

Impact of e-information literacy on information seeking behavior of university teachers

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The study investigates the impact of e-information literacy on information seeking behavior of university teachers in the state of Maharashtra. Questionnaire method was used to collect data on information-seeking behavior of teachers. The study confirms that teachers are able to evaluate information critically and can classify/compare the information better after undergoing the e-information literacy programme. The paper concludes that e-information literacy empowers the university teachers to enhance e-information search skills effectively and independently for taking informed decisions.

Keywords: Information seeking behavior; Information literacy; University teachers

Introduction

The ever growing digital information and its varied sources on the web are posing new challenges for the teachers in recognizing and accessing authentic information. Teachers are required to equip themselves with skill sets that enable them to effectively retrieve information. The information literacy programmes aim at educating teachers in not only identifying and accessing authentic information sources, but also assist in evaluation and organization of collected information, ensuring its effective use.

E-information literacy is an extension of information literacy. It deals with evaluation and effective use of electronic and digital information resources. The essence of e-information literacy is to empower an individual to make knowledgeable judgements about what is found online and make best use of it for one or more academic purposes. E-information literacy has become a necessity to sift through the growing e-information.

The present study aims to analyse the impact of e-information literacy on academic and research activities of university teachers working in the state of Maharashtra.

Review of literature

Information literacy and e-information literacy programmes have become an integral part of higher education to enhance information search and evaluation skills for lifelong learning. Nayak and others¹ have provided an overview of e-information literacy and its importance in information practices and critical thinking in the present ICT era. The study highlights the education and training of teachers and students to make best use of information in rapidly changing environment. Ballestra² reported how e-learning and information literacy courses with hands-on IT experience (blended learning) are useful for the students. It also pinpoints the importance of teaching about new research tools for the effective retrieval and use of e-information. Another similar study reflects on the acquisition of e-literacy skills for further learning and how Information Commons programmes run by academic libraries in USA and elsewhere are helping in achieving the desired goals³. Secker⁴ highlighted the importance of acquisition of e-literacy for learners and teachers to make effective use of information in the e-learning environment. The study also highlights the role of information professionals in the acquisition of these skill sets.

Mahapatra⁵ highlighted various aspects of e-information literacy and impact of e-learning on distance education and the pivotal role of library and information science (LIS) professionals in spreading e-information literacy programmes. Prakash and Charya⁶ have also highlighted the role of LIS professionals in promoting electronic information literacy among users.

A survey on digital information literacy at Sambalpur University found that faculty members prefer electronic sources of information and recommended digital information literacy programmes for faculty members⁷. Another study on users' perceptions and expectations from e-information literacy programmes revealed that most of the users were happy with the quality of programmes conducted by the library⁸.

Review of literature did not reveal the impact of e-information literacy in the information seeking behaviour of university teachers, even though the studies highlighted the importance of e-information literacy for lifelong learning and the role of libraries in enhancing the skills through e-information literacy programmes.

Objectives of the study

- To study the impact of knowledge and use of e-resources on research and teaching activities of university teachers;
- To assess the measures of esteems like citations, consultancy, evaluation and project work of university teachers; and
- To identify the impact of training in accessing and the use of e-information resources on information seeking behaviour.

Methodology

The data for the study was collected using a structured questionnaire. A sample of 360 university teachers of 43 departments working in the 10 state universities of Maharashtra (excluding agricultural, technological, health sciences, open and deemed universities) in the faculties of sciences, social sciences and humanities (languages) were surveyed. A total of 347 teachers responded (96.38%) to the

survey. The sample comprised of full-time regular university teachers and other regular teaching positions including librarians.

Results and discussion

Knowledge and use of e-resources and its impact on research and teaching

Knowledge about use of e-resources and learning through training programmes helps in the effective use of resources for teaching and research. From the survey it is found that e-information literacy impacted information-seeking behavior of 93.94% of university teachers. Similarly, 92.79% of them have expressed that the training or orientation on the availability and use of e-resources would also have an impact on their information seeking behavior.

