

Information Needs and Information Seeking Behavior of Foreign Students in University of Delhi: A Survey

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ABSTRACT

The purpose of this paper is to investigate the information needs and information seeking behavior of foreign students. A survey method was used for the undertaken study. The data were collected using a structured questionnaire, self-administered to 120 foreign students (60 males & 60 females) with 88 (47 males & 41 females) returns. The research is limited to post-graduate, M.Phil. and Ph.D. foreign students in University of Delhi. It was found that post-graduate students need information regarding their program of study while research scholars need information for writing research articles and for doing their research work. Most of them seek information through the internet. Research scholars used electronic resources such as databases, e-journals and e-theses and dissertations. 88.6% of the respondents also use books for seeking information. Their use of the library is limited with complaints about library staff and too few computer terminals. The present study will be helpful in designing new systems and services for the foreign students so that their information needs can be fulfilled easily. Further, findings of the study indicate that how the library professionals should assist foreign students to accomplish their information needs.

1. Background

The present era is the 'information era'. Information has become a vital component for the growth and development of a society. With the development of Information and Communication Technologies (ICT) and its counterparts, information is steaming at a fast rate to its users in various forms.

The internet and the web have also changed the notion of information and its importance in our everyday life. Traditionally information access and use was primarily an activity that only a select few in our society participated in-those who were primarily engaged in academic and research activities, or in some specific professions like law or medicine. With the introduction and proliferation of the web, associated technologies such as mobile devices, social networking and so on, information

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has become a part of daily life of almost everyone. In the course of our daily life and activities we access and use a variety of information systems and services ranging from communications, such as e-mail, to social networking, such as Facebook, to a myriad of web-based database systems and information services (Chowdhury & Chowdhury, 2011). Each of these information systems are ubiquitous and unnoticeable but has affected the information seeking behavior of the user community.

Information seeking behavior is a broad term, which involves a set of actions that an individual takes to express information needs, seek information, evaluate and select information, and finally uses this information to satisfy his/her information needs. Various factors may determine the information seeking behavior of an individual or a group of individuals; it is, therefore, desirable to understand the purpose for which information is required, the environment in which the user operates users' skills in identifying the needed information channels and sources preferred for acquiring information, and barriers to information. Information seeking behavior has always been an active area of interest among librarians, information scientists, communication scientists, sociologists and psychologists. Information seeking behaviour results from the recognition of some need, perceived by the user, who as a consequence makes demands upon formal systems such as libraries, information centres, on-line services or some other person in order to satisfy the perceived need (Fatima & Ahmad, 2008).

Students, research scholars and teachers all seek information from various sources available in the library such as journals, encyclopedias, books etc. Therefore, it should be the duty of a librarian to identify the needs of the users and provide and maintain the services efficiently and effectively in the price soaring and budget crunch environment.

2. Conceptual Definitions

• *Information Need*

The concept of information needs is the outcome of the combination of two terms, 'Information' and 'Needs'. The concept of information needs was coined by an American information scientist Robert S. Taylor in his article "The Process of Asking Questions" published in American Documentation.

According to ODLIS, a gap in a person's knowledge which, when experienced at the conscious level as a question, gives rise to a search for an answer. If the need is urgent, the search may be pursued with diligence until the desire is fulfilled.

• *Information Seeking Behavior*

According to Krikelas, "information seeking begins when someone perceives that current state of possessed knowledge is less than that needed to deal with some issue (or problem). The process ends when the perception no longer exists" (Singh, 2003).

3. Reviewed Studies

The study of information seeking behavior can be dated back to the late 1940s. Since that time a large number of studies have been carried out particularly in the developing countries on the various aspects of information seeking behavior, in the field of social sciences, humanities and science and technology (Singh & Satija, 2006). However, not many studies have attempted to study the information needs and information seeking behavior of foreign students comprehensively. We need to design information services and systems so that the foreign students can be served better. For the purpose of clear understanding of the topic, the previous studies have been reviewed. They are the following:

S L Kumar and Suresh (2000) in their paper pointed out the barriers to effective utilization of library sources and services by the international students. They sometimes felt that they might trouble the librarians with their questions. Communication problems, due to the inability of library staff to understand the students and inability of the students to clearly express their information needs because of lack of fluency in the language mainly served as barriers.

