
Digital Literacy Skills and Competencies among the Research Scholars and PG Students of Deemed University Libraries, Bangalore: A Study

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Abstract

The study focuses on the digital literacy skills and competencies among the research scholars and PG students of deemed university libraries in Bangalore. The study aims to identify the awareness of e-resources, their usage, purpose of use, factors influenced, impact of e-resources and barriers faced in the access of e-resources. Survey method was used to carry out this research. A well-structured questionnaire was used to collect the data from the respondents; total 150 questionnaires were distributed to the sample population and received back 130 filled in questionnaires. The researcher took 130 questionnaires for analysis using simple percentage techniques.

Keywords

Digital Literacy; Literacy Skills; E-resources; Deemed Universities.

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INTRODUCTION

With the impact of ICT every aspect of life in the society has changed, as a result many changes have occurred in the different ways of performing task. Today it has become important to have the right skills who are well versed in the use of these information and communication technologies to perform their duties. Digital literacy is important in the administration of e-learning as most institutions have embarked on online education. "In the new millennium, students require information literacy as well as digital literacy skills to succeed in academia and beyond" (Blummer, Barbara; Kenton, Jeffrey M. 2015), Sohala (2015) highlights that digital literacy is the variety of literacy's associated with the use of digital technology. The ability to access, evaluate and use of information is a prerequisite for lifelong learning, and a basic requirement for the information society. At the University level, students are expected to contact independent exploration in diverse disciplines and topics and therefore, irrespective of their areas of study they need to use information effectively. The rapid growth of ICT (Information and Communication Technologies) has given rise to the several, Electronic resources, portal / gateway and global digital library. Digital literacy is a more recent concept than information literacy and can relate to multiple categories of library users in multiple types of libraries. Digital literacy has been defined in various ways (Bawden, 2008) since the term was first introduced by Glister (1997). The term digital literacy refers to the ability to use ICT tools, and internet to access, manage, integrate, evaluate, create and communicate information in order to function in a knowledge society. Digital literacy skills and competences make it possible for students to use digital tools to enrich their educational experience and improve them for society and lifelong learning. Glister cited in Despo and Nikleia (2011) defined digital literacy as the ability to understand information and more importantly to evaluate and integrate information in multiple formats that the computer can deliver. ALA (2013) defined digital literacy as the ability to use information and communication technologies to find, understand, evaluate, create and communicate digital information

DEEMED UNIVERSITIES

The higher education system in India includes both private and public universities. Public universities are supported by Government of India and the state governments, while private universities are mostly

supported by various bodies and societies. Universities in India are recognized by the University Grants Commission (UGC), which draws its power from the University Grants Commission Act, 1956. Deemed university, or "Deemed-to-be-University", is a status of autonomy granted by the Department of Higher Education in the Union Human Resource Development Ministry, on the advice of the UGC, under Section 3 of UGC Act, 1956. The status allows full autonomy in courses, syllabus, admissions and fees. As of now there are 130 deemed universities in India and 15 deemed universities in Karnataka.

OBJECTIVES OF THE STUDY

The following are the objectives of the study.

1. To identify the awareness of library resources among the respondents.
2. To know the ICT skills of the respondents
3. To know the awareness and use of different electronic resources among the respondents.
4. To identify the purpose of using e-resources.
5. To find out the factors that influence them to use e-resources
6. To identify the impact of e-resources on their academic and research work
7. To uncover the problems faced by the respondents while accessing e-resources

SCOPE OF THE STUDY

The scope of the study is confined to select deemed universities in Bangalore city. The present study is limited to the digital literacy skills and competencies of PG students and research scholars of deemed university libraries in Bangalore.

RESEARCH METHODOLOGY

Research methodology is defined as a sequential process involving several clearly defined steps involving in order to provide information to guide a decision variations are suggested for different situations but there is much similarity among the sequence proposed. For the present study the survey method of research was employed. A well-structured questionnaire was used as a data collection tool. A total of 150 questionnaires were distributed to the sample population and researcher received back 130 filled in questionnaires. The data collected was analyzed, tabulated and interpreted in the following section.

