it in a moral manner”.

4.2 Library and Information Literacy:

The 21st Century is known as Information Age because of information uncontrolled explosion of information sources and outputs. Which make it very difficult to students to learn everything they need to know. Here Information Literacy plays a big role in teaching critical skills to become experts or lifelong learners.

In 1989 American Library Association Presidential Committee on Information Literacy says, “Ultimately, information literate people are those who have learned how to learn. “They know how to learn because they know how knowledge is organized, how to find information, and how to use information in such a way that others can learn from them”. “They are people prepared for lifelong learning, because they can always find the information needed for any task or decision at hand.”

Information Literacy gives a platform for lifelong learning which is common in all disciplines, all level of educations and all learning environments which improve searching skills of users and make them lifelong learners.

Since long back librarians are working with Library orientation. Efficiently train the users on library use, resources and services. Different vocabularies like Library instruction, Library orientation, bibliographic instructions and user education are used to describe the method of helping users the method of using library and its resources effectively. Today Information literacy is replaced all these terms.

Librarians what started as library orientation will grownup to be library instruction, Bibliographic instruction and now become Information Literacy.

In this information age students are facing it very difficult to know everything what is available in the library in print or digital format. Academic libraries are having their own experts for training or teaching library users (May be students or faculties) on how to locate, evaluate and use information effectively. Now a days librarians are specially trained/ qualified to teach and handle information literacy programs. Information Literacy made users lifelong learners. It is fundamental principal of higher education.

4.2.1 Role of Library and Librarians in effective Information literacy program:

Librarians plays very important role in effective execution of Information Literacy Program at institutions. Listed below are necessary for implementation of effective Information Literacy Program.

a) To understand the need of users, customers, learners

- b) To understand users learning ability and how information and information resources contribute to the process of learning
- c) Libraries should not be served as store house of information and quiet place but should be dynamic gateway for disseminating information.
- d) As ALA defines, "In this information age information literacy is survival skill or life line" Libraries and library professionals should take a lead role in developing and delivering effective information literacy programs so that students or faculties to effectively retrieve, explore and investigate the information whenever and wherever it found in digital or print.
- e) Librarians should collaborate with faculties and other specialists for delivering effective information literacy program.
- f) Effectively design syllabus for Information literacy program keeping in mind user needs.
- g) Educate the users how to use and evaluate the information.
- h) Developing and executing information policy
- i) Archival of required information in all formats
- j) Become a leader in introducing information technologies and ensuring their effective use.
- k) One should be expert in technology, subject knowledge and available resources.
- l) Smart enough to evaluate the information, organize and store for future use.
- m) Should have the ability to add value to information
- n) Fair knowledge of effective delivery mechanism and dissemination of information. Should understand legal and economical aspects of information.
- o) Required good marketing and communicational skills.
- p) Should be practical and creative thinker.

4.3 Information Communication Technology (ICT) and Information Literacy:

In this information era, technology is a part of every walks of life and learning. Information Communication Technology (ICT) has entered efficiently in Libraries and Information Centers and changed the look of library or resource centers in terms of processing of collection, new variety of available collection, effective recovery and sharing of information to needy and assisting the library specialists to do

their work more efficiently & accurately, “Libraries or information centers are always busy in providing information to their users from manuscripts to microfilms, from leaf to clay tablets, from printed materials to Audio visuals, and online databases/electronic resources”. Presently the databases/e-resources and information literacy methods are assisting them to provide content based information to their users so that their information needs to be satisfied.

However it is not enough to become Information Communication Technology literate, rather in this 21st century desires a border literacy which includes use of these applications and tools. Literacy with Information Communication Technology includes Choosing ICT to judgmentally, artistically and morally to recover the information.

Through proper instruction and exercise, users will learn:

- “how sensibly and morally use a variety of information and communication technologies to take resolutions, Solving problems, inquire, cooperate, communicate and validate,
- how technology aspects and structures are normally have equivalent designs and functions that can be educated and the knowledge carried to new policies and circumstances;
- how Information Communication Technology can improve the relationships; and
- how to identify which methods, tools and techniques are appropriate for several circumstances”.

Information Communication Technology (ICT) tools made incredible impact on success of Information Literacy Programs. “Which is connected to information technology skills which makes user to use digital technology i.e. computers, e resources and other technologies to satisfy their academic necessity, personal information need and work related issues”. Information literate person definitely develop some information technology skills. In 1999 a report by the National Research Council endorses the concept of “fluency” with information technology and defines several distinctions useful in understanding relationships among information literacy, computer literacy, and broader technological competence. Computer or Digital Literacy in the report related with learning of specific software and hardware applications and fluency

with technology focuses on understanding the thoughts of technology and relating problem-solving and serious thinking to using technology. The report also emphasizes on differences between Information Literacy & Information technology fluency. Information literacy's focus on content, communication, analysis, information searching, and evaluation; whereas information technology "fluency" emphasizes on a thorough understanding of technology, skills to practice it.

4.4 Information Literacy Standards and Models:

4.4.1 Standards:

Information Literacy standards offers outline for accessing information literate individual.

IFLA's information literacy standard consists three components

- Access,
- Estimate or Evaluation and
- Use of knowledge or information.

These important components are found in most of the information literacy standards

ALA has five standards and twenty two performance indicators. These standards stress upon necessities of a user at all levels. The standards also lists outcomes for testing user's growth towards information literacy. These outcomes play as strategies to administrators (Librarians) in developing local information literacy policies.

4.4.2 Models:

Information literacy models are many, researcher has discussed few popular models to understand the concept very clearly:

- SCONUL Seven pillars of information literacy
- CILIP information literacy model
- ANCIL A New Curriculum for Information Literacy
- Scotland's National Information Literacy Framework

4.4.2.1 SCONUL Seven pillars of information literacy:

SCONUL in 1999 published on information literacy “information skills or abilities in higher education: a SCONUL position paper “. Article deals with SCONUL’s seven pillars or stages of information ability model and the same model has been recognized by many librarians /library science professionals across the world as a base for delivering information skills or literacy programs and helping to their users.

In 2011, there was a need to revise the basic principles of SCONUL’s seven pillars according to information age so that replicate more clearly the vocabularies and conceptions, which is then known as information literacy.

The revised model is known as “core “model for university and higher education, in order to suit with different users’ community and ages. Different Lenses are used to identify different group of learners. In revised model research lens and core model are part of it., may be librarians, teachers and library professionals will take active role in developing other lenses according to the environment.

The word information literacy consists of conceptions like Information handling, information skills, data management, visual media and digital literacy.

Information literate person able to together, manage, use and create the information in a moral manner and has the skills to do efficiently. “The 21st century is called information age, in this era information literacy is very important skill or quality for everyone irrespective of age and experience. The Information literacy witnessed through which data is created, handled and ones learning skills”. In this circumstances learning is measured as the constant search for meaning by the reaching of information, replication, commitment and dynamic application in numerous conditions

Emerging as an information literate user or person or user is an endless process with related activities which are part of seven pillars of information literacy. With each pillar or step user can improve from learner to expert as they progress through their learning life, as the word information itself is always emerging and changing. It is possible to come down a pillar and goes up, on each pillar, the hopes of level reach will be different with different circumstances and for different age group and also depends on one’s information requirement and experience. Information literacy progress is always

measured in the background of broad information background in which one manage their personal information scenery.

The core model defines skills or abilities & competencies (ability) and approaches & behaviors (Understandings) of information literacy expansion in university education.

Lenses:

Numerous lenses are developed/proposed for different group of users to allow the model to be used in actual or particular circumstances. These may spread or streamline the model based on age of learners or users. From professional working groups continuous contributions are going on to develop the lenses.

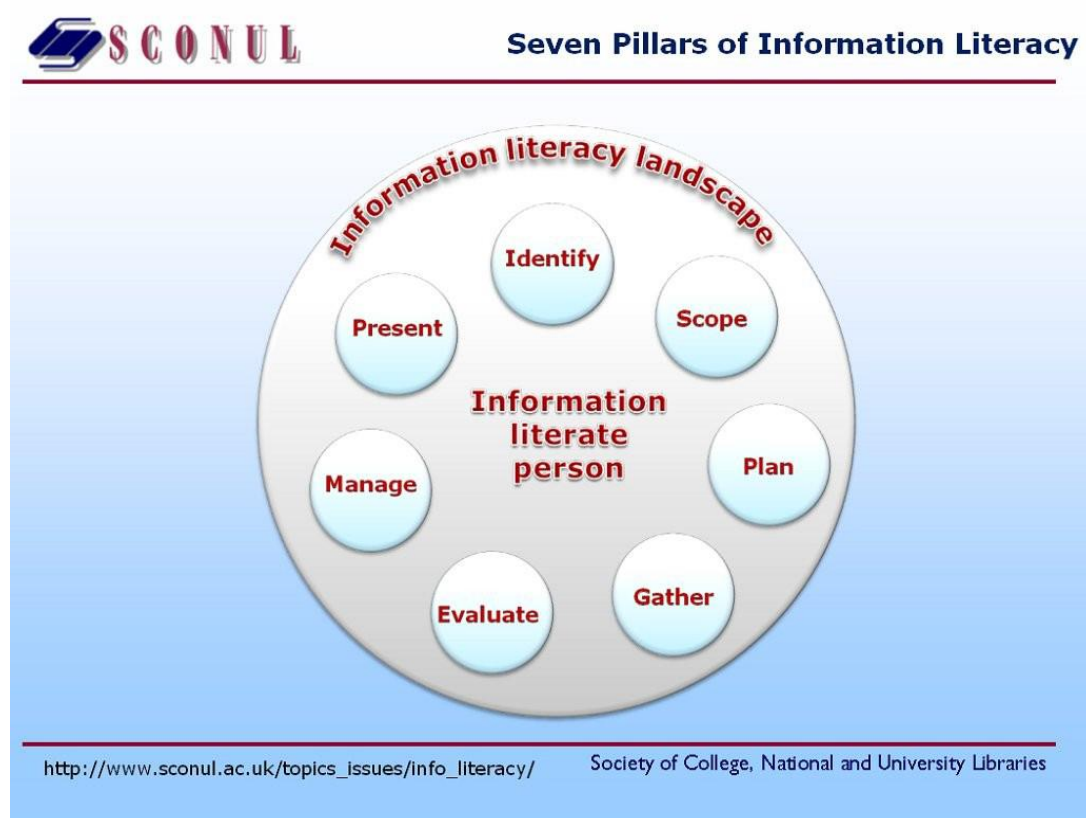


Figure 4.1 – Seven pillars of information literacy
(Source: www.sconul.ac.uk)

The core model is identified as 3D (dimensional) structure on information landscape which contains information word, it is followed by an individual at the time, their aptitude, experience & background which reveals on how they react to any expansion or development in information literacy.

Model reveals that becoming information learned is not a right practice, an individual can be emerging within pillars individually and same time although in practice they are interconnected.

Each pillar or step is distinct by chain of statements related to a set of skills or capabilities and set of identifications. It is witnessed that as a person grow into more information literate will exhibit more of abilities in each pillar and moves at the top.

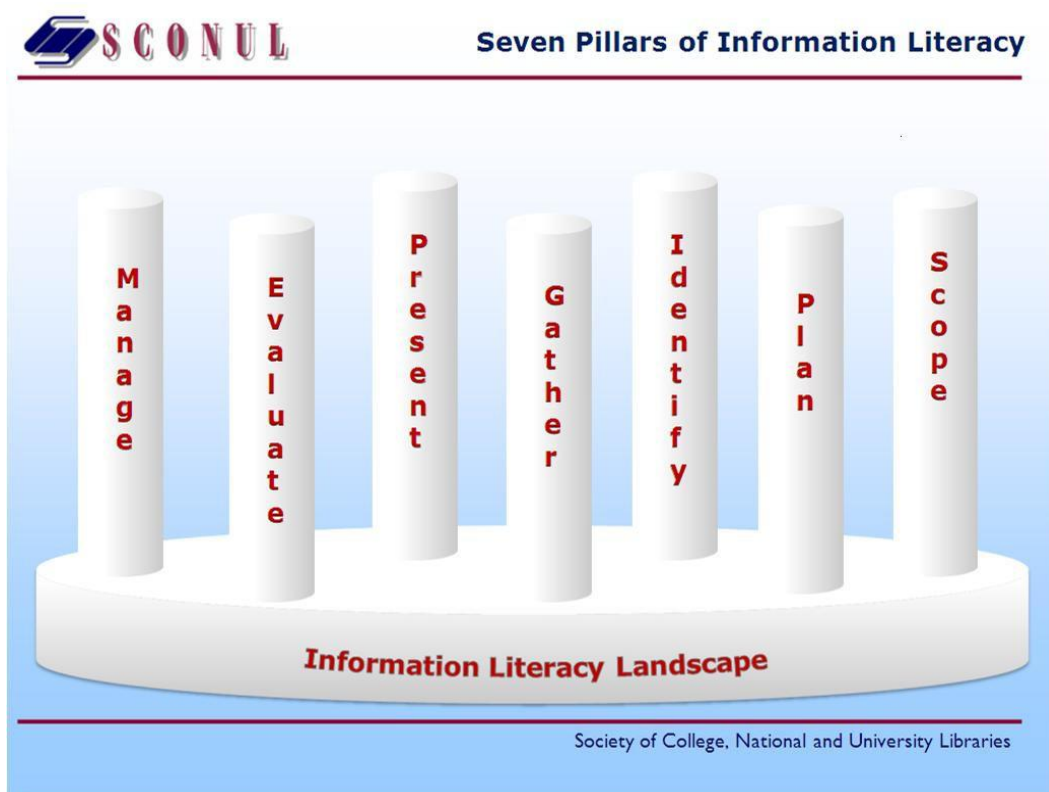


Figure 4.2 – Seven pillars of information literacy
(Source: www.sconul.as.uk)

Depends on the user community, the core model express set of qualities and understandings. Lenses can be developed which subsidizes attributes/qualities with simple or complex statements and uses reasonable language accepted by the specific user group which it represents. It is assumed that model can be used adaptably by individuals and can adapt it according to personal requirement.

4.4.2.2 CILIP Information Literacy Model:

CILIP Information Literacy model: CILIP have developed an information literacy model which identify 8 competencies or skills in a person to become information literate.

- a) Need or requirement of information
- b) Availability of resources
- c) Ways to retrieve information
- d) Calculate the outcome or results
- e) Ways of applying results to work
- f) Accountability and integrity of using information
- g) Ways of sharing the findings or results
- h) How to cope or handle findings or results

Need for requirement of information: User should understand or recognise that he needs information, why he needs information, what type of information he needs, sources to recover the required information or data.

Available resources: User should recognise available resources, where and how to access, content of each resources and suitable time to use the resources.

Retrieve information: User should recognise suitable resources which covers relevant information.

Evaluate the results: One should be able to evaluate the results for its accurateness and genuineness, also careful that results gained should not be ambiguous.

Apply of results – Examine, assess and apply results or information to deliver correct, presentable results or emerge with new creation.

Responsibility and ethics in using information: Information should be used in morally, responsible manner. Always preserve agreement privacy. Respect others work cite or refer them properly.

How to share findings: Ability to share the findings or results in a manner or format that is suitable to information according to audience and condition.

How to manage findings: Ability to manage and store the necessary information assimilated using most consistent and effective methods.

4.4.2.3 ANCIL A New Curriculum for Information Literacy:

As a result of Emma Coonan and Jane's research ANCIL had developed model or programme for information literacy. The key purpose of evolving this model is to bring revolution in information literacy teaching and suitable skills necessary for the 21st century techno savvy users.

The model consists of ten standards which takes a universal approach to information literacy learning.

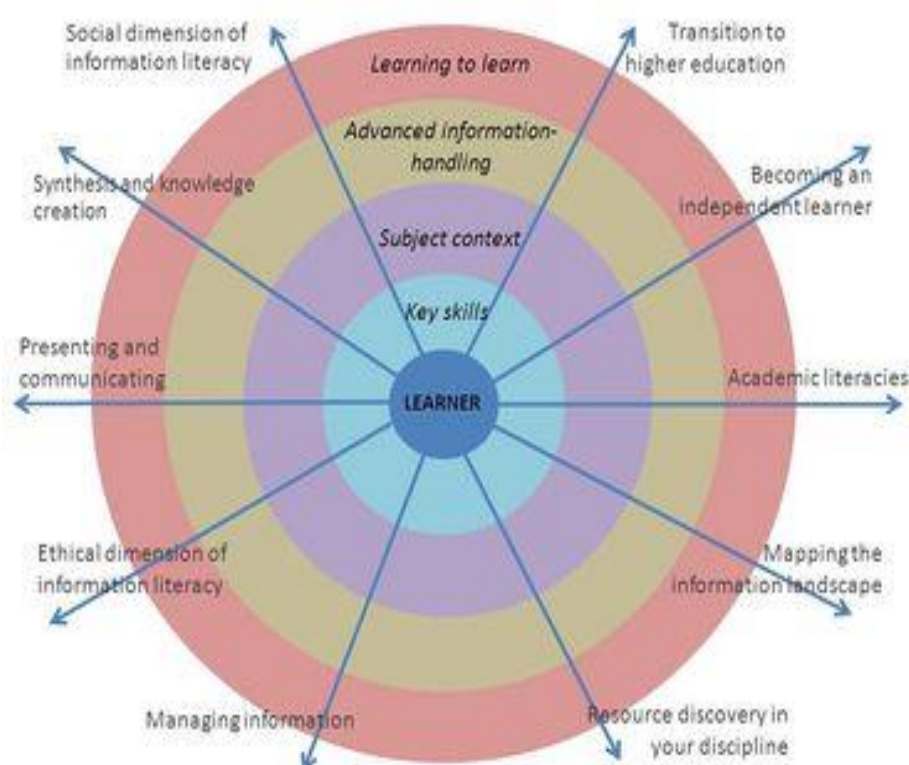


Figure 4.3 – ANCIL information literacy model

Source: http://hlwiki.slais.ubc.ca/index.php/Information_literacy

4.4.2.4 Scotland's National Information Literacy Framework:

Scotland's national information literacy model works in to diverse levels depending on level of education.

This model is developed using skills of SCONUL Seven Pillars of Information Literacy, improved these skills according to the level of education to create their information literacy model.

4.5 Information Literacy in Higher Education:

Management schools prepare students/pupil for corporate careers. This made them to dedicate with greater understanding in society affairs. In the 21st century the technological developments and information explosion has brought unexpected change in the higher education. According to Rader and Allan (2006) “these changes affect all level of education and every part of society. Due to this students need high levels of literacy in every phase of their education.”

Higher education is undergoing major changes generally. Stallings (1997) states that “legislators, funding agencies and consumers of higher education are demanding approximate learning outcomes and graduates prepared to function successfully within the global economy. The ICT applications to libraries has made tremendous change in Information. Many consider the library less important since they believe that the Internet is the world's library. During this information age libraries are one of the most important components dealing successfully with advance technologies. Library professionals are helping society understand the value and contributions of libraries, particularly in organizing, preserving, and providing access to information.”

The information explosion stress on the competence to remain to learn throughout life. The rising number of interdisciplinary subjects is additional factor for the improvement of user education. Academic libraries undergone fast collection growth and acknowledged new techniques of handling and retrieval. Specializations in education also lead to recovered interest in library orientation or user education. Such courses which over power the obsolete limitations of subjects, they have become gradually important in all institutions of higher education. The amount of material to be searched because of the varied discipline requires that effective instruction methods should be developed. It is not just the amount of the material but also sources and formats. In the digital age, criticizing around library resources is an unfavorable task. Moreover the instructional necessities of users have transformed completely as new methods for teaching and learning have been appeared. While information sources and methods for finding information are still a valuable component of library orientation, a wider concept of information literacy has arose as a structure for effective information investigation. In fact this exercise is going to be a significant ability in new learning circumstances. There are several possible ways to apprehend these new dimensions of

learning and related abilities. One of these are the necessity for abilities to exploit technology to use information efficiently. Another aspect is the need for a clear consideration of information and knowledge processes.

Developments in technology have radically altered, how information is accessed, stored and dispersed. Formerly information provision in academic libraries was dependent upon the collection of physical library resources, but it is now progressively the case that academic libraries are moving into the virtual resources with developments in technology and access levels. Huge amount of scholarly literature is accessible in electronic format. To cope with ICT libraries in higher education are adapting to new technologies.

4.6 Information Literacy in India:

Information literacy program in India are already part of several information centers & libraries in the forms of library instruction, user orientation, library education, library class etc. At school level major steps have been taken. Today prospectus of CBSE and ICSE schools have increased necessity of libraries more by engaging pupils using available databases to prepare project report and they use information and Information Technology to streamline learning practice.

Most of the Schools have library structure with Information technology facilities and ways of making use of library resources like e-resources, encyclopedias, Journals, dictionaries, atlas, periodicals, etc. will be conveyed and validated. Now library resources are viewed both in print and electronic format. INSDOC, National Institute of Science Communication and Information Resources, formerly known as INSDOC (Indian National Scientific Documentation Centre) created an aid of audio-visual to support for kindergarten school kids about searching information from such sources. As a part of their curriculum many Schools have library hour, naturally to demonstrate students to use of library resources for class room assignments and for their personal growth. Likewise, now a days all schools irrelevant of levels have good library facilities and resources, library periods are allocated for all the classes in all levels where to teach information literacy skills.

In Academic institutions user education on Library, library orientation programs, and library instruction are provided. In universities for doctoral degree curriculum, a subject on research methodology is covered where library search skills are being taught. Many academic institutions subscribe to the databases/electronic resources, the publishers/vendors of databases conduct database orientation/training programs for users. Present day in many reputed institutions librarians will do database trainings. At NMIMS university, they have Database management committee consisting of active library science professionals, frequently they conduct database training programs for teaching faculties in turn faculties educate/promote their students to use databases for their assignments instead of going to google for everything. Centre of National Informatics Centre of Indian Medlers conducts every fourth month user orientation program on their services and products like, open journal literature of OpenMed, database of IndMed ,union catalogue of UNCat databases ,open access archive of OpenMed,etc., which are scheduled generally for doctors and medical college librarians. Literacy programs and Orientation programs also improve information literacy capability to the users. From time to time academic libraries also organize database awareness program to their users for use of hi end resources.

In the organizations and institutions and R&D centers, expert information awareness is an essential skill of the information personnel and researchers. The staff and information professionals are always trained about newest information resources subscribing in the organization.

In India Institutional libraries are conducting various information awareness programs, most of the universities and organizations uses the commercial automation package for its library automation. I.e. Mangalore University, Gulbarga University, Delhi University etc. NMIMS (Deemed to be university) conducting information literacy program for their staffs and students. They all are using LIBSYS software for automation of their libsys functions, acquisition, cataloguing, circulation, webopac, serial control.

Indian Statistical Institute, Bangalore's DRTC (Documentation Research and Training Centre) conducting several information awareness programs for library professionals in various IT related areas like Open source software's, Library automations, Cloud

computing, Digitization, ICT applications to Libraries etc., and also conducts many seminars and workshops in collaboration with other organizations.

INFLIBNET (Information and Library Network) of the University Grants Commission (UGC), India is organizing several workshops to create awareness among Library & information Science professionals, organize training programs for Library and information professionals on SOUL, Library management software and information on union catalogue. In addition, it validates four week training program the information literacy through computer application to library and information services (CALIS) concentrated on the practical use of computers in libraries, also conducts workshop on Automation and Networking of University libraries, onsite training and service.

National Information on Science Communication and Research previously known as INSDOC along with advanced two years Associateship in Information Science, organizes information literacy programs, conduct short-term training courses on the bibliometrics, Open sources, information retrieval skills, , library automation ,Cloud computing, database management systems, resource sharing, plagiarism software's etc.

4.7 Information Literacy Programs Abroad:

a) UCLA (University of California at Los Angeles):

The observations by UCLA Library is parallel to general conventions as undergraduates do not own prerequisite abilities for recovery of information for their requirement. To check user information skills, the UCLA Library Committee piloted a valuation venture. Their key objective of the venture was to recognize methods to make information awareness program, it is more real and simple to its user community and main intention was to get information to use in discussion with teachers about students information retrieval and usage skills and its influence of those abilities on students class room assignments and the possible information awareness program to prove them.

b) California State University:

CSU California State University's initiatives are also worth to mention. This is a geographical study of information awareness program. It is the significance of a

considerate strategy to upturn information awareness skills among students of all standards at CSU campuses. The mission complemented in amalgamation with California State University at San Marcos 's ,the social and Behavioral Research Institute, with below three stages:

Phase I: It is based on question computable study to know student information capability.

Phase II: Multi method qualitative study to know user behavior when they need required knowledge.

Phase III: Study to include some or all of the following:

- Geographical homework of a pilot of users using particular groups and particular instructional actions;
- Improvement and examination of queries for an entrance/exit assessment; and
- Overall assessment of staff behavior, opportunities and consciousness of student information awareness skills.

c) France

The French Ministere de l'Education Nationale, de la Recherche et de la Technologie is come out with a report on information awareness comprises standards for development of Information Literacy program.

The report is of opinions that students are enrolling for higher education are not a basic searchers, having diverse academic, social and cultural backgrounds and information explode desires a progressively thoughtful procedure to search for required knowledge and university library team held responsible for this. Today's youths must trained for tomorrow's information persistence. Library education of orientation make them to gain new working techniques and methods to link with information and university. The backgrounds will change very fast and users will must to carry on learning after

finishing of their education and it is main strength in their career as to how to find, assess and use information and knowledge for their requirement.

d) Germany:

With the influence of Anglo American models in 1990, University of Heidelberg and the University of Hamburg have started the information awareness courses and online tutorials for their users. At university library of Heidelberg an integrated teaching method was introduced, which is based on the Anglo-American method of information awareness and it was deployed to their user needs. The information center is identified as heart for universities' e learning initiatives and information literacy classes.

At Hamburg University, information literacy courses developed which consists of project related approach, which includes use of individual thematic issues. Now today's university libraries in Germany use modularized courses and activating teaching approaches for information literacy.

e) Quebec

Quebec, University de Montreal in 2001 recognized a strategy or policy on information literacy program. According to this policy university identified that one's ability in the correct usage of knowledge and knowledge related technologies is important to the achievement of vision of institution. All these abilities generate a continuous learning objective, and institution consider these skills to be an essential proficiency mandatory for all its users at all levels. This strategy is based on the efforts of the library committee which mentions five skills and seven principles. Values cover all other features identified as being required for the success of information awareness programs.

Summary of the chapter

In this chapter researcher discussed in detail definitions of information literacy, concepts, the role of library and librarians in effective information literacy program, the impact of ICT on information literacy program, studied various information literacy standards and models, information literacy in higher education, information literacy in India and abroad.

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CHAPTR 5

Resources Available in Management Institutions

5.1 Introduction:

Information resources play an important role in academic institutions. Library is a backbone to acquire primary source of information. Librarian plays an important role in dissemination of information to users but without resources information cannot be gathered. Hence resources are more important, now resources are available in print and non-print media and in different forms or types.

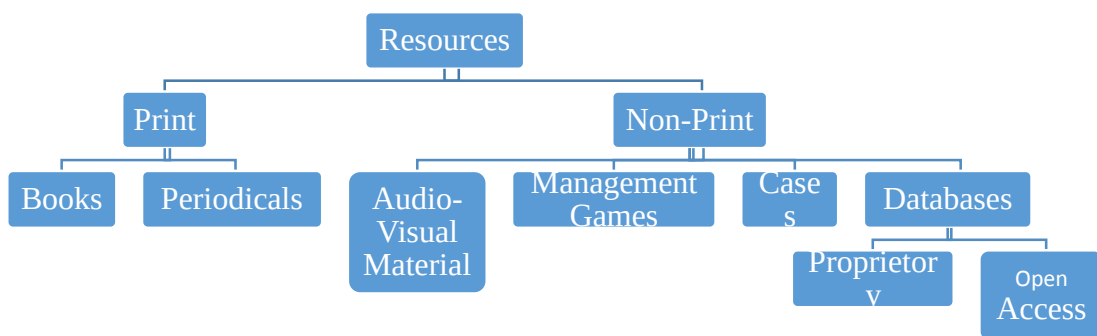


Figure 5.1 resource tree

5.2 Print Resources:

In print resources we have books and Periodicals

5.2.1 Books:

Wide variety of books on all subjects is major part of management libraries. Updating the collection with latest edition is important task. In this category will find books, reports, year books, encyclopaedia's, reference books, Standing order titles (Acts, Rules etc.) etc.