Battle (2004) has investigated the effect of information literacy instruction on library anxiety among international students. The study explored what effect information literacy instruction (ILI) may have on both a generalized anxiety state and library anxiety specifically. The population studied were of international students using resources in a community college. Library anxiety among international students begins with certain barriers that cause anxiety (i.e., language/communication barriers, adjusting to a new education / library system and general cultural adjustments). Jeong (2004) has studied everyday life information seeking (ELIS) of Korean graduate students in the United States. This study combines the grounded theory method with in-depth interviews of eight students and their spouses, as well as participant observation and informal interactions with others. The findings showed two dissimilation mechanisms in the typical Korean student's information-seeking behaviour: language barrier and the strong bonds in their ethnic church. Liao, Finn, and Lu (2007) have conducted a comparative study on information needs and information-seeking behavior of international graduate students and American graduate students. The goal of this comparative study is to investigate how graduate students from diverse ethnic groups discover, select, and use various information sources and to obtain insights into international graduate students' information-seeking behavior, especially its similarities and differences compared with the information-locating patterns used by their American peers. Yi (2007) finds that international students need information that supports their academic courses, and those with higher education levels use databases, remote access to library offerings and e-journals more frequently. Arokyamany and Ramasesh (2009) conducted a survey on the information needs and information seeking patterns of foreign students in the University of Mysore. They found that the foreign students rely upon the library and Internet facilities mainly to prepare themselves for academic studies like seminars and assignments. They need training in using library facilities efficiently. Catalano (2013) has reviewed studies published from 1997 until now to draw out patterns of information seeking behavior of graduate students. He endeavored to find if graduate students begin their research through the internet. They like to consult their faculty members and use libraries in diverse ways for seeking information. The study also highlights how academic librarian

can assist students in their research and the difference between the information behavior of graduates, post-graduates and Ph.D. students. Sin and Kim (2013) posit that social networking sites (SNS), such as Facebook, may play an important role in international students' everyday life information seeking (ELIS).

4. Statement of the Problem

India has been a cradle for education since its ancient times. Delhi, the capital of India has always attracted foreign students to pursue their higher education. Our country has always given a due regard to these foreign students and tries to maintain the integrity of their cultural diversities. Foreign students promote cultural bridges across global distances. Delhi University enrolled many foreign students every year to pursue education in its affiliated colleges and departments. Its information support systems meets the daily requirements of these students.

One of the major information support systems is the libraries. Therefore, the role of libraries and librarians in meeting the needs of these students should be properly investigated.

Culture and language plays a significant role in interacting with an information retrieval system (Mehra & Bilal, 2008). Foreign students face various problems such as different cultural background, language barriers, communication barriers and different styles of learning. All these factors serve to call for the study of information sources and services available to these to meet their information needs effectively and efficiently.

Keeping in view the aforesaid aspects and the gaps in the previous studies, the research undertaken entitled "*Information Needs and Information Seeking Behavior of Foreign Students in University of Delhi*" is justified and will certainly provide a new vista in the area of information needs and information seeking behavior particularly of the foreign students and will try to fill in the gaps.

5. Objectives of the Study

The study aims to identify the Information Needs and Information Seeking Behavior of Foreign Students in University of Delhi. In addition to this, the study also has following specific objectives:

- a) To find the awareness and use of library resources by the foreign students;
 - b) To identify the types and range of information resources used currently by the foreign students;
 - c) To investigate the availability of information resources that affects the information seeking patterns and communication process of foreign students;
 - d) To determine whether or not different kinds of information need leads to different information seeking behavior and communication channels;
 - e) To analyze the possible reasons for not using information sources, if any
 - f) To understand the problems confronted by the foreign students while seeking information;
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g) To suggest measures for enhancing the use of information sources.

6. Scope of the Study

The study covers the foreign students enrolled in post-graduate (such as M.A., M.Com. M.Lib. I. Sc., and M.Sc.), M.Phil. and Ph.D. courses in the various departments of University of Delhi (North Campus).

7. Research Methodology

Before conducting any research, systematic planning of the study is most vital, and is the foundation upon which the whole process of research study depends. Such planning acts as a frame for the guidelines for investigating the problem. For the purpose of the present study, previous literature was reviewed about information seeking behavior in India and abroad. A search was conducted on a combination of terms such as “information needs and information seeking behavior”, “information needs and strategies”, “information seeking behavior of students” etc. in Library, Information Science & Technology Abstracts (LISTA). The Emerald database, and print journals were also scanned to complete the review of literature for the proposed study. The data was collected through questionnaire having all the questions related to the study. After the designing of questionnaire, a pilot study was conducted to determine the feasibility of the questionnaire. The designed questionnaire was personally distributed during the first week of March 2014 to the foreign students enrolled in post-graduate, M. Phil. and Ph.D. programs in the various Departments of University of Delhi and collected in the last week of May 2014.

