Information Literacy among Teacher Trainees in Colleges of Education

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Information literacy refers to the abilities of an individual in identifying, surfing, retrieving, and utilising appropriate information effectively to satisfy the need. The article attempts to examine the information literacy of teacher trainees at colleges of education. The researcher selected one college randomly in Jammu city. For data collection, a self-prepared questionnaire was framed and distributed among 150 teacher trainees. Out of 150 copies of questionnaire, 118 were received back from 6 male and 112 female teacher trainees respectively. It is observed that majority (81%) of the teacher trainees have knowledge of simple search techniques compared to the other search technique. Based on the findings, necessary suggestions were made by the researcher for providing effective and proper information literacy among teacher trainees. The result of the study reflects that information literacy program should be incorporated in the course curriculum and more awareness is required among students on online databases and digital resources that will make the students more information literate. Users need awareness regarding the use of Online Public Access Catalogue (OPAC) in the search and retrieval of information and also needs awareness about different search strategies.

Keywords: *Information literacy, user education, teacher trainees and ICT.*

1 INTRODUCTION

Information is considered as a key to the development of the any nation as well as individual's progress. The sequential arrangement of date to form a meaningful sentence is known as information. According to Njoku[1], " information may be data,

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text, images, sound, voice code, microfilm, microfiche or computer generated program, software, and database that convey meaningful facts ideas, condition, or knowledge whether the output may be tangible or intangible Information."

Today, information is available in various forms and formats. The web is the most used source of information. One should be aware of these sources to know how to find information from these sources. According to Ingwersen & Jarvelin[2], " information source can be defined as the physical or digital entities in a variety of media providing potential information". Information is accessed through various channels (e.g. telephone, mobile, radio, television and the Internet) from various sources (e.g. colleagues, teachers, journals and text books). Channel is defined as the means by which information is transferred between the source and the seeker. An information source is a *source of information* for somebody, i.e. anything that might inform a person about something on provides knowledge to somebody. *Information sources* may be observations, people speeches, documents, pictures, organizations etc. An information source contains relevant information whereas a channel guides the user to pertinent sources of information from an engineers' point of view, information sources could contain relevant information[3]. Information sources can also be distinguished as external and internal sources, human and documentary sources, or formal and informal sources of information.

One should know how the information has been organized and how to use various research techniques. Students should also know how to evaluate information obtained from the public domain. They should evaluate the information for reliability, authenticity, sustainability, accuracy before actually using it. The ability to analyse information critically in a digital environment requires evaluation skills. These evaluation skills help select quality digital sources. It is possible with the help of an information literacy programme[4].

According to American Library Association (ALA), "Information literacy is a set of abilities requiring individuals to recognise when information is needed and can locate, evaluate, and use effectively the needed information"[5].

Studies on information literacy programmes in India have shown that the government has taken major initiatives at the school level. However, for higher education in India, no tested models and standards for information literacy have been introduced yet. In higher education institutions in India, user education, library information and bibliography information programmes are provided[6]. states that " Collaboration between librarians and teaching staff is crucial because instructional work in Information literacy can be undertaken cohesively with teachers as an expert in the context & content and librarians as experts in the resources and process" In present era, the internet becomes an essential tool for communication, storage, and retrieval of information. With the fast growth of knowledge and easy access to information, the internet plays an important role in the institutions of high learning and research[7].

2   INFORMATION LITERACY

It is the ability to locate, identify and access appropriate sources of information to meet the information needs. The idea of information literacy emerged with the arrival of Information and Communication Technology (ICT).

Today, information is available in various forms and formats. The web is considered the most used source of information. One should be aware of these web sources and know how to find information from these sources. One should know how the information has been organized and how to use various research techniques. Students should also know how to evaluate information obtained from the public domain. They should evaluate the information for reliability, authenticity, sustainability, accuracy before actually using it. The ability to analyse information critically in a digital environment requires evaluation skills. These evaluation skills are helpful in selecting quality digital sources. It is possible with the help of an information literacy programme[4].