5.2.2 Periodicals:

Periodicals consists of Magazines and Journals, Having good impact factor periodicals on major subjects are part of good management library.

5.3 Non-Print Resources:

Non-print resources consists of Audio-Visual materials, Management games, Cases and Databases / e-resources.

5.3.1 Audio Visual Materials:

It consists of DVD's, Videos and Audio's on motivation, personality development, on leadership, writing skills, presentation skills etc. and most of management libraries have AV materials as part of their collection.

5.3.2 Management Games:

Good number of management games are now part of management libraries. Now a days simulation games are widely used to understand management concept in simple way.

5.3.3 Cases:

Today's management education is based on case study method rather than text books method. Case study method is very popular and more scientific method to get

information. Top management schools spend more than 50% of their library budget on Cases. Major case study providers are Harvard, Ivey, Emerald, Sage, IIM etc.

5.3.4 Databases/ e-resources (Proprietary):

In this ICT era databases/e-resources are part of any libraries. Now a days databases plays a very important role in disseminating the information among user community.

Database is organised collection of data in digital format. Usually databases are available in subject wise and category wise.

Here researcher has made an attempt to discuss few databases in subject wise and category wise.

5.3.4.1 E–Journals:

- a) **ProQuest Central:** ProQuest Central is one of the important database for peer reviewed journals, cover nearly 160 subject areas. Database also contains BMI reports, EIU reports, full text dissertations and thesis, SSRN Papers, Annual reports, case studies, country profiles etc.

URL – <http://search.proquest.com>

- b) **EBSCO** – This database made specially for social science institutions. Contains full text peer reviewed scholarly journals and magazines on Management, Finance, Accounting, Economics, etc., also contains company profiles, videos and Industry reports.

URL – <http://search.ebscohost.com/>

- c) **Jstor** – Jstor provides interdisciplinary high quality content. It includes journals of academic interest in social science, humanities and sciences, as well as selected monographs and other valuable information required for academic purpose.

URL: <http://www.jstor.org/>

5.3.4.2 E-Books database:

- a) **e-brary** – ebrary is product of ProQuest. Covers more than lack books on all major subjects from different publishers like Brill academic publishers, Ashgate publishing group, McGraw-Hill, Harvard University press, Johns Hopkins university press, Oxford university press, etc.

URL: <http://site.ebrary.com>

Now a days all major publisher's like Mc Grew hill education, Pearson, Cengage, Oxford, Harvard etc. are coming with their titles in e - format.

5.3.4.3 Research Databases:

- a) **CRISIL** – Crisil is Research database on Indian economy also covers industry information, supply demand, major players, predictions etc. which will help industrialists to take decisions.

URL: www.crisilresearch.com

- b) **Frost & Sullivan** – Frost & Sullivan offers market, technical and economic research reports keeping focus on growth, innovation and leadership, career research provides strategies, processes and tools to address growth related challenges.

URL: www.frost.com

- c) **Euromonitor Passport** - Euromonitor is a global leader in strategic market research for over 40 years. Euromonitor is extensively used by Fortune 500 companies, Banks, Consultancies, Manufacturers, Retailers, Government department and world's top business schools etc.

URL: <https://www.portal.euromonitor.com>

5.3.4.4 Company Databases:

- a) **Capitaline** – Capitaline database provides a basic and market related data on Indian unlisted and listed companies, further classified under industries and business houses. Extensive data and analysis on company profile, ownership pattern, financials, quarterly results, R&D Data, products, share prices, director reports, business news etc.

URL: www.capitaline.com

- b) **CMIE Prowess** – Prowess is database of large and medium sized Indian listed and unlisted companies. Information on financials, fund flows, returns and risk on the stock market, ratio analysis, product profiles, etc. Time series data is also available and updated regularly.

5.3.4.5 Statistical Databases:

- a) **CEIC** – CEIC covers statistical data on several countries in Asia and sub continents. Data captured directly from primary resources, many of which have direct data distribution arrangement with CEIC. All statistical data concerned to Central banks and governments is available.

URL: <http://webcdm.ceicdata.com>

- b) **Indiastat** – Indiastat is an important source for secondary level, socio-economic statistical information about India and its states on various aspects. These parameters are:” General information, Economy, Demographics, Agriculture, Consumer Affairs, Civil Supplies, forest and Environment, Industries, Infrastructure, Companies, Education, Health, Housing, Labour& Workforce, Polity, Media, Insurance, Tourism, Crime & Law, Social Welfare & Developmental Schemes” etc.

URL: www.indiastat.com

5.3.4.6 Legal databases:

- a) **Manupatra** – Manupatra is leaders in online legal research database in India and one of the largest and broad online legal & business policy database. Manupatra delivers legal, taxation, corporate & business policy database in India. One can access legislative, regulatory and procedural information.

URL: www.manupatra.co.in

- b) **Westlaw** – Westlaw is ever expanding collection of case law that is updated daily. Along with Indian case laws it also includes case law material from UK, EU, USA and other common wealth jurisdictions.

URL: www.westlawindia.com

- c) **Hein online** – Hein online is online legal research database. It covers nearly 1800 legal journals. Along with vast collections of journals, it also covers complete set bound volumes of US reputed journals. Its compressive data helps Law students to prepare for MOOT court competitions.

URL: <http://home.heinonline.org>

5.3.4.7 Marketing Databases:

- a) **WARC** – WARC provides thousands of award winning case studies on marketing & communication, conference proceedings, research papers etc.

URL: www.warc.com

- b) **TV Ad Index** – It is online archives of over 1 million India & international TV ads, press ads and marketing news. This monitors over 150 TV channels and 300 publications and updates daily. It gives instant previews and downloads of TV Ads and press Ads.

URL: www.ibanklive.com

5.3.4.8 Directory:

- a) **Cabell's Directory** – Cabell directory helps researchers, students, faculties to publish their manuscripts in peer reviewed academic journals. It maintains current information on all listed journals also provides links to guidelines and submission process.

URL: <http://cabells.com>

5.3.4.9 Engineering databases:

- a) **J-Gate: Engineering & Technology:** J-Gate: J gate contains e-journals in the fields of Civil, Computer science, Electronics, Electrical, Information Technology, etc. J-Gate is an e media to e-journal literature. Product of Informatics India limited in the year 2001. Presently this database provides links to over 9,577,192 open-access articles, table of contents of 45,595 e-journals and over 3,500 full text journals.

URL: www.jgateplus.com

- b) **IEL online:** IEL Online is a part of IEEE Xplore, it is a scholarly research database which covers abstracts, indexes, and provides full-text of articles and papers on electronics, computer science and electrical engineering. This database majorly covers information from the Institute of Electrical and Electronics Engineers (IEEE). It contains more than two million records of Journals, Magazines, Conference Proceedings, Transactions and technical standards from 1988 to the present. User can access more than 450 IEEE journals and magazines, 17,500 conference proceedings and over 5,000 standards.

URL: www.ieeexplore.iee.org

- c) **ASCE:** ASCE is an American society of civil engineers founded in 1852 in New York to represent members of the civil engineering profession worldwide. Its aim is to provide essential value to its more than 1.5 lakhs of members and

partners, advance civil engineering, and serve the public. ASCE gave access to 34 peer-reviewed extremely cited journals with back issues from 1983.

URL: <http://ascelibrary.org>

- d) **Springer:** Springer is a one of the important scientific, technical and medial publisher, it provides an information to researches in academia, scientific institutions, corporates and R & D departments with quality content via innovative information products and services. NMIMS can access 149 computer science journals with archives from 2000 onwards.

URL: www.springerlink.com

- e) **ASME:** The American Society of Mechanical Engineers (ASME) is a professional body promotes the art, science, and practice of multidisciplinary engineering and allied sciences across the world. ASME is the leading professional membership organization with more than 1.2 lakhs of mechanical engineers and associated members across the globe. ASME database comprises of 26 Mechanical engineering journals with back issues from 2000.

URL: <http://asmedigitalcollection.asme.org>

- f) **Science Direct:** Science Direct is Elsevier's provides information for teachers, students, researchers, health care professionals and information professionals. It covers of 276 full text journals in the area of computer science, EXTC and Information technology with back issues from 2000 onwards.

URL: www.sciencedirect.com

- g) **NPTEL:** NPTEL (National programme on technology enhanced learning) supports e-learning through internet and video courses in science and humanities and engineering,. It covers series of lectures conducted in IIMs and IITs.

URL: www.nptel.ac.in

- h) **DELNET:** DELNET is a Developing library network, its major objective is to promote resource sharing among the libraries through the development of a network of libraries. It collect, store, and disseminate information besides

offering computerized services to users in the area of engineering, architecture, law, management, dental, education , pharmacy and nursing. Members can access books, e-journals, multimedia databases, learning resources for LIS professionals and thesis/dissertations on different subject.

URL: www.delnet.nic.in

- i) Access Engineering:** Access Engineering is a McGraw Hill eBooks database. It is one of the best engineering reference tool for professionals, academics, and students that provides seamless access to the regularly updated engineering information. It covers 363 full text eBook on different areas of engineering.

URL: <http://accessengineeringlibrary.com/>

5.3.5 Databases/E-resources (Open Access):

These are databases which are available freely on internet, publications including peer reviewed and non-peer reviewed academic journals, books, conference proceedings etc. Without any restrictions one can use these databases. Examples of open access databases are DOAJ (Directory of Open Access Journals), DOAB (Directory of Open Access Books) etc.

Summary of the Chapter: In this chapter researcher try to cover few e-resources available in management institutions. Today lot of e-resources are available in the market. To conclude, Resources are very important for any library to serve their users better. In this technology era different types of resources arise and it is necessary to acquire them. In this chapter researcher has made an attempt to discuss some of prominent databases subscribing to management institutions.

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CHAPTER 6

Data Analysis & Interpretation

The questionnaire has been administered based on the theme of the thesis. The purpose, results and their interpretations, as well as the corresponding steps in the research process are given for each.

Student's Survey

6.0 General Information

Table 6.0: Gender of respondents

Gender	Respondents	Aware of databases	Unaware of databases
Male	920	817 (89%)	103 (11%)
Female	580	517 (89%)	63 (11%)
Total	1500	1334	166

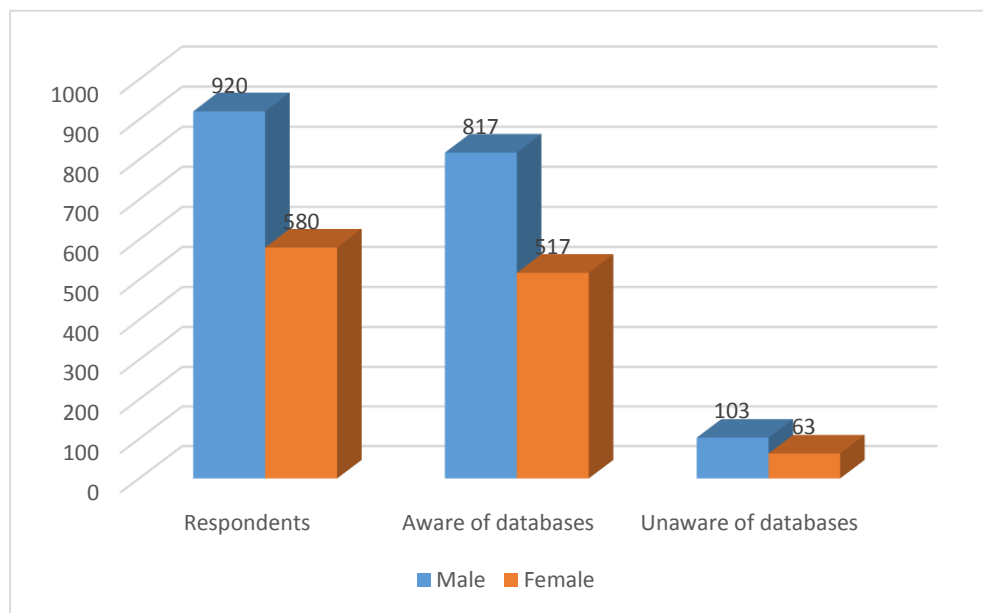


Figure 6.0: Gender of respondents

Interpretation

Out of 1500 respondents, 920 students are male and 580 are female. Out of 920 male respondents 817(89%) were aware of available databases and out of 580 female respondents 517(89%) are aware of databases.

Library Use & Purpose

6.0.1 Library visit

Table 6.0.1 Visiting Library

Option	Frequency	Percentage
Yes	1380	92%
No	120	8%
Total	1500	100%

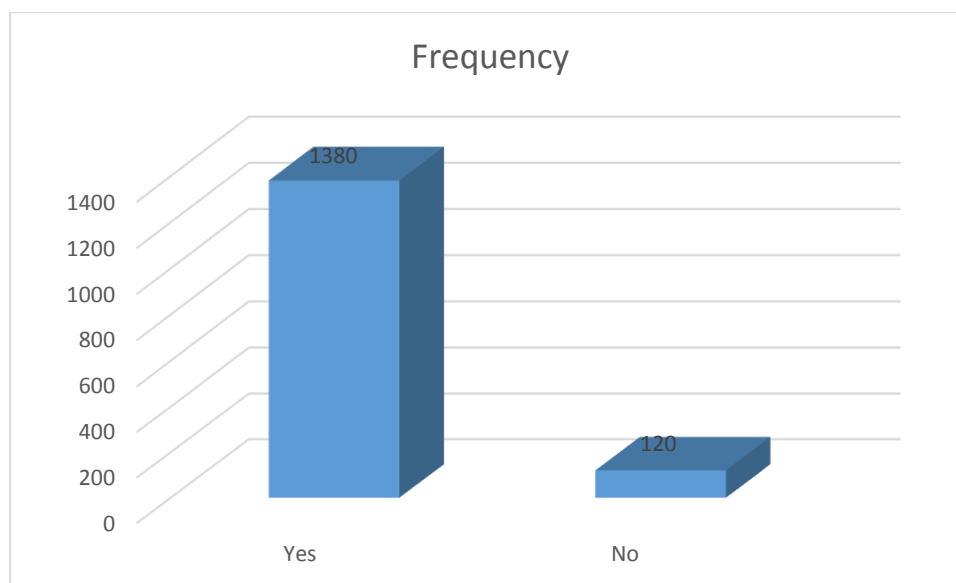


Figure 6.0.1 visiting library

Interpretation

Out of 1500 respondents, 1380 respondents are visiting library for some or the other purposes and rest 120 respondents are not visiting the library. It shows that 92% of the respondents are visiting the library and 8% were not visiting the library.

6.0.2 Purpose of visit to library

Table 6.0.2 Purpose of visiting library

Options	Frequency	Percentage
Study purpose	718	47.87%
News Paper reading	235	15.70%
Issue/Return books	151	10%
Using databases	276	18.40%
No Response	120	8%
Total	1500	100%

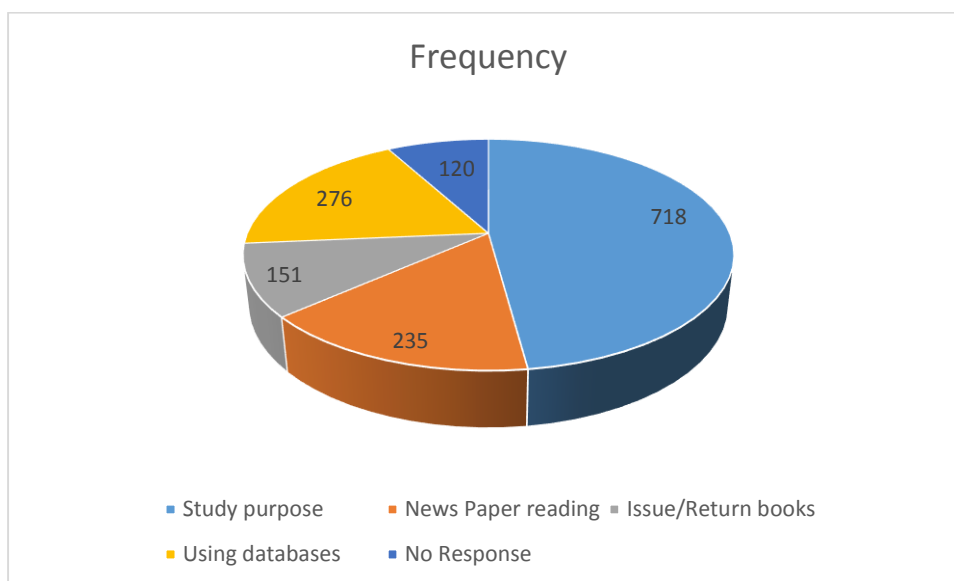


Figure 6.0.2 Purpose of visiting library

Interpretation

Out of total 1500 respondents only 1380 are visiting the library. Out of 1380 respondents 718 (52%) respondents visit the library for study purpose. 276 (20%) of the respondents visit library for using database purpose. 235(17%) respondents visit library for newspaper reading purpose and 151 (11%) of the respondents visit library for the purpose of issue and return of books.

6.0.3 Frequency of visit to library

Table 6.0.3 Frequency of visiting library

Options	Frequency	Percentage
Daily	773	51.5%
Weekly	304	20.2%
Monthly	193	12.9%
Rarely	110	7.4%
No Response	120	8%
Total	1500	100%

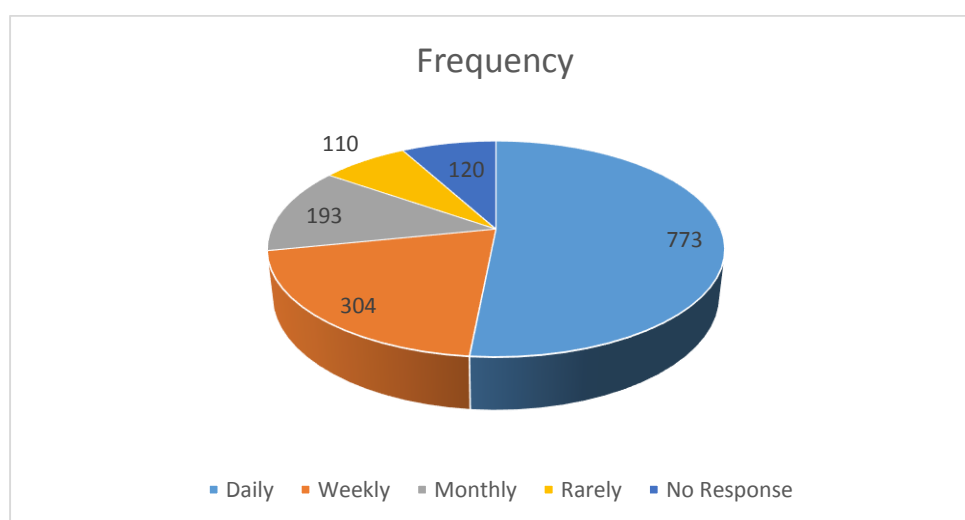


Figure 6.0.3 Frequency of visiting library

Interpretation

773(51.5%) respondents visit library daily. 304 (20.2%) of respondents visit library once in a week. 193 (12.9%) respondents visit library once in a month. 110(7.4%) of respondents visit library rarely and 120 (8%) respondents no response

6.0.4 Type of database use

Table 6.0.4 Type of resource use

Options	Frequency	Percentage
Books	1063	77%
Databases	676	49%
Journals	414	30%
AV Materials	248	18%
Projects	97	7%

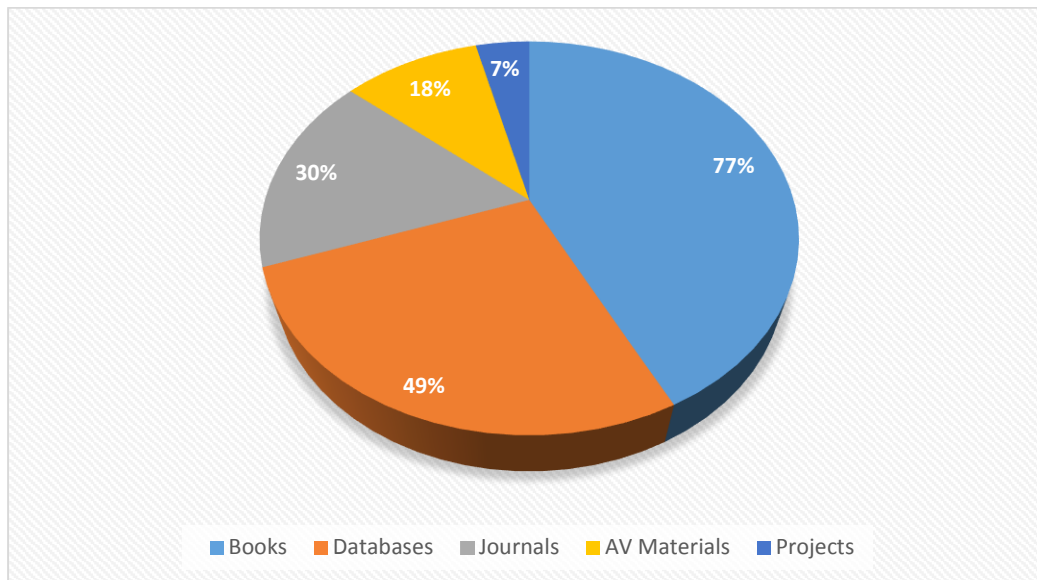


Figure 6.0.4 Type of resource use

Interpretation

While asking the question which type of resource do you use in library, 1063 (77%) respondents use books, 676 (49%) respondents use databases, 414 (30%) of respondents use journals, 248(18%) respondents use AV Materials and 97 (7%) respondents use projects.

6.0.5 Form used

Table 6.0.5 Form like to use

Option	Frequency	Percentage
Print	414	27.60%
Digital	373	24.90%
Both	593	39.50%
No Response	120	8%
Total	1500	100%

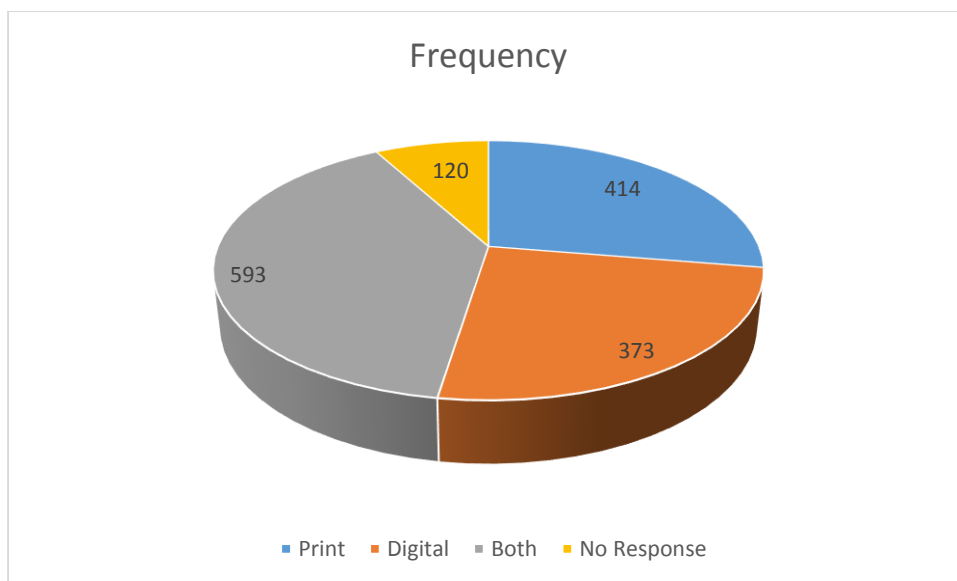


Figure 6.0.5 Form like to use

Interpretation

414 (27.6%) of respondents like to use print form resources, 373 (24.9%) of respondents like to use digital form of resources, 39.5%(593) respondents like to use both print and digital form of resources and 120 respondents not responded.

6.0.6 Librarian's help in locating resources

Table 6.0.6 librarians help in locating resources

Options	Frequency	Percentage
Yes	1228	81.9%
No	152	10.1%
No Response	120	8%
Total	1500	100%

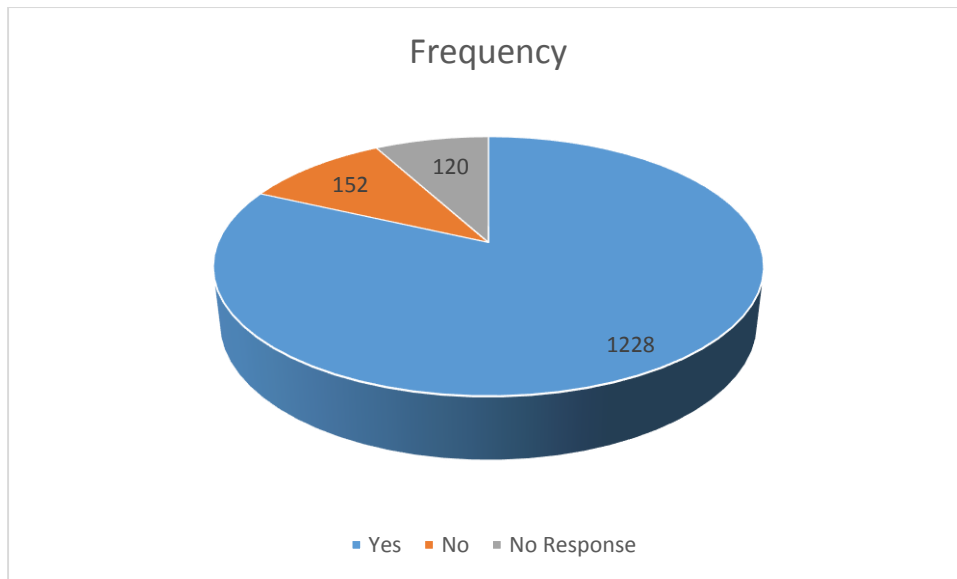


Figure 6.0.6 librarians help in locating resources

Interpretation

For the question do librarian or library staff help in locating required resources, 81.9%(1228) respondents says yes , 10.1%(152) respondents says no and 120 (8%) respondents not responded.

6.1 – Information literacy skills

1. Aware of subscribed databases at institution

Table 6.1: Aware of subscribed databases

Option	Frequency	Percentage
Yes	1334	89%
No	166	11%
Total	1500	100%

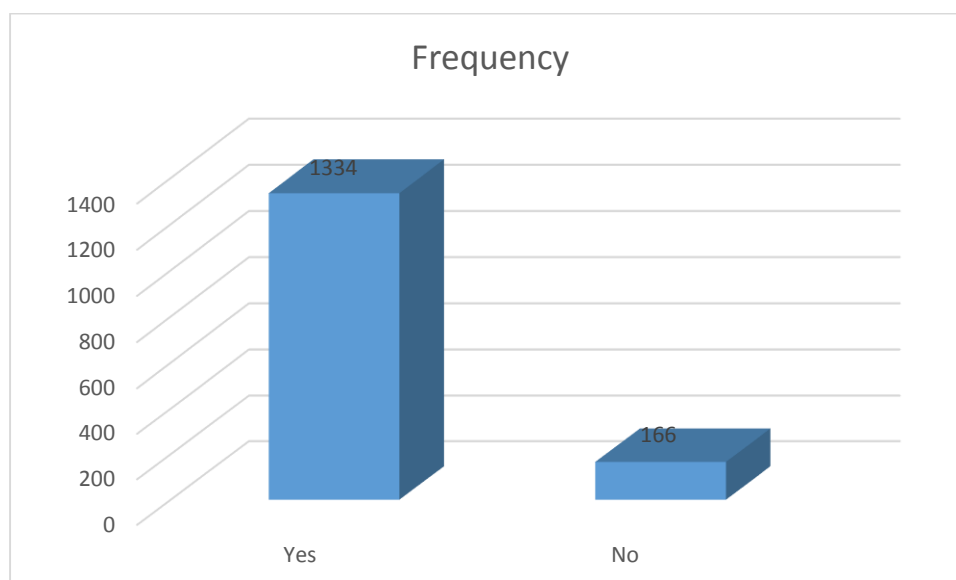


Figure 6.1: Aware of subscribed databases

Interpretation

Out of 1500 students/Respondents 1334 students are aware of subscribed databases in their institution and rest 166 students are not aware of the databases. It shows that 89% of the students are aware of the subscribed databases and 11% were not aware.

