Awareness of Information Needs and Use of Library Resources and Services among Student-Teachers: A Study

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Abstract

As colleges of education train next generation teachers, B.Ed. students are expected to be the catalysts in developing the student community. Hence, cognizing their own information needs and vocalizing them will help them in playing their path showing role as teachers. With this intention, the study on assessment of awareness of information needs and use of library resources and services of student-teachers in Mumbai was conducted. Since awareness of library resources and services helps in fulfilling information needs by the users themselves, the first step in this study was finding out awareness of library resources and services. Further awareness of library services and use was tested through Pearson correlation coefficient. Total 353 sample of student-teachers and 11 librarians from 11 aided B.Ed. colleges of Mumbai were included in the study. It was found that the most predominant information need of the participants was academic preparation. Regarding e-resources like e-journals and e-books there was not much awareness among student-teachers. In addition participants were not able to distinguish between search engines, websites and online databases. The present paper reports the study which explored and assessed the awareness regarding information needs, use of library resources and services among the B.Ed. students in the Education Colleges of Mumbai.

Keywords: Awareness of Library Resources; Information Environment; Information Needs; Information Literacy; Information System; Library Instruction.

Introduction

Recognizing one's own information needs and converting them into demand is itself a difficult task. On the other hand eliciting information needs of users is the challenge faced by librarians in academic libraries. This paper is a part of user study, which is an effort to assess the awareness and use of library resources and information needs of B.Ed. College students in Mumbai. Since awareness of library resources and services helps in fulfilling information needs by the users themselves, the first step in this study was finding out awareness of library resources and services.

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Need of the Study

In the colleges of education which train next generation teachers, the task of identification of information needs is more crucial and essential for librarians as the future of prospective students is in the hands of student-teachers. The trainee teachers, referred as student-teachers are expected to be the catalysts in developing the student community. Hence, cognizing their own information needs and vocalizing them is also equally important as it will help in playing their path showing role as teachers. With this intention, the study on assessment of awareness of information needs and use of library resources, services of student-teachers was conducted. This would also help the Librarians of B.Ed. Colleges to set up their library system and services gearing towards the needs identified. Lack of research on the information needs of B.Ed. students in education colleges in general and particularly in

Mumbai motivated the researchers to conduct this study.

Objectives and Hypothesis

The chief objective of this study was to identify the information needs of B.Ed students in Mumbai and to find out the relationship between their awareness of library resources, services and use of library.The study further explored the need and focus of information literacy programmes for B.Ed students.

The Objectives Formulated for this Study were

To determine the information needs of student-teachers in B.Ed. colleges and how far they arefulfilled.

To ascertain whether according to participants and librarians the library has adequate materials to fulfil information needs of participants.

To find out usage of library resources generated out of information needs.

To find out whether the student-teachers need guidance from the librarian to fulfil their information needs.

To find out awareness and use of library services among student-teachers.

To ascertain whether participants need any special instructions or training regarding library use

Hypothesis

The Hypothesis Generated out of the Objectives is

H0: There is no significant relationship between awareness of library services and use of library services by the student-teachers

Scope and Limitations

The study included the student-teachers and librarians from 11 aided B.Ed. Colleges - 10 affiliated to the University of Mumbai and one affiliated to SNDT Women's University in Mumbai city and metropolitan regions of Mumbai.

Student-teachersof special education colleges, and those pursuing D.Ed., M.Ed., and M.A. in education from teacher training institutions were out of the scope of the study. The study did not take into consideration the statistics of usage of library materials. Instead it considered the use of different types of information resources as mentioned by the student-teachers. Usage of information resources was not drawn from the daily statistical data of the library.