For the last so many years, the internet becomes an essential tool for communication, storage, and retrieval of information. With the fast growth of knowledge and easy access to information, the internet plays an important role in the institutions of high learning and research[7].

ICT bought tremendous progressive changes in every sphere of life. The use of ICT slowly but constantly has been transferring the whole world in general and libraries in particular from traditional to modern ones. Information Literacy is the need of hour. It makes the person proficient to recognize when information is needed, how to locate it, how to evaluate information and use it efficiently and effectively[4]. The library professionals need to acquire the skills of using various ICT tools and techniques like internet and internet resources, ICT-based services, operating systems, application software, library automation software, digital library and institutional repositories, database management, and programming[8].

3   STATEMENT OF THE PROBLEM

In present digital era, electronic resources are abundantly available in various complicated formats; it is very difficult for the users to understand the formats of the electronic documents in which information is available. Moreover, sometimes users do not know, which type of information is available to them through online or digital mode and how can they access it. To meet the challenges and needs of the ever-increasing availability of digital information, information literacy is the need of the time. Information literacy need is generally associated with all type of information users and particularly for teacher trainees (future teachers) as they are going to become national builders.

So, it is a need of an hour to conduct a study to analyse the information literacy among the teacher trainees in India, for this purpose, it is mandatory to conduct a

user survey of teacher trainees in Colleges of Education. The proposed study aims to focus on the importance of Information Literacy among Teacher Trainees.

4   REVIEW OF LITERATURE

Review of literature is important as it shows the originality and relevance of any research problem. It is imperative for every research topic to have a sound review of literature related the research topic. The studies which are related to the present study are as under:

Ramakrishna et.al[9] conducted a study at Kuvempu University to access the computer Literacy and information literacy of post-graduate students. Most of the students believe that information and computer literacy programmes are very important for them to meet their information need.

Mishra and Mishra[10] conducted a study on the relevance of information literacy in the digital environment. The main focus of the study was on the relevance of information literacy in contemporary library and information services. The methodology used for the study is based on the documents available in the library and on the internet. From the findings, it can be concluded that information literacy is essential to promote optimum utilization of information resources both traditional and electronic environment.

Ansari[11] found that majority of users use both electronic and printed resources, or only printed resources but electronic resources are used for research and for preparation of lectures. Nearly all respondents were satisfied or quite satisfied with the available resources but they consider them as less reliable due to lack of knowledge and training facilities for using electronic resources.

Bhatia[12] stated in his study that the internet has attracted the attention of the users as an easy source for accessing information and e-resources as is evident from her study. However, she also verified that only a sizeable number of users could frequently seek information from e- resources. Most of the users access e-resources for updating their knowledge on their respective subjects and for academic assignments. He suggested that college library should organise awareness–cum-training programmes to educate the users on seeking information from e-resources and to maximize the use of library resources and services.

Habiba and Chowdhury[13], study reveals that a large number of e-resources are made available in Dhaka University Library (DUL), but lacks infrastructure facilities & trained professionals. Therefore, DUL should arrange more training programmes for users, appoint trained professionals with ICT skills and accommodated users opinions on subscribing new e-journals.

Adeniran[14] confirmed in his study that the use of electronic resources had great impact on the academic performance of the undergraduate students of Redeemer's University. However, there was a need for the users to acquire more computer based skills in the use of electronic resources.

Padma [15] conducted the study to trace out the awareness and use of various social networking sites by the teacher trainees and postgraduate students of Madurai Kamaraj University, Madurai. The study reveals that 86% of the students are aware of Facebook, followed by Twitter. Most of the respondents use internet browsing centers to access social networking sites.