2. Availability of databases know from (Please tick whichever is applicable)

Table 6.2: To know about the databases.

Source	Frequency	Percentage
Faculty	1079	80%
IL Program	219	16%
By Friend	588	44%
By Promotion	66	5%

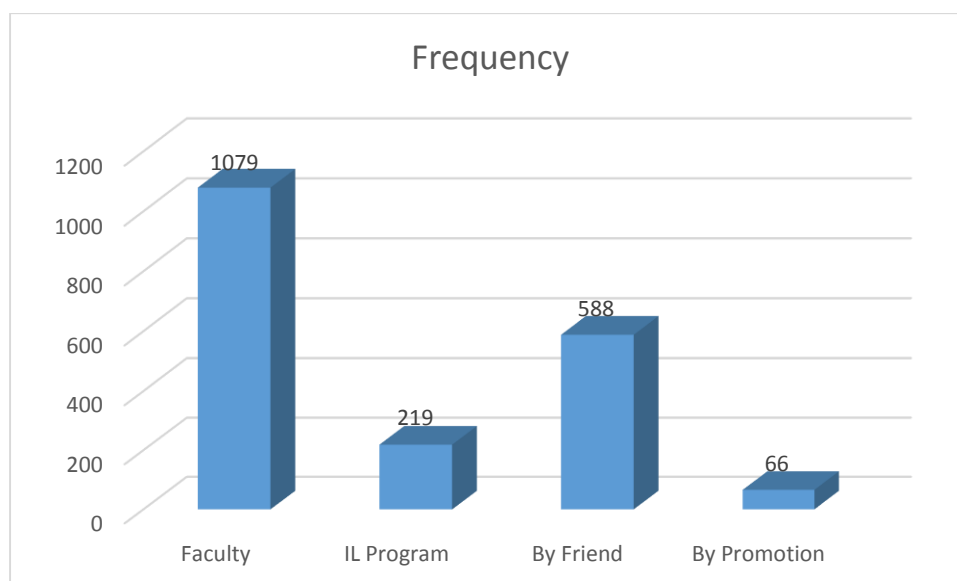


Figure 6.2: To know about the databases

Interpretation

It is observed that 1079 (80%) respondents come to know about databases from faculty members. 588 (49%) respondents come to know through friends.. 219(16%) respondents come to know through IL Program and 66 (5%) respondents come to know through promotions.

3. Type of database used most.

Table 6.3: Databases used most

Types	Frequency	Percentage
E books	787	59%
E Journals	594	44%
Company Databases	306	23%
Research databases	311	23%

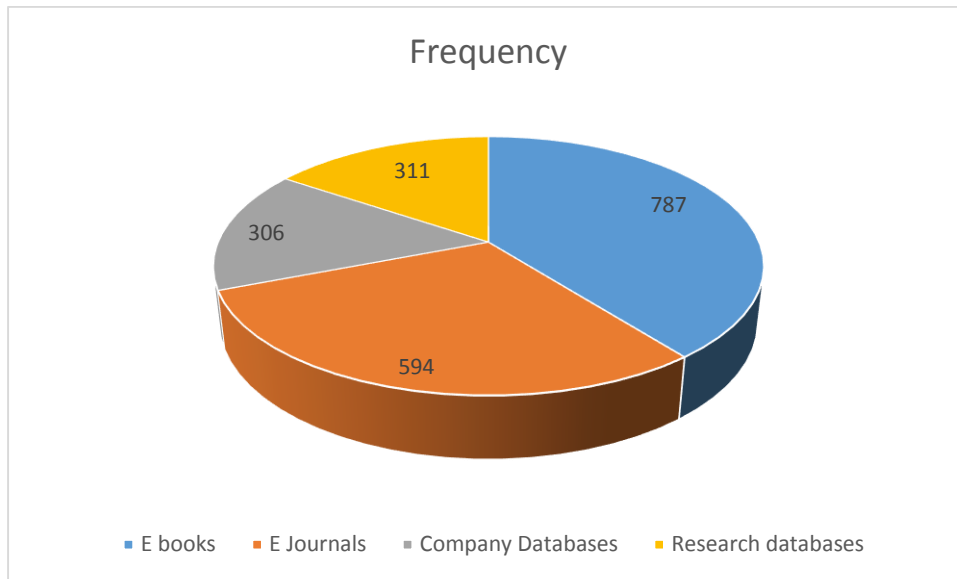


Figure 6.3: Databases used most

Interpretation

While asking a question which database you use most, 787(59%) respondents use e books, 594(44%) respondents use e Journals, 311 (23%) respondents use Research databases and 306(23%) respondents use Company Databases.

4. Frequency of database use.

Table 6.4: Database usage frequency.

Option	Frequency	Percentage
Daily	280	18.7%
Weekly	396	26.4%
Monthly	547	36.5%
Never used	111	7.4%
No Response	166	11%
Total	1500	100%

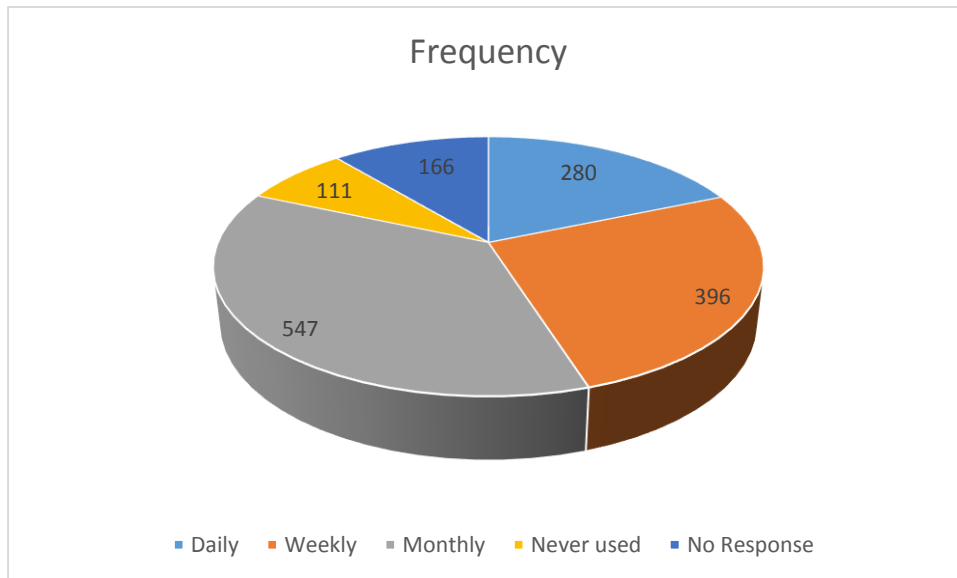


Figure 6.4: Database usage frequency

Interpretation

Out of 1500 respondents 547(36.5%) respondents told they use databases once in a month. 396(26.4%) respondents use once in a week. 280(18.7%) respondents revealed that they are using daily, 111(7.4%) respondents are of the opinion that they never used and 166 (11%) respondents not responded..

5. Availability of exact information while searching.

Table 6.5: While searching availability of exact information.

Option	Frequency	Percentage
Most of the time	907	60.5%
Rarely	237	15.8%
Never	77	5.1%
Every time	113	7.6%
No Response	166	11%
Total	1500	100%

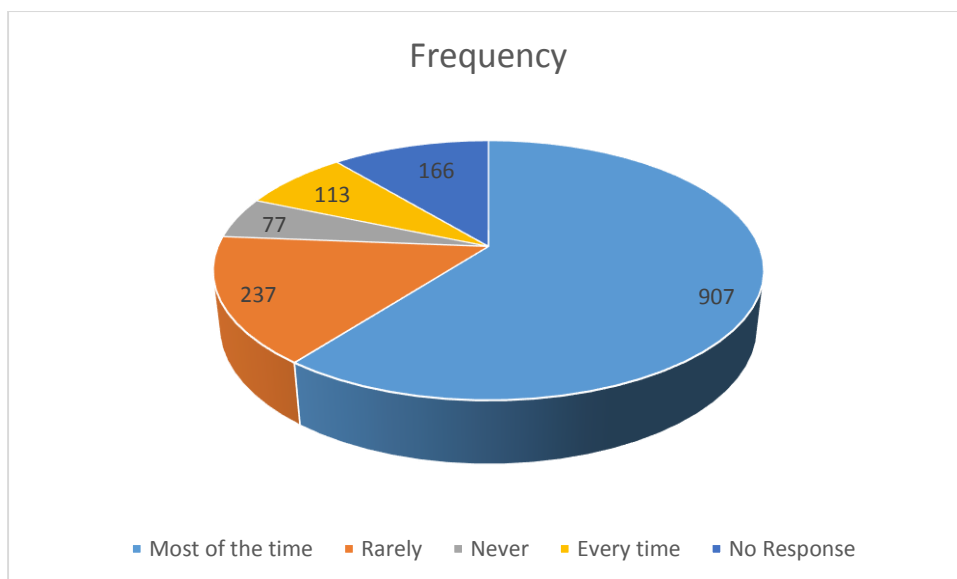


Figure 6.5: While searching availability of exact information

Interpretation

907 (60.5%) respondents told most of the time they get exact information while searching. 237 (15.8%) respondents are of the opinion that rarely they get exact information. 113 (7.6%) respondents told every time they get the information while searching, 77(5.1%) respondents revealed that they never get exact information while searching databases and 166 (11%) respondents not responded.

6. Opinion about library staff while assisting in database queries.

Table 6.6: Library staff cooperation & knowledge for any issues while accessing database

Option	Frequency	Percentage
Knowledgeable & Proactively assisting	619	41.2%
Lack of technical Knowledge	221	14.8%
Knowledgeable but not helpful	469	31.3%
No Cooperation	25	1.7%
No Response	166	11%
Total	1500	100%

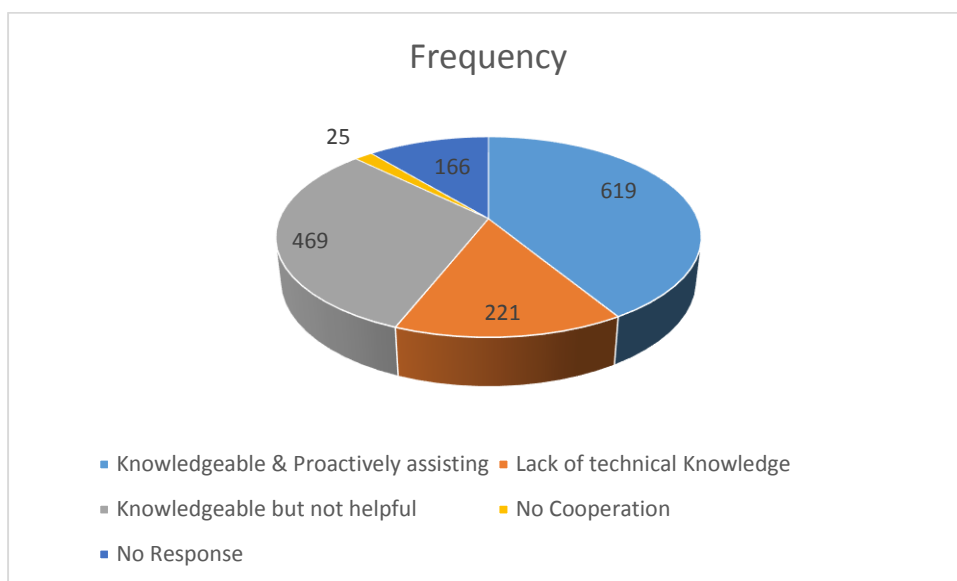


Figure 6.6: Library staff cooperation & knowledge for any issues while accessing database

Interpretation

It is observed that 619 (41.2%) respondents are of the opinion that library staff are knowledgeable and pro-actively assisting when they need a help, 469 (31.3%) respondents are of the opinion that library staff are knowledgeable but not helpful, 221 (14.8%) respondents told library staff are having lack of technical knowledge, 25(1.7%) of respondents are of the opinion that library staff won't cooperate when help is required and 166 (11%) respondents not responded.

6.2- Information Communication Technology in Libraries

7. Library automation.

Table 6.7: Library Automation

Option	Frequency	Percentage
Yes	1158	77%
No	342	23%
Total	1500	100%

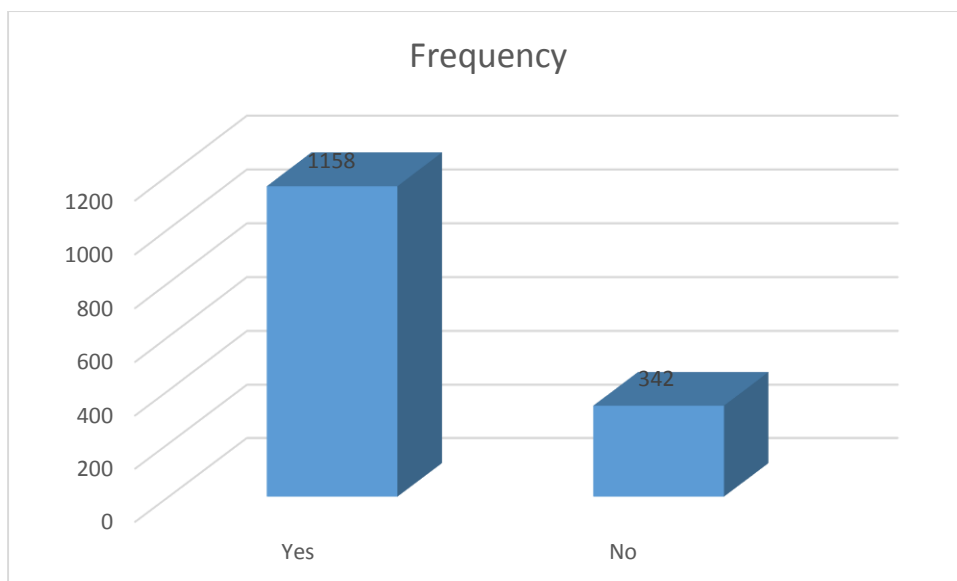


Figure 6.7: Library Automation

Interpretation

1158%) respondents chose the option yes and 342 (23%) respondents opted for No.

8. Availability of OPAC facility.

Table 6.8: OPAC facility

Option	Frequency	Percentage
Yes	1149	77%
No	351	23%
Total	1500	100%

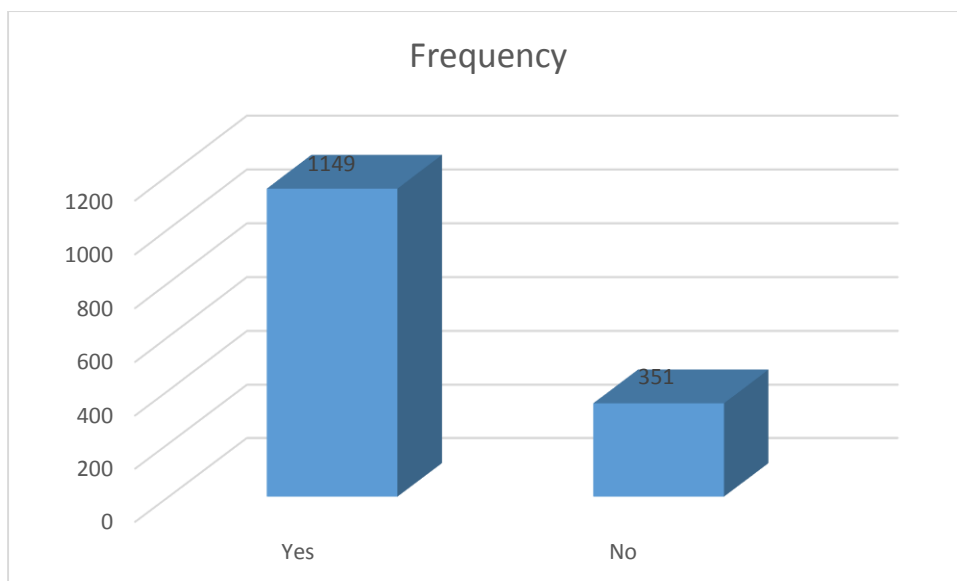


Figure 6.8: OPAC Facility

Interpretation

77% (1149) respondents are of the opinion that OPAC facility is available in their library and 23% (351) respondents say No.

9. Facilities to access e resources

Table 6.9: Facilities to access e resources

Option	Frequency	Percentage
Yes	1229	82%
No	271	18%
Total	1500	100%

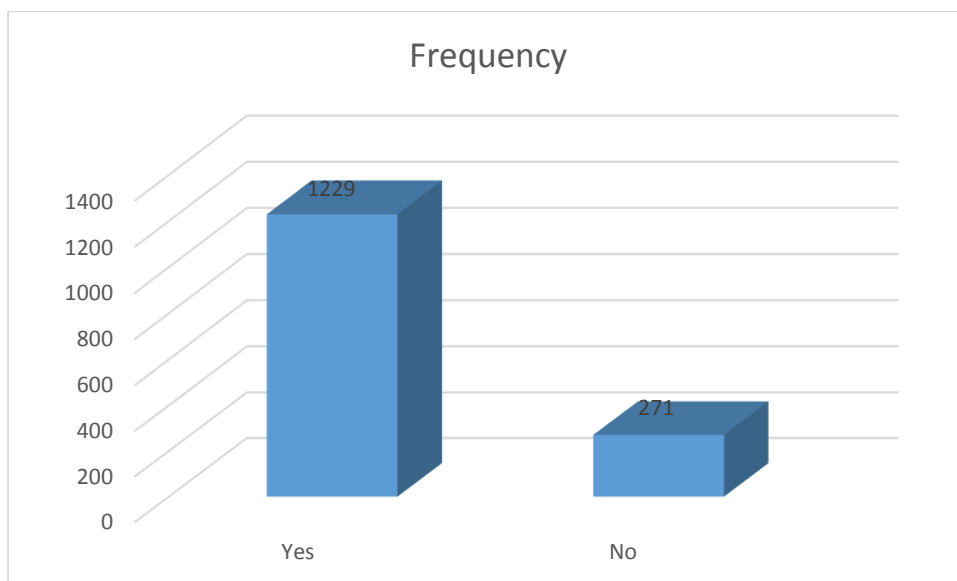


Figure: 6.9: Facilities to access e resources

Interpretation

1229 (82%) respondents are of the opinion that they have facilities in their library to access e resources and 18% (271) say no as they don't have the facilities to access e resources in their library.

10. Wi-Fi facility in the library

Table 6.10: Wi-Fi facility in library

Option	Frequency	Percentage
Yes	1209	81%
No	291	19%
Total	1500	100%

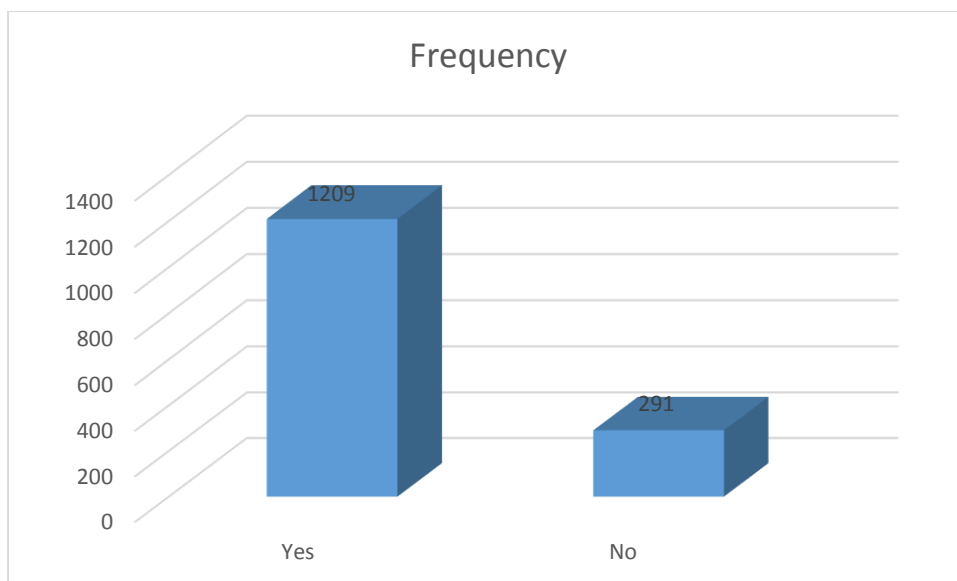


Figure 6.10: Wi-Fi facility in library

Interpretation

Large No. of respondents i.e. 81% (1209) says yes they have Wi Fi facility available in their library and 19% (291) opted No.

11. Problems faced while accessing e-resources

Table 6.11: Issues make it difficult to access e resources

Option	Frequency	Percentage
Off Campus Access Problem	944	63%
Connectivity issue	381	25%
Connection speed	124	8%
Access refused due to user limit	51	4%
Total	1500	100%

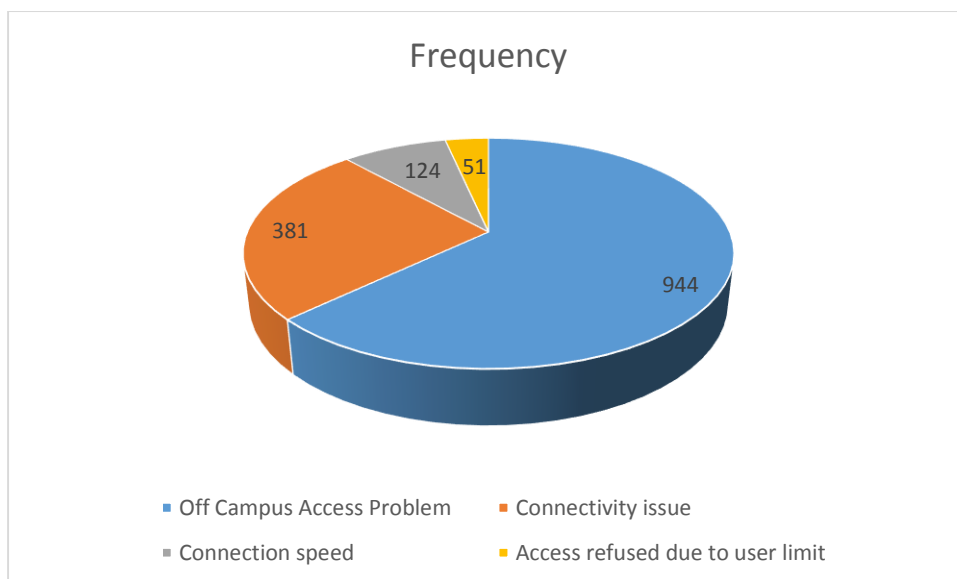


Figure 6.11: Issues make it difficult to access e resources

Interpretation

More than 50% of respondents i.e. 63%(944) says they find difficult in accessing databases due to Off campus access problem as they can access only when they are in the campus. 381 (25%) respondents says connectivity issue. 8% (124) respondents are of the opinion that Connection speed is hurdle for accessing databases and 51 (4%) respondents says problem with user limitations.

12. Available ICT infrastructure in library

Table 6.12: Available ICT infrastructure in library

Option	Frequency	Percentage
Computer	1451	98%
RFID/Security gates	156	10%
Bar Code Technology	718	48%
Broad band connection	488	32%
CCTV	281	19%
Xerox/Scan/Printer	1219	81%
E book reader	18	1%

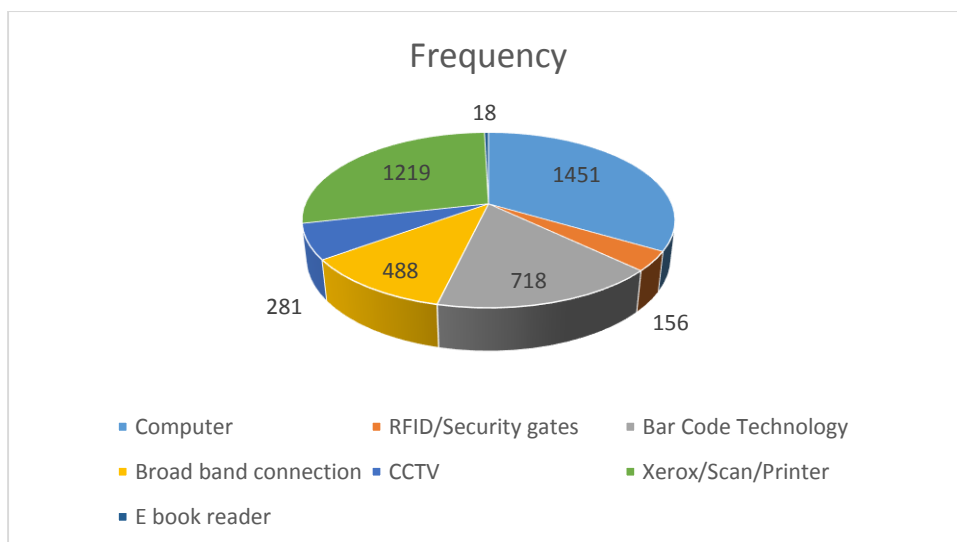


Figure 6.12: Available ICT infrastructure in library

Interpretation

Results shows almost all libraries i.e. 98% (1451) are having computers in library. 81%(1219) respondents are of the opinion that they have Xerox/Scan/Printer facility in their library. About 48% (718) respondents reveled that their libraries using barcode technology for library operation. 32% (488) says their libraries have broad band connection. 281 (19%) reveled their library equipped with CCTV. 10% 9156) reveled their libraries are smart libraries with RFID/Security gates. Only 1% (18) respondents says they have e book reader in their library.

6.3 Existing stage of information literacy program

13. Information literacy program/library orientation by library

Table 6.13: Is college library conducts information literacy program

Option	Frequency	Percentage
Yes	938	63%
No	562	37%
Total	1500	100%

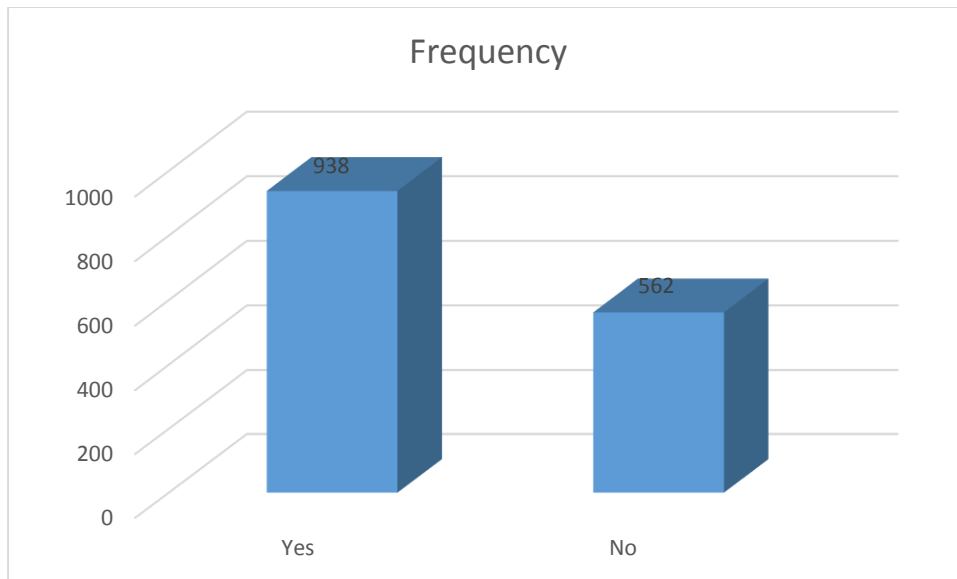


Figure 6.13: Is college library conducts information literacy program

Interpretation

63% (938) respondents say their libraries conduct information literacy programs and 562 (37%) respondents revealed that their libraries won't conduct any information literacy programs.