Literature Review

It is interesting to examine how the concept of information need evolved and was interpreted with time. Information need defined by Brenda Dervin,as a gap in a person's knowledge that, when experienced at the conscious level as a question, gives rise to a search for an answer [1]. The experience of user's information need could be viewed as proceeding through four basic cognitive levels; visceral need, i.e.the actual, but unexpressed need, conscious need, i.e. within brain description of the need, formalized need, i.e. the formal statement of the need and the compromised need – the question as presented to the information system [2]. If information needs can be considered a generic concept, then there are subsets which address information demand and information wants [3].Information needs are 'a state of uncertainty recognized by an individual'. Krikelas believes in the idea of unconscious needs as irrelevant to active information seeking [4].Search begins with a problem and a need to solve it, a person with some goals and intentions, finds that these goals cannot be attained because the person's resources or knowledge are somehow inadequate.A characteristic of such a 'problematic situation' is an anomalous state of knowledge (ASK) or information need [5].There are many other factors such as work role, socio-culture and work environment, and nature of organization which trigger the information seeking [6].Two phased comparative study of problem based learning (PBL) curriculum and traditional curriculum of medical students, shows that PBL students use a greater variety of sources more frequently than students taught with traditional methods. PBL studentslearn how to seek information at an early stage of education [7]. Information need is a complex phenomenon generated by complicated environments and peoples' minds [8]. The information needs of immigrant Sudanese youths are mainly academic in nature. They used informal sources of information like colleagues, friends, neighbours and relatives [9].It is important that need is not mistaken for demand. The demand for information or documents may be low, for example, because the library is seen as inaccessible by the users. Still, the needs exist [10]. Many cognitive psychologists divide human needs into three basic categories i.e. physiological needs, affective needs, and cognitive needs. All these three categories of needs are interrelated. This means that as a part of the search for satisfaction of these needs, an individual may engage in information seeking [11] Information needs behaviour and information seeking behaviour are strongly interrelated with each other [12]Further

students are interested in good grades and they attempt to figure out what their instructors want in a research paper and just give attention to the number of pages and type of sources[13]. Information needs involve a cognitive process, which may operate at different levels of consciousness.According to Prajapati, information needs are what an individual ought to have for his work and require research, education and psychological bent of mind towards self-development [14]. Literature on information needs and information seeking is rising since 1991. Information needs articles mainly concentrated on the discipline of medical sciences, while most information seeking articles came from the discipline of LIS [15].

The literature reviewed clearly indicated the gap and showed that the study of information needs of B.Ed. students in Mumbai, tracing their awareness about information needs, library services and resources had not been conducted.

Materials and Method

The study adopted descriptive research design and survey method. In order to collect the primary data sample of 50 B.Ed. students per college wasselected whichtotalled to 550. Out of 550, filled 353 questionnaires were returned. The Sample was selected by simple random sampling technique by using lottery method. Further data was collected from librarians of 11 education colleges of Mumbai city as well. Collected data were analysed by using simple statistical method with the help of Microsoft Excel. Relationship between awareness and use of library serviceswas computed through Pearson correlation coefficient test.

Results and Discussion

In order to determine the information needs of participants and how far their information needs get fulfilled by the library, it was necessary to explore and analyse the factors like adequacy and usage of different types of information sources, formal training regarding library use, and the difficulties faced by librarians while fulfilling information needs of student-teachers. Hence, the awareness of resources and services and its relationship with theurge for library usage was tested qualitatively and quantitatively.

Awareness of Library Resources

Awareness of library resources and services is an important prerequisite for effective and optimum utilization of library resources. Role of teachers, librarians as catalysts in this awareness of library resources and services is undebatable. Hence, whether they played any crucial role in making the student-teachers aware was examined. Next,the opinions of participants on suitability of library timings and infrastructure also were sought.

In this context according to 51% respondents teachers made them aware about the library services. 33% opted for librarian as an option and 11% mentioned that they on their own became aware about library services by going to the library. 5% became aware through friends (Table1). Findings revealed that teachers played the prominent role in making participants aware about library services and resources.

Satisfaction - Library Timings

82% of respondents mentioned that library timings were not the hurdle in the process of fulfilment of information needs. The following pie chart explains the situation.

