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Information literacy skills among faculty of the University of Lahore

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Abstract

Purpose – The objective of this study is to gauge the level of information literacy skills of faculty members of the University of Lahore.

Design/methodology/approach – To collect required data from population, survey method was used. The participants consisted of the faculty members currently working in the University of Lahore, which reflected the conditions and environment of all campuses of the University of Lahore. A simple random sampling technique was used to select the sample from population of 650 faculty members of the university. The sample size consisted of 84 faculty members in randomly selection. A questionnaire was formulated and personally managed. Therefore collected data were evaluated.

Findings – It was found that a majority of faculty members be deficient in searching catalog and its use, choice of information sources, selection of relevant sources and formulation of search strategies. Likewise, many faculty members did not successful users of the university libraries.

Originality/value – An extensive search of available literature has shown that such type of study has never been done in the faculty members of the University of Lahore. This study will definitely help to organize different information literacy programs in the university to promote and to develop the information literacy skills among faculty and to improve the teaching quality.

Keywords- Information literacy, Information skills, Pakistan, Library users, University, Information seeking

Introduction

The University of Lahore (UOL) is a leading university in the field of higher education and is regarded as one of the foremost private sector general universities of Pakistan with diverse disciplines ranging from Medicine and Engineering to the Arts and Social Sciences. University comprises three “purpose built” campuses in Lahore, Islamabad and Sargodha having nine diverse faculties and 28 departments. Approximately 1200 faculty members are serving the University of Lahore in different departments and campuses (The University of Lahore, 2013).

Teachers are the core employees of universities and they extensively contribute towards the attainment of institutional goals. With the emergence of ICT, teachers are facing variety of options to teach and learn. There is a bundle of resources in front of faculty members to prepare themselves from which they have to consult to plan for teaching their students, as students and learners are well aware and more responsible. Faculty members now have to get up to date themselves with new trends of teaching, searching and learning more than the students.

There is no such program in the University of Lahore (UOL) to educate faculty members about library use, library online public access catalog (OPAC) and online databases to retrieve their related and required information efficiently and effectively which they have usually needed in their teaching and research work.

Information literacy has been defining significantly by different researchers in several parts of the world. These efforts are made mostly in academic environment (Campbell, 2008). Paul G. Zurkowski, president of the Information Industry Association, firstly used the term “information literacy” in 1974. He referred this term to the

competencies of the people to identify information sources to meet the information needs by using and applying related technology (Boekhorst & Britz, 2004) .

Information literacy is a new concept emerged in different fields during last three decades. American Library Association (1989) defines Information literacy as, “to be information literate, a person must be able to recognize when information is needed and have the ability to locate, evaluate and use effectively the needed information(p. 1).” UNESCO (2005), the Alexandria Proclamation of 2005, defines information literacy as “encompasses knowledge of one’s information concerns and needs, and the ability to identify, locate, evaluate, organize and effectively create, use and communicate information to address issues or problems at hand; it is a prerequisite for participating effectively in the Information Society, and is part of the basic human right of lifelong learning.” According to The SCONUL Working Group on Information Literacy, “information literate people will demonstrate an awareness of how they gather, use, manage, synthesize and create information and data in an ethical manner and will have the information skills to do so effectively”(Bent & Stubbings, 2011, p. 3).

Information literacy is therefore a wider concept than that described by librarians as the information seeking process is (University of Auckland, 2005):

- Defining the topic
- Selecting and using resources
- Locating information
- Evaluating resources
- Documenting the research

Bent and Stubbings (2011) stated in his study on the seven pillars of information literacy that Information literacy is a general term comprises digital audiovisual media, techniques and skills of information and knowledge management. Rehman and Alfaresi (2009) studied that there is a little bit difference between the terms; bibliographic assistance, user education and library instruction from information literacy as information literacy has been used in a wider context of identifying needed information and locating related sources to fulfill one's information need to become a life-long learner of an informed citizen. According to Boekhorst and Britz (2004), the term information literacy consists of three basic concept such as information and communication technology (ICT), information resources, and information process