14. Duration of information awareness program

Table 6.14: Duration of Information Literacy program

Option	Frequency	Percentage
Sufficient	277	18.5%
Not Sufficient	432	29%
Time Consuming	132	9%
No idea	97	6.5%
No Response	562	37%
Total	1500	100%

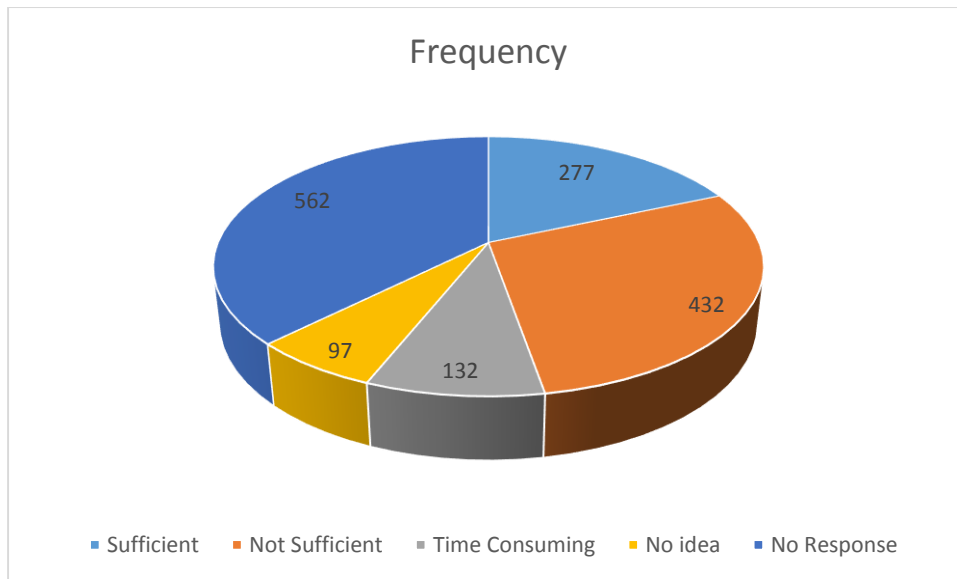


Figure 6.14: Duration of Information Literacy program

Interpretation

29% (432) respondents revealed that duration of literacy program is not sufficient. 277 (18.5%) respondents says sufficient. 9% (132) respondents are of the opinion that it is time consuming , around 6.5% (97) respondents says they don't have any idea and 562 (37%) respondents were not responded.

15. Methods used for delivering IL programs.

Table 6.15: Methods of information literacy program followed

Option	Frequency	Percentage
Mass Orientation	282	19%
Class room orientation	639	43%
online tutorials	17	1%
E learning	Nil	
No Response	562	37%
Total	1500	100%

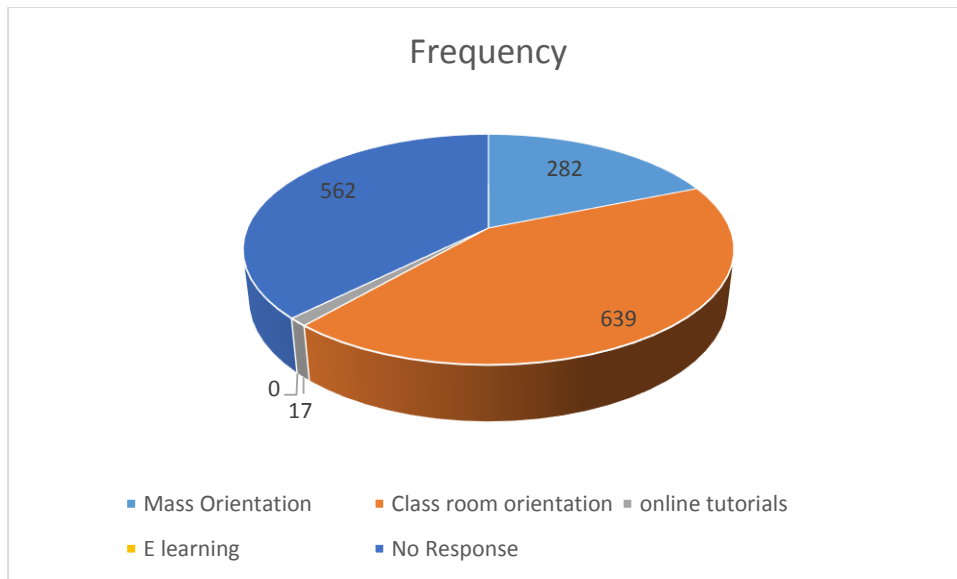


Figure 6.15: Methods of information literacy program followed

Interpretation

43% (639) respondents says their institution use class room orientation method for information literacy programs. 19% (282) respondents reveled their institution use mass orientation method. 1% (17) says use online tutorials fir information literacy program, surprisingly nobody opted for E learning method for information literacy program and 562 (37%) respondents were not responded.

16. Instruction material for information awareness program.

Table 6.16: Kind of instruction material received in Information Literacy program

Option	Frequency	Percentage
Brochure	557	37%
PPT	314	21%
Web Page	67	5%
None	Nil	
No response	562	37%
Total	1500	100%

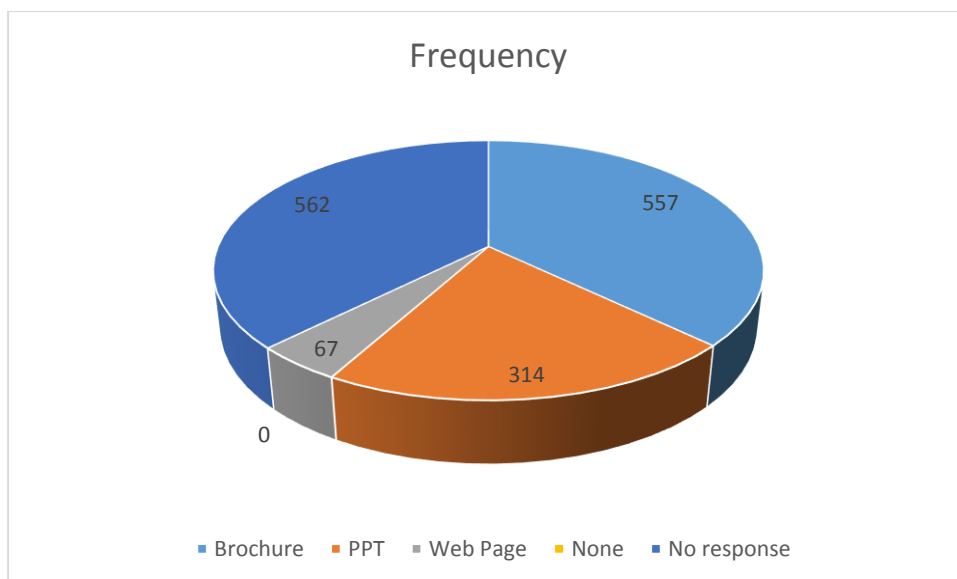


Figure 6.16: Kind of instruction material received in Information Literacy program

Interpretation

557 (37%) respondents says they received brochure in information literacy session. 21% (314) says Information Literacy program done through PPT. 67(5%) respondents reveled information literacy program done through live web pages ,nobody opted for None and 562 (37%) respondents were not responded.

17. Tool used for delivering information awareness program.

Table 6.17: Tool used for information literacy program

Option	Frequency	Percentage
PPT	427	28.5%
Library tour	114	8%
With live database portals	57	4%
Library brochure	340	22.5%
Any Other	Nil	
No Response	562	37%
Total	1500	100%

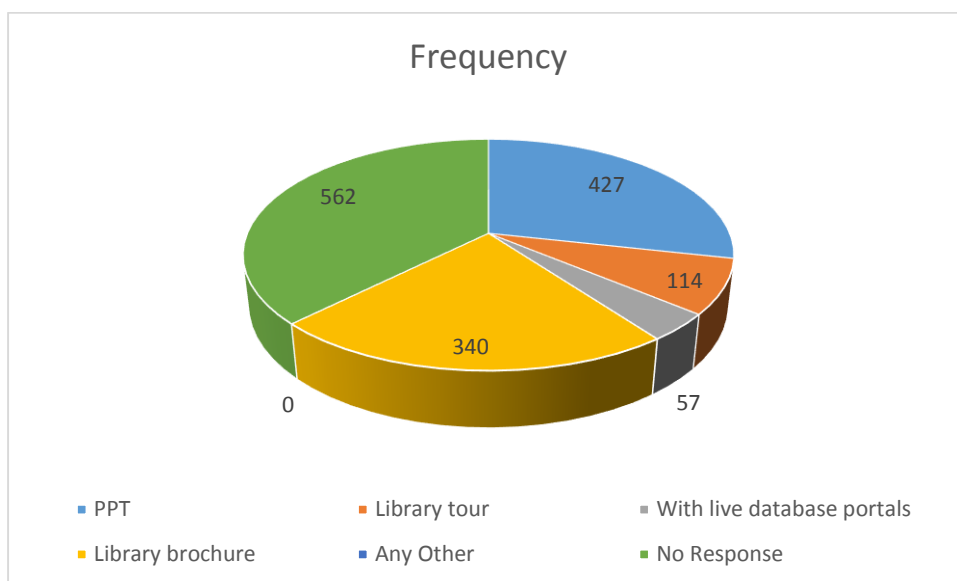


Figure 6.17: Tool used for information literacy program

Interpretation

427 (28.5%) respondents revealed librarians use PPT method for information literacy program. 340 (22.5%) respondents say librarians use Library brochure for information literacy program. 8% (114) respondents say library tour is method for IL program, 57 (4%) respondents' revealed librarians use live database portals for information literacy program and 562 (37%) respondents were not responded.

18. Main focus area of information literacy program.

Table 6.18: Main focus of information literacy program

Option	Frequency	Percentage
Library information	239	16%
Library Catalogue	458	30.5%
Database search	213	14.5%
Internet search	28	2%
Any other	Nil	
No Response	562	37%
Total	1500	100%

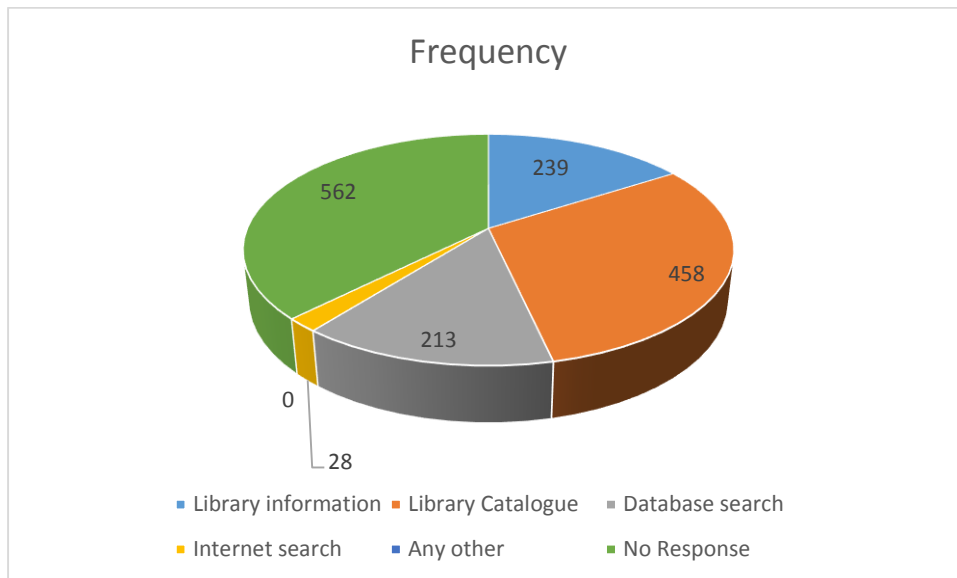


Figure 6.18: Main focus of information literacy program

Interpretation

30.5% (458) respondents are of the opinion that main focus of information literacy program is explaining library catalogue. 239 (16%) respondents says Library information is main focus. 14.5% (213) respondents says How to search databases is main focus of the information literacy program, 2% (28) says internet search is the main focus and 562 (37%) respondents were not responded

19. Modes used for delivering literacy program.

Table 6.19: Mode of delivery used in information literacy program

Option	Frequency	Percentage
Audio Visual	13	1%
Verbal	358	24%
Power point	539	36%
Others	28	2%
No Response	562	37%
Total	1500	100%

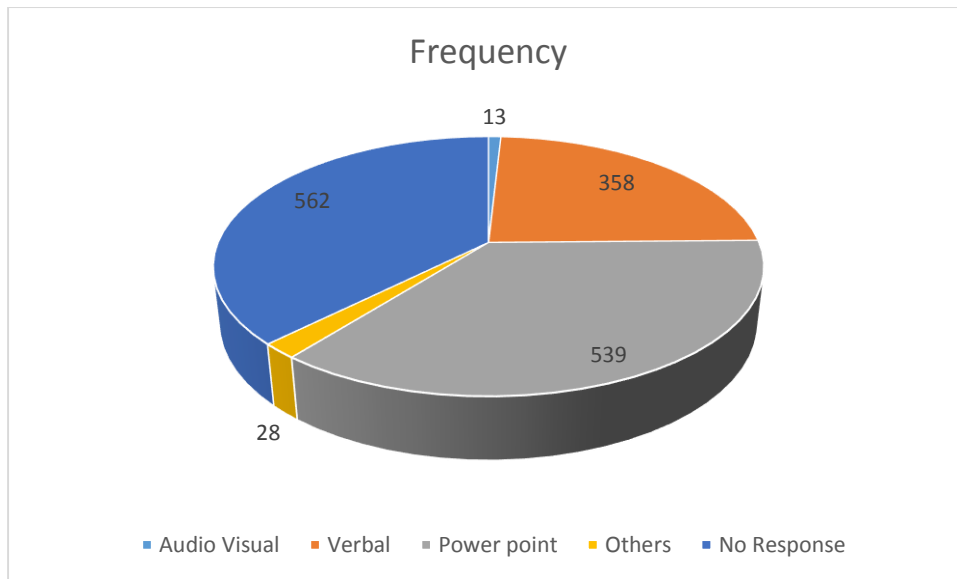


Figure 6.19: Mode of delivery used in information literacy program

Interpretation

36% (539) respondents says Power Point is used in delivering information literacy program. 358 (24%) respondents says verbal method will be followed in delivering information literacy program. 2%(28) respondents say other , 1% (13) respondents are of the opinion that audio visual method is used in delivering information literacy program and 562 (37%) respondents not responded.

20. Role of Internet in designing effective information awareness program.

Table 6.20: For the statement “Internet plays a very important role in designing effective IL Program”

Option	Frequency	Percentage
Strongly agree	78	5%
Agree	617	41%
Moderate	178	12%
Disagree	38	3%
Don't know	27	2%
No Response	562	37%
Total	1500	100%

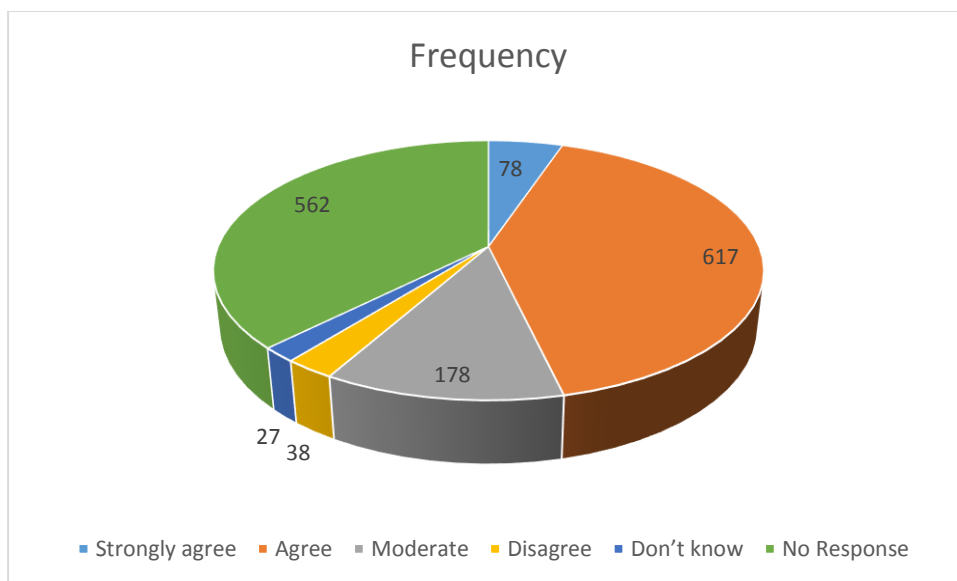


Figure 6.20: For the statement “Internet plays a very important role in designing effective IL Program”

Interpretation

41% (617) respondents agree that internet plays a vital role in designing effective literacy program. 178 (12%) are natural. 5% (78) respondents strongly agree as internet plays vital role in effective information literacy program. 3% (38) respondents disagree , 2% (27) say don’t know and 562 (37%) respondents not were responded.

21. Information awareness programs are easy to understand

Table 6.21: Information literacy programs are easy to understand

Option	Frequency	Percentage
Strongly agree	112	7%
Agree	433	29%
Moderate	317	22%
Disagree	47	3%
Don’t know	29	2%
No Response	562	37%
Total	1500	100%

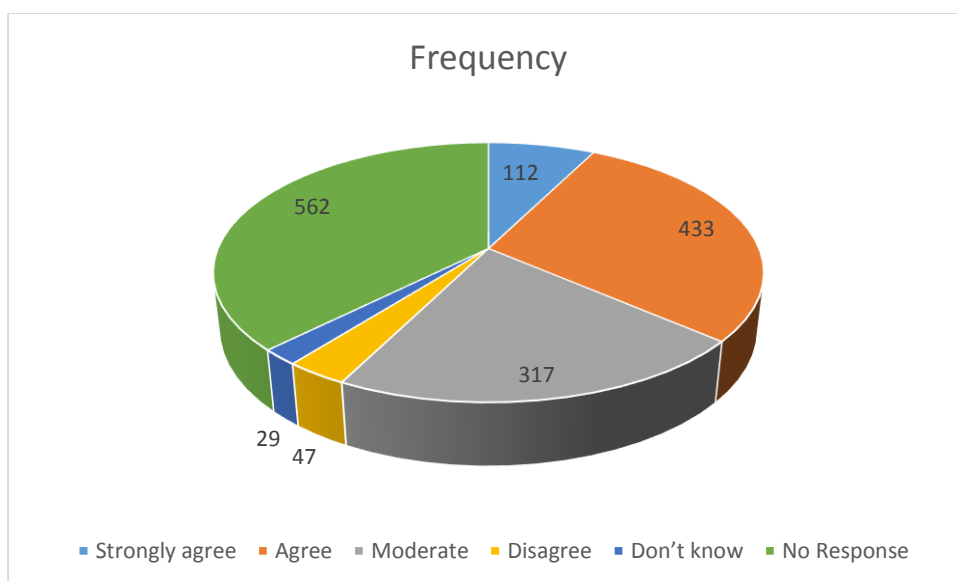


Figure 6.21: Information literacy programs are easy to understand

Interpretation

433 (29%) respondents agree that information literacy programs / sessions are easy to understand. 22% (317) respondents are neutral. 7% (112) respondents are strongly agree. 3% (47) respondents are disagree, 2% (29) respondents say don't know and 562 (37%) respondents not responded.

6.4 Impact of Information literacy program

22. Impact of information literacy program for using library resources effectively.

Table 6.22: After attending IL program able to use library resources effectively

Option	Frequency	Percentage
Strongly agree	177	12%
Agree	439	29%
Moderate	322	22%
Disagree	—	—
Don't know	—	—
No Response	562	37%
Total	1500	100%

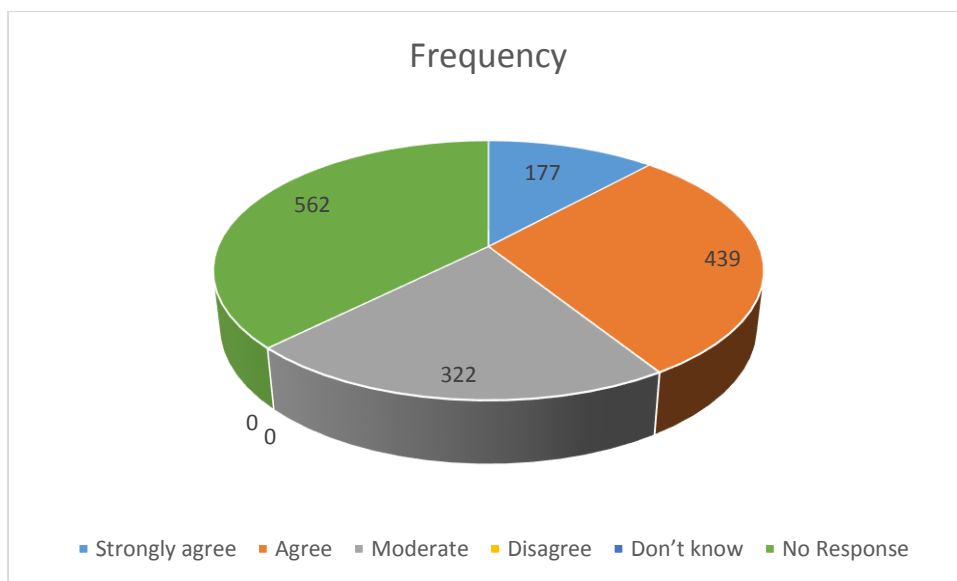


Figure 6.22: After attending IL program able to use library resources effectively

Interpretation

29% (439) respondents agree that after attending information literacy program they are able to use library resources effectively. 22% (322) respondents are neutral on this. 12% (177) respondents strongly agree and no takers for options Disagree and don't know and 37% (562) respondents were not responded.

23. To refer e-journal database used is.

Table 6.23: To access E journals which database to use.

Option	Frequency	Percentage
ProQuest Central	719	48%
CMIE Prowess	103	7%
Ebrary	43	3%
Indiastat	73	5%
No Response	562	37%
Total	1500	100%

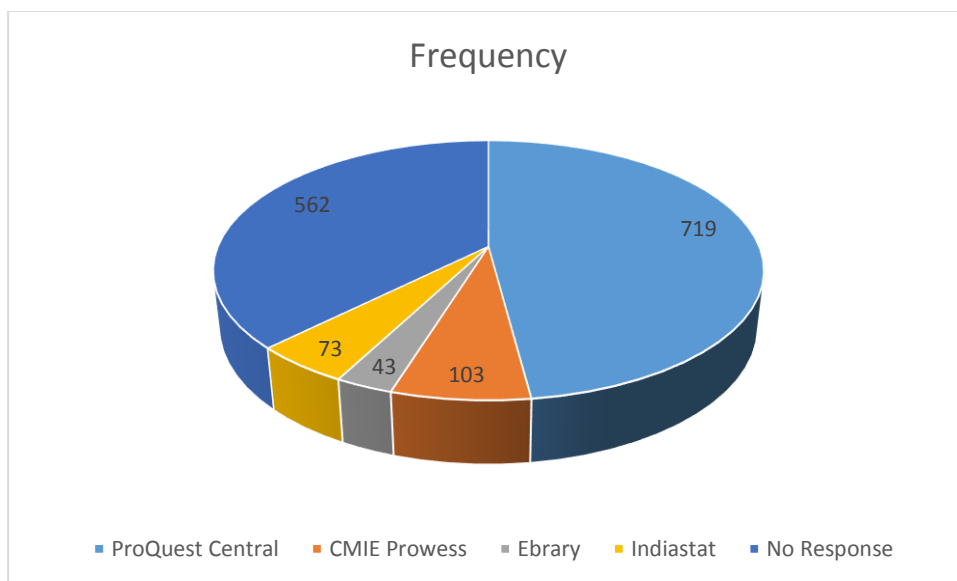


Figure 6.23: To access E journals which database to use.

Interpretation

719 (48%) respondents says they use ProQuest Central. 7% (103) respondents says they use CMIE Prowess. 5% (73) respondents are of the opinion that they use Indiastat ,3% (43) respondents says they use e-brary to refer e journal database and 562 (37%) respondents were not responded.

24. To search particular book in library online options used is.

Table 6.24: To search book online in library which source to use.

Option	Frequency	Percentage
Databases	32	2%
Internet	67	5%
OPAC	839	56%
No Response	562	37%
Total	1500	100%

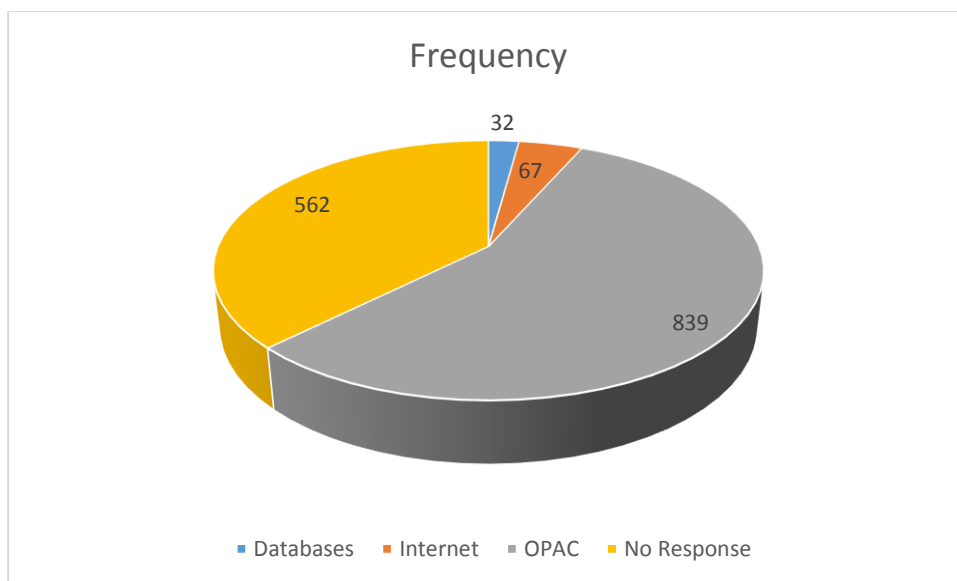


Figure 6.24: To search book online in library which source to use.

Interpretation

It is observed that for searching books in library online, 56% (839) respondents says they use OPAC. 5% (67) respondents says they use Internet, 2% (32) respondents says they use Databases and 562 (37%) respondents were not responded.