Fig. 1:
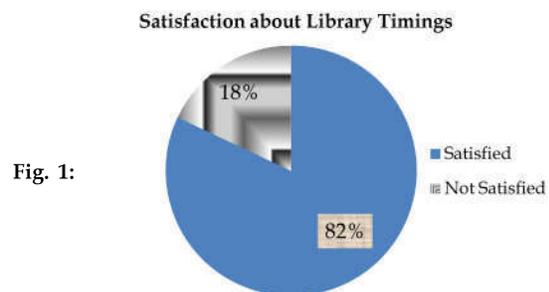
Satisfaction –Library Infrastructure

85% participants were satisfied with the library infrastructure (Figure 2). It shows that B.Ed. college library infrastructure was facilitating information seeking of student-teachers.

Fig. 3:
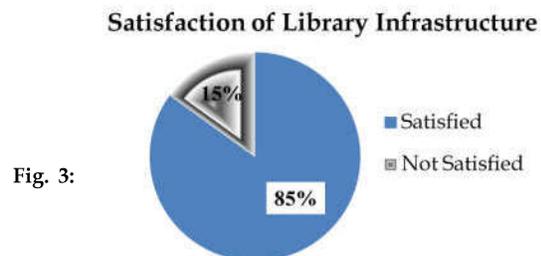
Information Needs Analysis

Information needs analysis brought forth the following results.

Adequacy of Library Resources

The prime objective of academic libraries is to support teaching-learning process and research. Therefore library resources should be sufficient in quality, depth, diversity and currency to support and to meet the information needs of the student-teachers. Hence adequacy of library resources was studied through the opinions of librarians and student-teachers.

Opinions of Librarians and Student-Teachers

Adequacy of different types of library resources was as follows (note: extremely inadequate and completely adequate resources only taken into consideration for statistical purpose) : Maximum (91%) librarians and 43% student-teachers indicated textbooks as completely adequate, 45% librarians mentioned that previous projects, and theses/dissertations as completely adequate, whereas 20% and 8% student-teachers reported complete adequacy for the same. According to 28% librarians and 26% and 21% participants' encyclopaedias and dictionaries were completely adequaterespectively.

Further CD-ROM databases, conference proceedings, e-books and e-journals reported as inadequate by the 28% Librarians, whereas 16% participants indicated e-books as completely adequate. Beside this according to 13%participants'e-journals, 18% CD-ROM database and 11% conference proceedingswere inadequate (Table 2).

It was evident from the findings that various types of e-resources like e-journals, CD-ROM.

Databases and e-database were insufficient to fulfil the information needs of theparticipants.

It was also observed that there wasdifference in perception of librarians and student-teachers as far as adequacy of library resources is concerned. It is obvious that the opinions of the librarians should be taken as valid here as they know their own collection well.The reason could be perhaps the participantsreport the adequacy of the library material according to use and fulfilment of their information needs. This indicated that according to the participants' collection of textbooks were adequate to meet their academic information needs, whereas e-resources such as e-books, e-journals were inadequate. In spite of majority of the B.Ed. Collegelibraries subscribing N-List database and separate orientationsession conducted, findings indicate that student-teacherswere not aware or they were not using various e-resources. Therefore there is a need to organise comprehensive e-information literacy

programme for the participants. In addition there is a need to make them understand about the importance and use of e-resources in the fulfilment of information needs. According to the some college librarians where the venue of project work was compulsorily library, the awareness and use of N- List was noteworthy.

Usage of Information Resources

Further, in order to determine information needs of the student-teachers it was crucial to figure out the use of information resources. As mentioned earlier usage of information resources does not take into consideration the daily usage statistics of the library. It is the extent of usage of library materials mentioned by the student-teachers.