Okite-Amughhoro, Makgahlela & Bopape[16] in their study mentioned that despite the availability of electronic information resources (EIR), the postgraduate (PG) students at Delta State University, Araka, lacked training on how to use EIR efficiently and effectively for their research. Furthermore, the authors stated that user Education programmes, orientation and training on the use of Information Communication Technology (ICT) and how to access the various e-resources/ databases should be extended to newly- registered students. Lallaisangzuali[17] conducted a study that aims to explore the status of information literacy of postgraduate students and teacher trainees of Mizoram University, Aizawal; their information-seeking skills and ability to acquire and use information effectively. The finding reveals that the majority of the postgraduate students and teacher trainees used library catalogue materials. All the respondents prefer to get their information both in print and electronic form.

A study was conducted by Akussah, Asante and Adu-Sarkodee[18] the study reveals that all the four contracts (satisfaction level, preferred database, time & frequency, and level of awareness) of the electronic resources indicated a significant positive relationship with usage among the users. The authors recommended that the institution should adopt more dynamic marketing strategies in order to inform and create awareness of existing electronic resources, which can include fresh student's orientation, faculty seminars, mailing list to users, circulars, selective dissemination of information (SDI) services for their users.

Phuapan et.al [19] conducted a study on information literacy skills among thai University Seniors. The researchers sought to determine which digital skills were most important in using digital technology, communications tools and networks to access, control, merge, assess, generate and communicate. It was determined that the ability to evaluate was the most important skill indicator in the development of information literacy.

According to Adeleke and Emeahara [20] in a study in University of Ibadan, the low level of usage of e-resources, among postgraduate (PG) students need to be more competent in using communication technologies, including computers and associated skills such as desktop publishing, database management, programming, and web page design to navigate in an electronic environment. Significant relationship between information literacy skills and use of electronic information resources was established from result of the findings. It is evident that PG students need to acquire information literacy skills and improve the quality of their academic and research work.

Swarna and Birader [21] main purpose of the study is to investigate the information literacy skills of the science postgraduate students studying at Kuvempu University and Davanagers University of Karnataka state. The study reveals that the majority of the students are competent to explain, evolve and review the information need on a topic. 50% of students are competent to recognize and use different information searching tools.

It can be said that from the above literature reviewed, information literacy plays a pivotal role in enhancing the usage of electronic resources in academic libraries. However, most of the users do not use their full potential in retrieving information from electronic resources due to lack of information literacy. Retrieving the information and making use of the required information from the electronic environment needs information literacy.

5 OBJECTIVES

The objectives of the study are given as under:
1. To assess the ability of the teacher trainees to search, locate, retrieve and evaluate the information from various information sources.
2. To identify the Information literacy awareness among the teacher trainees.

6 SCOPE

The study mainly focuses on Information literacy of teacher trainees in identifying, locating, searching, accessing, retrieving and using information from information sources and identify the Information literacy awareness among them. For data collection, a well self-constructed questionnaire was framed and distributed among 150 teacher trainees of MIER College of Education, Jammu. Out of 150 questionnaires, 118 were received back from 6 male and 112 female teacher trainees respectively.

7 METHODOLOGY

The researcher has prepared a self-constructed questionnaire to collect the primary data on the bases to achieve the objectives of the present study, after a comprehensive review of related literature. To collect the data a stratified random sampling was used. The questionnaire was designed for teacher trainees to assess their information literacy skills. The questionnaire covers areas like demographic data; frequency of visiting the libraries, awareness about the services provided by the library, awareness about the use of information resources, frequently used resources, awareness regarding familiarity with Information literacy programme, etc. The data obtained from the responses were tabulated and interpretations as under.

8   DATA ANALYSIS AND INTERPRETATION

1. Demographic Information

a) Gender wise distribution of respondents

Table 1. Gender wise distribution of respondents

Gender	No of respondents (%)
Male	6 (5%)
Female	112 (95%)
Total	118 (100%)

Table 1 indicates that 118 questionnaires were received from teacher trainees whom 5% were male and 95% were female.