LITERATURE REVIEW

Pegeen, Jensen et.al. (2010) describes on details of Digital literacy's and the NYSRA Charlotte Award. Successful podcasting and wiki project conducted with NYSRA Award Charlotte Award nominated books. And also explore additional detail literacy project that teachers can use in their literature programs. Kaur, Sidhuguruam et.al. (2015) made a study on Postgraduate student's level of dependence on supervisors in coping with academic matters and using digital tools. In this articles among the factors that have contributed to this are postgraduate student's supervisory practices and student limitations in terms of knowledge, and 21st century skills such as critical thinking, autonomy and lifelong learning. Abrizah, Abdullah and Zainab, A N (2008) suggests that the Digital Library can contribute to student's empowerment in information literacy practices while searching, using and collaboratively building the digital library resources. To illustrate this, the author have been experimenting with the implementation of an integrated information literacy model based on Eisenberg and Berkowitz Big 6 model and describes the CDL features in association with the information literacy dimension in this model. Marie, Cordell Rosanne (2013) focused on this development in digitization in the information in a library to the information literacy and digital literacy is a more recent concept than information literacy and can relate to multiple categories of library users in multiple types of libraries. Determining the relationship between information literacy and digital literacy is essential before revision of the ACRL Standards can proceed. Kathryn, Paige and Stephen, Dobson (2016) developed Digital Literacy Teaching and Learning Tool. This teaching and learning tool has been incorporated as an assessment strategy in the curriculum area of science and mathematics with pre-service teacher (PSTs). This paper explores two themes developing twenty first century digital literacy skill and modeling best practice assessment tools in the growing debate about the impact of multi-model representation, researchers such as Hoban and Nielsen, and brown, Murcia and Hacking emphasis' the development of conceptual understandings and semiotics.

DATA ANALYSIS

The data collected from the respondents through questionnaires was analyzed using simple percentage technique.

Table 1: Distribution of Questionnaires

Questionnaires Distributed	Questionnaires Received	Percentage
150	130	86.66

Table 2: Distribution of Respondents

Respondents	Distributed Questionnaires	Received Responses	%
PG Students	100	90	69.23
Research Scholar	50	40	30.77
Total	150	130	100

Table 2 indicates the response rate of students is 90 (69.25%) whereas response rate of research scholars is 40 (30.77%).

Table 3: Awareness on Library Resources

Sl. No	Library Resources	Total response	%
1	Text Book	125	96.15
2	Reference Sources	100	76.92
3	E-resources	95	73.08
4	Journals	104	80.00
5	Conference Proceedings	39	30.00
6	Theses and dissertations	55	42.31
7	Directories	38	29.23
8	Handbooks	51	39.23
9	Reports	64	49.23
10	Gazetteers	12	9.23

Table 3 indicates the awareness on different library resources, it is observed that majority of the

Table 6: Information Retrieved from the internet

Sl.No	Features	Excellent	Good	Poor	Total
1	Accessibility	64(49.23%)	6(47.69%)	4(3.08%)	130
2	Accuracy	28(21.54%)	95(73.08%)	75(38.00%)	130
3	Authoritative	27(20.77%)	86(66.15%)	17(13.08%)	130
4	Consistency	28(21.54%)	90(69.23%)	12(9.23%)	130
5	Ease of use	71(54.62%)	54(41.54%)	(3.85%)	130

Respondents were asked to rate the information retrieved from the internet based on the features mentioned above in table no 6 71(54.62%) respondents is of the opinion that ease of use of information is excellent feature 95(73.08%) is accuracy and 4(3.08%) opined that accessibility of information is poor.

respondents 125 (96.15%) are aware of text books, followed by journals 104(80.00%) and 100(76.92%) reference sources 95(73.08%) e-resources and the least being gazetteers 12(9.23%)

Table 4: Ratings of Internet Skills

Sl.No	Internet Skills	Total response	%
1	Very good	35	26.92
2	Good	73	56.15
3	Uncertain	18	13.85
4	Poor	4	3.08
5	Very Poor	0	0.00
	Total	130	100

Respondents were asked to rate their internet skills, table 4 reveals that 73(56.15%) are of the opinion that they are good in internet skills, followed by 35(26.92%) and 18(13.85%) and 4(3.08%) opined that they are poor.

Table 5: Frequency of use of Internet

Frequency	Responses	%
Daily	121	93.08
Twice a week	1	0.77
Weekly	2	1.54
Once a fortnight	0	0.00
Occasionally	6	4.62
Total	130	100.00

Table 5 shows 121(93.08%) of the respondents are using internet daily 6(4.62%) occasionally.

Table 7: Purpose of using Internet

Sl. No	Purpose of using Internet	Responses	%
1	Keep Update in area of research work	94	72.31%
2	Access e-resources	101	77.69%

3	Electronic Mail	119	91.54%
4	For communication	103	79.23%
5	Reading online news papers	95	73.08%
6	Online dictionaries/encyclopedia /maps/atlases	92	70.77%
7	Social media	112	86.15%
8	Download games	58	44.62%
9	Entertainment	105	80.77%
10	Online Banking	100	76.92

It is observed from table no 7 that the students and research scholars are using internet for Email 119(91.54%) followed by 112(86.15%) for social media and 105(77.69%) for entertainment 101 (77.69) make use of internet for accessing e-resources.