In the present ICT era, enormous amount of information is getting generated in every discipline on a daily basis. For teachers to remain updated, there is a need to go through the latest literature. From the survey, it is found that 38.05% of the university teachers indicated that e-information literacy has made very high impact on updating their knowledge followed by high impact on activities like undertaking research projects (35.10%), teaching and learning activities (35.10%), guiding students (33.33%), writing papers (31.86%), giving citations (28.61%) and evaluation of theses and dissertations (19.17%) (Table 1). Moderate to low impact was seen in activities like assessment of answer sheets (19.76%), and undertaking of consultancy work (19.17%). Amongst the teachers, 2.59% respondents indicated that they observed high impact towards writing of books.

While looking at designation, gender and faculty-wise impact on information seeking behavior of university teachers, it is found that high impact was observed in the academic and research activities of Assistant Professors (47.73%) and gender-wise analysis revealed high impact among female teachers (42.98%). In case of faculty-wise analysis, high impact is observed in sciences (50%) faculty as compared to other faculties (Table 2). Here, all the activities mentioned in Table 1 have been consolidated and given a single generic name 'Academic and Research activities' to draw the findings.

Impact of training on use of e-information resources

Figure 1 shows that after getting training in the use of e-information resources, university teachers seemed to have gained confidence in the effective use of e-resources. Teachers confidence level was seen to be in the range of 1 to 9 percent for factors such as evaluating information critically, classifying/ comparing the information, organizing information

for practical applications, identification of potential sources of information, finding difference between the fact and opinion, use of citations and quotations, selecting appropriate information and synthesizing and summarizing information. A moderate impact in the range of 1 to 4 percent is seen in factors such as search strategy, creation of web pages and recognizing errors in logic/system.