Review of the literature

In 21st century, information revolution and curiosity is the major phenomenon after the industrial revolution. People have plenty of opportunities to acquire information. Due to the abundance of information resources and various methods to access required Information, information literacy is therefore required. Moreover, the productivity of information is unfiltered which make suspected the accuracy and relevancy of the content. These create ethical and legal challenges in the process of evaluation, comprehension and use of information. The suspicious value and increasing quantity of knowledge also place big issues for the users. Exhaustive information and technology cannot itself make people more informed without a required skill and capacity to use information progressively (Bundy, 2004).

Information Literacy and Information Technology

These terms are closely related with each other but information literacy is an umbrella term for information hungry people and the academic setup. ICT skills consist of the operational knowledge of using computers, various software and databases to excel the personal and academic objectives. An information literate people must develop information technology skills to meet information needs using related technologies (Association of College and Research Libraries, 1997).

National Research Council (1999) stated that Information literacy and related technology skills are considerably overlapped terms having a little bit difference and area of competency. Information technology skills are supportive to information literacy. National Research Council provides the core concept by elaborating the concept of fluency, computer and related technological factors which are interwoven and integral to each other such as hardware and software. The council bridged the relationship and comprehension of these factors for information literacy and information technology. What is the difference between fluency of IT and information literacy has been described in the report of council as the first phenomenon highlights the keen understanding about IT and its use while the later one emphasizes the searching, managing, communicating and evaluating information.

Association of College and Research Libraries (1997) expresses that the fluency of IT and information literacy is more than mere basic competencies of computer and related technology as information literacy encompasses an intellectual framework of finding, organizing, presenting, communicating and evaluating information and extends

lifelong learning. The valuable and combine use of information and information technology is considered to be a key component in the expansion of life-long learning.

Information Literacy and Higher Education

The core mission of higher education is to develop a course of learning to produce life-long learners and to ensure the development of their abilities of critical thinking. Information literacy is a key element of long life learning which provides the fabrication of well informed community. As information literacy skills expands and enhances the competencies of individuals beyond the formal class room environment and gives self-directions to the individuals in their practical life.

Information Literacy and Faculty

(Bundy, 2004) has stated in his study that information literacy inculcates competencies of individuals working in any discipline, learning environment and any level of education to think critically with content and extends their self directed investigations and prepared for organized learning.

For many years, the librarians have been interested in knowing perception of faculty regarding information literacy and their level of participation in teaching. Many researchers have carried out the studies to determine the faculty perceptions of information literacy within different disciplines and institutions throughout the world. Much of this research has confirmed what librarians have suspected all along. Faculty generally agrees on the importance of information literacy but need more of a push to truly embrace it within the curriculum (DaCosta, 2010).

Amstutz and Whitson (1997) analyzed that faculty of a university would have to equip with themselves information literacy skills in order to prepare their students'

information and technology skills. On the other hand, university would provide current library resources and related technology to its faculty for access and for their professional development.

Thompson (2002) viewed that end of the twentieth century brought information explosion and the academic system as well as libraries highly influenced by technological revolution. The changes brought by this revolution created a demand for developing technological skills and core activities of information literacy i.e. search, organize, retrieve and evaluate information, in order to improve learning and pedagogical skills. The study of McGuinness (2006) depicted that the exercise of information literacy is comparatively low and steadily among faculty. They usually prefer learning by doing and emerging demand.

It is reported in the study of Floyd, Colvin, and Bodur (2008) that information literate faculty performs more skillfully in terms of the good quality of student papers, projects and research. Information literacy skills develop abilities among faculty members to integrate information literacy concepts into their teaching, research and evaluation. Lau (2001) also examined that information literate faculty usually better prepared in the area of library use and expected more information services.

Statement of the Problem

Information literacy makes faculty members to reach their objectives, expand their knowledge and capability, and play multi disciplinary role in the diverse society. The faculty ornamented with information literacy can approach to the required information accurately and timely. They can evaluate information competently and use information precisely and productively.

