

AWARENESS OF INFORMATION NEED, LIBRARY RESOURCES AND SERVICES: A CASE STUDY OF SELECT B. ED. COLLEGES IN MUMBAI

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As colleges of education train next generation teachers, student-teachers 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 library resources and services and information needs of student-teachers in Mumbai was conducted. Total 353 sample of student-teachers and 11 librarians from 11 aided B.Ed. colleges of Mumbai were included in the study. The present paper reports the study which explored and assessed the awareness regarding information needs, library resources, and services among the B.Ed. students in the Education Colleges of Mumbai.

Keywords: Information needs; Information literacy; Information system; Library instructions

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's study aimed at assessing the awareness 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 was to find out awareness of library resources and services.

NEED OF THE STUDY

In the colleges of education which train upcoming generations of 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 students and teachers. The trainee teachers, referred as students and teachers are expected to be the catalysts in developing the student community. Hence, recognizing their own information needs and voicing 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 library resources, services and information needs of students and teachers was undertaken. This would also help the Librarians of B. Ed. Colleges to gear up their library system and services towards the identified needs. 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.

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LITERATURE REVIEW

It is interesting to examine the concept of information as evolved and interpreted with time. Dervin [1] defined information need 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. According to Taylor [2] 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. Faibisoff and Ely [3] explored, if information needs can be considered a generic concept, then there are subsets which address information demand and information wants. Information needs are defined by Krikelas [4] as 'a state of uncertainty recognized by an individual'. He believes in the idea of unconscious needs as irrelevant to active information seeking. Belkin and Croft [5] suggested that 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. Wilson [6] argued that there are many other factors such as work role, socio-culture and work environment, and nature of organization which trigger the information seeking. Eskola [7] conducted two phased comparative study of problem based learning (PBL) curriculum and traditional curriculum of medical students of Finnish University. The study shows that PBL students use a greater variety of sources more frequently than students taught with traditional methods. PBL students learn how to seek information at an early stage of education. Macevičiūtė [8] recognized information need as a complex phenomenon generated by complicated environments and peoples' minds. He presented the structure of information needs and related the same with problem-solving. Silvio [9] explored information needs, sources used and information seeking behaviour as well as problems encountered by immigrant Sudanese youth in the city of London. The information needs of these youths are mainly academic in nature. They

used informal sources of information like colleagues, friends, neighbours and relatives. Hjørland [10] pointed out that 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. Palmquist [11] noted that 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. According to Henefer and Fulton [12] information needs behaviour and information seeking behavior are strongly interrelated with each other. Further Qureshi, Iqbal, and Khan [13] pointed out that 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. Prajapati [14] noted that information needs involve a cognitive process, which may operate at different levels of consciousness. According to him information needs are what an individual ought to have for his work and require research, education and psychological bent of mind towards self-development. Chang [15] compared the characteristics of literature on information needs and information seeking published from 1962 to 2009, by using two methods of bibliometric and social network analysis. The study found literature on information needs and information seeking 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. Chiku, Mnubi-Mchombu, and Mostert [16] conducted the comparative study on information needs of rural and urban population and found that rural dwellers expressed the need for information on educational support, psychological and counselling services, childcare, and job opportunities. In urban areas, educational support and the establishment of small businesses featured as prominent need. Sahoo and Ramesh [17] tried to assess the information needs, reading habits, use patterns and information seeking behaviour of the faculty members of the ICAI business school, Hyderabad.

The literature reviewed clearly indicates that the study of information needs of B. Ed. students in Mumbai tracing their awareness about library services and resources has not been conducted yet. Authors have therefore made a humble attempt to identify the barriers and difficulties that the users generally come across and to provide the possible recommendations for the improvement of the library system.

OBJECTIVES AND HYPOTHESIS

Broad focus of the study is:

- (i) to identify the information needs of B. Ed. students in Mumbai and how far they are fulfilled,
- (ii) to find out the relationship/impact of their awareness of library resources & services to the use of library.
- (iii) to explore the need of information literacy programmes for B. Ed. students.

Accordingly following objectives of the study have been formulated:

- To determine the information needs of students and teachers in B. Ed. colleges and how far they are fulfilled.
- To ascertain whether the library has adequate materials to fulfil information needs of students and teachers.
- To find out usage of library resources to fulfil their information needs.
- To find out whether the students and teachers need guidance from the librarian to fulfil their information requirements.
- To find out awareness and use of library services among students and teachers.
- To ascertain whether respondents need any special instructions or training regarding library use.