2. Frequency of Visiting the Library

Table 2. Frequency of Visiting the Library

S.no	Frequency	Responses (%)
1	Daily	37 (31%)
2	2-3 times a week	43 (36 %)
3	Monthly	8 (7%)
4	Once a week	4 (3%)
5	Rarely	25 (21%)
6	Never	1 (1%)
	Total	118 (100%)

Table 2 depicts that 31% of the teacher trainees visit the library daily, 36% respondents visit 2-3 times a week, 7% monthly 3% once a week, 21% rarely, while 1% users never visit the library.

3. Awareness about the services provided by your library

Table 3. Awareness about the services provided by your library

S.no	Services provided by your library	Responses (%)
1	Current Awareness Service	90 (76%)
2	Selective Dissemination of Information (SDI)	40 (34%)
3	Inter Library Loan Service	14 (12%)
4	Photocopying service	58 (49%)
5	Electronic document delivery service	30 (25%)
6	E-resources access	47 (40%)
7	Online databases	55 (47%)
8	Virtual Library	28 (24%)
9	OPAC/ Web OPAC	25 (21%)

Regarding the awareness about the services provided by your library, the respondents were asked to select their options, Table 3 indicates that 76% of the respondents are aware of the current awareness service, 34% are aware of SDI services, 12% are aware of Inter Library Loan Service.49% are photocopying service, 25% are aware of electronic document delivery service, 40% are aware of e-resources access 47% are aware of an online database, 24% are aware about virtual libraries and 21% are aware of OPAC/ Web OPAC .

4. Method in searching the documents in the library

Table 4. Method in searching the documents in the library (N=118)

S.no	Methods	Responses (%)
1	Identify the book from OPAC	35 (30%)
2	Physically verify the books on the racks	67 (57%)
3	Ask the library staff	55 (47%)

Locating the required information is a major problem in any library so the same was asked to these respondents. Table 4 depicts that 30% mentioned that they used OPAC for finding the required information in the library, 57% of the respondents have physically verified the books on the racks and 47% of the respondents consulted library staff.

5. Use of Information source by format

Table 5. Use of Information source by format

S.no	Format of Information	Responses (%)
1	Print	10 (8%)
2	Electronic	06 (5%)
3	Both	102 (87%)
	Total	118 (100%)

Table 5 reflects that majority (87%) of the teacher trainees use print and electronic format both followed by (8%) of teacher trainees wish for information in print format. and only (5%) in electronic format.

6. Frequently used search engine

Table 6. Frequently used search engine (N=118)

S.no	Search Engine	Responses (%)
1	Google	116 (98%)
2	Yahoo	11 (9%)
3	MSN	3 (3%)
4	Altavista	2 (2%)
5	Others	1 (1%)

Table 6 shows that the majority (98%) of the respondents use the Google search engine. Only (9%) use yahoo, (3%) use MSN, (2%) use Altavista and (1%) use other search engines for searching the information.

7. AWARENESS ABOUT THE USE OF OFFLINE RESOURCES

With regards to the awareness about the use of offline resources, the respondents were asked to select their opinions on a five-point Likert scale in which 1 strongly disagree, 2 Disagree, 3 Neutral, 4 Agree, 5 strongly agree. About the use of online resources, 96% of the respondents were agreed, 18% disagree,12% are strongly disagreed and 72% are strongly agreed. '

8. AWARENESS ABOUT THE USE OF ONLINE RESOURCES

With regards to the awareness about the use of online resources, the respondents were asked to select their opinions on a five-point Likert scale in which 1 strongly disagree, 2 Disagree, 3 Neutral, 4 Agree, 5 strongly agree. About the use of online resources, 70% of the respondents were agreed, 28% disagree, 16% are strongly disagreed and 44% are strongly agreed.