25. To find books authored by” Kotler” option used is.

Table 6.25: To find all books by ‘Kotler’ in library catalogue one search by

Option	Frequency	Percentage
By Title	127	9%
By Subject	194	13%
By Author	521	35%
By Publisher	96	6%
No Response	562	37%
Total	1500	100%

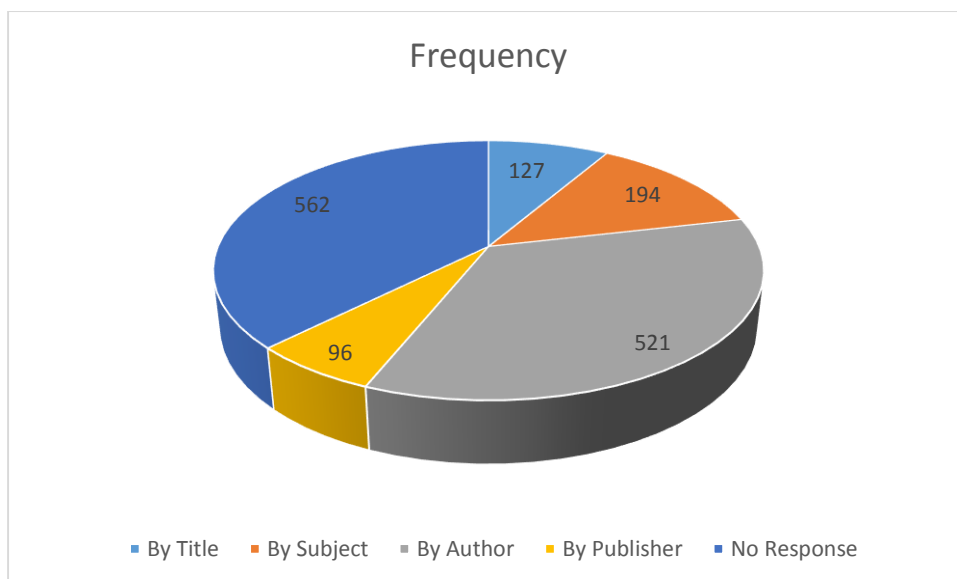


Figure 6.25: To find all books by ‘Kotler’ in library catalogue one search by

Interpretation

To check their searching skills in OPAC, to find all the books authored by Kotler in the library catalogue which of the option they use, 35% (521) respondents says they use option By Author. 13% (194) respondents use option By Subject. 9% (127) respondents says option By Title, 6% (96) respondents says they use the option By Publisher and 562 (37%) respondents were not responded.

26. For the term “Globalization” in OPAC if no document found it means.

Table 6.26: For the word Globalization in OPAC, if no document found by computer, what it conclude

Option	Frequency	Percentage
Library doesn't have any documents on this topic	484	32%
All documents on this topics are already checked out	117	8%
Not used right word	253	17%
OPAC is down	84	6%
No Response	562	37%
Total	1500	100%

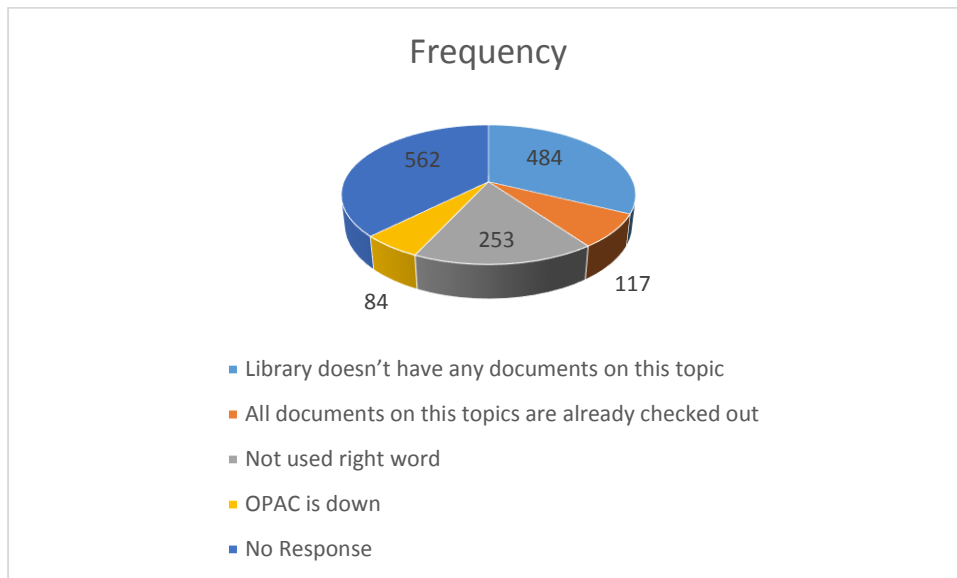


Figure 6.26: For the word Globalization in OPAC, if no document found by computer, what it conclude

Interpretation

For the word “Globalization”, in OPAC if no documents found that means, 32 % (484) respondents says “Library doesn’t have any documents on this topic”. 17% (253) respondents are of the opinion that “Not used right keyword”. 8% (117) respondents says “All documents on this topic are already checked out”, 6% (84) respondents says OPAC is down and 562 (37%) respondents were not responded.

27. To read document on “Marketing strategy “authored by “Kotler”, how will you search for it?

Table 6.27: To read article ‘Marketing strategy’ by ‘Kotler’, to check the availability in library one search catalogue under

Option	Frequency	Percentage
Author	184	12%
Title	239	16%
Author & Title	442	30%
Don't know	73	5%
No Response	562	37%
Total	1500	100%

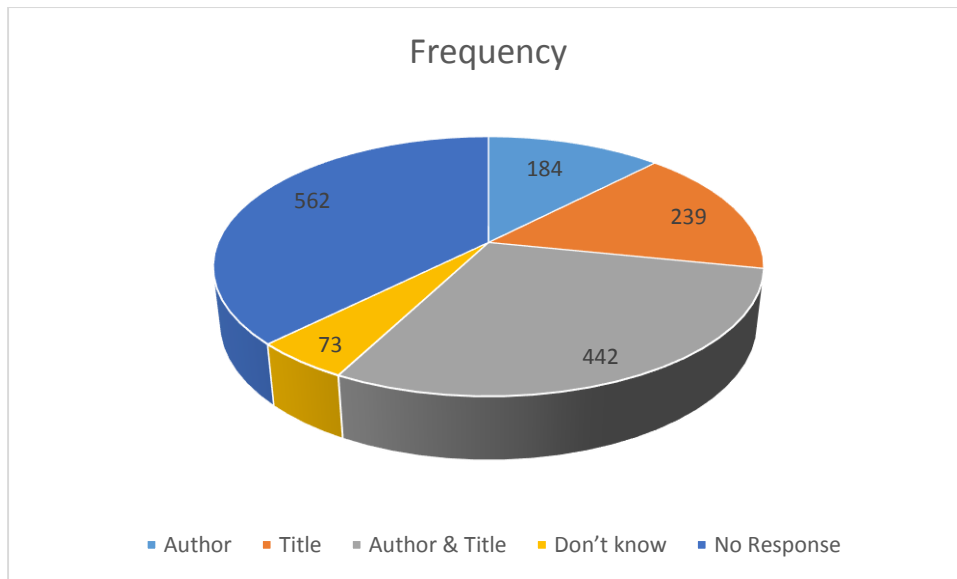


Figure 6.27: To read article ‘Marketing strategy’ by ‘Kotler’, to check the availability in library one search catalogue under

Interpretation

To read a article Marketing Strategy authored by Kotler, to check the availability of this this article in library, search engine used is, 30% (442) respondents says they use “Author & Title option. 16% (239) respondents says they use option “Title”. 184 (12%) says they use “Author” option, 5% (73) respondents say “Don’t know” and 562 (37%) respondents not responded.

28. If you want to know information on the basics of subject which source do you consult?

Table 6.28: To know more about a subject which we know little, which source one consult.

Option	Frequency	Percentage
Book	514	34%
Database	103	7%
Encyclopedia	198	13%
Journal	123	9%
No Response	562	37%
Total	1500	100%

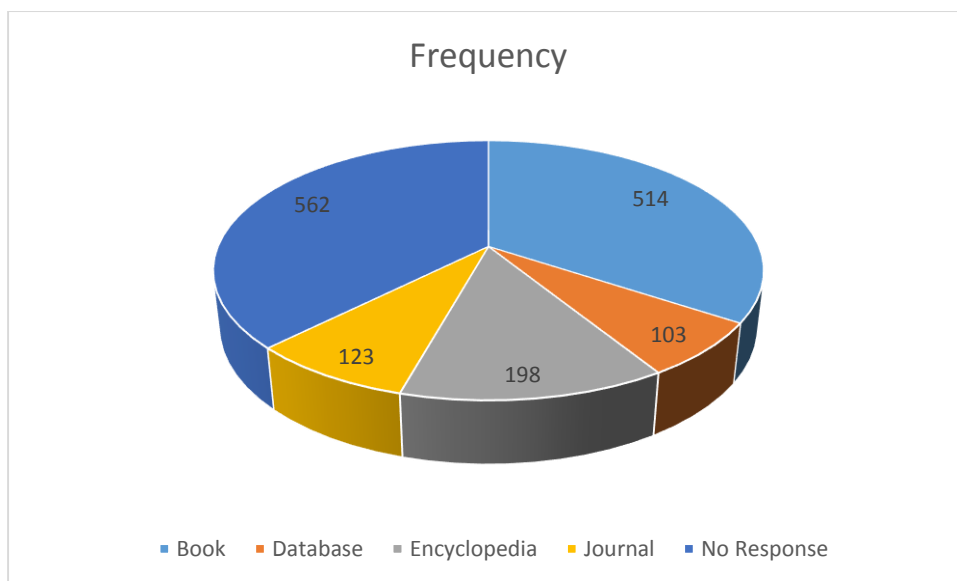


Figure 6.28: To know more about a subject which we know little, which source one consult.

Interpretation

34% (514) respondents says they consult Books first, in order to become familiar with a subject which they know little. 13% (198) respondents says they consult Encyclopedia first. 9% (123) respondents says they consultant Journals first , 7% (103) respondents says they consult Databases first to know more on particular subject and 562 (37%) respondents were not responded.

29. What information is covered in Library OPAC?

Table 6.29: Items that can be found in OPAC are

Option	Frequency	Percentage
List of titles available in the library	547	36%
List of titles available in the market	234	16%
List of Journals published	157	11%
No response	562	37%
Total	1500	100%

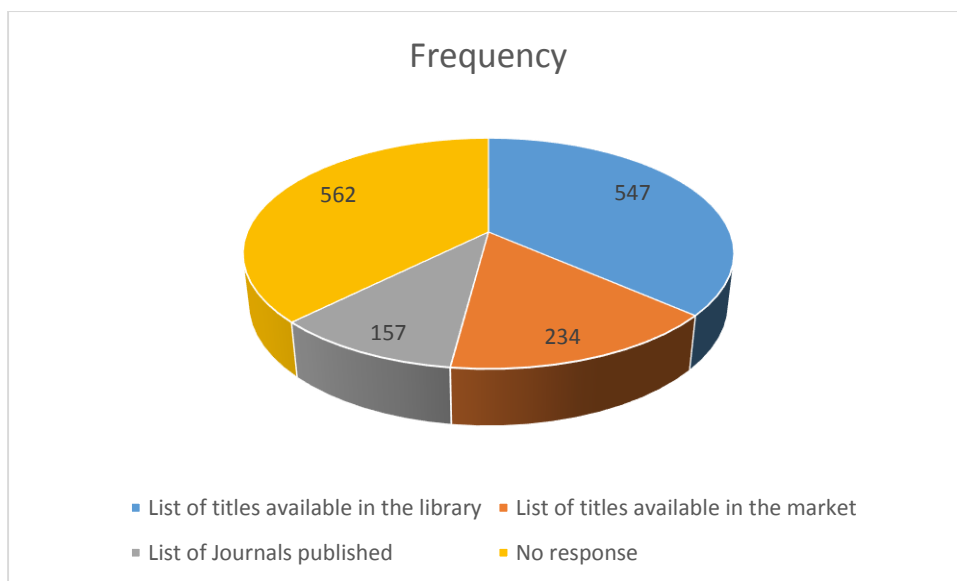


Figure 6.29: Items that can be found in OPAC are

Interpretation

Items that can be found in Library OPAC includes, 36% (547) respondents says “List of titles available in the library”. 16% (234) respondents says “List of titles available in the market”, 11% (157) respondents says “List of Journals published” and 562 (37%) respondents were not responded.

30. To find out most recent information on any topic following which source you consult

Table 6.30: To find most recent information on any topic, which source to consult

Option	Frequency	Percentage
Book	369	24%
Journal	413	28%
Encyclopedia	146	10%
Dictionary	10	1%
No Response	562	37%
Total	1500	100%

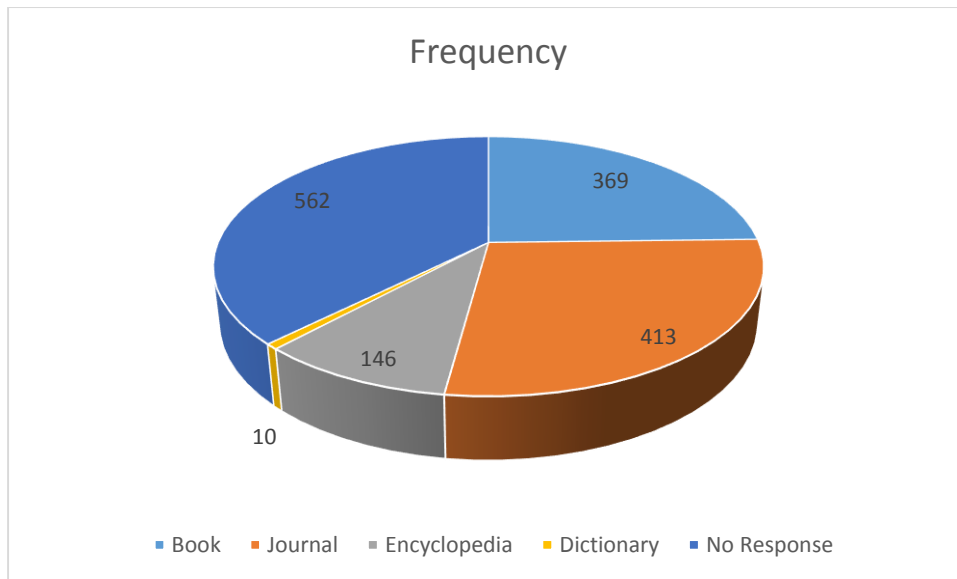


Figure 6.30: To find most recent information on any topic, which source to consult

Interpretation

28% (413) respondents say they consult "Journal", to find out most recent information on any topic. 24% (369) respondents say they consult "Books". 10% (146) respondents say they consult "Encyclopedia", 1% (10) respondents say they consult "Dictionary" and 562 (37%) respondents were not responded. Journals contain recent information.

6.5 Model of information Literacy

31. Are you agree e resources are need of the hour

Table 6.31: Are you agree e resources are need of the hour

Option	Frequency	Percentage
Strongly agree	347	23%
Agree	753	51%
Moderate	306	20%
Disagree	73	5%
Don't know	21	1%
Total	1500	100%

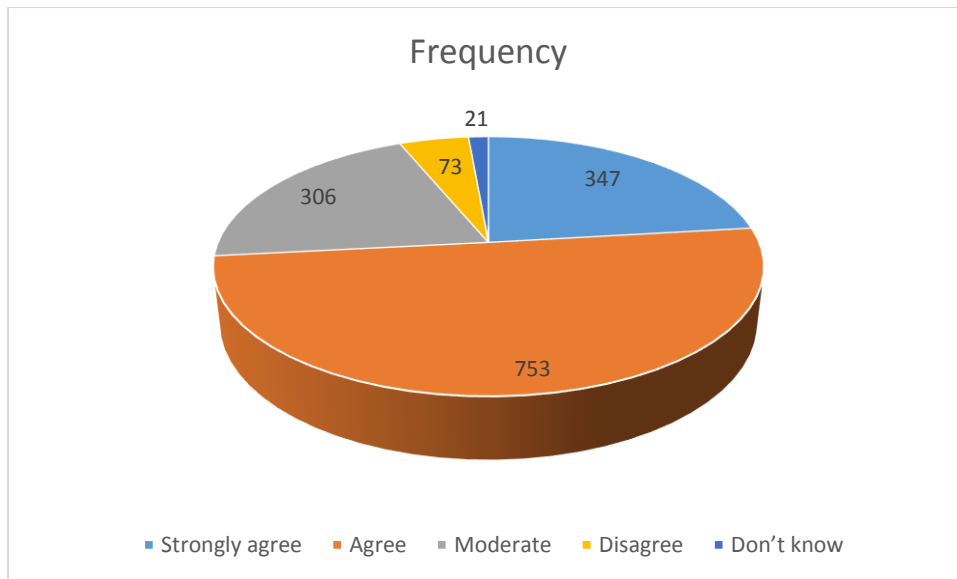


Figure 6.31: Are you agree e resources are need of the hour

Interpretation

51% (753) respondents says they agree that e-resources are need of the hour. 23% (347) respondents strongly agree. 20% (306) respondents are Neutral. 5% (73) respondents Disagree and 1% (21) respondents says don't know.

32. Information awareness program should be part of the syllabus.

Table 6.32: Information literacy program should be part of the syllabus

Option	Frequency	Percentage
Strongly agree	410	27%
Agree	739	49%
Moderate	265	18%
Disagree	52	4%
Don't know	34	2%
Total	1500	100%

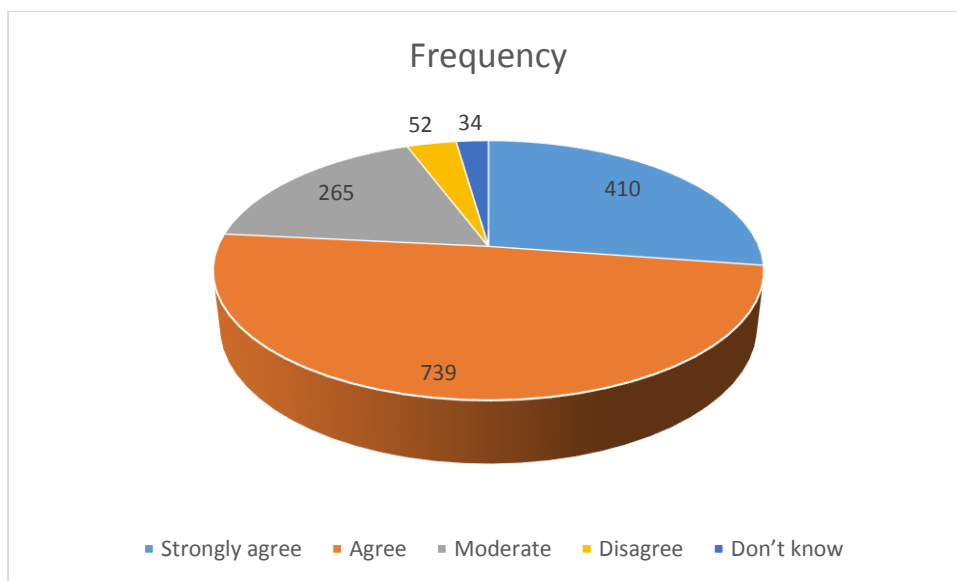


Figure 6.32: Information literacy program should be part of the syllabus

Interpretation

50% (739) respondents agree that information literacy program should be part of syllabus. 27% (410) respondents says they “Strongly agree”. 18% (265) respondents Natural. 3% 52) respondents disagree and 2% (34) respondents says don’t know. It is observed that 77% of respondents are of the opinion that information literacy program should be part of their curriculum.

33. Frequency of the classes

Table 6.33: Frequency of classes

Option	Frequency	Percentage
Monthly	739	49%
Weekly	157	11%
Fortnightly	110	7%
Six Monthly	143	10%
No Response	351	23%
Total	1500	100%

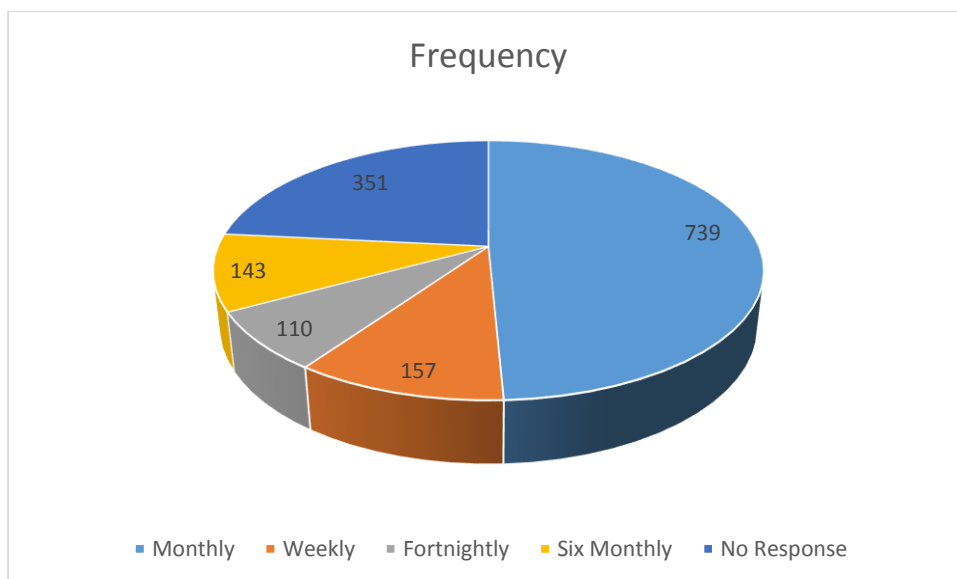


Figure 6.33: Frequency of classes

Interpretation

49% (739) respondents says frequency of IL programs will be monthly. 11%(157) respondents says Weekly. 10% (143) respondents says six monthly, 110 (7%) says Fortnightly and 351 (23%) respondents not responded.

34. Information awareness program should be conducted by

Table 6.34: Information literacy program should be under

Option	Frequency	Percentage
Faculty	423	28%
Librarian	617	41%
Computer Dept.	84	6%
Any Other	25	2%
No Response	351	23%
Total	1500	100%

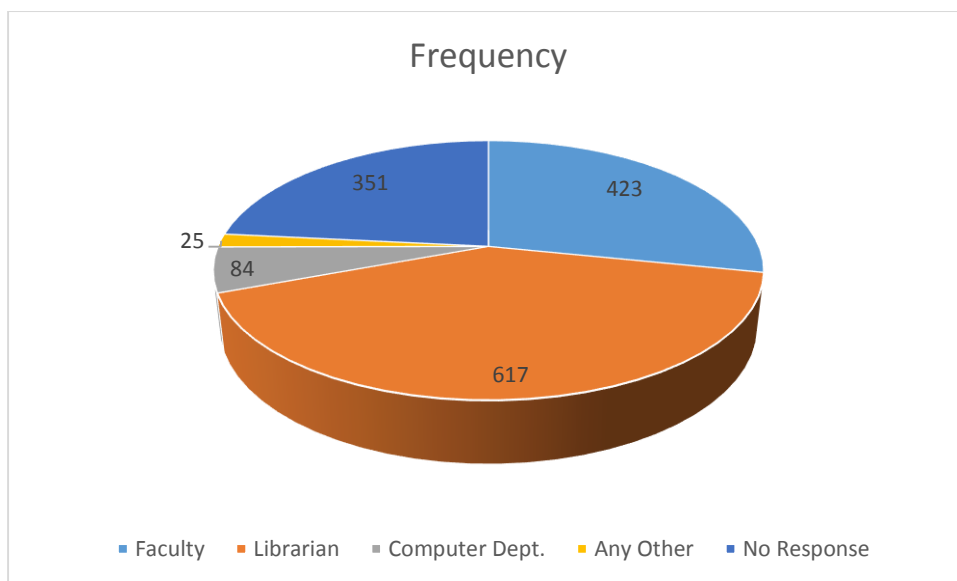


Figure 6.34: Information literacy program should be under

Interpretation

41% (617) respondents are of the opinion that, IL programs should be handled by Librarian. 28% (423) respondents are of the opinion that it should be under Faculty. 6% (84) respondents says it should be under Computer dept., 2% (25) respondents says any other and 351(23%) respondents were not responded.

35. Topics need to be covered in information awareness programs

Table 6.35: Topics covered in Information awareness program

Option	Frequency	Percentage
Library rules/regulations	137	9%
E resources live	814	55%
Other library collection (books etc.)	147	10%
Library infrastructure	51	3%
No Response	351	23%
Total	1500	100%

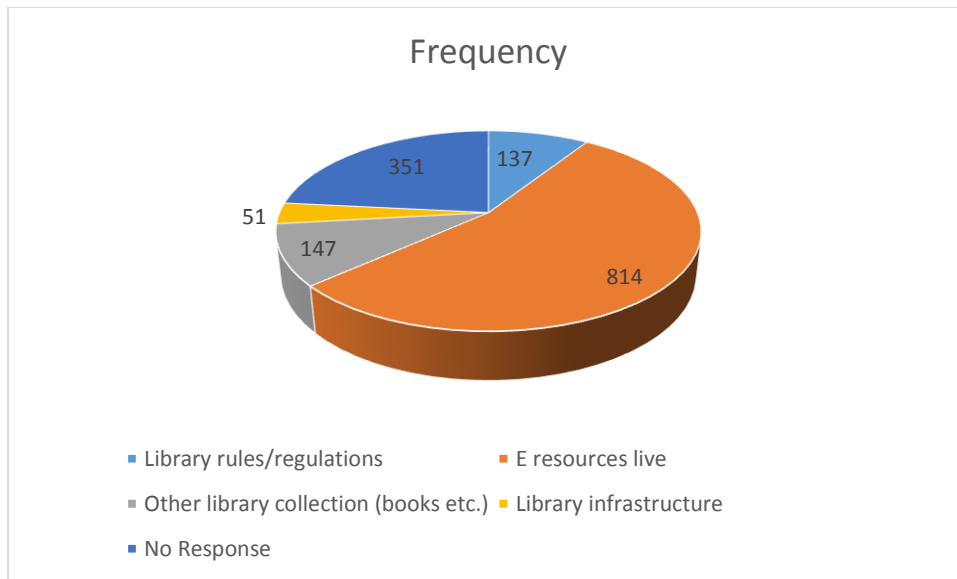


Figure 6.35: Topics covered in Information awareness program

Interpretation

55% (814) respondents says, information literacy programs will be concentrate more on live e-resources portals. 10% (147) respondents says other library collections (Like books, Journals etc.). 9% (137) respondents says Library rules/regulations, 3% (51) respondents says Library infrastructure and 351 (23%) respondents were not responded.

36. Open ended question

There is an open ended question for librarians to get their suggestions, their suggestions summarized as below:

- Library & Resource orientation is required.
- More computers required to access.
- Frequent demos with real time examples to access Company database.
- Should happen more often.
- Required out of campus access.
- Library staff should be more cooperative and knowledgeable.