Librarians' Opinions

Librarians were asked to indicate weightage of usage of information sources by student-teachers. All the librarians mentioned that textbooks and question papers were used very heavily. According to 82% librarians reference books (e.g. encyclopedias, dictionaries) were highly used. 73% mentioned that research projects, magazines and newspapers were highly used whereas conference/seminar proceedings were in low use. 55% librarians revealed that journal articles were highly used and library catalogues and indexes were very low used, further 45% librarians indicated that theses & dissertations were highly used, 64% mentioned that use of bibliographies was very low amongst student-teachers (Table 3).

Usage by Student-Teachers

It was found that 71% participantsopined they used textbooks, 62% used reference books such as encyclopaedias, dictionaries.61% used question papers and 41% used newspaper to fulfil information needs. 37% used research projects, 29% used magazines and 25% participants' used journal articles. 14% participants' used bibliographies. Very low usage of conference/seminar proceedings (12%), library catalogue (11%), indexes (9%) and theses and dissertations (8%) was indicated to meet information needs (Table 3).

Findings show that majority of participantsused the library material which were adequate to meet their academic information needs e.g. textbooks and reference books. It is alarming to note that other research oriented information sources such as conference proceedings or theses and dissertations

were used by less percentage of participants'. This indicated that student- teachers gave importance to examination oriented activities.

It is pertinent to note that the participantswere not using information tools like bibliographies, indexes. They were not even reading journal articles and project reports perhaps because of non-awareness of their significance in studies.

Catalogue use is the first thread of starting the search in the library. However, the usage of the catalogue was very low. Perhaps participants did not have adequate skills or training for catalogue use. Findings revealed that at proper juncturethere is a need of exhaustive library awareness program which will induce optimum utilization of other library resources. There is a need to further assess the reasons for low usage of other information sources like journal articles, indexes and bibliographies by participants'. The course of B.Ed. should be devised and revised in such a manner as it will require the use of these resources for their course work.

Usage of E-Resources

Use of different types of e-resources was investigated through opinions of student-teachers and librarians.

Student-Teachers'Opinions

It was interesting to note that 55% participants used different websites as chief information sources. Online databases were used by 49%, e-books were used by 35% (from N-list), e-journals were used by 21% and CD-ROMS were used by 11% of respondents. As observed from the Figure 3, more than half percentage of participants was using websites for getting information. This indicates that participants were more aware about the different websites as compared to e-books and e-journals.

Findings of this section established that different websites are popular among the participants as compared to e-books, online databases and e-journals. However, considering the impact of information technology in the present era the usage figures given by respondents was not satisfactory.

Librarians' Opinions

According to 73% and 45% librarians, websites and CD-ROM databases were highly used respectively. 36% librarians indicated that e-books and e-journals were used and only 18% mentioned usage of online databases by participants (Table 4).

When analysed qualitatively following findings emerged.

E-Journals

The respondentswere asked to note the names of e-resources used. However they failed to give the names of e-journals. 4% used but they do not remember the name, 3% used e-journals through databases like N-list, JSTOR, PUBMED, Indian institute of education website, 3% used Wikipedia and YouTube for reference work. It was found that the respondentswere unaware about the names of e-journals.

Online Databases

Participants were asked to name a few online databases used. 9% answered they used Google, and 8% answered they used Wikipedia as they got lots of information regarding project work. 12% used databases and websites for instance NCBI (The National Center for Biotechnology Information) and PUBMED database, Indian institutes of education. Other web sources mentioned as used by them were- Moodle, N-list, Eric, Springer, Science direct, Book Rags, ask.com, scarlert.com, www.enotes.com, mathisfun, Metacrawler, Poetry foundation etc. They found these sources easy, convenient and reliable. In addition, online encyclopaedias, dictionaries, Slide share and YouTube, PowerPoint presentations were used by 2% participants. 7% did not remember the name because they focused on the content of the source, whereas 1% did not refer online databases. Remainingparticipantsdid not answerthis question. This indicates that participants can not differentiate various modes of e-resources i.e. online databases, search engines, websites and software.