The questionnaire was distributed to the foreign students in the departments as well as in the university hostels to get adequate data. As reported by foreign students’ registry cell, of the University of Delhi there were total 380 foreign students (245 males and 145 females) enrolled for post-graduation, M. Phil. and Ph.D. courses during the session 2013-2014 in the north campus of University of Delhi. Gender has an important impact on people’s attitudes and behavior and so to gain a better understanding of how males and females differ the in way in which they find and use information (Tong, Raynor, & Aslani, 2014), this component has been included under the study by the researchers.

A total of 120 questionnaires were distributed (60 to males and 60 to females) but only 88 (47 from males and 41 from females) duly filled questionnaires were received back from the foreign students. In the final stage the data was analyzed and interpreted with the help of MS-Excel 2007 software based on a set of parameters.

8. Sample of Population

The sample of population and distribution for the undertaken study is given below:

Table 1. Showing sample of the population undertaken

Gender	No. of Questionnaires Distributed	No. of Questionnaires Received	Response Rate (%)
Males	60	47	78.3
Females	60	41	68.3
Total	120	88	73.3

9. Analyses & Interpretation of the Data

The following tables depict the information needs and information seeking behaviour of the foreign students in University of Delhi:

9.1. Respondents Affiliations Countries

Table 2 depicts the respondents' affiliation countries. It is clear from the table that highest number of students belongs to Vietnam (10%); followed by SriLanka (8%); Nepal (7%) and Indonesia (6%). Afghanistan, Cambodia, France, Iran, Korea, Myanmar and Tibet each with 5% of the total enrolled foreign students in University of Delhi. China, Ethiopia, Guyana, Kazakhstan, Mongolia and Nigeria each with 3% of the total enrolled foreign students. Laos, Tajikistan and Thailand each with 2% of the enrolled students. Armenia, Bangladesh, Canada, Egypt, Eritrea, Germany, Japan, Kenya and South Korea each with 1% of the total foreign students enrolled in University of Delhi.

Table 2. Depicting the respondents affiliations countries

S. No.	Affiliation Country	Males	Females	Total
1	Vietnam	2	7	9
2	SriLanka	3	4	7
3	Nepal	4	2	6
4	Indonesia	3	2	5
5	Afghanistan	2	2	4
6	Cambodia	4	0	4
7	France	1	3	4
8	Iran	1	3	4
9	Korea	0	4	4
10	Myanmar	4	0	4
11	Tibet	4	0	4
12	China	2	1	3
13	Ethiopia	3	0	3

S. No.	Affiliation Country	Males	Females	Total
14	Guyana	2	1	3
15	Kazakhstan	0	3	3
16	Mongolia	1	2	3
17	Nigeria	2	1	3
18	Laos	2	0	2
19	Tajikistan	1	1	2
20	Thailand	1	1	2
21	Armenia	0	1	1
22	Bangladesh	0	1	1
23	Canada	0	1	1
24	Egypt	1	0	1
25	Eritrea	1	0	1
26	Germany	0	1	1
27	Japan	1	0	1
28	Kenya	1	0	1
29	South Korea	1	0	1
	Total	47	41	88

9.2. Continent-wise Distribution

With regards to continent-wise distribution the highest number of the foreign students enrolled at University of Delhi belongs to the continent of Asia with 79.6% followed by Africa (10.2%), Europe (5.7%), South America (3.4%) and North America (1.1%) respectively. Thus, the foreign students that are enrolled in University of Delhi for their higher studies predominately belong to Asian countries.

Table 3. Showing continent-wise distribution

Continent	Males	Females	Total
Asia	36 (76.6%)	34 (83%)	70 (79.6%)
Africa	8 (17%)	1 (2.4%)	9 (10.2%)
Europe	1 (2.1%)	4 (9.75%)	5 (5.7%)
South America	2 (4.25%)	1 (2.4%)	3 (3.4%)
North America	0	1 (2.4%)	1 (1.1%)

9.3. Educational Qualifications

The above table 4 reveals the status of educational qualifications of the respondents. The largest population of respondents were of post- graduates (such as M.A., M.Com. M.Lib. I. Sc. and M.Sc.) with 81.9% followed by research scholars i.e. Ph.D. (12.5%) and M.Phil. (5.7%).