6.6 Librarian's Survey

1. Is library subscribes to e-resources

Table 6.6.1: Is library subscribes e-resources

Option	Frequency	Percentage
Yes	30	100%
No	0	0%
Total	30	100%

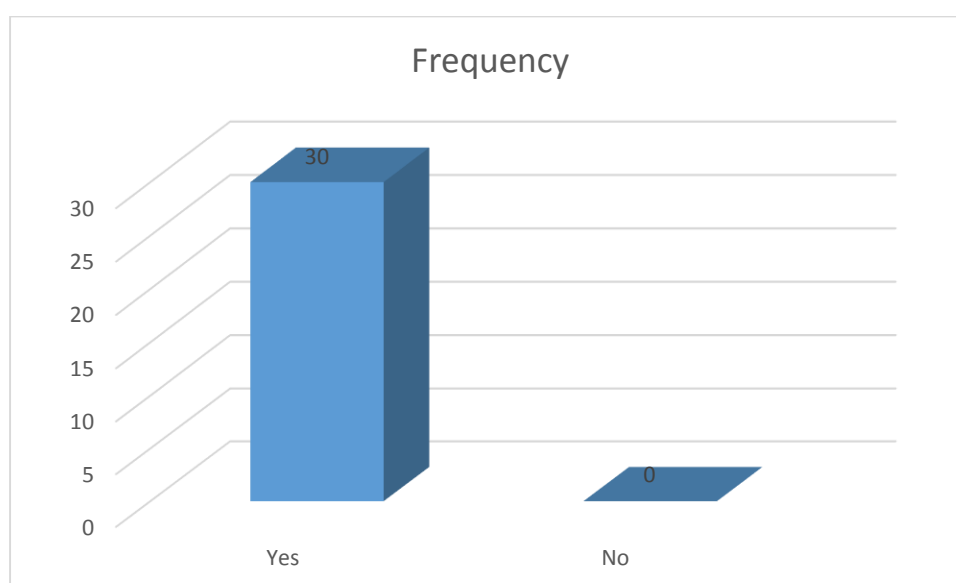


Figure 6.6.1: Is library subscribes e-resources

Interpretation

Out of 30 respondents 100% respondents say yes that their library subscribing to e-resources

2. Is your users aware of subscribed e-resources?

Table 6.6.2: Users aware of subscribes e-resources

Option	Frequency	Percentage
Yes	30	100%
No	0	0%
Total	30	100%

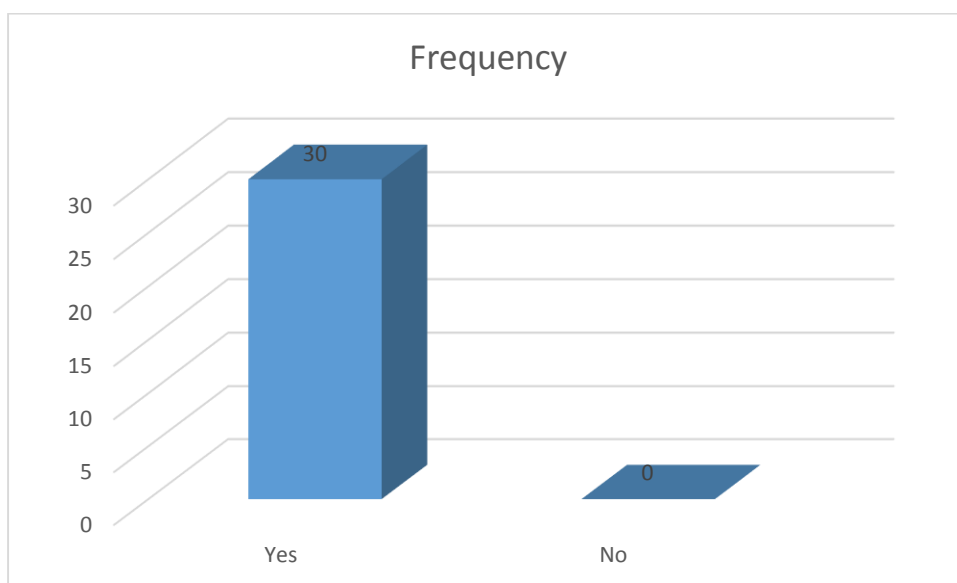


Figure 6.6.2: Users aware of subscribes e-resources

Interpretation

Out of 30 respondents 100% respondents say yes that their users are aware of subscribed e-resources, when researcher ask same question to students nearly 90% of students say yes, they are aware of subscribed e resources. It is good indication that library professionals efforts not going waste. They are able to create awareness of subscribed e-resources among user community through various methods.

3. Measures took to create awareness (Please click whichever is applicable)

Table 6.6.3: Measures took to create the awareness

Option	Frequency	Percentage
Library Brochure	7	23%
Orientation	29	97%
Through mailers	3	10%
Database flex	4	13%

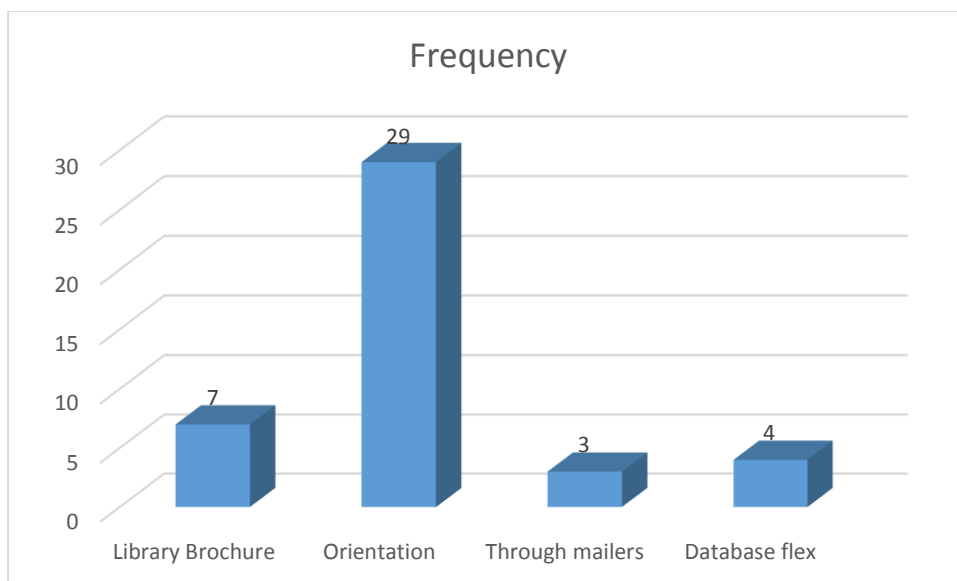


Figure 6.6.3: Measures took to create the awareness

Interpretation

To create awareness of subscribed e-resources among users community 97% librarians say they conduct orientation program, 23% of the librarians says through Library brochure also they create awareness among user community, 13% are of the opinion that through database flex also they create awareness and 10% are of the opinion that mailers also contribute in creating awareness.

4. Literacy programs for the users

Table 6.6.4: Literacy programs for the users

Option	Frequency	Percentage
Yes	30	100%
No	0	0%
Total	30	100%

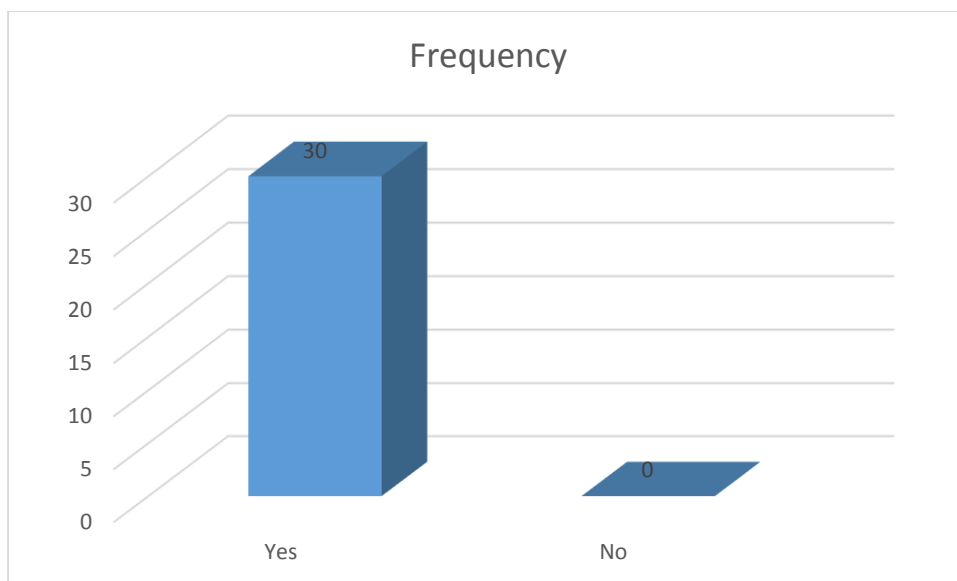


Figure 6.6.4: Literacy programs for the users

Interpretation

100% librarians says they conduct literacy programs for their users, however when we ask same question to the students 63% agree that their libraries conduct information literacy programs. This difference may be of several reasons mainly lack of interaction among both, intimation to the program may not properly propagated etc.

5. Frequency of Literacy programs

Table 6.6.5: Frequency of Literacy programs

Option	Frequency	Percentage
Once in a Year	10	33%
Monthly	3	10%
Half Yearly	2	7%
Need based	15	50%

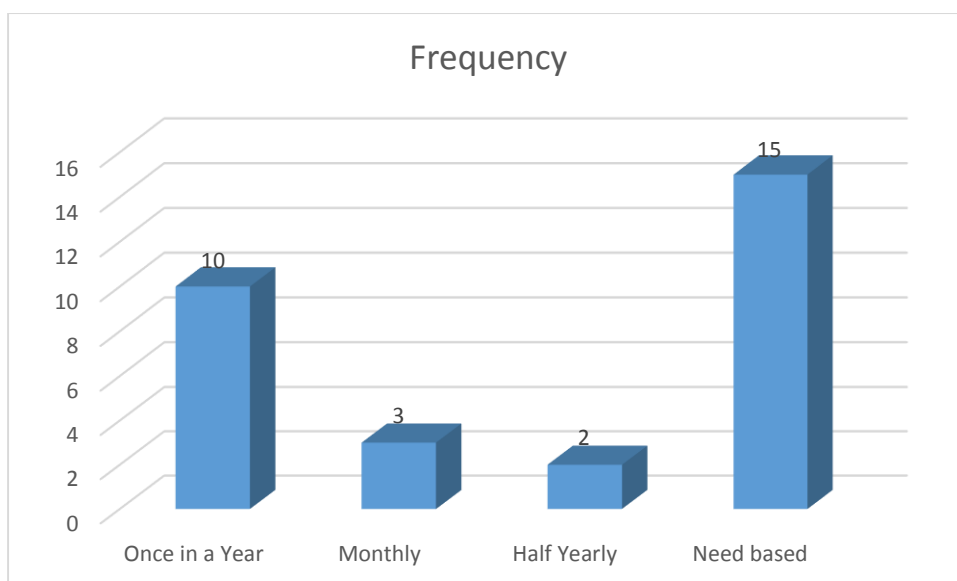


Figure 6.6.5: Frequency of Literacy programs

Interpretation

50% of the librarians are of the opinion that they conduct literacy programs on need based. 33% say they conduct once in a year, 10% says monthly they will conduct and 7% says half yearly. For the same question 64% students says literacy programs should be conducted monthly. Frequency of the literacy program should be decided consulting with higher authorities.

6. Method used to deliver literacy programs

Table 6.6.6: Method used to deliver Literacy programs

Option	Frequency	Percentage
PPT of Library	2	7%
PPT with live database portals	27	90%
Library Tour	1	3%
Total	30	100%

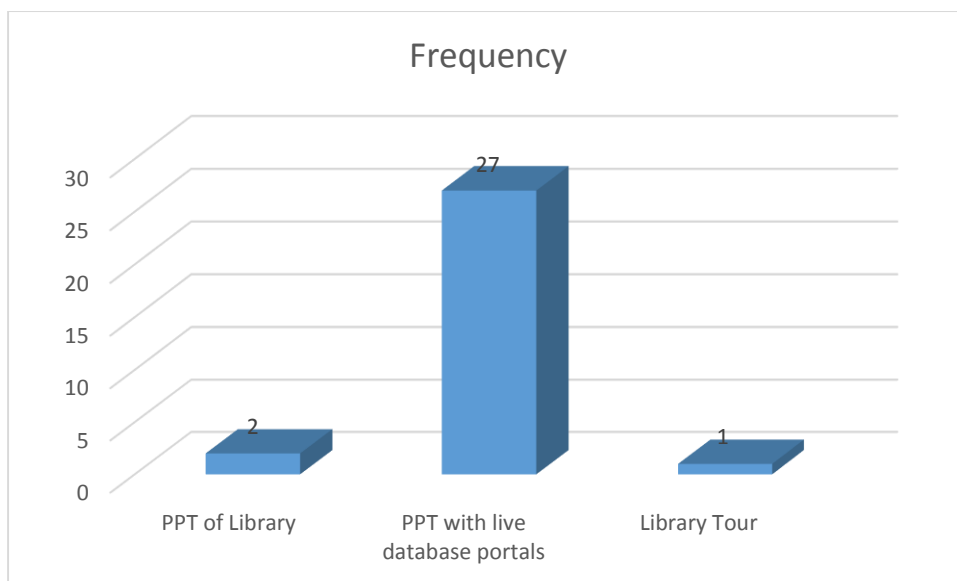


Figure 6.6.6: Method used to deliver Literacy programs

Interpretation

90% librarians responded they use PPT with live database portals to deliver awareness programs, 7% use PPT of library for delivering awareness programs and 3% are of the opinion that library tour. It is found that 90% are using PPT with live database portals, it is very much encouraging, along with this if they practice library tour will definitely benefit the students where they come to know different sections of library, arrangement of books, facilities and services and staff members etc.

7. Mode used to get users feedback

Table 6.6.7: Mode used to get user feedback

Option	Frequency	Percentage
Questionnaire	28	93%
Interview	0	0%
Any other	2	7%
Total	30	100%

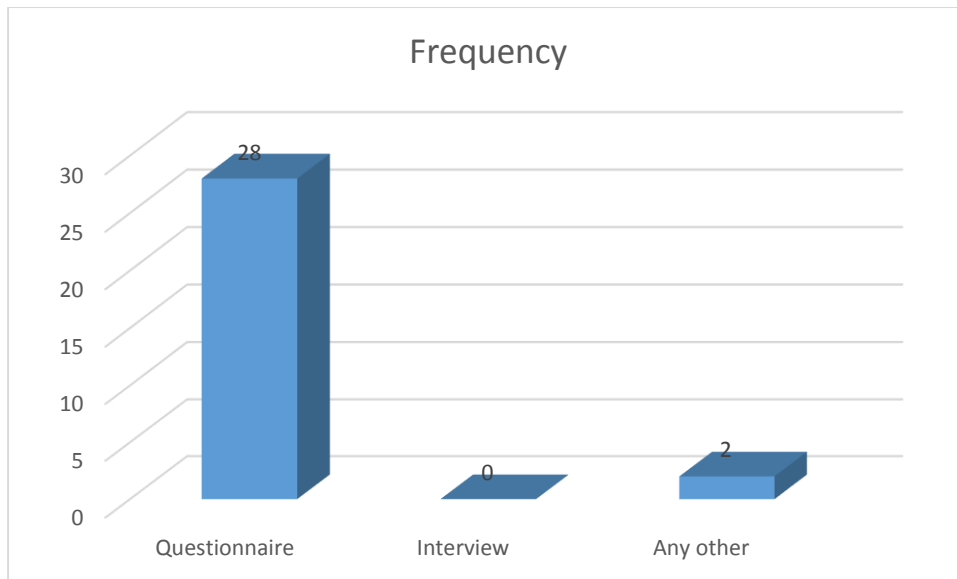


Figure 6.6.7: Mode used to get user feedback

Interpretation

93% of respondents says they use questionnaire method to get feedback from users.

8. Is users survey is essential

Table 6.6.8: Opinion about user's survey

Option	Frequency	Percentage
Yes	30	100%
No	0	0%
Total	30	100%

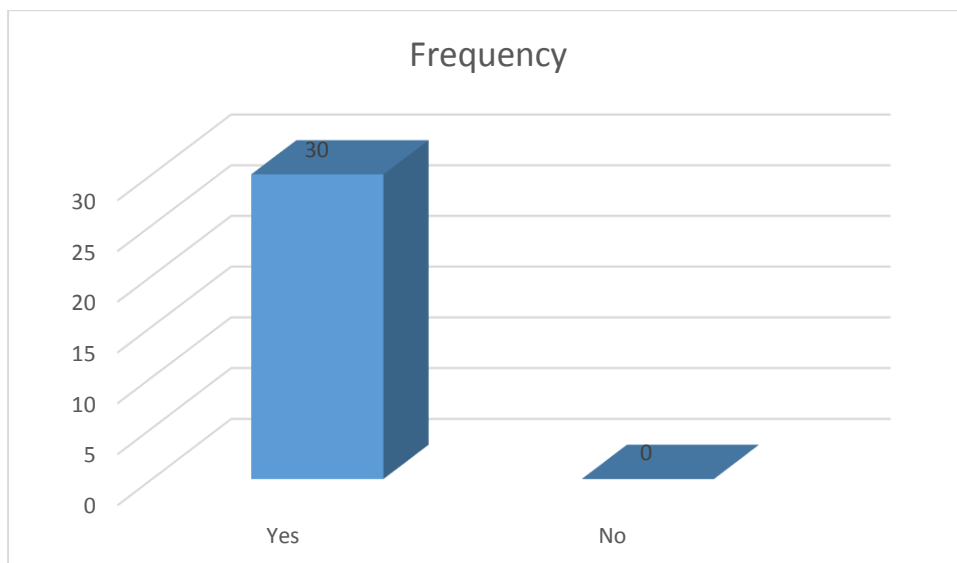


Figure 6.6.8: Opinion about user's survey

Interpretation

100% librarians says user survey is essential. In any system to improve the service user feedback is essential.

9. Users satisfaction with library infrastructure, activities, collection and services

Table 6.6.9: Users satisfaction with library infrastructure

Option	Frequency	Percentage
Automation	29	97%
RFID implementation	2	7%
Digitization	5	17%
Any other	2	7%

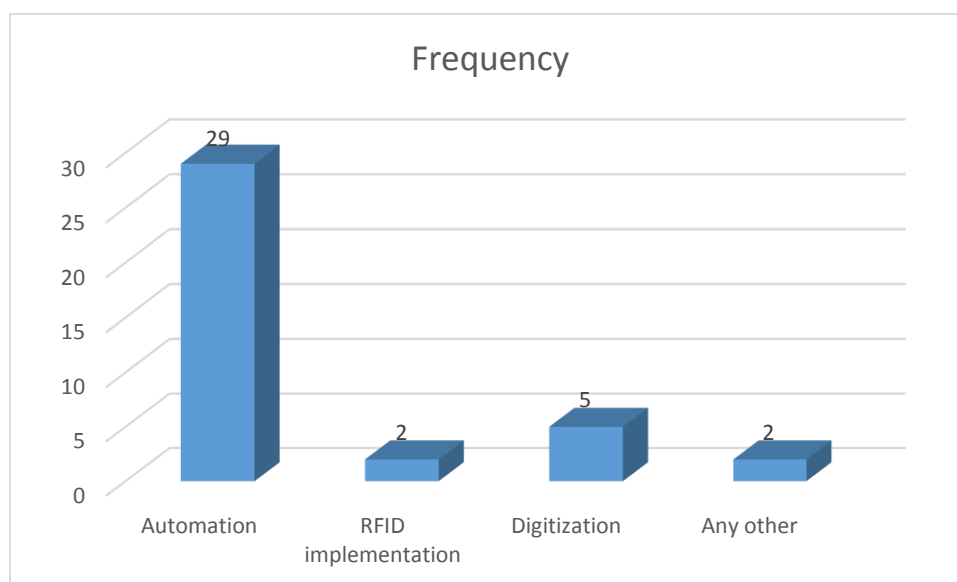


Figure 6.6.9: Users satisfaction with library infrastructure

Interpretation

83% responded their users are satisfied with available library infrastructure, activities collection and services but 7% are of the opinion that their users are not satisfied reason may be local institution level.

10. Are your library modernized (Pl tick whichever is applicable)

Table 6.6.10: Modernization of Library

Option	Frequency	Percentage
Yes	28	93%
No	2	7%
Total	30	100%

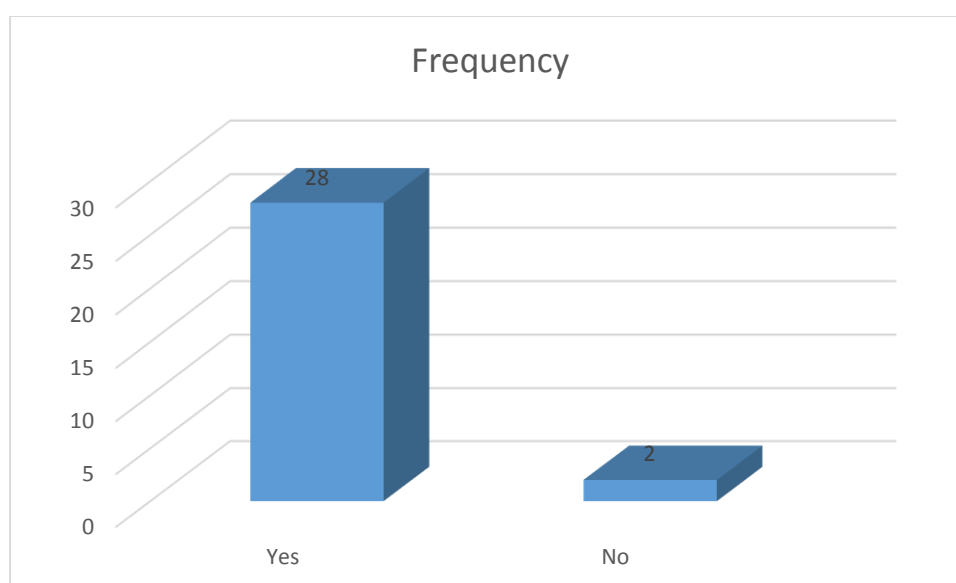


Figure 6.6.10: Modernization of Library

Interpretation

97% respondents say their library is automated. 17% of respondents are of the opinion that they have done digitation and 7% of the respondents says they implemented RFID in their libraries.

11. Practice of Inter Library Loan/Document Delivery Services

Table 6.6.11: Practicing interlibrary loan /Document delivery services

Option	Frequency	Percentage
Yes	30	100%
No	0	0%
Total	30	100%

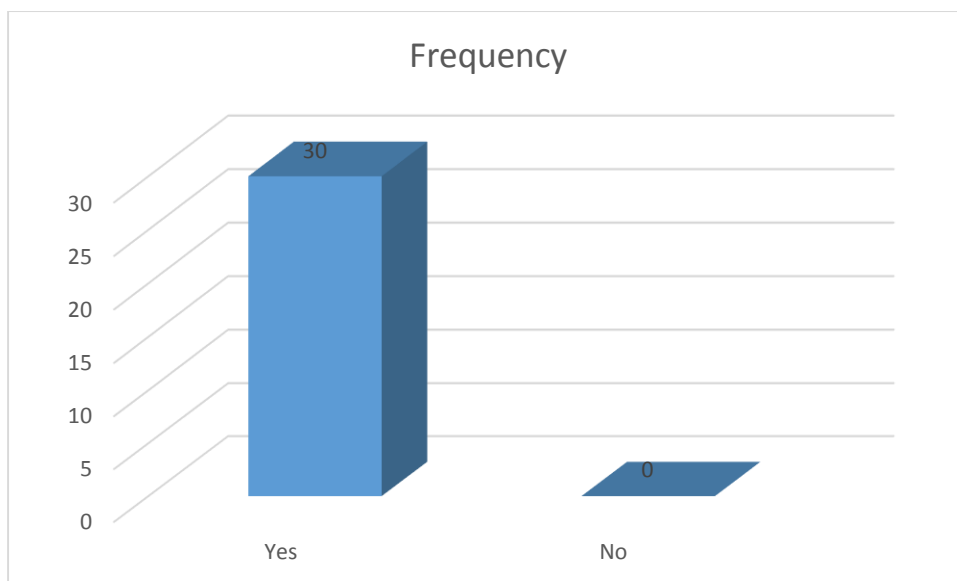


Figure 6.6.11: Practicing interlibrary loan /Document delivery services

Interpretation

100% librarians say yes for practicing inter library loan or documentation delivery services. To serve user efficiently one should practice effective ILL and DDS

12. Is your staff information literate?

Table 6.6.12: Staff knowledge about Information Literacy

Option	Frequency	Percentage
Yes	29	97%
No	1	3%
Total	30	100%

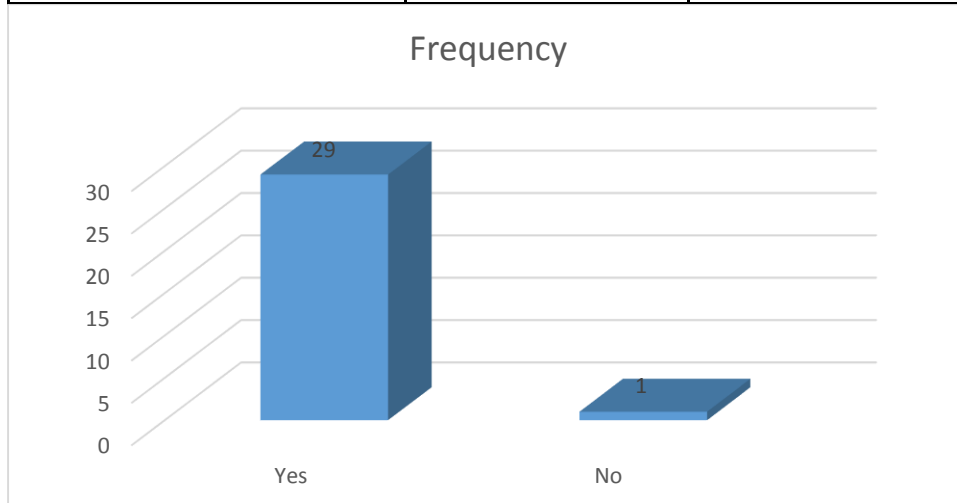


Figure 6.6.12: Staff knowledge about Information Literacy

Interpretation

97% of respondents says their staff are information literate only 3% says no to this statement. It is very much essential that library staff should information literate to guide their users at the time of need.

13. Open ended question

There is an open ended question for librarians to get their suggestions, their suggestions summarized as below:

- Information literacy is very important for young generation and is social cause.
- Information literacy is essential not only for students but for faculty also.
- Information literacy is important for library users and also it is most important in R&D institutions.
- The rapid development in ICT has brought a revolutionary change in the organization and management of information. All LIS professionals should follow in their respective library to create awareness and usage of library resources.
- To reach and increase awareness among users about library services information literacy is very essential. Information literacy is a tool by which we can reach our prospective users and able to increase the utilization of library and its services.
- Information literacy is the core job of librarian.

Summary of the chapter

Based on students survey it is observed that information literacy is must in academic institutions. It should be conducted more frequently by covering live e-resources portals with live example. Proactive cooperation of library staff is necessary while accessing databases. Librarians are of the opinion that information literacy is birth right of every citizens and in today's environment it is core job of library professional and should be well verse with emerging ICT application in the field of information to serve user community better.

CHAPTER 7

Findings, Suggestions and Conclusion

Present age is an age of information explosion, lot of information is available in many formats irrespective of geographical boundaries. Users have access to lot of information but it is very difficult for them to select the right and relevant source. It is very difficult for the users to retrieve the relevant information. Here information literacy programs plays a major role or solution which makes individual a lifelong learner. Information literacy programs teaches effective skills to retrieve the relevant required information from right sources.

In the present study efforts are made to understand awareness of information literacy program, searching skills, available ICT infrastructure in their library to cope information literacy programs, existing level of information literacy program and impact of information literacy program among students community of Management institution of Mumbai Metropolitan area and also opinion of librarians and information literacy stage at their respective institution.

7.1 Findings:

Students Survey

7.1.1 General Information:

It was found that out of 1500 respondents 920 respondents are male and 580 are female respondents and 732 respondents are from 1st year degree and 768 respondents are from 2nd year degree. Out of 1500 respondents, 1380 respondents are visiting library for some or other purposes and rest of 120 respondents are not visiting the library. It shows that 82% of the respondents are visiting the library and 8% were not visiting the library.

Out of total 1500 respondents only 1380 are visiting the library. Out of 1380 respondents 718 (52%) respondents visit the library for study purpose, and 276 (20%) of the respondents visit library for using database purpose. 235(17%) respondents visit library for newspaper reading purpose and 151 (11%) of the respondents visit library for the purpose of issue and return of books.

773(56%) respondents visit library daily. 304 (22%) of respondents visit library once in a week, 193 (14%) respondents visit library once in a month and 110(8%) of respondents visit library rarely.

It was found that 1063 (77%) respondents use books, 676 (49%) respondents use databases, 414 (30%) of respondents uses journals, 248 (18%) respondents use AV Materials and 97 (7%) respondents use projects in the library

414 (30%) of respondents like to use print form resources, 373 (27%) of respondents like to use digital form of resources and 43% (593) respondents like to use both print and digital form of resources.

In was found that 89% (1228) respondents are of the opinion that library staff help in locating required resources and rest 11% (152) respondents says No.

7.1.2 Information Literacy skills:

Out of 1500 respondents 89 % (1334) respondents are aware of subscribed databases at their institutions and rest 11% (166) respondents were not aware.