Reasons for Non-use

Following reasons were given by participants for the non-use of online- resources

1. They never felt the need to refer to e-journals and online-databases.

2. They preferred to use print materials from the library

3. They were not aware of use of online resources

4. Their college library does not subscribe to online resources

5. Time constraints was the hurdle in using e-journals

6. They were not comfortable with the online databases

7. They do not have computer and internet facility at home

These findings emerged in spite of majority of the B.Ed. College libraries subscribing to E-Journals/NLIST and all the colleges giving access to internet. Access to computer and internet facility was one of the hurdles, which revealed that college libraries need to be equipped with proper internet services to the student-teachers. It was also found that the participants could not distinguished between search engines, online databases and other information resources such as online encyclopaedias.Detailed information literacy programmes by B.Ed College Librarians focusing the distinction between types of e-resources, their use and access will generate awareness and motivation regarding the use of e-resources.

Use of Informal Information Sources

Participants utilized more informal information sources in the process of satisfying academic as well as other information needs. 76% participants consulted the experts in the field, 68% indicated the teachers as source of information and very less percentage i.e., 11% of participants mentioned classmates to satisfy their information needs (Table 5). It is very positive indication that participants consulted experts in the field during the information search process. Findings indicated that the participants were aware of the right informal source of information.

Guidance in Information Seeking

Following discussion explores librarians' initiatives for making participants information literate, and elaborates impact and importance of user education programmes for student-teachers.

Library Instructions

All 11 B.Ed. college librarians indicated that various user education programmes have been offered to the participants. Along with this, training sessions to search information in the e-resources and on the internet were organised by all the libraries, in order to make information seeking more fruitful.

Information Literacy Programmes

Participants were asked to indicate whether their college library conducted various user education programmes (Table 6), in this context 56% participants

mentioned library orientation, 44% of them indicated lectures on library use, 36% mentioned PPT presentation for the library use and 28% indicated library tour and training for internet search. Training for e-resources search mentioned by 23% of them and 24% indicated that college library does not conduct any library user education programmes. Findings indicated that all the libraries conducted user education programmes. Yet the findings of the usage and adequacy of library resources showed that student-teachers were not much aware about library resources. This may be because of participants not considering user education programmes useful. Therefore, there is a need to motivate participantsto attend such type of training in order to make them self-dependent and to do successful information search in the library. There was also a need to make participantsa ware of importance of attending these programmes. In addition on the librarian's part they need to assess productivity of user education programmes.

Impact of Information Literacy Programmes- Librarians' Perspective

Regarding the impact of information literacy programmes following results emerge, (Figure 3). 64% librarians agreed on, after giving introductory training participantsbecame more confident of searching information on the internet and comfortable in using library catalogue, 55% librarians agreed that participantsbecame more comfortable and confident of searching information in the library. 45% strongly agreed on an availability of digital library / online library would have had the great impact on information seeking of participants. Findings indicate that information literacy programmes were the core of successful information seeking of participants. However findings of the usage of information sources sections indicated that majority of participants used library material to satisfy academic information needs. This means there was lapse in the conduct of information literacy programmes. Either they were not conducted at proper juncture or not repeatedly conducted emphasising the importance of information sources. Giving the students practical sessions and involving them in information search exercises with feedback form during the user education programmes may work better towards fulfilment of their information needs. The following figure indicates the impact of information literacy programmes as given by the librarians. It was also found that no B.Ed. college library sought feedback of information literacy programmes focussing different aspects of user education.
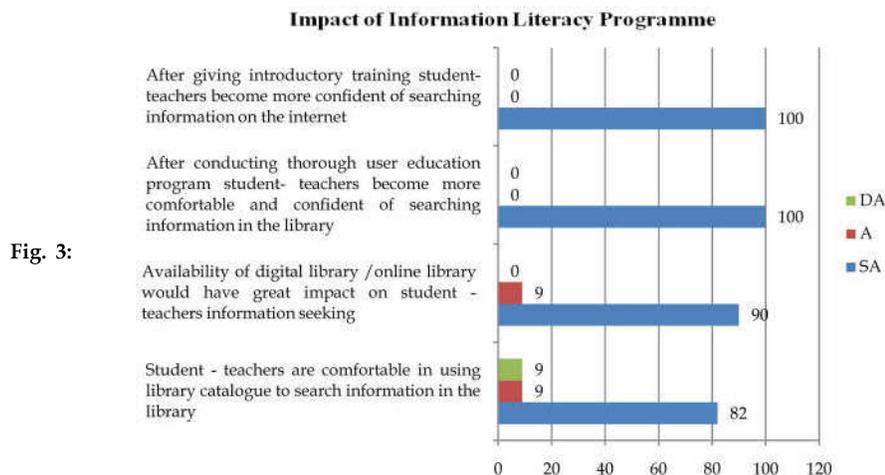
Impact of Information Literacy Programme