To enhance the research, teaching quality and growth of faculty knowledge, information literacy is very necessary. No such type of study has been carried out to assess and to develop the information literacy skills among faculty of the University of Lahore. Such type of programs for assessing and evaluating the skills of faculty about information literacy required to be designed and formulated until the required skill and proficiency is achieved. This study will play a significant role in determining the level as well as quality of information literacy skills of the faculty members of the university.

All faculty members both male and female currently serving the University of Lahore in different campuses were the participants of this study. The results of this study can be generalized to all those universities having similar teaching and learning system, policies, and circumstances.

Objectives

To determine perception of faculty members about their ability to:

- know needed information.
- identify the sources of needed information.
- present and organize acquired information to others.
- evaluate information obtained from different sources.

Research Questions

The research was organized to answer the following research questions from Faculty of UOL:

- What nature and extent of information faculty needed?
- What is the capability level of faculty members in using and searching online catalog of library (OPAC)?

- What is the capability level of faculty members about advance search options and in using and Boolean operators?
- What medium(s) and format faculties use while communicating acquired information?
- How faculties evaluate information obtained from different sources?

Definitions

It was essential to have operational definitions of the terms used in the study. These also show the limits that have been observed in the design of the study.

Information literacy. In this study the term refers to the competencies of faculty members in searching, accessing and using information sources, systems and tools available to them at the University of Lahore.

Faculty members. In this study, this term refers to all faculty members currently teaching in the University of Lahore.

Cataloging skills. In this study, the term refers to the skills of faculty members in using library catalogs for finding library materials by author, title, subject, or call number, tracing materials, using Boolean operators, search strategies and accessing them.

Information literacy skills. This term refers to the faculty capabilities to identify, locate, organize, evaluate and effectively create, use and communicate information.

Research design/Methodology

Close-ended questionnaire was used to collect required data from the participants as it was convenient for both the participants as well as for researcher.

Population

All faculty members of the University of Lahore were the core population of this study. The university comprised twenty department i.e. Lahore Business School, Health Sciences, Computer Sciences & Information Technology, Institute of Molecular Biology & Biochemistry, Nursing, CRIMM (Centre for Research in Molecular Medicine), Pharmacy, English, Faculty of Law, Department of Radiological Sciences & Medical Imaging Technology, University Institute of Diet & Nutritional Sciences, University Institute of Medical Lab Technology, University Institute of Public Health, University Institute of Physiotherapy.

Sample

Simple random sampling technique was used to collect required data from population using random table. The number of departments in university was found to be forty. List of all faculty members were gained from the UMS (University Management System) department to allocate the consecutive numbers to the population. By using random table, the required participants were gathered. 100 participants were picked from the total population and the questionnaires were delivered to the participants. 84 faculty members respond the questionnaires and 16 questionnaires were not received in spite of number of reminders sent to them. 84 questionnaires were received and analyzed.

Design of Questionnaire

Questionnaire was carefully designed to collect required data from respondents. Each construct expressed a statement which had to be evaluated. Questionnaire was classified into four major categories; first category was about demographic information; second category was to determine the library use; third category was about cataloging skills and

in forth category, questions were about information literacy skills. Questionnaire language was simple, easy and clear and according to the level of faculty members. 20 close ended questions included covering the following areas: search strategies, level of information they usually need, level and medium of their needed information, library catalog, Boolean operators, library use, accessing needed materials, Internet search engines, medium of communicating acquired information. Questionnaire was examined by the experts of the field and changes were made on the bases of feedback and instructions.

Data Collection

Department wise questionnaires were distributed to collect data. The questionnaire was personally instructed to all those faculty members who had difficulty to understand the questions. Collected data was then fed into statistical package for social sciences (SPSS) for interpretation and to analyses.