It is observed that 1079 (80%) respondents came to know about databases from faculty members, 588 (49%) from friends. 219 (16%) respondents come to know through IL Program and 66 (5%) respondents come to know through promotions. It is found from analysis that only 16% of respondents agree they come to know from IL programs, it shows lot of scope for IL programs in educational institutions.

It is found that e-books are most preferred database, 59% of respondents use e-books, 44% respondents use e-journals, 23% respondents use research databases and company databases.

Out of 1500 respondents 547 (36.5%) respondents are of opinion that they use databases once in a month. 396 (26.4%) respondents use once in a week. 280 (18.7%) respondents reveled that they are using daily, 111 (7.4%) respondents are of the opinion that they never used and 166 (11%) respondents were not responded.

907 (60.5%) respondents told most of the time they get exact information while searching. 237 (15.8%) respondents are of the opinion that rarely they get exact information. 113 (7.6%) respondents told every time they get the information while

searching, 77(5.1%) respondents revealed that they never get exact information while searching databases and 166 (11%) respondents were not responded. It is observed that only 7.6% of the respondents will know how use search in databases as they are getting exact information while searching in databases. It shows tremendous scope is there for information literacy programs in educational institutions.

It is observed that 619 (41.2%) respondents are of the opinion that library staff are knowledgeable and pro-actively assisting when they need a help, 469 (31.3%) respondents are of the opinion that library staff are knowledgeable but not helpful, 221 (14.8%) respondents said that library staff are having lack of technical knowledge, 25(1.7%) of respondents are of the opinion that library staff won't cooperate when help is required and 166 (11%) respondents not responded.

Result shows more than 50% of respondents are not satisfied with library staff with respect to their technical knowledge or behavior. This is wake up call for librarians, It is must for library professionals to well verse with latest technologies emerging in the field of library science. Practicing effective soft skills and pro-activeness is very important while serving the users.

7.1.3 ICT Infrastructure in Library:

1158 (77%) respondents says their library is automated and 342 (23%) respondents opted for No.

77 % (1149) respondents are of the opinion that OPAC facility is available in their library and 23% (351) respondents say No.

1229 (82%) respondents are of the opinion that they have facilities in their library to access e-resources and 18% (271) say no as they don't have the facilities to access e resources in their library. It is observed that most of the libraries are equipped with IT infrastructure & computers for accessing e- resources and large number of respondents i.e. 81% (1209) says they have Wi-Fi facility available in their library and 19% (291) opted for no Wi-Fi facility is available.

For seamless access to databases, more than 50% of respondents i.e. 63% (944) says they find difficult in accessing databases due to off campus access problem as they can access only when they are in the campus. 381 (25%) respondents says connectivity

issue. 8% (124) respondents are of the opinion that Connection speed is hurdle for accessing databases and 51 (4%) respondents says problem with user limitations. Major issue is off campus availability, to overcome this library professionals think of alternate solutions like remote access platforms.

For ICT available ICT infrastructure in their library with multiple choice, 98% (1451) respondents says that they are having computers in library. 81 % (1219) respondents says that they have Xerox or Scan or Printer facility in their library. About 48% (718) respondents reveled that their libraries using barcode technology for library operation. 32% (488) says that their libraries have broad band connection. 281 (19%) reveled their library equipped with CCTV. 10% 9156) reveled their libraries are smart libraries with RFID or Security gates. Only 1% (18) respondents says they have e book reader in their library.

7.1.4 Existing state of Information Literacy Program:

63% (938) respondents are of the opinion that their college libraries conduct information literacy programs or Library orientation program and 562 (37%) respondents reveled that their libraries won't conduct any information literacy programs.

29% (432) respondents reveled that duration of literacy program is not sufficient. 277 (18.5%) respondents says sufficient. 9% (132) respondents are of the opinion that it is time consuming, around 6.5% (97) respondents says they don't have any idea and 562 (37%) respondents were not responded.

43% (639) respondents say their institution use class room orientation method for information literacy programs. 19% (282) respondents reveled their institution use mass orientation method. 1% (17) says use online tutorials for information literacy program, surprisingly nobody opted for E learning method for information literacy program and 562 (37%) respondents were not responded.

557 (37%) respondents said they received brochure in information literacy session. 21% (314) says Information Literacy program done through PPT. 67(5%) respondents reveled information literacy program done through live web pages ,nobody opted for None and 562 (37%) respondents were not responded.

427 (28.5%) respondents revealed that their librarians use PPT method for information literacy program. 340 (22.5%) respondents says librarians use Library brochure for information literacy program. 8% (114) respondents says library tour is method for IL program, 57 (4%) respondents' revealed librarians uses live database portals for information literacy program and 562 (37%) respondents were not responded. It is observed only 4% respondents responded that their libraries use live database portals for literacy programs, library professionals should understand the moto of literacy programs and try to conduct IL programs by using database live portals, which will be more benefited for users.

30.5% (458) respondents are of the opinion that main focus of information literacy program is explaining library catalogue. 239 (16%) respondents says Library information is main focus. 14.5% (213) respondents says How to search databases is main focus of the information literacy program, 2% (28) says internet search is the main focus and 562 (37%) respondents were not responded. Creating awareness among user community is necessary, it is observed that only 15% of respondents are of the opinion that in literacy programs they need training on how to use databases.

It is clear from the data, respondents are indicating to focus on library catalogue, rules & regulations and step by step details of database search in information literacy program

While delivering IL programs, 36% (539) respondents says that the Power Point is used in delivering information literacy program. 358 (24%) respondents says that the verbal method will be followed in delivering information literacy program. 2 % (28) respondents say other, 1% (13) respondents are of the opinion that an Audio-visual method is used in delivering information literacy program and 562 (37%) respondents not responded. Along with live portals using PPT and Audio visuals in IL programs will generate interest among users in attending IL programs.

41% (617) respondents are agreed that internet plays a vital role in designing effective literacy program. 178 (12%) are neutral. 5% (78) respondents strongly agree as internet plays vital role in effective information literacy program. 3% (38) respondents are disagree, 2% (27) say don't know and 562 (37%) respondents not were responded. Result shows around 50% respondents are clear of Information Literacy concept, who agreed and strongly agreed for Internet's role in IL programs.

It is observed that, 433 (29%) respondents agreed that Information Literacy programs / sessions are easy to understand. 22% (317) respondents are neutral. 7% (112) respondents are strongly agree. 3% (47) respondents are disagree, 2% (29) respondents say don't know and 562 (37%) respondents not responded. Library professionals should take care while designing information literacy programs, content should be simple and easy to understand.

7.1.5 Impact of Information Literacy Program:

While checking impact of IL program, 29% (439) respondents agree that after attending information literacy program they are able to use library resources effectively. 322 (22%) respondents are neutral on this. 12% (177) respondents strongly agrees and no takers for options Disagree and don't know and 562 (37%) respondents were not responded.

Result shows 42% respondents agree and strongly agree to this statement. Which shows the how much important is information literacy programs in academic institutions.

It is observed that for accessing e-journals, 719 (48%) respondents says they use ProQuest Central. 7% (103) respondents says they use CMIE Prowess. 5% (73) respondents are of the opinion that they use Indiatat ,3% (43) respondents says they use e-brary to refer e journal database and 562 (37%) respondents were not responded. The impact of IL programs clearly shows that 48% users use ProQuest for accessing e journals.

It is observed that for searching books in library online, 56% (839) respondents says they use OPAC. 5% (67) respondents says they use Internet, 2% (32) respondents says that they use Databases and 562 (37%) respondents were not responded. Results shows how IL programs helping users to identify correct sources.

To check their searching skills in OPAC, to find all the books authored by Kotler in the library catalogue which of the option they use, 35% (521) respondents says they use option By Author. 13% (194) respondents use option By Subject. 9% (127) respondents says option By Title, 6% (96) respondents says they use the option By Publisher and 562 (37%) respondents were not responded.

For the word “Globalization”, in OPAC if no documents found that means, 32 %(484) respondents says “Library doesn’t have any documents on this topic”. 17% (253) respondents are of the opinion that “Not used right keyword”. 8% (117) respondents says “All documents on this topic are already checked out” ,6% (84) respondents says OPAC is down and 562 (37%) respondents were not responded.

To read a article Marketing Strategy authored by Kotler, to check the availability of this this article in library, search engine used is, 30% (442) respondents says they use “Author & Title option. 16% (239) respondents says they use option “Title”. 184 (12%) says they use “Author” option ,5% (73) respondents say “Don’t know” and 562 (37%) respondents were not responded. It is observed that users skills had improved after attending the IL programs as 30% of respondents are correct.

34% (514) respondents says they consult Books first, in order to become familiar with a subject which they know little. 13% (198) respondents says that they consult Encyclopedia first. 9% (123) respondents says they consultant Journals first , 7% (103) respondents says they consult Databases first to know more on particular subject and 562 (37%) respondents were not responded. Being Encyclopedia is right answer, 13% respondents are correct.

Items that can be found in Library OPAC includes, 36% (547) respondents says “List of titles available in the library”. 16% (234) respondents says “List of titles available in the market”, 11% (157) respondents says “List of Journals published” and 562 (37%) respondents were not responded. It is observed that 36% respondents are correct.

28% (413) respondents says they consultant “Journal”, to find out most recent information on any topic. 24% (369) respondents says they consultant “Books”. 10% (146) respondents says they consultant “Encyclopedia”, 1% (10) respondents say they consultant “Dictionary” and 562 (37%) respondents were not responded. Journals contains recent information.

7.1.6 Information Literacy Model:

51% (753) respondents says that they agrees that e-resources are need of the hour. 23% (347) respondents strongly agrees. 20% (306) respondents are Neutral. 5% (73)

respondents Disagrees and 1% (21) respondents says don't know. It is observed that 74% respondents are aware of e-resources.

50% (739) respondents agree that information literacy program should be part of syllabus. 27% (410) respondents says they "Strongly agree". 18% (265) respondents Natural. 3% (52) respondents disagree and 2% (34) respondents says don't know. It is observed that 77% of respondents are of the opinion that information literacy program should be part of their curriculum.

49% (739) respondents says frequency of IL programs will be monthly. 11 % (157) respondents says weekly. 10% (143) respondents says six monthly, 110 (7%) says Fortnightly and 351 (23%) respondents were not responded.

41% (617) respondents are of the opinion that, IL programs should be handled by Librarian. 28% (423) respondents are of the opinion that it should be under Faculty. 6% (84) respondents says it should be under the Computer department, 2% (25) respondents says any other and 351(23%) respondents were not responded. It is observed that 41% of respondents believe that library professionals will effectively execute information literacy programs.

55% (814) respondents says, information literacy programs will be concentrate more on live e-resources portals. 10% (147) respondents says other library collections (Like books, Journals etc.). 9% (137) respondents says Library rules/regulations, 3% (51) respondents says Library infrastructure and 351 (23%) respondents were not responded.

Librarian's Survey:

Out of 30 respondents 100% respondents say yes that their library subscribing to e-resources

Out of 30 respondents 100% respondents say yes that their users are aware of subscribed e-resources, when researcher ask same question to students nearly 90% of students say yes, they are aware of subscribed e resources. It is good indication that library professionals efforts not going waste. They are able to create awareness of subscribed e-resources among user community through various methods.

To create awareness of subscribed e-resources among users community 97% librarians say they conduct orientation program, 23% of the librarians says through Library

brochure also they create awareness among user community, 13% are of the opinion that through database flex also they create awareness and 10% are of the opinion that mailers also contribute in creating awareness.

100% librarians says they conduct literacy programs for their users, however when we ask same question to the students 63% agree that their libraries conduct information literacy programs. This difference may be of several reasons mainly lack of interaction among both, intimation to the program may not properly propagated etc.

50% of the librarians are of the opinion that they conduct the literacy programs on need based. 33% say they conduct once in a year, 10% says monthly they will conduct and 7% says half yearly. For the same question 64% students says that the literacy programs should be conducted monthly. Frequency of the literacy program should be decided consulting with higher authorities.

90% librarians responded that they use PPT with live database portals to deliver awareness programs, 7% use PPT of library for delivering awareness programs and 3% are of the opinion that library tour. It is found that 90% are using PPT with live database portals, it is very much encouraging, along with this if they practice library tour will definitely benefit the students where they come to know different sections of library, arrangement of books, facilities and services and staff members etc.

100% librarians says user survey is essential. In any system to improve the service user feedback is essential.

83% responded their users are satisfied with available library infrastructure, activities collection and services but 7% are of the opinion that their users are not satisfied reason may be local institution level.

97% respondents say that their library is automated. 17% of respondents are of the opinion that they have done digitation and 7% of the respondents says they implemented RFID in their libraries.

100% librarians say yes for practicing inter library loan or documentation delivery services. To serve user efficiently one should practice effective ILL and DDS

97% of respondents says that their staff members are information literate only 3% says no to this statement. It is very much essential that library staff should information literate to guide their users at the time of need.

There is an open ended question for librarians to get their suggestions are summarized as below:

- Information literacy is very important for young generation and is social cause.
- Information literacy is essential not only for students but for faculty also.
- Information literacy is important for library users and also it is most important in R&D institutions.
- The rapid development in ICT has brought a revolutionary change in the organization and management of information. All LIS professionals should follow in their respective library to create awareness and usage of library resources.
- To reach and increase awareness among users about library services information literacy is very essential. Information literacy is a tool by which we can reach our prospective users and able to increase the utilization of library and its services.
- Information literacy is the core job of librarian.

It is based on students survey it is observed that information literacy is mandatory in academic institutions. It should be conducted more frequently by covering live e-resources portals with live example. Proactive cooperation of library staff is necessary while accessing databases. Librarians are of the opinion that information literacy is birth right of every citizens and in today's environment it is core job of library professional and should be well verse with emerging ICT application in the field of information to serve user community better.

7.2 Testing of Hypothesis:

Hypothesis1: Information Literacy Program (ILP) improves the usage of library resources

With the help of ILP we can improve usage (utilization) of library resources

Interpretation of Results: Regression analysis proved the relationship of ILP features and awareness level of students regarding library resource. And by correlation analysis we proved the relationship of this awareness level of students and utilization of library resources.

Conclusion: ILP features improves awareness and that in-turn improves utilization of library resources. Hence it proves our Hypothesis1 - Information Literacy Program (ILP) improves the usage of library resources.

To test this hypothesis logic used in this study is as follows

This objective was analyzed based on Resource Based View, where resources are deployed in process to improve skills and this in turn improve the performance in terms of utilization.

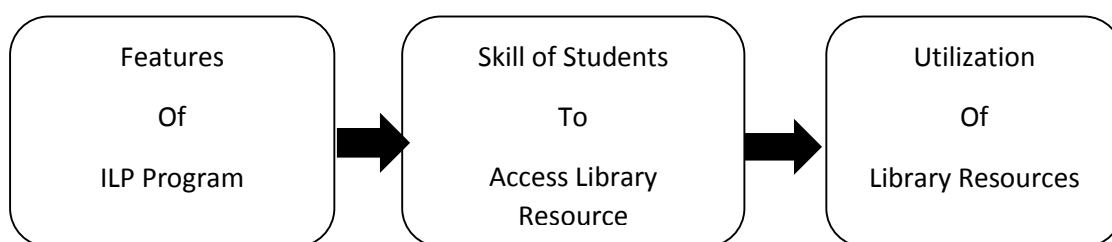


Figure 7.1: Resource based view

Skill of Students was measured based on the test question included in questionnaire. For this QAW variable was computed based no correct answer given by respondent for Q23 to Q30.

Findings:

Test of Normality – Tested Skill (QAW):

Descriptive statistics and histogram is shown below for checking normality (pre-requisite for Regression Analysis).

Table 7.1: Test of normality

Descriptive

	Statistic	Std. Error
QAW Mean	47.58	.572
Std. Deviation	22.157	
Skewness	.238	.063
Kurtosis	-.605	.126

Since Skewness and Kurtosis is within -1 to 1 also Histogram is near to normal distribution curve hence Skill as measured by tested skills score (QAW), based on Q23 to Q30, can be considered as normally distributed.

Relationship of between ILP Program Features and Tested Skill:

For this relationship testing ILP characteristics such as: duration, methods, instruction material, focus area and mode of delivery were considered as independent variable and QAW as dependent variable.

Table 7.2: Relationship of between ILP Program Features and Tested Skill ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	123666.479	19	6508.762	15.733	.000 ^a
	Residual	612260.604	1480	413.690		
	Total	735927.083	1499			

a. Predictors: (Constant), Q1903, Q1601, Q1603, Q1504, Q1503, Q1902, Q1703, Q1704, Q1804, Q1501, Q1803, Q1702, Q1901, Q1802, Q1401, Q1801, Q1602, Q1701, Q1502

b. Dependent Variable: QAW

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	123666.479	19	6508.762	15.733	.000 ^a
	Residual	612260.604	1480	413.690		
	Total	735927.083	1499			

a. Predictors: (Constant), Q1903, Q1601, Q1603, Q1504, Q1503, Q1902, Q1703, Q1704, Q1804, Q1501, Q1803, Q1702, Q1901, Q1802, Q1401, Q1801, Q1602, Q1701, Q1502

Model Summary

Table 7.3: Model Summery

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
1	.410 ^a	.168	.157		20.339

a. Predictors: (Constant), Q1903, Q1601, Q1603, Q1504, Q1503, Q1902, Q1703, Q1704, Q1804, Q1501, Q1803, Q1702, Q1901, Q1802, Q1401, Q1801, Q1602, Q1701 Q1502

ANOVA table indicates model fit as significant and model summary gives values of adjusted R as 0.157. However not all variable came out as having significant impact on QAW. Parameter covered in questions Q1401, Q1504, Q1602, Q1603, Q1702, Q1801, Q1802, Q1803, Q1901 and Q1903 were indicated in this analysis as having significant impact on QAW.

Table 7.4: Coefficients

Coefficients

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	40.955	.822		49.815	.000
	Q1401	-3.612	1.577	-.081	-2.290	.022
	Q1501	.199	2.141	.004	.093	.926
	Q1502	-.661	2.189	-.015	-.302	.763
	Q1503	-3.314	2.778	-.035	-1.193	.233
	Q1504	-8.851	3.674	-.067	-2.409	.016
	Q1601	-3.521	1.925	-.069	-1.829	.068
	Q1602	-7.222	1.929	-.156	-3.744	.000
	Q1603	-5.843	2.171	-.082	-2.692	.007
	Q1701	.861	1.997	.019	.431	.666
	Q1702	8.756	1.985	.156	4.412	.000
	Q1703	-1.905	2.041	-.027	-.933	.351
	Q1704	2.262	2.001	.034	1.131	.258
	Q1801	12.530	1.745	.278	7.179	.000
	Q1802	11.312	1.768	.209	6.396	.000
	Q1803	6.937	1.659	.126	4.181	.000
	Q1804	2.348	1.983	.033	1.184	.237
	Q1901	4.166	1.736	.083	2.399	.017
	Q1902	-3.050	1.785	-.053	-1.708	.088
	Q1903	3.936	1.808	.080	2.177	.030

Now for testing second part of above framework, correlation analysis was run between QAW and using library resource effectively (Q22). Result is shown in table below.

Table 7.5: Correlations

	Q22
QAW Pearson Correlation	.128**
Sig. (2-tailed)	.000
N	1500

** . Correlation is significant at the 0.01 level (2-tailed).

Conclusion:

Correlation is 0.128 with significant level of 0.01.

Hence both these analysis together can be considered in support of Hypothesis that ILP does improves the usage of library usage. Hence it proves our Hypothesis1 - Information Literacy Program (ILP) improves the usage of library resources.

From these analysis we have identified six parameters (Q1702 (Library tour), Q1801 (Library information), Q1802 (Library catalogue), Q1803 (Database search), Q1901 (Audio-visual) and Q1903 (Power point)) which has significant impact on student's skills for using library resources. These parameters were further grouped in three categories namely: Inclusion of ILP, Focus Area of ILP and Mode of Delivery in ILP. Based on this researcher proposed literacy model for academic institutions as below.

Proposed Model for Information Literacy Program:

Based on regression analysis and correlation formal information literacy model is proposed.

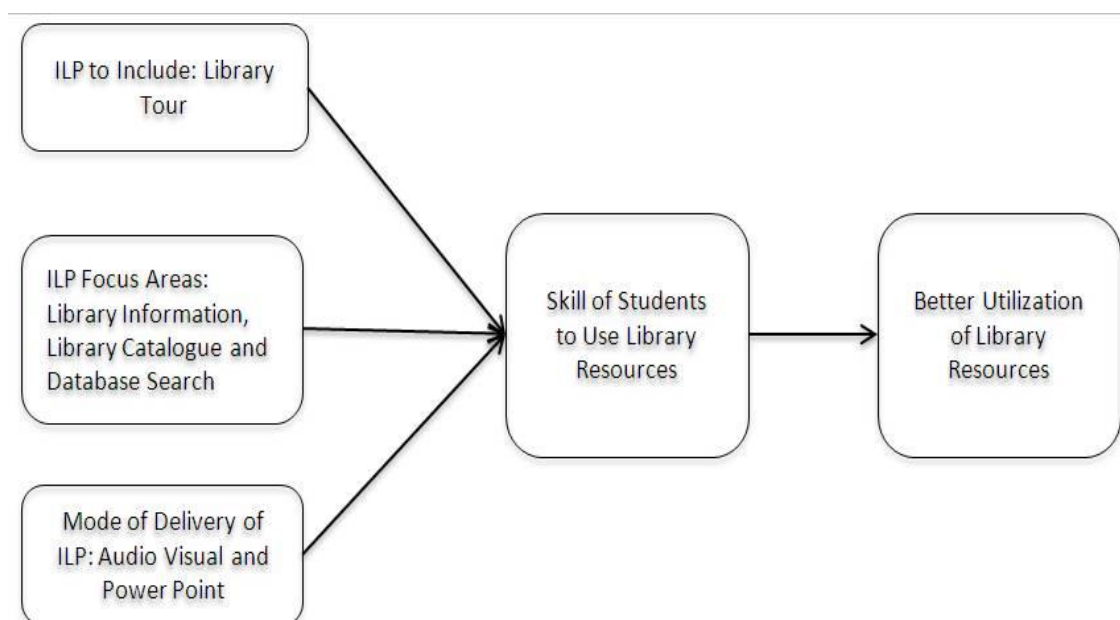


Figure 7.2: Model information literacy program

Based on data analysis researcher proposed above model for effective information literacy programs for management institutions. This model will be useful for any streams of education.

It is observed for better utilization of library resources and to get return on investment, it is very much necessary or important to improve the information retrieval skills of students. From the students feedback we observed that there are three parameters have clear impact on improving student's information retrieval skills.

- Inclusion of information literacy program,
- Focus area of information literacy program and
- Mode of delivery

Inclusion of Information Literacy Program:

As per the survey 77% respondents are of the opinion that information literacy should be part of their syllabus. Before starting information literacy program, students are of opinion that firstly they want library tour. They want to see library physically, its services, collections etc. Library tour definitely make users better aware of all the section of library, library staff, variety of collection etc. Role of library staff is also very important, one should be proactive, informative and should be always helpful. If he or she is reserved then for users it is very difficult to interact with them. This they come to know only when they visit library personally. Library tour one of the important parameter in improving retrieval skills of students.

Focus area of Information Literacy Program:

The 21st century is called as age of information, users are very much demanding. From the study students made it clear that in the information literacy program 1st they need to know library information i.e. Library rules & regulations, facilities, verity of collection, different sections of library, about library software, administrative points of library etc. They need to know about on line library catalogue (Online Public Access Catalogue), the method of searching books by author, by title or by keyword. They want to see their account details online like how many books issued and when they are due. How to send recommendations online etc. Lastly and very important is Database search, they expect database training form live database portals so that they can test databases live or sink with the information literacy programs. Focus area of information literacy plays a very important role in improving skills of students.

Mode of Delivery:

In today's technological world students prefer Audio-Visual and Power Point method then lecture method to delivery information literacy programs. Audio visual method keep students live and concentrate on the delivery. Our data also clearly shows students prefer audio visual and power point method to deliver information literacy program and while surveying most of the respondents opinion is that information literacy should be under library professionals.

All these three parameters definitely improves retrieval skills of students, if skills are improved, definitely utilization of library resource will increase, which will justify return on investment.

Hypothesis 2 -Information literacy enhance the qualities of research among management students.

Research oriented students have more awareness then normal students because of ILP

Interpretation of Results: Awareness scores of research group was considerably higher than normal group based on ANOVA test.

Conclusion: ILP enhances awareness and this in-turn will help to improves research quality among management students. Hence it proves our Hypothesis 2 - Information literacy enhance the qualities of research among management students.

To test this hypothesis logic used in this study is as follows

**Information Literacy Program → Awareness → Usage of Library Resources
(Purpose: General and Research)**

Based on this logic we have considered two groups with respect to purpose of usage of library resources:

- a. Normal Group (NG): Students interested in normal management education programs
- b. Research Group (RG): Students interested in research in management.

These two group's awareness test score is summarised in Table-7.6 below. Score indicates that NG has relatively lower score in this test as compared to RG. Which is visible in Box Plot given in Figure-7.3.

Descriptive			
Table 7.6: Descriptive			
Group		Statistic	Std. Error
NG	Mean	50.9375	1.95226
	Std. Deviation	21.38597	
	Minimum	12.50	
	Maximum	87.50	
RG	Mean	63.9344	2.44646
	Std. Deviation	19.10748	
	Minimum	25.00	
	Maximum	100.00	

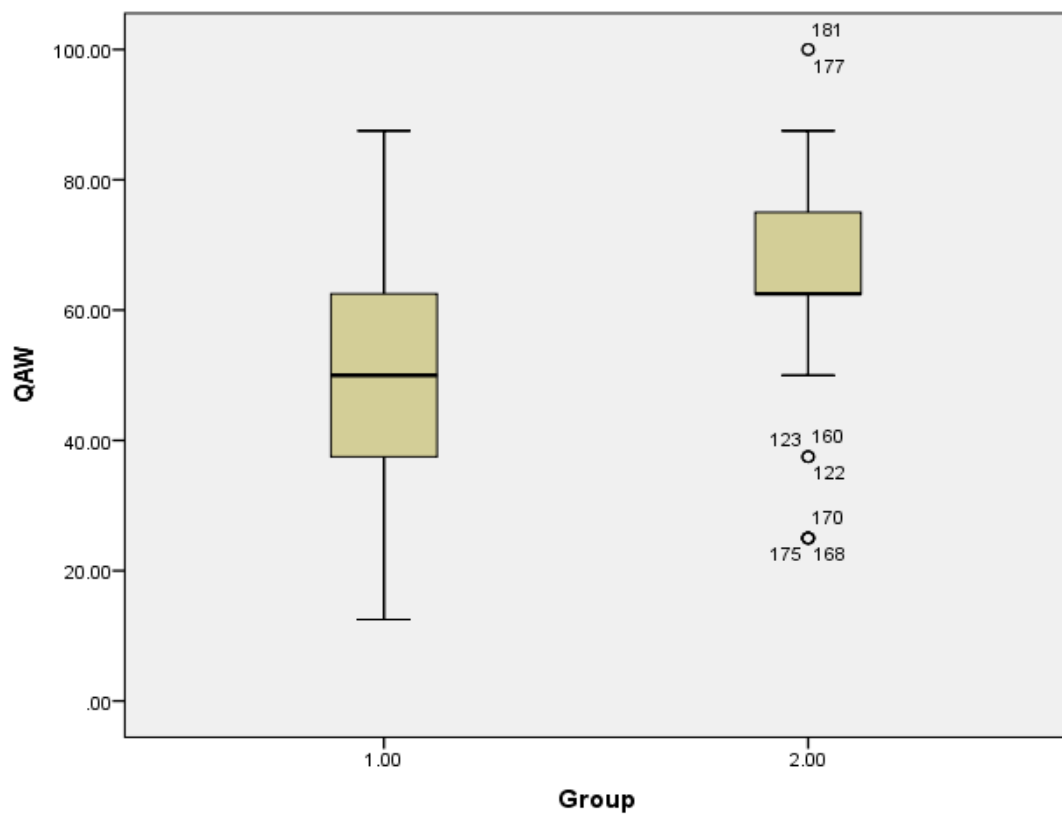


Figure 7.3: Box plot

However to conclude statistically that RG has relatively higher score in awareness test, in this study ANOVA was conducted. Result of ANOVA is given in Table-7.7 below.