The hypothesis formulated in the light of objectives is:

- There is no significant relationship between awareness of library services and their usage by the students and teachers.

METHODOLOGY

The study adopted descriptive research design and survey method. In order to collect the

primary data a sample of 50 students per college was selected, making a total of 550, out of which 353 questionnaires were returned. Simple random sampling technique was used for data collection. Further, data was collected from librarians of 11 education colleges of Mumbai city as well.

The study included the students and teachers from 11 aided B. Ed. Colleges of Mumbai city - 10 of which are affiliated to the University of Mumbai, while the 11th one was affiliated to SNDT Women's University. In order to get a comprehensive picture of the information needs of the students and teachers, the study also covered the opinions of the librarians.

None of them are special education colleges offering courses like D.Ed., M.Ed., and M.A. in education. The study considered the use of different type of information resources as mentioned by the students and teachers and not the statistics of usage of library materials. Usage of information resources was not drawn from the daily statistical data of the library.

RESULTS AND DISCUSSION

In order to determine the information needs of students and teachers and how far their information needs get fulfilled by the library, it was necessary to explore and analyze 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 students and teachers. Hence, the awareness of resources and services and its relationship with the urge for usage of the library 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 the awareness of library resources and services is undebatable. Hence, their role in making the students and teachers aware was examined. Next, the opinions of participants on suitability of library timings and infrastructure also were sought.

An analysis of the collected data (Table1), showed 51% respondents' teachers made them aware about the library services. 33% opted for librarian, while 11% mentioned that they did on their own. 5% became aware through their friends. Findings revealed that teachers played the prominent role in making participants aware about library services and resources.

Table 1: Awareness of Library Resources

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

Library Timings

As shown in figure 1, 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.

Figure 1: Satisfaction about Library Timings

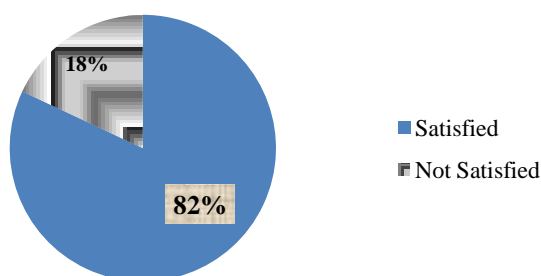
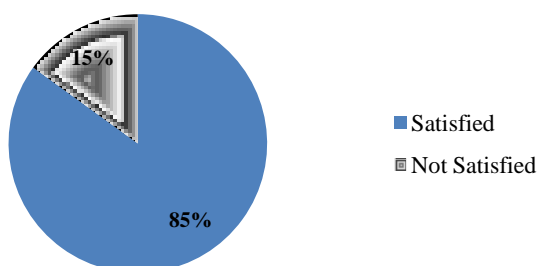


Figure 2: Satisfaction of Library Infrastructure



Library Infrastructure

As shown in figure 2, 85% students and teachers were satisfied with the library infrastructure (Figure 2). It shows that B. Ed. college library infrastructure was facilitating information seeking of students and teachers.

Information Needs

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 students and teachers. Hence adequacy of library resources was studied through the opinions of librarians and students and teachers.

Opinions of Librarians and Students and teachers

To study the adequacy of different types of library resources, only two parameters (completely adequate or completely inadequate) were taken into consideration for statistical purpose. Maximum librarians (91%) and students and teachers (43%) indicated textbooks as completely adequate. However, 45% librarians found previous projects, and theses/dissertations as completely adequate, whereas 20% and 8% students and teachers reported complete adequacy for the same. Encyclopedias and dictionaries were found completely adequate for 28% librarians and 26% and 21% participants respectively.

Further CD-ROM databases, conference proceedings, e-books and e-journals were reported as inadequate by the 28% Librarians, whereas 16% participants indicated e-books as completely adequate. Beside this, 13% participants' e-journals, 18% CD-ROM database and 11% conference proceedings were found 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 the participants.

It was also observed that there was difference in perception of librarians and students and 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. Perhaps the participants report the adequacy of the library material according to use and fulfilment of their information needs. According to the participants, collection of textbooks was adequate to meet their academic information needs, whereas e-resources such as e-books, e-journals were inadequate.