Findings

Profile of the Participants

The total participants were 84 and one was missing as it was not mentioned the department, in which 51 (61 percent) were male and 32 (38 percent) were female. Out of the respondents, 01 (1.2 percent) was 66 years old and above, 01 (1.2 percent) was 56-65 years old, 03 (4 percent) were 46-55 years old, 04 (5 percent) were 36-45 years old, 54 (64 percent) were 26-35 years old and 20 (24 percent) were up to 25 years old. Master/MBBS (16 years) were 31 (37 percent), M.Phil./MS were 48 (57 percent) and Ph.D were 4 (5 percent) from total respondents. Professor were 3 (4 percent), Assistant

Professor were 20 (24 percent), Associate Professor were 5 (6.0 percent) and Lecturer/Demonstrator were 55 (66 percent) from the participants.

Table I.

Department wise response rate

	Department name	Frequency	Percent
Valid	Computer Science	7	8
	Lahore Business School	12	14
	Pharmacy	30	36
	University College of Medicine	14	17
	University College of Dentistry	9	11
	Institute of Microbiology & Biochemistry	5	6
	Centre for Research in Molecular Medicine	2	2
	Lahore School of Nursing	3	4
	Law	1	1
	Total	83	99
	Missing	System	1
Total		84	100.0

A clear majority of 30 (35.7 percent) faculty members from Pharmacy department, 14 (16.7 percent) from University College of Medicine, 12 (14.3 percent) from Lahore Business School, 9 (10.7 percent) from University College of Dentistry, 7

(8.3 percent) from Computer Science department, 5 (6.0 percent) from Centre for Research in Molecular Medicine, 2 (2.4 percent) from Centre for Research in Molecular Medicine, 3 (3.6 percent) from Lahore School of Nursing and 1 (1.2 percent) from Law department participated in this study.

Library Use

The next category of questionnaire was about library use in which faculty members were asked about frequency and purpose of library use. They were also inquired about the use of different library resources to locate their needed information, level of their needed information and the format/medium of their required information.

A majority of 39 (46.4 percent) faculty members asked that they frequently use library, 18 (21.4 percent) faculty members mentioned that they less frequently or rarely use library and only 8 (9.5 percent) were those faculty members who very frequently use library to locate their needed information.

Moreover, when they were asked about the purpose of library use, 67 (79.8 percent) replied that they use library for study purpose and 44 (52.4 percent) for research purpose, 14 (16.7 percent) for official use and only 4 (4.8 percent) replied that they use library for recreational purpose. When they were asked about the level of their needed information, a clear majority of 42 (50.0 percent) answered that they usually need moderate level of information, 34 (40.5 percent) mentioned that they need advance level of information and only 7 (8.3 percent) were those who need basic kind of information. Also, 54 (64.3 percent) faculty members gave responses that they want information in print format and 29 (34.5 percent) want their required information in online format.

Table II

Format and level of needed information & frequency of library use

Frequency of library use	Frequency	Percent
Very frequently	8	10
Frequently	39	46
Less frequently	18	21
Rarely	18	21

Level of needed information	Frequency	Percent
Basic	7	8
Moderate	42	50
Advance	34	41

Format of needed information	Frequency	Percent
Print	54	64
Online	29	35

Note: *Total= 84*

n=83

Missing=1

Cataloging skills

Questions were asked to the faculty members about their ability to use Online Public Access Catalog (OPAC). Ten questions were structured to determine the perception of faculty members about their capabilities of using library online catalog using *Likert* scale. The responses are shown in Table III with percentage and standard deviation.

Table III.*Perception of faculty members about their cataloging skills*

Statements	Mean	Std. Deviation
I can use search engines to locate required information	3.42	1.326
I can locate different websites to fulfill my information need	3.39	1.238
I can use different databases to find out necessary information	3.06	1.293
I can apply advance search option to limit my search	3.01	1.268
I can find what I am looking for at the UOL library	2.74	1.093
I can use HEC digital library	2.39	1.315
I can use UOL OPAC to locate library resources	1.78	.983
I can use key word searching in UOL OPAC to locate a book	1.74	1.063
I can use author entry/call number in UOL OPAC	1.70	.952

Five point Likert type scale was used to evaluate the cataloging skills of the UOL faculty members

1=No skill, 2=Basic, 3=Good, 4=Proficient, 5=Expert

Most of the faculty members perceived that they could use search engines and different websites to locate their required information. The faculty members, who used databases and advance search options to retrieve their necessary information was ranked as trivial. Hierarchy also showed that a small number of faculty members came to UOL library or visit HEC digital library to find their essential information and the quantity of those faculty members who used key words and author entry/call number were very small.