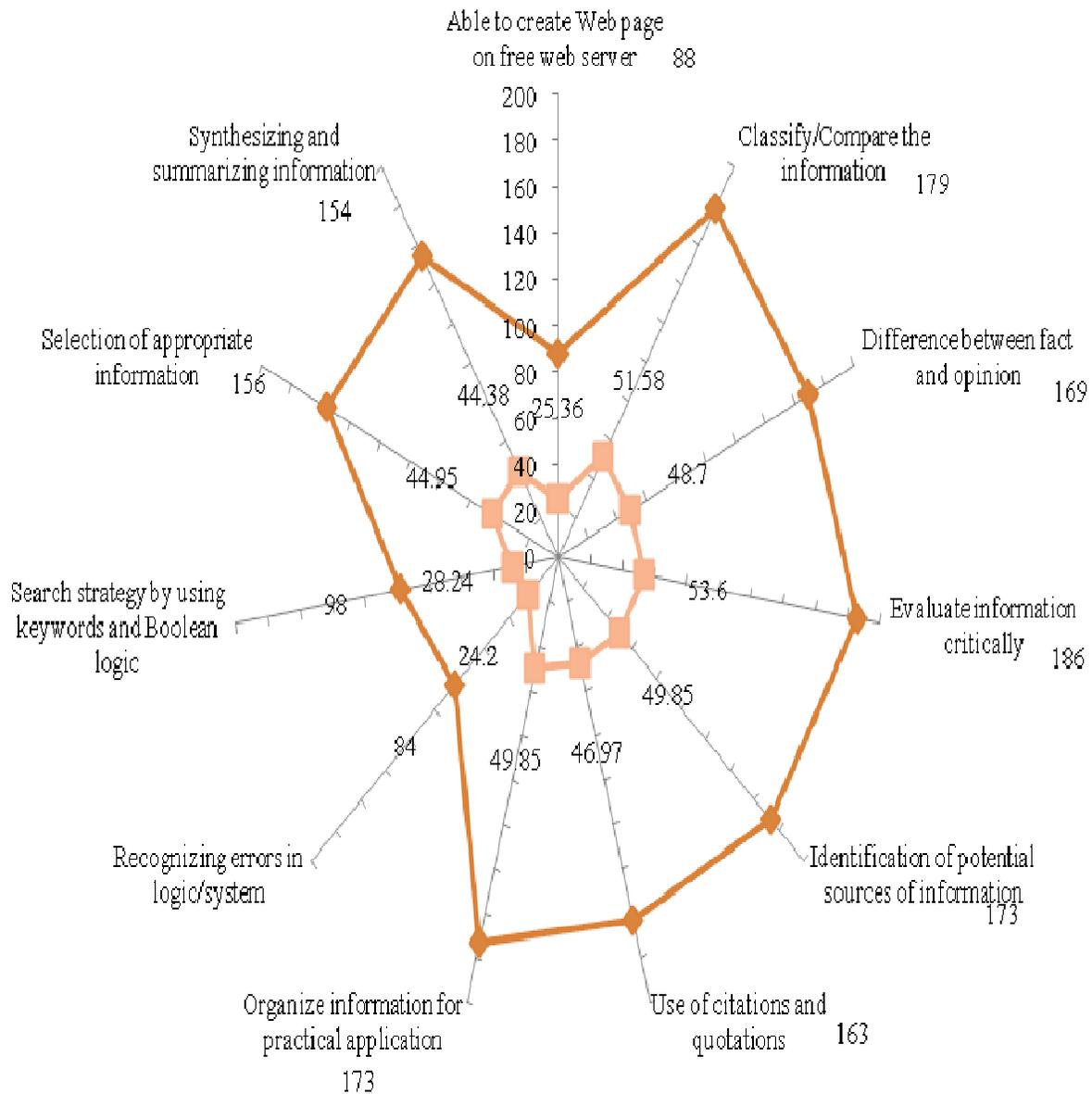


Fig. 1—Impact of training on use of e-information resources

Table 1—Impact on information seeking behavior of teachers

Activities	1	2	3	4	5	*	μ	Sk
Assessment of answer sheets	61 (17.99)	67 (19.76)	41 (12.09)	38 (11.21)	13 (3.83)	127 (35.60)	2.43	0.47
Evaluation of theses and dissertations	24 (7.08)	34 (10.03)	63 (18.58)	65 (19.17)	44 (12.98)	117 (33.72)	3.31	-0.33
Giving citations	9 (2.65)	28 (8.26)	69 (20.35)	97 (28.61)	39 (11.50)	105 (30.26)	3.53	-0.50
Guiding the students	3 (0.88)	21 (6.19)	92 (27.14)	113 (33.33)	73 (21.53)	45 (12.97)	3.77	-0.35
Teaching and learning	0 (0.00)	34 (10.03)	81 (23.89)	119 (35.10)	79 (23.30)	34 (9.80)	3.78	-0.31
Undertaking research projects	3 (0.88)	15 (4.42)	68 (20.06)	119 (35.10)	81 (23.89)	61 (17.58)	3.91	-0.59
Undertaking Consultancy	23 (6.78)	42 (12.39)	57 (16.81)	65 (19.17)	25 (7.37)	135 (38.90)	3.13	-0.21
Updating knowledge	1 (0.29)	13 (3.83)	57 (16.81)	95 (28.02)	129 (38.05)	52 (14.99)	4.15	-0.76
Writing papers	1 (0.29)	20 (5.90)	77 (22.71)	108 (31.86)	96 (28.32)	45 (12.97)	3.92	-0.44
Others	1 (0.28)	1 (0.28)	2 (0.57)	9 (2.59)	7 (2.01)	327 (94.23)	4.00	-0.06

Note: Figures in parenthesis indicate percentage. * Indicates no response. μ indicates mean. Sk indicates Skewness. Five point scale: 1= No Impact; 2= Little Impact; 3= Greater Impact; 4= High Impact; 5= Very High Impact

Table 2—Impact on academic and research activities of university teachers

Categorical variables		1	2	3	4	5	*
Designation	Assistant Professor	0 (0.00)	10 (5.68)	55 (31.25)	84 (47.73)	21 (11.93)	6 (3.41)
	Associate Professor	0 (0.00)	12 (12.5)	33 (34.38)	37 (38.54)	9 (9.38)	5 (5.21)
	Professor	1 (1.33)	9 (12)	23 (30.67)	25 (33.33)	14 (18.67)	3 (4.0)
Gender	Female	0 (0.00)	14 (11.57)	37 (30.58)	52 (42.98)	12 (9.92)	6 (4.96)
	Male	1 (0.44)	17 (7.52)	74 (32.74)	94 (41.59)	32 (14.16)	8 (3.54)
Faculty	Sciences	0 (0.00)	4 (3.03)	31 (23.48)	66 (50)	26 (19.7)	5 (3.79)
	Social Sciences	0 (0.00)	14 (10.85)	50 (38.76)	54 (41.86)	10 (7.75)	1 (0.78)
	Arts	1 (1.16)	13 (15.12)	30 (34.88)	26 (30.23)	8 (9.3)	8 (9.3)

Note: Figures in parenthesis indicate percentage. * indicates no response. Five point scale: 1= No Impact; 2= Little Impact; 3= Greater Impact; 4= High Impact; 5= Very High Impact

The designation, gender and faculty-wise impact of training on use of e-information resources of university teachers is given in Table 4 by

consolidating all the training related activities mentioned in Table 3 and giving single generic name as 'Confidence factors' to draw the findings.

