Information Seeking Behaviour (Isb) Of Tertiary Level Chemistry Students

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ABSTRACT : *Information is the predominant element for progress in society. The present era is an era of information and knowledge revolution. Many electronic resources have been made most available in the libraries. Increase in availability of information on the Web has affected Information seeking behaviour. Information seeking behaviour 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. Constructivist pedagogical approaches are premised on learning through independent information seeking and use, but in practice students face difficulties in achieving meaningful learning outcomes by these means. Information seeking behaviour is the purposive seeking for information as a consequence of a need to satisfy some goal. The Internet is increasingly considered a crucial information resource. Adequate knowledge about the information needs and seeking behaviour of users is vital to meet their information needs effectively. Using the technologies require sophisticated technical skills, and a significant amount of time to learn how to use them effectively. Information seeking behaviour involves personal reasons for seeking information, the kinds of information which are being sought, and the ways and sources with which needed information is being sought. Information seeking behaviour is expressed in various forms, from reading printed material to research and experimentation. Today, the number of web-based and online courses is increasing rapidly, and these courses constitute an important part of the education pedagogy throughout the world. Online learning is especially influenced by the use of communication technologies and www tools as electronic mail, bulletin board systems, electronic white boards, chat rooms and desktop video conferences. This study adopted survey method with the sample of 77 students; of which 32 were from Government College and 45 were from Private College. A questionnaire was used as tool to collect data. The findings of the study revealed that though Information and communication technologies are being put in place for the use of tertiary level students, they must possess the requisite skill to use them appropriately.*

Keywords : Information seeking behaviour, web- based instruction, chemistry, tertiary level.

I.   Introduction

        The present era is known as information and knowledge revolution. The information age is making new demands on us all. Education must find ways to face these new challenges (Amutha.S & et al., 2010). Now days there are innumerable types of information, in a large variety of formats and from many different locations, are all available at one place (Urjita Patel, Manibhai K. Prajapati, 2013). Information and communication technologies have changed the information seeking behaviour of scholars. The search of information has been revolutionized, mainly through the vast development of data accessible through the Internet. Increased knowledge of the information-seeking behaviours of scholars is important to meet their information needs (Surender Chauhan, 2012). As the wealth of information available on the Web increases, Web-based information seeking becomes more important skill for supporting both formal education and lifelong learning (Naman K. Gupta & et al., 2010). Information is very important element in the progress of human society. Life is very tough without information. Information makes a man able to accomplish his daily activities in an effective way (Khurram Shahzad, 2013). Information seeking behavior remains an important research area. Libraries and other information providers strive to understand users' information needs and how they try to fulfil these needs (Muhammed Rafiq & et al., 2009). Remote access to online catalogs and bibliographic databases has altered library use patterns over the past decade. Library statistics show fewer patrons entering the library as more resources become available online and patrons gain access from their desktops (Scherrer C.S, 2002). Scholars, students and faculty actively seek current information from the various media available in libraries, e.g.encyclopedias, journals and more currently, electronic media (Prabhavathi, 2011).Many academic institutions are currently building substantial collections of full-text journals and continue to increase access to various online databases. Because these resources come at a great cost, it becomes important to understand database and full-text journal use among university patrons and the characteristics accompanying today's remote

and in house library users. Increased access to computers, the Internet, online databases, and full-text journals necessitates reassessing online use patterns and user characteristics (Sandra L. De Groote & et al., 2003). Information behaviour is becoming a fundamental and strategic aspect of intelligent citizenship. For organizations, understanding information behaviour helps to support information systems design and enhance the strategic scanning capability of their members. For individuals, it is increasingly important to be "information literate." An information literate person recognizes the need for information, and knows how to search, evaluate and use what is found effectively (Jutharat Changthong ,2014).Keeping up with today's rapid technological changes reveals itself vividly in the changing ways people attempt to gather information (Kristen Yarmey ,2011). The purpose of this study therefore was to investigate the information seeking behaviour of tertiary level chemistry students in order to proffer useful suggestions.

II.   Rationale of the study

Information seeking behaviour which essentially refers to locate discrete knowledge elements. It is concerned with the interactive utilization of the three basic resources namely, people, information and system (Zayapragassarazan.Z & et al., 2012).Information seeking behaviour is the technique or the process of searching for the information, which depends on the types of information and need of the people. So information seeking behaviour arises when the person is able to recognise what type of information is needed, what are the goals or objectives and what kind of information resources to use. The term information seeking behaviour used here includes information searching and information gathering which means that after identifying what type of information they need they search for it and gather it from different sources following their techniques or processes of searching (Jiarlimon Khongtim-2006).

According to Yusuf Tunde Idris (2012) Information is an important resource for individual growth and survival. The progress of modern societies as well as individuals depends a great deal upon the provision of the right kind of information, in the right form and at the right time. Information is needed to be able to take a right decision and also reduce uncertainty. Information-seeking behaviour as an individual's way and manner of sourcing and gathering information for personal use, knowledge updating and development. The emphasis has shifted from user studies to evaluate library collection to studies of the information-seeking behaviour of individuals or groups that would lead to the design of appropriate information systems and services (Kakai & et al., 2004).

Objectives of the study

The following are the objectives of this study
1.   To assess the level of tertiary level chemistry students' information seeking behaviour.
2.   To find out the difference, if any the ISB on tertiary level students' with respect to the demographic factor like gender and locality.