Information Literacy Skills

Different questions were inquired to find out the perception of faculty members about their ability concerning information literacy skills. To measure the ability to information literacy, thirteen questions were taken from the eleven stages of the information literacy life cycle described by UNESCO using Likert scale.

Table IV

Perception of faculty members about information literacy skills

Statements	Mean	Std. Deviation
I am able to organize, analyze, interpret and evaluate information.	3.95	.731
I am able to determine the existence of needed information or not.	3.83	.778
I am able to fully understand found information.	3.82	.803
I am able to accurately identify and define the information.	3.78	.770
I am able to find the needed information.	3.77	.790
I am able to communicate and present the information.	3.76	.892
I am able to evaluate reliability of information and its resources.	3.75	.824
I am able to utilize the information to resolve the problem.	3.72	.992
I am able to go for help to understand needed information.	3.71	.904
I am able to dispose of information no longer needed and safeguard information.	3.66	.954
I am able to preserve, store, reuse, record and archive information.	3.65	.973
I am able to realize that a need or problem exists that requires information.	3.53	1.086
I am able to create or cause to be created unavailable information that I need.	3.34	.805

Note: *Total= 84*

n=83

Missing=1

Five point Likert scale was used to evaluate the perceived seriousness of the felt barriers
1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly agree

The ensuing hierarchy showed that the majority of faculty members had skills to determine the existence of needed information and to organize, analyze, evaluate and fully understand the found information. And hierarchy also showed that those faculty members were less in number who had ability to identify and define information, to find needed information, to communicate and presented the information and to evaluate the reliability of information resources. Those faculty members were very small who had skills to utilize, dispose, and realize the need and to create information which they had needed.

Conclusions

The inferences reveal that a number of faculty members of the UOL having poor information literacy skills. A majority of faculty members are not capable of basic searching skills in catalogs and databases. Furthermore, they are not able to device good searching strategies and to use proper subject terminology in order to access needed information resources. That's why a question of deficiency arises about the level of information literacy skills among the faculty members and resultantly such programs would be arranged in the university to inculcate the information literacy skills among faculty of the UOL.

Training programs for improving the information literacy skills of faculty would consist of latest contents of the field. The learning of faculty members will be more effective and meaningful if integrated (theoretical as well as practical) approach to be employed in organizing the training programs in the university and ultimately it will enhance the teaching experiences.

The collaborative efforts of the university management, higher education commission and particularly active partners would take steps to improve the information literacy skills. The other potential participants are librarian and library resources which would be articulated in such a way that the training courses, seminars, hand on workshops and projects might be designed to accelerate pedagogical approach.

(Arp, Woodard, Lindstrom, and Shonrock (2006)) had concluded that the seeking information literacy skills is a contentious process and could not be imparted one time. Information literacy should be educated at different and various sessions. It is also notable that library resources, services, facilities and library personnel are inseparable in the process of organizing information literacy programs.