Table 3—Impact of training on use of e-information resources

Confidence factors	Y	N	Total	Sk
Able to create Web page on free web server	88 (25.36)	259(74.63)	347	1.13
Classify/Compare the information	179(51.58)	168(48.41)	347	-0.06
Difference between fact and opinion	169(48.70)	178(51.29)	347	0.05
Evaluate information critically	186(53.60)	161(46.39)	347	-0.14
Identification of potential sources of information	173(49.85)	174(50.14)	347	0.01
Use of citations and quotations	163(46.97)	184(53.02)	347	0.12
Organize information for practical application	173(49.85)	174(50.14)	347	0.01
Recognizing errors in logic/system	84(24.20)	263(75.79)	347	1.20
Search strategy by using keywords and Boolean logic	98(28.24)	249(71.75)	347	0.97
Selection of appropriate information	156(44.95)	191(55.04)	347	0.20
Synthesizing and summarizing information	154(44.38)	193(55.61)	347	0.23

Note: Y= Responded; N= Not responded; Sk = Skewness; Figures in parenthesis indicates percentage.

Table 4—Impact of training against confidence factors of university teachers

Categories variables	Y	
Designation	Assistant Professor	78 (44.31)
	Associate Professor	34(35.41)
	Professor	24(32.00)
Gender	Female	48(39.66)
	Male	88(38.93)
Faculty	Science	57(43.18)
	Social Science	54(41.86)
	Arts	25(29.06)

Note: Y= Responded; Figures in parenthesis indicates percentage

From the above table, it is found that, training in the use of e-information resources resulted in higher confidence level among Assistant Professors (44.31%) as compared to Associate Professors (35.41%) and Professors (32%). Gender-wise analysis revealed higher confidence levels in female teachers (39.66%). In case of faculty-wise analysis, higher confidence level was observed in the sciences (43.18%) faculty followed by social sciences (41.86%) and arts (29.06%) faculties.

Conclusion

Knowledge of e-resources and training impacts information seeking behavior and empowers users to understand about the use of information in an effective way. It is observed from the study that e-information literacy has made an impact on information seeking behavior of university teachers

and facilitated them to make effective use of e-information independently. University libraries role in imparting training to university teachers in the use of e-information through awareness/ training programmes has resulted in improving their search skills. Libraries continued efforts in this direction assist academicians to become lifelong learners.

References

1. Nayak V D, Nayak R R and Murgod S G, *E-Information literacy: An Overview*. Available at: <http://ir.inflibnet.ac.in/bitstream/1944/1183/1/35.pdf> (Accessed on 3 July 2016).
2. Ballestra L, E-learning and information literacy: a winning combination, *BibliotecheOggi*, 10 (21) (2003) 11-23.
3. Beatty S and White P, Information commons: models for eLiteracy and the integration of learning, *Journal of e-literacy*, 2 (1) (2005).
4. Secker J, *Electronic resources in the virtual learning environment: a guide for librarians*. (Chandos Publishing; Oxford UK) 2004, pp. 53-74.

5. Mahapatra G, *Towards e-information literacy: quest for interoperable web based information system*, In Proceedings of the paper presented at the 4th International Convention CALIBER-2006 INFLIBNET Centre, Gulbarga 2-4 February 2006.
6. Prakash J and Charya V K, *Role of LIS professionals in the e-information literacy in digital Era*. Available at: <http://ir.inflibnet.ac.in/handle/1944/1328> (Accessed on 14 May 2016).
7. Maharana B and Mishra C, *A survey of digital information literacy of faculty at Sambalpur University*. Available at: <http://digitalcommons.unl.edu/libphilprac/144> (Accessed on 21 May 2014).
8. Jayasundara C, *Users perceptions and expectations on e-information literacy programmes: A gap analysis*. Available at: <https://dialnet.unirioja.es/descarga/articulo/2861817.pdf> (Accessed on 15 May 2016).