Table 4. Distribution of respondents according to educational qualifications

Qualifications	Males	Females	Total
Post Graduates	36 (76.6%)	36 (87.8%)	72 (81.9%)
Ph.D.	7 (14.9%)	4 (9.8%)	11 (12.5%)
M.Phil.	4 (8.5%)	1 (2.4%)	5 (5.7%)

9.4. Subject-wise Distribution

With regard to subject-wise analysis the table 5 reveals that the highest number of foreign students were enrolled in Buddhist studies with 17% of the total followed by Linguistics and Political Science each with 9% of the enrolled students, Commerce (8%); Computer Science (6%); History; Philosophy and Law each with 5% of the total enrolled students, English; Environmental Science and Social Work each with 3% of enrolled students, Zoology; Music; Sociology; Arabic and Psychology each with 2% of the enrolled students and the remaining subjects such as Physics; Business Administration; Education; Chemistry; African Studies and Modern Indian Languages each with only 1% of the total enrolled students. Hence, it is clear that Buddhist Studies is a popular course among foreign students because the greatest numbers of students come from Vietnam and SriLanka. In both of these countries Buddhism is the predominate religion.

Table 5. Subject-wise distribution of respondents

S.No.	Subjects	Males	Females	Total
1	Buddhist Studies	11	4	15
2	Linguistics	3	5	8
3	Political Science	4	4	8
4	Commerce	5	2	7
5	Computer Science	1	5	6
6	History	2	3	5
7	Philosophy	2	2	4
8	Law	3	1	4
9	East Asian Studies	1	3	4
10	English	1	2	3
11	Environmental Science	2	1	3
12	Social Work	1	2	3
13	Zoology	2	0	2
14	Music	1	1	2
15	Sociology	1	1	2
16	Arabic	2	0	2
17	Psychology	0	2	2
18	Physics	1	0	1
19	Business Administration	1	0	1
20	Education	1	0	1
21	Chemistry	1	0	1
22	African Studies	1	0	1
23	Modern Indian Languages (MIL)	0	1	1
24	Persian	0	1	1
25	Italian	0	1	1

9.5. Discipline-wise Distribution

It is evident from table 6 that the greatest percentages of respondents belong to Social Sciences discipline with 76% and within the Social Science discipline students have opted for subjects such as African Studies, East Asian Studies, Education, Law, History, Sociology, Social Work, Political Science and Commerce. This is followed by Arts with 74% and within the Arts discipline students have opted for subjects like Linguistics, Arabic, Persian, Philosophy, Buddhist Studies, Psychology, Modern Indian Languages and Literary Studies and English. The remaining respondents belongs to Science with 14.8% and within the Science discipline students have opted for Environmental Studies, Physics and Astrophysics, Chemistry and Zoology.

Table 6. Discipline-wise distribution of respondents

Discipline	Males	Females	Total
Social Sciences	20 (42.5%)	18 (43.9%)	38 (43.18%)
Arts	20 (42.5%)	17 (41.4%)	37 (42.04%)
Science	7 (14.9%)	6 (14.7%)	13 (14.8%)

9.6. Age-wise Distribution

With regard to age-wise analysis of the respondents, the majority of the respondents with 50% belong to the 20-25 age groups with most of them enrolled in post-graduate courses, followed by 44.3% in the 26-30 age group, 2.27% belongs in the 31-35 age group and the remaining 3.4% in the above 36 age group.

Table 7. Showing age-wise distribution of respondents

Age Group	Males	Females	Total
20-25	26 (55.3%)	18 (44%)	44 (50%)
26-30	19 (40.4%)	20 (48.7%)	39 (44.3%)
31-35	1 (2.1%)	1 (2.4%)	2 (2.27%)
Above 36	1 (2.1%)	2 (4.9%)	3 (3.4%)

9.7. Duration of Stay

It is evident from table 8 that 66% of the total respondents had been staying in India for the last 1-2 years followed by the respondents who had been staying for the past 3-4 years with 17%. 10.2% of the respondents had stayed less than 1 year of stay in the country as these foreign students had just been admitted to the courses during this year. The remaining respondents represented 3.4% of the students with 5-6 years or more than 6 years period of stay.