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Appendix

Information literacy skills among faculty of the University of Lahore

Demographic Information:

1. Name: -----

2. Department: -----

3. What is your designation?

- | | | | |
|--------------------------|---------------------|--------------------------|-----------------------|
| <input type="checkbox"/> | Professor | <input type="checkbox"/> | Assistant Professor |
| <input type="checkbox"/> | Associate Professor | <input type="checkbox"/> | Lecturer/Demonstrator |

4. What is your gender? Male Female

5. What is your age group?

- | | | | | | |
|--------------------------|----------------|--------------------------|-------|--------------------------|--------------|
| <input type="checkbox"/> | Up to 25 years | <input type="checkbox"/> | 26-35 | <input type="checkbox"/> | 36-45 |
| <input type="checkbox"/> | 46-55 | <input type="checkbox"/> | 56-65 | <input type="checkbox"/> | 66 and above |

6. What is your qualification?

- | | | | |
|--------------------------|--------------------------------|--------------------------|----------------|
| <input type="checkbox"/> | Master/MBBS (16 years) | <input type="checkbox"/> | M.Phil./MS |
| <input type="checkbox"/> | Ph.D | <input type="checkbox"/> | Post Doctorate |
| <input type="checkbox"/> | Any other (Pls. specify) ----- | | |

Library use:

7. How many times do you use university library?

- | | | | |
|--------------------------|-----------------|--------------------------|------------|
| <input type="checkbox"/> | Very Frequently | <input type="checkbox"/> | Frequently |
| <input type="checkbox"/> | Less Frequently | <input type="checkbox"/> | Rarely |

8. Purpose of library use? (You can tick more than one option if appropriate):

- | | | | | | |
|--------------------------|--------------|--------------------------|--------------------------------|--------------------------|----------|
| <input type="checkbox"/> | Study | <input type="checkbox"/> | Research | <input type="checkbox"/> | Official |
| <input type="checkbox"/> | Recreational | <input type="checkbox"/> | Any other (Pls. specify) ----- | | |

9. Do you use the UOL Library to locate library resources?

- | | | | |
|--------------------------|---|--------------------------|----|
| <input type="checkbox"/> | Yes | <input type="checkbox"/> | No |
| <input type="checkbox"/> | Don't know that library has all these resources | | |
| <input type="checkbox"/> | Don't know that I can access library materials | | |

10. Level of your needed information?

- Basic Moderate Advance

11. In which format do you like to get your needed information? (Pls. tick the relevant box):

- Print Online

Cataloging Skills:

12. Are you familiar with Online Public Access Catalog (OPAC)?

- Yes No

If yes,

12.1 From which source you have learnt about Online Public Access Catalog (OPAC)?

- Training sessions in university Friends/Colleagues
 Internet Other (Please specify) -----

13. Read these statements showing cataloging skills. Then, rate to what extent you are proficient with the skills.

S r. #	Statements:	No skill	Basic	Good	Proficie nt	Exper t
i.	I can find what I am looking for at the UOL library.					
ii.	I can use UOL Online Public Access Catalog (OPAC) to locate library resources.					
iii.	I can use author entry/call number in UOL Online Public Access Catalog (OPAC).					
iv.	I can use key word searching in UOL Online Public Access Catalog (OPAC) to locate a book.					
v.	I can use search engines (e.g. Google, yahoo) to locate required information.					
vi.	I can use different databases to find out necessary information/articles.					
vii.	I can use HEC digital library.					
viii.	I can apply advance search option to limit my search.					
ix.	I can locate different websites to fulfill my information need.					

Information literacy Skills:

14. Read each statement showing information literacy skills. Then, rate to what extent you agree or disagree with that statement.

S r. #	I am able to	Stron gly Disagr ee	Disagre e	Neutr al	Agre e	Strong ly Agree
i.	realize that a need or problem exists that requires information.					
ii.	accurately identify and define the information needed to meet the need, solve the problem, or make the decision.					
iii.	determine whether the needed information exists or not.					
iv.	find the needed information.					
v.	create, or cause to be created, unavailable information that I need.					
vi.	fully understand found information.					
vi i.	go for help if needed to understand found information.					
vi ii.	organize, analyze, interpret and evaluate information					
ix.	critically evaluate reliability of information and its source.					
x.	communicate and present the information to others in appropriate and usable formats and mediums.					
xi.	utilize the information to solve a problem, make a decision or meet a need.					
xi i.	preserve, store, reuse, record and archive information for future use.					
xi ii.	dispose of information no longer needed, and safeguard information that should be protected.					