9. SEARCH TECHNIQUES AND STRATEGIES USED

Table 9. Search techniques and strategies used (N=118)

S.no	Search Strategies	Responses (%)
1	Boolean operator (AND, OR, NOT)	10 (8%)
2	Phrases	16 (14%)
3	Advance search	45 (38%)
4	Wildcard/truncations key	2 (2%)
5	Proximity of terms	6 (5%)
6	Simple search	96 (81%)

Regarding the search techniques and strategies used by the scholars to find information, Table 9 reflects that 81% of the respondents used simple search techniques, 38% used advanced search, 14% used phrases, 8% used Boolean operators (AND, OR, NOT), 5% used proximity of terms and 2% used Wildcard/truncations key for their research.

10. FAMILIARITY WITH INFORMATION LITERACY PROGRAMME

Table 10. Familiarity with information literacy programme

S.no	Familiarity with information literacy programme	Responses (%)
1	Yes	71 (60%)
2	No	47 (40%)
	Total	118

Table 10 shows that two third of (60%) of the respondents are familiar with the information literacy programme and only one third (40%) of the respondents know about information literacy programme.

11. AREAS WHERE INFORMATION LITERACY PROGRAMME REQUIRED

Table 11. Areas where Information literacy programme required (N=118)

S.no	Areas where Information literacy programme required	Responses (%)
1	Use of offline sources	72 (61%)
2	Use of online sources	112 (95%)
3	Both online & offline sources	114 (97%)
4	National Digital Library of India (NDLI)	80 (68%)
5	Digital library	94 (80%)
6	online database	74 (63%)
7	Others	4 (3%)

Table 11 shows that the type of various options provided by the respondents with regards to the areas where Information literacy programme required, 97% of the respondents opt for both online & offline sources, 95% choose training in the use of online sources, 80% opt for digital library, 68% opt for National Digital Library of India (NDLI), 63% opt for online databases, 61% opt for offline sources and 3% opt for others.

9 CONCLUSION

Information literacy is a major prerequisite for the academic community in the current ICT age as skills and abilities are a key characteristic that helps the teacher trainees to retrieve the right information from the right source without wasting their time. The library users need awareness regarding the use of variour search strategies including OPAC in the search and retrieval of information. There is an educational imbalance between rapidly evolving technologies and

information available to users. Educating people to use information technologies is becoming an important educational objective for the teaching and research community. Information literacy Programme should be linked with teacher trainees' needs and requirements and it should be more practical oriented and regular basis. They should be guided at beginning by the librarians & library staff about how to locate the correct information needed by them to solve their problems. Universities should play a key role in spreading the knowledge of digital information resources among their affiliated colleges of education.

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A Journey of Fifteen-years of the Journal of Information Literacy (JIL): A Bibliometric Analysis

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Assessing research activity is very important for designing future protective and adaptative policies. The present study was the bibliometric analysis that aimed to summarise research activity in the current journal of Information literacy and characterize itsessential aspects. The bibliometric analysis identified mainly the year-wise distribution of articles, Degree of collaboration; author productivity; most prolific authors'affiliation of institutions and country and keyword occurrence analysis of the journal. The study showed that a total of 417 articles were published in the journal from 2007 to 2021. The highest number of articles, i.e. 53 (12.70%), was published in 2018, and the average productivity per author is 1.55 and article per author is 0.64 during the study period. In this study, we have identified the top 20 keywords occurrences and found that the Literacy term was used the most. The most prolific author is Secker.

Keywords: *Journal of Information Literacy; Bibliometric; Bibliometric analysis; Degree of Collaboration; Author Productivity; Keyword occurrence.*

1 INTRODUCTION

Bibliometrics is an essential scientific tool to evaluate the standard of any journal. The subject of bibliometrics was first described by Pritchard (1969)[1]as"the application of mathematical and statistical methods to books and other media" [2]. It involves analyzing a set of publica-tions characterized by specific variables such as the citations, the associated subject keywords, the place of publication and publication, authors.

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