Table 2: Adequacy of Library Resources

Name of the Source	Librarian (%)		Students and 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
Conference s/ Seminars Proceeding s	0	28	9	11

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

In spite of majority of the B. Ed. College libraries subscribing N-List database and separate orientation session conducted, findings indicate that students and teachers were either not aware or they were not using various e-resources. Therefore, there is a need to organize 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 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 students and 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 students and teachers.

Librarians' Opinions

Librarians were asked to indicate weightage of usage of information sources by students and 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 usage of journal articles was on higher side, while that of library catalogues and indexes was of lower side. Further 45% librarians indicated that theses & dissertations were highly used, while 64% mentioned that the use of bibliographies was very low amongst students and teachers (Table 3).

Usage by Students and Teachers

As may be observed in table 3, 71% participants used textbooks, 62% used reference books (such as encyclopaedias, dictionaries), while 61% used question papers and 41% used newspaper to fulfil information needs. 37% participants used research projects, 29% used magazines and 25% used journal articles. 14% participants used bibliographies. However, considerably low usage of conference/seminar proceedings (12%), library catalogue (11%), indexes (9%) and theses and dissertations (8%) was indicated to meet information needs of participants.

Findings show that majority of participants 'used the library material which were adequate to meet their academic information needs e.g. text books 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 lesser number of participants. This indicated that student- teachers gave importance to examination oriented activities.

Table 3: Usage of Information Resources

Information Resources	Librarians (%)	Students and teachers (%)
Textbooks	100	71
Question papers	100	61
Reference Books (e.g. Encyclopedia, 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

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

Use of library catalogue is the first step in searching library material. However, the usage of the catalogue was reported very low. Perhaps participants did not have adequate skills or training for catalogue use. Findings revealed that at proper juncture there is a need of exhaustive library awareness program for 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 that may enhance the usage of library resources for their course work.

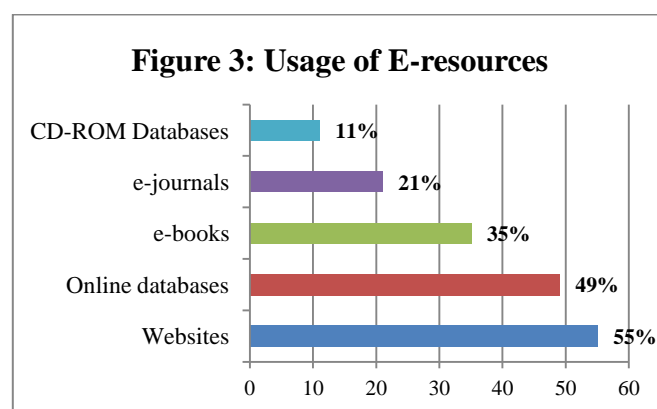
Usage of E-Resources

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

Students and Teachers' opinions

It is interesting to note that 55% participants used different websites as chief information sources (Figure 3). 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.



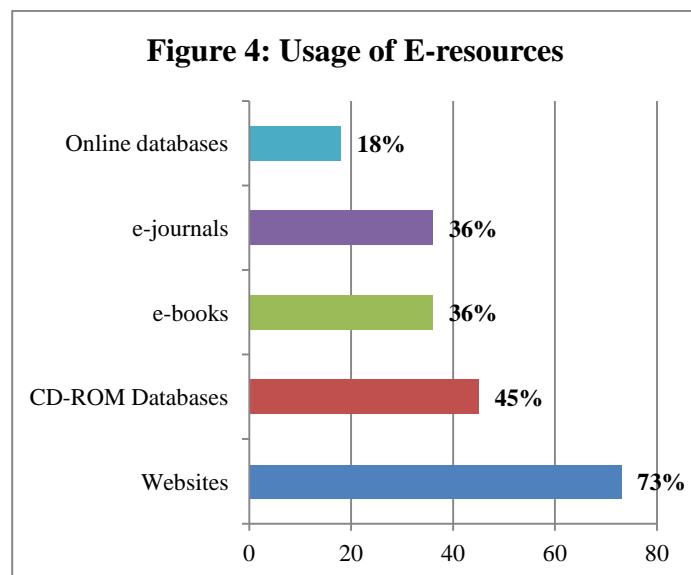
Librarians' Opinions

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

E-Journals

When analyzed data qualitatively following findings are emerged. The respondents were 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 institutes of education website, 3% used Wikipedia and YouTube for reference work. It was found that the respondents were unaware about the names of e-journals.