Table 8: Awareness of E-resources

Awareness of E-resources	Responses	%
Yes	120	92.31
No	10	7.69

Table 8 shows that the 120 (92.31%) of the respondents are aware of e-resources and 10(7.69%) are not aware of e-resources

Table 9: Different types of E-resources

Sl. No	Types of E-resources	Responses	%
1	E-books	112	86.15
2	E-journals	68	52.31
3	E-conference Proceedings	26	20.00
4	CD-ROM Databases	9	6.92
5	E-Theses and dissertations	29	22.31
6	Library Consortia E-resources	18	13.85

Table 12: Purpose of using E-resources

Sl. No	Purpose	Strongly Agree	Agree	Uncertain	Strongly Disagree	Disagree	Total
1	For research purpose(thesis/dissertations/project work	73 (56.15%)	46 (35.38%)	6 (4.62%)	3 (2.31%)	2 (1.54%)	130

7	Audio-Visual Resources	37	28.46
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Table 9 reveals that 112(86.15%) majority of the respondents preferred to use E-books and E-journals 68(52.31%) followed by audio visual resources 37(28.46%).About 29(22.31%)of the respondents use e-these and dissertations, 26(20.00%) opined that they use E-conference proceedings, 18(13.85%) expressed to use for library consortia e-resources and 9 (6.92%) CD-ROM databases.

Table 10: Frequency of use of E-resources

Sl. No	Frequency of use of E-resources	Responses	%
1	Daily	43	33.08
2	Twice a week	20	15.38
3	Weekly	21	16.15
4	Once a fortnight	9	6.92
5	Occasionally	37	28.46
	Total	130	100

Table 10 shows 43(33.08%) of the respondents use e-resources daily followed by occasionally 37 (28.46) and 21(16.15%) weekly 20 (15.38%) and 9 (6.92%) once a fortnight.

Table 11: Methods of learning E-resources Skills

Sl. No	knowledge about e-resources	Responses	%
1	Guidance from teachers	28	21.54
2	Guidance from friends	44	33.85
3	Library staff	7	5.38
4	Social Networks	48	36.92
5	Advertisements	3	2.31

Table 11 shows that 48(36.92) of the respondents are more prominent on social networks which is the most popular method of learning e-resource skills followed by guidance from friends 44(33.85%), 28(21.54) guidance from teachers.

2	Updated knowledge in my interested area	61 (46.92%)	51 (39.23%)	9 (6.92%)	5 (3.85%)	4 (3.08%)	130
3	For getting current information	69 (53.08%)	41 (31.54%)	15 (11.54%)	3 (2.31%)	2 (1.54%)	130
4	For teaching	37 (28.46%)	61 (46.92%)	19 (14.62%)	10 (7.69%)	3 (2.31%)	130
5	For writing and publishing articles/books	47 (36.15%)	34 (26.15%)	28 (21.54%)	16 (12.31%)	5 (3.85%)	130
6	To prepare research proposal	42 (32.31%)	38 (29.23%)	23 (17.69%)	19 (14.62%)	8 (6.15%)	130
7	Ease of search and navigation	59 (45.38%)	43 (33.08%)	14 (10.77%)	9 (6.92%)	5 (3.85%)	130

It is observed from the above table 12 that majority of the respondents 73 (56.15%) strongly agree that they make use of e-resources for research work, 61(46.92%) of the respondents agree they use e-resources for teaching purpose, 28 (21.54%) are

uncertain about their usage for writing and publishing articles /books, 19(14.62%) and 8 (6.15%) strongly disagreed about their using e-resources for preparing research proposal.

Table 13:Factors that influence to use E-resources

Sl. No	Factors	Strongly Agree	Agree	Uncertain	Strongly Disagree	Disagree	Total
1	Easy and free access	71 (54.62%)	47 (36.15%)	8 (6.15%)	3 (2.31%)	1 (0.77%)	130
2	Accessible anywhere ,any time	61 (46.92%)	44 (33.85%)	18 (13.85%)	5 (3.85%)	2 (1.54%)	130
3	Get easy,fast,current and updated information	50 (38.46%)	54 (41.54%)	18 (13.85%)	5 (3.85%)	3 (2.31%)	130
4	Less expensive and time saving	58 (44.62%)	49 (37.69%)	11 (8.46%)	7 (5.38%)	5 (3.85%)	130
5	Easy to search and retrieve required information	49 (37.69%)	61 (46.92%)	12 (9.23%)	6 (4.62%)	2 (1.54%)	130
6	Access to variety of electronic information resources	46 (35.38%)	56 (43.08%)	16 (12.31%)	7 (5.38%)	5 (3.85%)	130
7	Simultaneously en number of users can access	50 (38.46%)	51 (39.23%)	13 (10.00%)	10 (7.69%)	6 (4.62%)	130

It is clear from table 13 that 71(54.62%) strongly agree that easy and free access has influenced the respondents to use e-resources, 56(43.08%) agree that access to variety of electronic information resources, 18 (13.85%) are uncertain about the easy

and free access to e-resources and to fast, current and updated information, 10(7.69%) and 6 (4.62%) strongly disagree on number of users can access e-resources simultaneously.