Table 8. Depicting duration of stay in India by the respondents

Duration	Males	Females	Total
Less than 1 Year	5 (10.6%)	4 (9.75%)	9 (10.2%)
1-2 Years	33 (70.2%)	25 (61%)	58 (66%)
3-4 Years	6 (12.7%)	9 (22%)	15 (17%)
5-6 Years	2 (4.2%)	1 (2.4%)	3 (3.4%)
More than 6 Years	1 (2.1%)	2 (4.9%)	3 (3.4%)

9.8. Main Categories of Information Needs

Table 9 depicts the main categories of information needs of post-graduates and research scholars. It is shown from the table that the majority of the post-graduates seek information relating to their program of the study and assignments while research scholars seek information related to their area of research and to write research articles.

Table 9. Showing main categories of information needs of respondents

Categories of Information Needs	Males		Females	
	Post- Graduates (N=36)	Research Scholars (N=11)	Post- Graduates (N=36)	Research Scholars (N=5)
Information related to University / Faculty	27 (75%)	7 (63.6%)	24 (66.6%)	2 (40%)
Related to programme of study	36 (100%)	7 (63.6%)	30 (83.3%)	3 (60%)
Related to assignments	26 (72.2%)	7 (63.6%)	23 (63.8%)	3 (60%)
Writing research articles	20 (55.5%)	11 (100%)	17 (47.2%)	5 (100%)
Related to finding a job	20 (55.5%)	8 (72.7%)	14 (38.8%)	3 (60%)
For continuing education after the course	17 (47.2%)	6 (54.5%)	17 (47.2%)	2 (40%)
Immigration information	19 (52.7%)	9 (81.8%)	4 (11.11%)	4 (80%)
Any other	1 (2.7%)	1 (9.09%)	2 (5.5%)	0

Note: Multiple responses were permitted.

9.9. Sources of Information Seeking Behaviour

Table 10 shows that the respondents use various types of information sources for seeking their information needs. It is demonstrated from the table above and figures that the internet is used as the main source of information seeking by 96.5% of the total respondents followed by the library (58%); international friends from their home country (55.6%); friends at local level (53.4%); lectures/tutors (51.1%); newspapers (45.45%); family (18.1%); TV (12.5%) and radio (9.09%). The remaining 3.4% are the different other sources used by them for seeking information.

Table 10. Showing sources of information seeking behaviour

Sources of Information Seeking Behaviour	Males (N=47)	Females (N=41)	Total (N=88)
Internet	44 (93.6%)	41 (100%)	85 (96.5%)
Library	36 (76.5%)	15 (36.5%)	51 (58%)
Friends- Home country/ International	26 (55.3%)	23 (56.09%)	49 (55.6%)
Friends- Local level	28 (59.5%)	19 (46.3%)	47 (53.4%)
Lectures/ Tutors	26 (55.3%)	19 (46.3%)	45 (51.1%)
Newspapers	30 (63.8%)	10 (24.3%)	40 (45.45%)
Family	10 (21.2%)	6 (14.63%)	16 (18.1%)
TV	5 (10.6%)	6 (14.63%)	11 (12.5%)
Radio	1 (2.1%)	7 (17.07%)	8 (9.09%)
Any other	1 (2.1%)	2 (4.87%)	3 (3.4%)

Note: Multiple responses were permitted.

9.10. Methods Used for Information Seeking

With regard to methods used for information seeking by the foreign students books and articles are mainly used by 88.6% of the total respondents followed by discussion with colleagues (79.5%), library catalogue/ OPAC (47.7%), consultation with supervisor (39.7%), consultation with subject experts (39.7%), indexing and abstracting sources (23.86%), discussion with librarian / library staff and the remaining 1.1% of respondents used other methods to quench their information needs.