Online Databases

Students and teachers were asked to name a few online databases, they have used. 9% answered they used Google, and 8% answered they used Wikipedia as they got lots of information regarding their projects' 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. Remaining participants did not answer this question. This indicates that students and teachers 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) They used internet for information
- 6) Time constraints was the hurdle in using e-journals
- 7) They were not comfortable with the online databases
- 8) 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 students and teachers. It was also found that the respondents 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

In the process of satisfying academic as well as other information needs, participants utilized more informal sources of information. 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 4). 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 its impact and importance of user education programmes for students and 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

When asked, whether their college library conducted various user education programmes (Table 5), 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 students and 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 participants to 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 participants aware 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

Figure 5 shows the results regarding the impact of information literacy programmes. 64% librarians agreed on, after giving introductory training participants became more confident of searching information on the internet and felt more comfortable in using library catalogue, 55% librarians agreed that participants became 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.

Table 4: Informal Information Sources

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

Table 5: 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

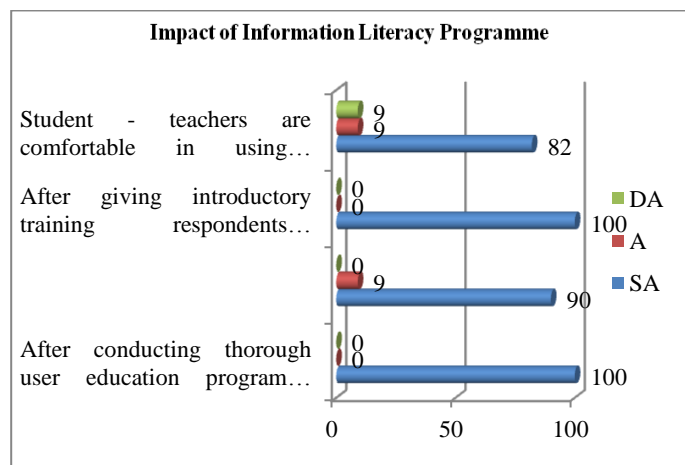
Impact of Information Literacy Programmes- Librarians' Perspective

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 emphasizing 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 focusing different aspects of user education.

Importance of User Education Programmes Participants' Perspective

Library user education programmes are intended to create awareness about library services and resources amongst the students and 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 participants regarded user education programs as important 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 participants and motivate them to attain library training.

Figure 5



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

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 a relationship 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 6.

Subsequently following null hypothesis was tested.

HO: There is no significant relationship between awareness and use of library services by students and teachers.

Table 6: 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

The table 6 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 students and 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 students and 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 students and teachers about the library resources. This will certainly have a positive impact on information seeking of participants.

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 7).

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 students and teachers. Qualitative data revealed that solo librarianship with one library peon and inadequacies of books were the difficulties mentioned by 18% librarians.

Table 7: 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

On the basis of the present study, the following suggestions may be made:

For Librarians

- Various types of information literacy programmes should be organized at frequent intervals in order to educate students and teachers about how to use library resources and facilitate easy information seeking in the library.
- Students and 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 students and teachers in project-based activities useful for studies. Such activities should be based on library and online resources.
- Teachers should motivate students and teachers to visit and use the library.
- Students and 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 of textbooks, reference books and other information sources and services
- Adequate computers and internet services should be given top priority in libraries.
- B. Ed. course should be designed so as to promote usage of library by the students.

For Students and Teachers

- They should demand for frequent information literacy programmes.
- They should demand for increasing library opening hours.
- They should come out with constructive suggestions for improvement of library system and services.

CONCLUSION

Realization of information need is a cognitive process. The first stage of satisfaction of information needs is one's own recognition that he/she is in need of information. It was found that the most predominant information need of the participants was academic preparation, although they need to enhance their awareness not only regarding e-resources like e-journals and e-books but also about search engines, websites and online databases. However, B. Ed. college libraries do conduct information literacy programmes but the

outcome of such programmes should be regularly evaluated to find out level of awareness of students and teachers to recognize, search, receive and make use of them effectively to satisfy their information needs.

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