Fig. 3:

SA = strongly Agree, A = Agree, DA = Disagree

Importance of User Education Programmes – Participants Perspective

Library user education programmes are intended to create awareness about library services and resources amongst the student-teachers. While assessing the importance of such programmes, according to 58% participants'user education programmes were very important whereas 42% mentioned that it was not so important. Findings revealed that more than half percentage of participantsregarded user education programs asimportant in the education colleges to satisfy information needs. Considering remaining participants they might not be aware of the importance of user education programmes.Therefore it is the chief responsibility of library professionals to intensify their efforts to educate participantsand motivate them to attain library training.

Correlation of Awareness and Use of Library Services

Participants were given list of services offered by the library and asked to indicate whether they were aware of the library services and their significance, to fulfil information needs. In order to find out whether there was arelationship between awareness and use of library services by the B.Ed. students, Pearson correlation coefficient was computed. Descriptive statistics showing the relationship between awareness and use of library services is given in Table 7.Subsequently following null hypothesis was tested.

H0: There is no significant relationship between awareness and use of library servicesby student-teachers.

The Table 7 indicates that p value was less than .00001 which means it is significant at .05 levels, therefore it can be inferred that there was a significant relationship between awareness and use of library services by the student-teachers. Hence, the null hypothesis was rejected and the following alternative hypothesis was generated.

H1: There is a significant relationship between the awareness of library services and library use by student-teachers.

Findings indicated that awareness of library services motivate participants to use those services more. However, considering the usage of library resources extensive efforts need to be taken by the librarians and teachers to create awareness amongst the student-teachersabout the library resources. This will certainly have a positive impact on information seeking ofparticipants.

Information Needs Fulfilment- Difficulties Faced

Librarians were asked to rank the difficulties they faced while fulfilling information needs of the participants, 82% librarians ranked budget constraints- first, 64% ranked non-availability of human resource - second, 55% ranked inadequate library resources - third, 36% librarians ranked college time table- fourth, 28% ranked cooperation from the teachers- fifth and 18% ranked support from management - sixth (Table 8).

Findings revealed that library budget was the major difficulty in fulfilling information needs of B.Ed. student. Inadequacy of library resources may be the consequence of this. In this scenario policy makers should think of increasing the library budget to satisfy information needs of student-teachers.Qualitative data revealed that solo librarianship with one library peon and inadequacies of books were the difficulties mentioned by 18% librarians.