Table 14: Impact of E-resources

Sl. No	Impact	Strongly Agree	Agree	Uncertain	Strongly Disagree	Disagree	Total
1.	Reading skills has been improved	45 (34.62%)	49 (37.69%)	19 (14.62%)	12 (9.23%)	5 (3.85%)	130
2.	Academic excellence has been improved	30 (23.08%)	70 (53.85%)	17 (13.08%)	10 (7.69%)	3 (2.31%)	130
3	Improved my independent and life-long learning skills	40 (30.77%)	59 (45.38%)	14 (10.77%)	13 (10.00%)	4 (3.08%)	130
4	Number of Publications have increased	21 (16.15%)	51 (39.23%)	35 (26.92%)	15 (11.54%)	8 (6.15%)	130
5	Expanded my reading possibility	39 (30.00%)	57 (43.85%)	17 (13.08%)	9 (6.92%)	8 (6.15%)	130
6	Research achievement has increased	28 (21.54%)	53 (40.77%)	26 (20.00%)	13 (10.00%)	10 (7.69%)	130

Table 14 indicates that 45(34.62%) strongly agree that their reading skills has been improved, 70(53.85%) agree that they have improved in their academic excellence,35(26.92%) are uncertain about

their increase in the number of the publications followed by 15(11.54%) strongly disagree, and 10(7.69%) disagree that their research achievement have increased

Table 15: Problems faced in accessing e-resources

Sl. No	Problems	Strongly Agree	Agree	Uncertain	Strongly Disagree	Strongly Disagree	Total
1	Lack of academic/ research related information on my topic	26 (20.00%)	41 (31.54%)	31 (23.85%)	24 (18.46%)	8 (6.15%)	130
2	Inadequate skills on how to use e-resources	14 (10.77%)	35 (26.92%)	29 (22.31%)	40 (30.77%)	12 (9.23%)	130
3	Information Overload/irrelevance	20 (15.38%)	41 (31.54%)	33 (25.38%)	26 (20.00%)	10 (7.69%)	130
4	Inadequate facilities for using e-resources in my library	22 (16.92%)	27 (20.77%)	33 (25.38%)	36 (27.69%)	12 (9.23%)	130
5	Lack of awareness on literature search techniques	13 (10.00%)	43 (33.08%)	24 (18.46%)	36 (27.69%)	14 (10.77%)	130
6	Lack of skilled library staff to assist	15 (11.54%)	40 (30.77%)	36 (27.69%)	26 (20.00%)	13 (10.00%)	130
7	Inconsistency of document formats	21 (16.15%)	35 (26.92%)	42 (32.31%)	24 (18.46%)	8 (6.15%)	130
8	Poor network connectivity /slow download speed	11 (8.46%)	38 (29.23%)	35 (26.92%)	32 (24.62%)	14 (10.77%)	130

The above table 15 shows the problems faced by the respondents using e-resources, 26 (20.00%) Strongly Agree Lack of academic/ research related information on their topic, 43(33.08%) agree that they are not

aware on literature search techniques, 42(32.31%) are uncertain about the inconsistency of the document format,40 (30.77%) strongly disagree about their Inadequate skills on how to use e-resources.

FINDINGS

1. 125 (96.15%) are aware of text books, followed by journals 104(80.00%) the least being gazetteers 12(9.23%).
2. 73(56.15%) are of the opinion that they are good in internet skills.
3. 71(54.62%) respondents opined that easy use of information is excellent feature.
4. 112(86.15%) majority of the respondents preferred to use E-books and E-journals 68(52.31%) followed by audio visual resources 37(28.46%).
5. 43(33.08%) of the respondents use e-resources daily.
6. 48(36.92) of the respondents are more prominent on social networks which is the most popular method of learning e-resource skills.
7. 73 (56.15%) strongly agree that they make use of e-resources for research work.
8. 71(54.62%) strongly agree that easy and free access has influenced the respondents to use e-resources.
9. 70(53.85%) agree that they have improved in their academic excellence after using e-resources.
10. 73(56.15%) of them reported that training is required to access and use e-resources

CONCLUSION

It is apparent that Digital Learning platforms are conducive to strengthening both academic and digital literacy skills. As more and more incoming freshmen require university level developmental reading classes, the need to support these skills with instruction that reflects intuitiveness and responsiveness to how they think, live and learn using digital learning environments will be very important.

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