ANOVA

QAW

Table 7.7: ANOVA test

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6831.464	1	6831.464	16.020	.000
Within Groups	76331.519	179	426.433		
Total	83162.983	180			

ANOVA test indicated that the significant value is less than 0.05. That means both these group are significantly differ w.r.t awareness score of test related to information.

Conclusion:

Based on this test and average scores of these groups, hypothesis that ILP enhances research among management students is supported. Because ILP helps to the students who are research oriented more as compared to normal students. Hence it proves our Hypothesis 2 - Information literacy enhance the qualities of research among management students

7.3 Suggestions:

The information literacy is compulsory for students'/ users of any discipline. It should be a part of their curriculum and institute library professionals will be responsible for proper revision of curriculum and promotion on the campus. Faculty and Library professionals cooperation is must to implement effective Information literacy in institution in following manner.

a) Proper feedback mechanism or evaluation of information literacy of students should be implemented:

Feedback is one of the most powerful influences on learning and achievement, it may be positive or negative impact. Feedback is defined as information provided by students or users regarding aspects of one's performance or understanding. Feedback role is very important to improve the services in any field.

In information literacy program, on defined interval, we should implement feedback mechanism from users. It should be analyzed carefully and incorporate their feedback in information literacy program to improve the quality of program and to meet users needs.

b) Pro-actively library professional should involve in institute activities:

Proactive involvement of library professionals in institution activities very important. By doing this one should in lime light and every one recognize. This recognition is required when we are handling literacy programs. One's popularity attracts more users to attend the literacy programs.

c) Authority's bodies should think of incorporating information literacy in all levels of education. Starting from school level:

Government authority bodies like UGC, AICTE, DTE, SSC, CBSE, and ICSE etc. should discuss with information literacy experts, understand the value of literacy programs and incorporate the same in all level of education starting from school education to higher education.

d) The Government should take keen interest in framing guidelines and policies and standards at national level and establish dedicated

accreditation body to monitor information literacy programs in educational institutions. It should be like birth right of every citizen:

Information literacy should be made as birth right of every citizen or it should be made compulsory like birth certificate. This is possible only with intervene of government. A separate national level body is required in framing acts, guidelines, standards and policies on information literacy. A dedicated accreditation body is required to monitor information literacy activities in all educational institutions to rank the institutions or to give approvals.

e) Dedicated Accreditation body should be responsible for information literacy curriculum and revision of the curriculum at regular intervals:

Curriculum revision on regular intervals is necessary to improve the quality of education. To improve the information literacy programs, literacy program curriculum should be revised on regular basis to incorporate emerging advanced techniques and content in literacy programs. If dedicated accreditation body is there it should effectively handle this task.

f) International, National and regional levels Conferences, Seminars should be conducted to promote information literacy:

International, National, regional level conferences, seminars and workshops should be organized across the country to promote and create awareness about information literacy among user community.

g) Dedicated Information literacy portals may be developed, may be useful in resource sharing among institution also:

Dedicated detailed information literacy portals may be developed by all the institutions on public domain, where they are listing their collection development and services. Whoever visit the site should come to know about institution's services and collection. Definitely this will help in promoting resource sharing among institution on mutual understanding basis.

h) At all level of education, systemic evaluation of information literacy skills should be undertaken:

To improve the level of information literacy programs at all levels of education, systematic evaluation of curriculum and literacy skills should be undertaken. Quality of demonstration should be studied carefully to popularize the literacy programs. Education accreditation bodies like UGC, AICTE, SSC, and CBSE etc. should made compulsory information literacy subject as part of the curriculum starting from school education to higher level.

i) Information Literacy Program Curriculum should be revised on regular basis:

Researcher strongly recommends revision of literacy curriculum on regular intervals to incorporate emerging advance technologies and content in the literacy curriculum. So that curriculum should be updated.

j) Information Literacy Program Curriculum should be simple clear and easy to understand:

Curriculum should be made very simple and clear so that it should be easy to understand, if the curriculum is not simple it is very difficult for students to digest and they may lose their interest in information literacy programs.

k) Students should have one paper on Information literacy in all streams of education:

To create seriousness among student community on information literacy, there should be a separate subject on information literacy in the education system. While promoting to next level, should see to it they successfully completed in that subject. This will definitely create seriousness with respect to information literacy in the institutions.

l) Student's Assessment /Evaluation on information literacy will be done on regular basis:

Institution should conduct on regular basis examination on information literacy subject along with other subjects. Successful completion of information literacy subject should made compulsory to promote next level.

m) Library Science schools should give more stress on Information Literacy in their curriculum:

Library Science schools introduce one more subject of information literacy along with classification, cataloguing etc. Library Science students should be trained effectively during their course. More stress should be given on student's delivery qualities because today's Library & Information Science outcomes are very poor in communication and delivery then how they will conduct literacy programs.

n) Budding librarians should be properly trained to deliver effective information literacy program:

Budding librarians should be trained properly on delivery skills because they have to handle the sessions. If the delivery is not effective concept of information literacy in that institution is utter failure and nobody will attend the sessions because till today attending information literacy programs are not compulsory in most of the institutions.

o) Student's feedback will be taken on regularly to improve IL Programs:

Feedback is important to improve the services. On Information literacy program students feedback should be taken regularly and one should act on the feedback immediately, incorporate the feedback findings to improve the quality of literacy program.

p) Information literacy brochure as an aid to Information literacy program may be prepared for future use:

Handouts or literacy brochures may be prepared for users future use as ready reckoner on information Literacy program.

q) Dedicated webpage may be maintained on Information literacy for future use:

In this 21st century technological society, technology is part of every walks of life and learning. Suggest developing dedicated information literacy portal of the institution, may be referred when ever need arises.

r) Need a committee at national level to monitor information literacy moment in the country:

Lot of activities across the country on information literacy is going on in the form of seminars, conferences, workshops etc. Dedicated national level body is required to

monitor information literacy moment across the country. Researcher strongly suggest dedicated government authority body or commission to regulate or promote information literacy programs in education system across the country.

s) Introduce a short term specialized course on Information literacy to generate more carrier options:

Institution or university should introduce a short term specialized courses on information literacy, delivery skills to promote information literacy subject. Definitely it will help in generating more carrier options to the society.

Promote research on Information Literacy:

To grow any subject research is very much important in that subject. Institutions should promote research on information literacy subject. Researcher may be paid stipend to do research on this subject.

Present study 'Information Literacy of Management Students of Mumbai Metropolitan are'. Similar type of study may be conducted in all streams, colleges and at university level.

7.4 Conclusion:

Management education plays a very important role in the growth of society in today's business environment, where in the 21st century everything changes so fast that it is very difficult for organizations to cope up with growing competition. This led to the need of Management education to create young competent and dynamic managers to face the challenges. These management institutions should work with growing industry to produce quality and relevant young managers.

Information Literacy, it is a skill required to find retrieve analyze and use of information. For information age it is a key competency. Information literacy and information access is every individual's fundamental right. Today in this technology society ICT has made tremendous impact on library and information centers. Drastically changed the way for collection, storage, processing and retrieval of data or information and helping library staff to perform their tasks effectively and accurately.

The research shows respondents were aware of subscribed databases in the institution but very few of them know the skills how to use them effectively. Information literacy skills are required to everyone to find, retrieve, analyze and use the information effectively. These skills are directly linked with lifelong learning and critical thinking. The research shows only 8% respondents are of the opinion that they get exact information while searching. These skills inadequacy is of many reasons. Now it is high time for library professionals to have ownership of information literacy section otherwise somebody may overpower this.

We conclude that Information Literacy is need of the hour. Now it is high time for Library Professionals, we should show our existence otherwise teachers will step into our field. Definitely it should be a part of education system irrespective of levels. Library professionals should lead the emerging subject. Every year libraries are spending large amount of money in subscribing e resources. Regular informative literacy programs definitely helps in getting better ROI.

Today most of management libraries well equipped with ICT infrastructure that can take care of effective information literacy programs. Effective curriculum and regular sessions will definitely make students to information literate and make them effective managers of the future and helps the society to make information literate society.

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Appendix 1

List of Management institutions in Mumbai

Sr.No	Institute Name	Year of Establishment
1	Aditya Institute of Management Studies and Research, Mumbai (AIMSR), Borivali West, Mumbai	2012
2	Aegis Global Academy (IIM, Indore Program), Mumbai, Kurla West, Mumbai	2010
3	Agnel Charities Agnel Seva Sangha's Fr. C. Rodrigues Inst. of Management. Studies, Vashi, Navi Mumbai	2001
4	ahlot Institute of Management Studies and Research, Navi Mumbai	2007
5	Alkesh Dinesh Mody Institute for Financial & Management Studies, Kalina, Mumbai	2003
6	Amity Global Business School, Mumbai (AGBS Mumbai), Malad West, Mumbai	2008
7	Amity University, Mumbai, Panvel, Mumbai	2014
8	Anjuman-I-Islams Allana Institute of Management Studies (AIAIMS), CST, Mumbai	1999
9	ASM's Institute of Management & Computer Studies, IMCOST, Thane West, Thane	1983
10	Atharva Institute of Management Studies, Malad West, Mumbai	2003
11	Athena School of Management, Powai, Mumbai	2012
12	Babasaheb Gawde Institute of Management Sciences (BGIMS), Mumbai Central, Mumbai	1998
13	Bharati Vidyapeeth's Institute of Management Studies & Research, Navi Mumbai	1984
14	Bunts Sangha's Uma Krishna Shetty Institute of Management Studies & Research, Kurla East, Mumbai	2012
15	Chanakya Institute of Management Studies & Research, Andheri West, Mumbai	2012
16	Changu Kana Thakur Institute of Management Studies and Research, Navi Mumbai	2008
17	Chetana's Institute of Management and Research (CIMR), Bandra East, Mumbai	2008

18	Chetana's Ramprasad Khandelwal Institute of Management & Research (CRIKMR), Bandra East, Mumbai	1981
19	D Y Patil University School of Management (DYPUSM), Navi Mumbai	2004
20	Dilkap Research Centre and Institute of Management Studies, Karjat, Mumbai	2009
21	Dr. G.D. Pol Foundation's YMT College of Management, Navi Mumbai	2006
22	Dr. V. N. Bedekar Institute of Management Studies, DR VN BRIMS, Thane West, Thane	2004
23	Durgadevi Saraf Institute of Management Studies (DSIMS), Malad West, Mumbai	2010
24	Enrich Management Academy, Thane	2010
25	Evolve Business School, Navi Mumbai, Mumbai	2013
26	Fazlani Altius Business School, Mumbai (FABS, Mumbai), Chandivali, Mumbai	2012
27	FINPLAN - International Institute of Management, Andheri West, Andheri West, Mumbai	2011
28	FINPLAN - International Institute of Management, Thane West, Thane West, Thane	2011
29	FOSTIIMA Business School, Mumbai, Andheri West, Mumbai	2007
30	GNVS Institute of Management (GNVSIOM), Sion, Mumbai	2010
31	Hashmatrai and Gangaram Himathmal Mansukhani Institute of Management, Ulhasnagar, Thane	2005
32	HK Institute of Management Studies & Research, Jogeshwari West, Mumbai	2008
33	IBS Business School, Mumbai, Vile Parle West, Mumbai	1995
34	IES Management College and Research Centre, Bandra West, Mumbai	1998
35	Indian Institute of Management, Indore (Mumbai Campus), Navi Mumbai	2015
36	Indira Institute of Business Management (IIBM, Mumbai), Navi Mumbai, Mumbai	2008
37	ITM Business School, Navi Mumbai (ITM), Navi Mumbai	1991
38	Jamnalal Bajaj Institute of Management Studies (JBIMS), Churchgate, Mumbai	1965
39	K C College of Management Studies, Colaba, Mumbai	2005
40	K. J. Somaiya Institute of Management Studies and Research (SIMSR), Ghatkopar East, Mumbai	1981
41	K.C.College of Engineering and Management Studies and Research (KCCOE), thane, Mumbai	2010

42	Kohinoor Business School (KBS Vidyavihar West), Vidya Vihar, Mumbai	2010
43	Lala Lajpatrai Institute of Management (LLIM), Mahalaxmi, Mumbai	1995
44	Matoshri Ushatai Jadhav Institute of Management Studies & Research Centre, Thane East, Thane	2011
45	MET Institute of Management (MET IOM), Bandra West, Mumbai	1994
46	MGM Institute of Management Studies and Research, Navi Mumbai	1994
47	Mumbai Institute of Management and Research, Wadala, Mumbai	2010
48	N. L. Dalmia Institute of Management Studies and Research (N L Dalmia), Mira Road, Mumbai	1997
49	NCRD's Sterling Institute of Management Studies(NCRD SIMS - MUMBAI), Navi Mumbai, Mumbai	2004
50	NMIMS University School of Business Management, Vile Parle West, Mumbai	1982
51	NMIMS University Shobhaben Pratapbhai Patel School of Pharmacy & Technology Management, Vile Parle West, Mumbai	2006
52	NMIMS University's Mukesh Patel School of Technology Management and Engineering, Vile Parle West, Mumbai	2006
53	Oriental Institute of Management, Mumbai(OIM MUMBAI), Navi Mumbai, Mumbai	2006
54	Oriental School of Business, Navi Mumbai	2008
55	Parle Tilak Vidyalaya Association's Institute of Management (PTVA's IM), Vile Parle East, Mumbai	2009
56	Pearl Academy, Mumbai, Andheri East, Mumbai	2008
57	Pillai Institute of Management Studies & Research (PIMSR), Navi Mumbai	1998
58	Prin. L. N. Welingkar Institute of Management Development & Research (WeSchool), Matunga West, Mumbai	1977
59	Rajeev Gandhi College of Management Studies, Navi Mumbai	2009
60	Re Vera School of Management, Navi Mumbai	2009
61	Rizvi Institute of Management Studies and Research, Bandra West, Mumbai	1994
62	Rustomjee Business School (RBS), Dahisar West, Mumbai	2011
63	S.P. Jain Institute of Management and Research (SPJIMR), Andheri West, Mumbai	1981
64	Saket College of Management, Kalyan East, Mumbai	2009

65	Sasmira's Institute of Management Studies & Research, Worli, Mumbai	2010
66	SGPC's Guru Nanak Institute of Management Studies, Matunga East, Mumbai	2002
67	SGSJK's Aruna Manharlal Shah Institute of Management & Research, Ghatkopar West, Mumbai	2009
68	Shailesh J. Mehta School of Management (SJMSOM), Powai, Mumbai	1995
69	Sheila Raheja School of Business Management & Research, Bandra East, Mumbai	2011
70	Shree Shankar Narayan Education Trust's Rohidas Patil Institute of Management Studies, Bhayandar	2008
71	SIES College of Management Studies (SIESCOMS), Navi Mumbai, Mumbai	1995
72	Sinhgad Institute Of Business Management, Dadar East, Mumbai	2009
73	Sinhgad Institutes - Sinhgad Management Institutes, Chandivali, Mumbai	2009
74	Sir M Visvesvaraya Institute of Management Studies and Research, Wadala, Mumbai	2010
75	Smt. K.G.Mittal Institute of Management, Information Technology & Research, Mumbai	2007
76	SP Jain School of Global Management (SPJSGM), Lower Parel, Mumbai	2015
77	St. Francis Institute of Management & Research (SFIMAR), Borivali West, Mumbai	2002
78	Swayam Siddhi College of Management & Research, Upper Thane, Thane	2006
79	Sydenham Institute of Management Studies, Research and Entrepreneurship Education (SIMSREE), Churchgate, Mumbai	1983
80	Thadomal Shahani Centre for Management (TSCFM), Bandra West, Mumbai	2009
81	Thakur Institute of Management Studies and Research(TIMSR), Kandivali East, Mumbai	2002
82	Taheri Scholarship Society Institute of Management Studies & Research, Mumbai	2008
83	Universal Business School, Sion, Mumbai	2009
84	Vighnagarata Trust, Shivajirao S. Jodhale Institute of Management Science and Research, Asangaon	2009
85	VIVA Institute of Management Studies, thane, Mumbai	2004
86	Vivekanand Education Society's Institute of Management Studies and Research (VESIM), Chembur, Mumbai	2012

87	Xavier Institute of Management & Research (XIMR), Fort, Mumbai	2006
88	Zenith Institute of Business Management, Mumbai, Borivali West, Mumbai	2005

Appendix 2

List of Management institutions considered for the study

Sr. No.	College Name	Year of Establishment	No.of Courses	Intake
1	Agnel Charities Agnel Seva Sangha's Fr. C. Rodrigues Instt. Of Mangnt. Studies, Sector 9A, Vashi, Navi Mumbai,	2001	1	60
2	Alkesh Dinesh Modi Institute For Financial & Management Studies-Mumbai University-Kalina campus	2003	3	270
3	Anjuman-I-Islam's Allana Institute of Management Studies, Anjuman-I-Islam's Secretariat Bldg., Badruddin Tayyabji Marg, Off. 92, D.N. Road, Near CST, Mumbai	1999	1	180
4	Atharva Educational Trust, Atharva Institute of Management Studies-Malad	2003	3	240
5	Audyogik Shikshan Mandal's Institute of Management & Computer Studies	2004	2	240
6	Bharti Vidyapeeth's Institute of Management Studies & Research,	2002	2	180
7	Chetana's Ramprasad Khandelwal Institute of Management-bandra	1981	3	240
8	Dr. D.Y. Patil Institute of Management Studies,-Belapur	2004	5	330
9	Gurunanak Institute of Management Studies King's Circle, Matunga,	2002	9	720
10	Indian Education Society's Management College & Research Centre-Bandra	1998	6	420
11	ITM Khargar	1994	8	660
12	Jamnalal Bajaj Institute of Management Studies-churchgate	1965	1	120
13	K. J. Somaiya Institute of Management Studies & Research	1981	12	840

14	Lala Lajpatrai Institute of Management	1995	1	240
15	Mahatma Education Society's Pillai's Institute of Management Studies	1998	3	300
16	Maratha Mandir's Babasaheb Gawde Institute of Management Studies –Mumbai Central	1998	2	180
17	MET's Institute of Management	1994	1	180
18	Mumbai Institute of Management & Research, Wadala	2004	1	240
19	N.L. Dalmia Institute of Management Studies and Research, Mira Road	1997	5	480
20	NCRD's Sterling Institute of Management Studies,	2004	2	180
21	NMIMS	1981	8	860
22	Prin. L. N. Welingkar Institute of Management Development & Research of Commerce, Matunga(E),	1977	13	1140
23	Rizvi Institute of Management Studies & Research, Mumbai	1994	1	120
24	S.I.E.S. College of Management Studies,	1995	5	390
25	S.P.Jain Andheri	1981	5	700
26	Shailesh J. Mehta School of Management	1995	2	240
27	St. Francis Institute of Management & Research, Mt. Painsur, S.V.P. Road, Borivali(W),	2002	4	240
28	Sydenham Institute of Management Studies & Research & Entrepreneurship Education, churchgate.	1983	4	240
29	Thakur Institute of Management Studies & Research	2002	6	450
30	Viva Institute of Management Studies	2004	1	60
31	Vivekanand Education Society's Institute of Management Studies & Research, Chembur	1994	2	240
32	VPM's Dr. V. N. Bedekar Institute of Management Studies	2005	2	180
				11160

Appendix 2.1

Top 10 Management institutions in Mumbai

Sr. No.	College Name
1	S.P.Jain institute of Management & Research (SPJIMR)
2	Narsee Monjee Institute of Management Studies (NMIMS)
3	Jamanlal Bajaj Institute of Management Studies (JBIMS)
4	National Institute of Industrial Engineering (NITIE)
5	Shailesh J Mehta School of Management (IIT Mumbai)
6	K.J.Somaiya Institute of Management Studies & Research
7	Prin Welingkar Institute of Management Development & Research
8	Sydenham Institute of Management Studies, Research and Entrepreneurship Education (SIMSREE)
9	SIES College of Management Studies (SIESCOMS)
10	IES Management College & Research Centre

Source: Hansa Research (2016).The Week Hansa Research Survey 2016:Top B Schools. The Week 34(44).69-90.

Appendix 3

Questionnaire (Students)

Information Literacy of Management students in Mumbai metropolitan area.

Please fill the questionnaire required for research purpose

Questionnaire

Personal Information

Name: (Optional)

Gender:

Institution:

Class: 1st Year / 2nd Year (Please tick)

Library use & Purpose

G1) Are you visiting library

Yes/No

G2) Purpose of visit to Library

1. Study Purpose
2. News Paper reading
3. Issue/Return books
4. Using databases

G3) How frequently you visit library

1. Daily
2. Weekly
3. Monthly
4. Never used

G4) which type of resources do you use

1. Books
2. Databases
3. Journals
4. AV materials
5. Projects

G5) Which form you like to use

1. Print
2. Digital
3. Both

G6) Do Librarian help locating resources?

Yes/No

Study Information Literacy skills

1) Are you aware of databases available at your institution?

Yes/No

2) How do you know availability of databases in library? (Please tick whichever is applicable)

- 1) Through Faculty
- 2) Through IL Program
- 3) Through Friend
- 4) Through Promotion

3) What types of databases you use most? (Please tick whichever is applicable)

- 1) E-Books
- 2) E-journals
- 3) Company databases

4) Research Databases

4) How frequently you use databases?

- 1) Daily
- 2) Weekly
- 3) Monthly
- 4) Never used

5) While searching information every time will you get exact information required for?

- 1) Most of the time
- 2) Rarely
- 3) Never
- 5) Every time

6) How do you rate library staff for getting assistance while searching information?

- 1) Knowledgeable & Proactively assisting
- 2) Lack of Technical knowledge
- 3) Knowledgeable but not helpful
- 4) No cooperation

Availability of Information Communication Technology infrastructure in Libraries

1) Whether your library is automated?

Yes/No

2) Is OPAC facility are available in your Library?

Yes/No

3) Has your library facilities to access e resources

Yes/No

4) Is Wi-Fi facility available in Library?

Yes/No

5) Which problem do face while accessing e - resources (Please tick whichever is applicable)

- 1) Off campus access problem
- 2) Connectivity issue
- 3) Connection speed
- 4) Access refused due to user limit

6) Which of the following infrastructure available in your library (Please tick whichever is applicable)

Computer	
RFID/Security gates	
Bar Coding Technology	
Broad Band Connection	
CCTV	
Xerox/Scan/Printer	
E-book reader	

Existing stage of Information Literacy program

7) Is your college library conduct Information programme/Library orientation

Yes/No

If Yes. Please answer the following questions

- 8) Duration of Information awareness program
- 1) Sufficient
 - 2) Not Sufficient
 - 3) Time Consuming
 - 4) No idea
- 9) Which methods of programs are used in your institute?(Please tick whichever is applicable)
- 1) Mass orientations
 - 2) Class room Orientation
 - 3) Online tutorials
 - 4) E-learning
- 10) What kind of instruction material for information awareness program is given? (Please tick whichever is applicable)
- 1) Brochure
 - 2) PPT
 - 3) Web page
 - 4) None
- 11) What is the Method of Information awareness program? (Please tick whichever is applicable)
- 1) PPT
 - 2) Library tour
 - 3) With live database portals
 - 4) Library brochure
 - 5) Any Other (Pl specify)
- 12) Do you know what the main focus area of programs conducted is? (Please tick whichever is applicable)
- 1) Library information
 - 2) Library Catalogue
 - 3) Databases search

- 4) Internet search
- 5) Any other (Pl specify)

13) What modes for delivering programs are used? (Please tick whichever is applicable)

- 1) Audio Visual
- 2) Verbal
- 3) Power Point
- 4) Others

Kindly give your feedback using 5 point scale

5. Strongly Agree	4. Agree	3. Moderate	2. Disagree	Don't know
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14) Internet plays a vital role in designing effective Information Literacy program?

	☐	☐	☐	☐	☐
5	4	3	2	1	

15) Information awareness programs/sessions are easy to understand.

☐	☐	☐	☐	☐
5	4	3	2	1

Impact of Information Literacy Program

16) After attending this IL program are you able to use library resources effectively?

☐	☐	☐	☐	☐
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17) You want to refer a journal database, which following database you use

- 1) ProQuest Central
- 2) CMIE-Prowess
- 3) Ebrary
- 4) Indiastat

18) You want to search a particular book in library online, which of the following source you use.

- 1) Databases
- 2) Internet
- 3) OPAC

19) How do you find books authored by “Kotler”?

- 1) By Title
- 2) By Subject
- 3) By Author
- 4) By Publisher

20) If you do not find term “Globalization” in OPAC, then what do you mean?

- 1) Library doesn't have any documents on this topic
- 2) All documents on this topic are already checked out
- 3) Not used right words
- 4) OPAC is down

21) To read document on “Marketing Strategy” authored by “Kotler”, how will you search for it?

- 1) Author
- 2) Title
- 3) Author & Title
- 4) Don't know

22) If you want to know information on basics of subject which source do you consult:

- 1) Book
- 2) Database
- 3) Encyclopedia
- 4) Journal

23) What information covered in Library OPAC

- 1) List of titles available in Library
- 2) List of titles available in the market
- 3) List of Journals published
- 4) None

24) To find out most recent information on any topic following which source you consult

- 1) Book
- 2) Journal
- 3) Encyclopedia
- 4) Dictionary

5. Strongly Agree	4. Agree	3. Moderate	2. Disagree	Don't know
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Kindly give your feedback using 5 point scale

Model of Information Literacy

25) Are you agree e resources are need of the hour

☐☐☐☐☐

5

4

3

2

1

26) Information awareness program should be part of the syllabus

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5

4

3

2

1

If Agree or strongly agree, Pl answer the following questions

27) What is the frequency of the classes

- 1) Monthly
- 2) Weekly
- 3) Fortnightly
- 4) Six Monthly

28) By whom Information awareness Program should be conducted?

- 1) Faculty
- 2) Librarian
- 3) Computer Dept.
- 4) Any other (Pl specify)

29) In Information awareness programs which topic need to be concentrated.

(Please tick whichever is applicable)

- 1) Library rules/regulations
- 2) E resources Live
- 3) Other library collections (Books etc)
- 4) Library Infrastructure

30) Any suggestions to improve Information awareness program at your institution

Appendix 4

Questionnaire (Librarians)

- 1) Is your library subscribes to e-resources?
Yes/No
- 2) Is your users aware of subscribed e- resources?
Yes/No
- 3) What measures you take to create awareness of subscribed e-resources among user community.
 - 1) Library Brochure
 - 2) Orientation
 - 3) Through mailers
 - 4) Database Flex
- 4) Do you conduct awareness or literacy programs for your users?
Yes/No
- 5) If yes what is the frequency?
 - 1) Once in a Year
 - 2) Monthly
 - 3) Half Yearly
 - 4) Need based
- 6) Which method do you use to deliver awareness programs
 - 1) PPT of Library
 - 2) PPT along with live database portals
 - 3) Live database portals
 - 4) Library tour
- 7) What mode do you use to get feedback from users

- 1) Questionnaire
 - 2) Interview
 - 3) Any Other
- 8) Do you feel users survey is essential
Yes/No
- 9) Are users satisfied with library infrastructure, activities, collection and services
Yes/No
- 10) Are your library modernized (Pl tick whichever is applicable)
- 1) Automation
 - 2) Implementation of RFID
 - 3) Digitization
 - 4) Any Other
- 11) Are you practicing Inter Library Loan/Document Delivery Services
Yes/No
- 12) Is your staff information literate
Yes/No
- 13) Feedback about Information Literacy