Table 1: Awareness of Library Resources

Source	Freq.	%
Teachers	181	51
Librarian	116	33
Self	40	11
Friends	16	5
Total	**353**	**100**

Table 2: Adequacy of Library Resources

Name of the Source	Librarian%		Student-teachers%	
	1	2	1	2
Textbooks	91	0	43	3
Previous Projects	45	0	20	6
Theses/Dissertations	45	0	8	11
Dictionaries	28	0	26	5
Encyclopaedias	28	18	21	6
e-journals	18	28	8	13
e-books	9	28	16	10
CD- ROM Databases	0	28	5	18
Conferences/ Seminars Proceedings	0	28	9	11

Note: 1= Completely Adequate 100%, 2 = Inadequate Below 25%

Table 3: Usage of Information Resources

Information Resources	Librarian %	Student-teachers %
Textbooks	100	71
Question papers	100	61
Reference Books (e.g. Encyclopaedia, Dictionary)	82	62
Magazines	73	29
Newspapers	73	41
Research Projects	73	37
Journal Articles	55	25
Theses & Dissertations	45	8
Library Catalogues	36	11
Indexes (e.g. Index to education	18	9
Bibliographies	0	14
Conferences/Seminars Proceedings	0	12

Table 4: Use of E-information Sources

Electronic Information Sources	Participants		Librarians	
	Freq.	%	Freq.	%
Websites	194	55	8	73
Online databases	172	49	2	18
e-books	124	35	4	36
e-journals	73	21	4	36
CD-ROM Databases	38	11	5	45

Table 5: Informal Information Sources

Sources	Freq.	%
Consultation with experts	268	76
Discussion with teachers	241	68
Discussion with classmates	38	11

Table 6: Information Literacy Programmes

Library Education programmes	Freq.	%
Library orientation	199	56
Lecture on library use	156	44
PPT Presentation for library use	127	36
Library Tour	99	28
Training for Internet Search	99	28
Training for e-resources search	80	23
None of these	83	24

Table 7: Correlation of Awareness of Library Services and Library Use

N	r – value	Df	Test statistic	p –value	Level of Significance
353	0.985076	351	18.98156	.00001	Significant

Table 8: Difficulties Faced by Librarians

Difficulties	Frequency	%	Rank
Library budget constraints	9	82	1
Availability of human resources	7	64	2
Inadequate library resources	6	55	3
College timetable	4	36	4
Co-operation from teachers	3	28	5
Support from management	2	18	6

Suggestions

Following suggestions emerge from the study:

For Librarians

- Various types of information literacy programmes should be organised at frequent intervals in order to educate student-teachers about how to use library resources and facilitate easy information seeking in the library.

- Student-teachers were not aware of the distinction between the different formats of online resources. Rigorous information literacy programmes should be conducted stressing the use of Google, e-journals and online databases.

- Relevant and latest editions textbooks, reference books and other library material should be added in the library.

- Student- teachers should be motivated to attend information literacy programmes.

- Feedback on information literacy programmes should be collected and analysed for further improvement in the situation.

For Teachers

- Teachers should use library resources and involve the student-teachers in project-based activities useful for studies. Such activities should be based on library and online resources.

- Teachers should motivate student-teachers to visit and use the library.

- Student-teachers should be motivated to use other library resources apart from the study related resources.

- More awareness should be created among participants regarding library resources and services which would have the positive impact on information seeking of participants.

For Policy Makers

- Library budget should be increased to provide relevant and latest editions textbooks reference books and other library materials.

- Library should be given priority and adequate computers for internet service should be provided

- B.Ed. course design should take into account the library work by the participants.

For Student-Teachers

- Student-Teachers Should put demand for frequent information literacy programmes.

- Should asked more time for library reading.

- Should give constructive suggestions for improvement of library system.

Conclusion

Realization of information need is the cognitive process; it operates at the cognizant level of the persons. The first stage of satisfaction of information needs is one's own recognition that s/he is in the need of information.It was found that the most predominant information need of the participants was academic preparation. Regarding e-resources like e-journals and e-books there was not much awareness among student-teachers. In addition participants were not able to distinguish between search engines, websites and online databases. However, B.Ed. college libraries conduct information literacy programmes but the purpose is not served appropriately. It is very much needed to train student-teachers to recognize, search, receive and evaluate the information resources to satisfy their information needs.

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