Table 11. Methods used for information seeking by respondents

Methods Used for Information Seeking	Males (N=47)	Female (N=41)	Total (N=88)
Books and articles	40 (85.1%)	38 (92.6%)	78 (88.6%)
Discussion with colleagues	37 (78.7%)	33 (80.4%)	70 (79.5%)
Library catalogue/ OPAC	27 (57.4%)	15 (36.5%)	42 (47.7%)
Consult supervisor	15 (31.9%)	20 (48.78%)	35 (39.7%)
Consult subject expert	20 (42.5%)	15 (36.5%)	35 (39.7%)
Indexing and Abstracting sources	12 (25.5%)	9 (21.9%)	21 (23.86%)
Discussion with librarian/ library staff	12 (25.5%)	5 (12.1%)	17 (19.3%)
Any other	0	1 (2.4%)	1 (1.1%)

Note: Multiple responses were permitted

9.11. Materials Used for Meeting the Information Needs

It is revealed from the table 12 that the Internet is the most used as a source of material for meeting the information needs both by post-graduates as well as research scholars. After the Internet books are used by post-graduates whereas journals, electronic resources (databases) and dissertations

and theses are used by research scholars for meeting their needs. Males' research scholars also used newspapers for seeking information.

Table 12. Materials used for meeting the information needs by respondents

Materials Used for Meeting the Information Needs	Males		Females	
	Post- Graduates (N=36)	Research Scholars (N=11)	Post- Graduates (N=36)	Research Scholars (N=5)
Internet	34 (94.44%)	11 (100%)	31 (86.1%)	5 (100%)
Books	25 (69.4%)	6 (54.5%)	27 (75%)	2 (40%)
Newspapers	22 (61.1%)	11 (100%)	10 (27.7%)	3 (60%)
References sources	20 (55.5%)	8 (72.7%)	16 (44.4%)	3 (60%)
Electronic Resources (databases)	20 (55.5%)	11 (100%)	10 (27.7%)	5 (100%)
Journals	18 (50%)	11 (100%)	14 (38.8%)	5 (100%)
Dissertations and theses	12 (33.3%)	11 (100%)	8 (22.2%)	5 (100%)
Magazines	10 (27.7%)	7 (63.6%)	6 (16.6%)	2 (40%)
Any other	2 (5.5%)	1 (9.09%)	2 (5.5%)	0

Note: Multiple responses were permitted.

9.12. Use of Library

Table 13 above indicates the use of the library for fulfilling the information needs. It is evident that the majority of respondents with 81.8% of the total indicate that the library is the main source of fulfilling their information needs whereas the remaining 18.1% of the total responded as 'No'. Thus, the study concludes that the library is still the main source / channel of meeting information needs.

Table 13. Use of library for fulfilling the Information Needs

Use of Library for fulfilling the Information Needs	Males (N=47)	Females (N=41)	Total (N=88)
Yes	40 (85.1%)	32 (78.04%)	72 (81.8%)
No	7 (14.8%)	9 (21.9%)	16 (18.1%)

9.13. Type of Library Used

The library system of University of Delhi is a very big system; hence to cater to the needs of the clientele of University of Delhi, the libraries are categorized as Central Library (primarily for arts and humanities), Central Science Library, Ratan Tata Library and departmental libraries. The usage of each type of library by the respondents is depicted by the given table 14. 76.13%, of the total respondents use departmental libraries followed by 68.1% who use the central library

as the majority of respondents belongs to Social Sciences and Arts discipline, college libraries (65.9%), Ratan Tata library (19.3%) and Central Science Library (14.7%). In addition to these 30.6% of the total respondents also were found to use their embassy libraries for meeting their native country related information needs.

Table 14. Type of library used by respondents

Type of the Library	Males (N=47)	Females (N=41)	Total (N=88)
Departmental Library	37 (78.7%)	30 (73.1%)	67 (76.13%)
Central Library	33 (70.2%)	27 (65.85%)	60 (68.1%)
College Library	30 (63.8%)	28 (68.2%)	58 (65.9%)
Any other	12 (25.5%)	15 (36.5%)	27 (30.6%)
Ratan Tata Library	6 (12.7%)	11 (26.8%)	17 (19.3%)
Central Science Library	7 (14.8%)	6 (14.6%)	13 (14.7%)

Note: Multiple responses were permitted.

9.14. Frequency of Library Visits

Visits to library by the respondents / users is a very great indicator, which determines the actual usage of the library. The collected data on this aspect is represented in the table 15. 52.2% of the total respondents visited library several times a semester followed by 40.9% respondents who visit library once or twice a week, 34.09% respondents who visit the library once or twice a month, and 17.04% who visit the library almost daily. In addition to this one male respondent visited library once or twice in a year when his information need arose.

Table 15. Showing frequency of library visits

Frequency of Library Visits	Males (N=47)	Females (N=41)	Total (N=88)
Almost daily	7 (14.8%)	8 (19.5%)	15 (17.04%)
Once or twice a week	19 (40.4%)	17 (41.4%)	36 (40.9%)
Once or twice a month	11 (23.4%)	19 (46.3%)	30 (34.09%)
Several times a semester	25 (53.1%)	21 (51.2%)	46 (52.2%)
Any other	1 (2.1%)	0	1 (1.1%)

Note: Multiple responses were permitted.

9.15. Barriers while meeting information needs

The hunt for information is not an easy hurdle to master. One may find different barriers while seeking information. Table 16 depicts the encountering of barriers by the respondents while meeting information needs. 82.9% respondents reveal that they were mostly confronted with barriers while

meeting their needs. 17.04% of the respondents indicated that they never encountered with the barriers while seeking information.

Table 16. Encountering with Barriers while meeting Information Needs

Encountering with Barriers	Males (N=47)	Females (N=41)	Total (N=88)
Yes	38 (80.8%)	35 (85.3%)	73 (82.9%)
No	9 (19.1%)	6 (14.6%)	15 (17.04%)

9.16. Types of Barriers

With regard to different types of barriers confronted by the respondents, it is evident from table 17 that 71.5% of the total respondents find that not enough computer terminals in the library is creating barriers in meeting their needs, while 67.04% reveal that they find the library as having material that is too old or outdated, which creates hassles in seeking desired information. 62.5% reveal that they do not have proper knowledge of using the library which is followed by non-cooperative behavior of the library staff (56.8%), not knowing how to use the catalogue/OPAC (48.8%), inability to seek, obtain & evaluate information (47.7%), hesitant to approach reference staff (44.3%), lack of time (31.8%). The remaining most important barriers is language especially regarding the Hindi language barrier (60.2%).

Table 17. Types of Barriers of Respondents' Information Needs

Types of Barriers	Males (N=47)	Female (N=41)	Total (N=88)
Less number of computer terminals	33 (70.2%)	30 (73.1%)	63 (71.5%)
Some materials are too old	35 (74.4%)	24 (58.5%)	59 (67.04%)
Inadequate knowledge about using library	25 (53.1%)	30 (73.1%)	55 (62.5%)
Non-corporative library staff	27 (57.4%)	23 (56.09%)	50 (56.8%)
Don't know how to use catalogue/OPAC	18 (38.2%)	25 (60.9%)	43 (48.8%)
Inability to seek, to obtain & evaluate information	17 (36.1%)	25 (60.9%)	42 (47.7%)
Hesitant to approach reference staff	22 (46.8%)	17 (41.4%)	39 (44.3%)
Lack of time	13 (27.6%)	15 (36.5%)	28 (31.8%)
Any other	6 (12.7%)	5 (12.1%)	11 (12.5%)
Language barrier			
a) English language	1 (2.1%)	3 (7.3%)	4 (4.5%)
b) Hindi language	24 (51.06%)	29 (70.7%)	53 (60.2%)
c) Both	12 (25.5%)	15 (36.5%)	27 (30.6%)

Note: Multiple responses were permitted.

10. Findings of the Study

On the basis of the analysis and discussion of the research the following significant findings have been drawn:

1. The study finds that out of 88 respondents, 9 (10%) come from Vietnam, followed by Sri Lanka 7 (9%), Nepal 6 (7%) and Indonesia 5 (6%). The reason is obvious that being the neighboring countries of India, students from these countries prefer to get enrolled in higher education in India only. Also it is quite obvious, that the majority of the respondents with 79.6% (76.6% males and 83% females) belong to Asian countries.
 2. From the point of educational qualifications, 81.9% of the respondents (76.6% males and 87.8% females) are enrolled in the post graduates programme such as M.A., M.Com. and M.Phil. of study in University of Delhi. There are more females enrolled in post-graduate courses while there are more males enrolled in research courses such as M.Phil. (8.5%) and Ph.D. (14.9%).
 3. With regard to subject wise distribution, the study finds that 17% (5.17% males and 1.64% females) of the foreign students are enrolled in Buddhist Studies. The reason behind this is that greatest number of students belong to Vietnam and Sri Lanka and in both countries Buddhism is the most prevailing religion.
 4. As per discipline wise distribution of the respondents the study finds that 76% (40% males and 36% females) of the foreign students enrolled in the Social Science discipline such as African Studies, East Asian Studies, Education, Law, History, Sociology, Social Work, Political Science and Commerce.
 5. The study finds that 50% (55.3% males and 44% females) of the respondents belong to the 20-25 age group, as most of them are enrolled in a post graduate programme of study.
 6. 66% (70.2% males and 61% females) of the foreign students had been staying in India for the last 1-2 years.
 7. The study finds that 66 (91.6%) of the post graduate respondents need information regarding their programme of study while all research scholars i.e. 16 (100%) need information for writing research articles. It is clear from this finding that post graduate students have different information needs than research scholars. Differences exist between the needs of male and female foreign students. Both males and females (47.2%) equally needs information regarding continuing education after the completion of their course. 52.7% males needs information pertaining to immigration while only 11.11% of females seek that information. Also 56.5% males seek information related to finding a job while only 38.8% females seek information related to a job.
 8. With regards to sources used for seeking information, the study finds that 85 (96.5%) of the respondents seek their information from the internet followed by the library 51 (58%). Again, there are notably many differences between the use of information sources between males and females. Males (76.5%) use the library more than females (36.5%) students. They also use newspapers (63.8%) more than females (24.3%). Females (17.07%) are most likely to get
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- information from radio in comparison to males (2.1%).
9. There are different methods used for information seeking. The study finds that 78 (88.6%) of the respondents seek information from books and articles followed by discussions with colleagues 70 (79.5%). As male students use library more than their females counterparts. They use the library catalogue/OPAC (57.4% males) more than females (36.5%). Male students also like to discuss for getting information with the library staff.
 10. The internet is the most used by both post graduate students as well as by research scholars for meeting in their information needs. Research scholars also used electronic databases, journals, dissertations and theses for meeting their information needs. Male research scholars also used newspapers for getting information.
 11. 72 (81.8%, i.e. 85.1% males and 78.04% females) of the respondents use library for fulfilling their information needs.
 12. When exploring which is the main library used by the foreign students, study found that departmental library were being used by 67 respondents (76.13%) followed by the central library 60 (68.1%).
 13. The frequency of visiting the library by the respondents was fairly poor. Only 46 (52.2%) respondents visited library several times a semester. The reason could be that they preferred to access the library resources on the internet through their laptops.
 14. 82.9% (80.8% males and 85.3% females) of the respondents reported that they had encountered different types of barriers while meeting their information needs.
 15. The study finds that respondents encountered with different types of barriers while meeting their information needs. 63 (71.5%) of the respondents reported that there too few computer terminals in the library followed by 59 (67.04%) who found that libraries are had old or outdated materials and this could be the main reasons behind the poor use of libraries. Female students had more problems in using the library catalogue/OPAC. As they had less knowledge of how to use the library and they also unable to evaluate the obtained information.

11. Suggestions and Recommendations

Based on the findings of the study, the following suggestions and recommendations are put forward:

- a) Regular information literacy programmes should be organized in order to make users aware of and how to better utilize electronic resources.
 - b) Libraries should provide login based remote access facilities to users.
 - c) Libraries should recruit one or two English speaking reference staff.
 - d) The behavior of library staff should be cooperative and polite towards users.
 - e) Library staff should be trained with new skills and techniques.
 - f) The library should conduct users' surveys in order to know the needs of the users.
 - g) More new books should be acquired by the library.
 - h) Proper physical facilities such as provision of A.C. in reading rooms, new furniture, and
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water coolers should be provided in the library.

12. Conclusion

The study undertaken has highlighted different parameters (such as sources and materials used for seeking information, methods used for meeting information needs, library usage, types of barriers encountered) on the information needs and information seeking behavior of foreign students in University of Delhi. The findings of the study will be useful in providing better library and information services to foreign students. The result will also assist library professionals in better designing of information literacy programmes for the foreign students and that in turn will enable the users to overcome the barriers they encountered while meeting their information needs and thus lower their anxiety levels. The study will also be helpful in designing new services and acquisition of new books for the foreign students so that their information needs can be met efficiently and effectively.

The present study will be mutually beneficial to both the university library's authorities as well as to the foreign students. Moreover, there are not many studies undertaken on the information needs and information seeking behavior of foreign students in the Indian context. This study will add significant literature on the topic and the results of the study can be generalized by library professionals in other Indian universities as well. Therefore, the study shall be crucial in addressing the common issues of foreign students.

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