Research Questions
What are the predominant areas in which information required by the undergraduate chemistry students?
What are the major sources of obtaining academic information by the College?

III.   Methods and Materials

Survey method was adopted in this study in order to find out the ISB of chemistry students. The samples of the study were 77 final year chemistry under graduate students in Ariyalur district, in the Academic Year 2015-2016. In this sample, 32 Chemistry students were from government college, and 45 Chemistry students were from a private college. Questionnaire was developed by the investigator with areas of information, sources of information, electronic resources to assess the information seeking behaviour of tertiary level chemistry students.

Research Question 1
What are the predominant areas in which information required by the undergraduate chemistry students?

Table I: Predominant information required by the UG chemistry students.

S.No	Areas of Information in %	Male(18)		Female(59)	
		Yes	No	Yes	No
1.	Academic Information	76	24	52	48
2.	Personal development	80	20	60	40
3.	Employment Information	84	16	52	48
4.	Global Information	68	32	46	54
5.	Research Information	52	48	36	62
6.	Entertainment	88	12	84	16

It can be seen from the table.1 that as many as maximum no. of male (88%) and female (84%) students responded that they use areas of information for their entertainment. While 52% male and 36% of female students revealed that they did not use research information for their communication. While the undergraduate students relied heavily on the Internet for entertainment purposes, purposes, they used the Internet along with other more traditional resources such as people, books, newspapers, and online library materials.

Research Question 2

What are the major sources of obtaining academic information by the College?

Table II. Tertiary level students Information seeking behaviour based on gender and locality.

S.No	Sources of Information	Male(18)			Female(59)		
		Yes	To some extent	No	Yes	To some extent	No
1.	Lecture Notes & Handout	75	20	5	63	37	-
2.	College Library	80	16	4	76	19	5
3.	Internet	45	44	11	74	19	7
4.	Consulting and photocopy colleagues notes	61	29	10	76	19	5
5.	College Bookshop	45	46	9	69	26	5
6.	Textbooks	70	18	12	68	25	7
7.	Thesis/Dissertations	22	56	22	75	20	5
8.	Newspaper	41	38	21	65	35	-
9.	CD-ROMs Database	64	25	11	75	18	7
10.	Print Journals	10	65	25	72	28	-
11.	Encyclopaedias	6	72	22	24	76	-
12.	Research Articles	56	37	8	72	24	5
13.	Review Articles	20	62	18	84	5	11
14.	Abstracting and Indexing Sources	52	34	14	72	28	-
15.	Conference Abstracts & Proceedings	46	45	9	72	28	-
16.	Biographics	52	29	20	84	11	5
17.	Government publications & documents	28	50	22	76	19	5
18.	Assignments/project s/term papers	66	29	5	60	40	-
19.	Research reports	42	46	13	70	25	5
20.	Seminar	53	41	6	76	16	7
21.	Workshop	36	52	12	75	20	5
22.	Discussion room	59	35	6	77	16	7

From above table no.1 it is clear that maximum no. of male (80%) and female students (76%) visit college library yes. 16% of male and 19% of female to some extent, 4% of male and 5% of female students revealed that they did not visiting daily and some of them visits. This shows that most of the undergraduate chemistry students prefer to visit library yes to keep themselves update so that every day they can view the display of new arrivals. While minimum number of 6% of male and 24 % of female students said visit encyclopaedias yes, 72% of male and 76% of female to some extent, 22% of male students said that they did not visiting Encyclopaedias. It is concluded that there is no much interest between the male and female students towards the awareness on encyclopaedias.

Table III.1: Tertiary level chemistry students electronic resources based on gender

A- Multiple Times a day   B- Daily   C- Weekly   D- Monthly   E- Rarely

S.No	Electronic Resources	Male(18)					Female(59)				
		A	B	C	D	E	A	B	C	D	E
1.	E- mail	11	30	38	19	2	10	11	22	34	23
2.	Web sites	-	25	35	30	7	-	9	43	16	32
3.	Web OPAC	3	7	10	34	46	2	10	26	10	52
4.	E- journals	5	5	10	67	13	2	10	14	34	40
5.	E-books	14	-	10	40	37	2	12	20	28	38
6.	E-reference resources	6	2	30	24	38	-	10	20	34	36
7.	Databases	7	14	21	26	32	2	10	14	34	40
8.	Web portals	-	7	18	37	38	-	8	12	48	32
9.	Government websites	4	12	16	36	32	-	12	24	30	34

It can be seen from the table III.I that as many as 11% of male and 10% of female students access the e-mail multiple times a Day, 30% of male and 11% of female students daily, 38% of male and 22% of female students weekly, 19% of male and 34% of female students monthly, 2% of male and 23% of female students rarely that they use electronic resources for their communication. While minimum number of 3% of male and 2 % of female students use web OPAC multiple times a Day, 7% of male and 10% of female students daily, 10% of male and 26% of female students weekly, 34% of male and 10% of female students monthly, 46% of male and 52% of female students expressed rarely, With these response it is concluded that there is no much difference between the male and female students towards ISB on electronic resources.

IV. Major findings of the study

The significant findings of the study are given below:

- Male tertiary level students outperformed the female students in terms of their areas of information required by the UG chemistry students.
- Majority of the respondents are males sources of obtaining academic information than the female students.
- It is also observed that male undergraduate chemistry students lecture Notes & Handout, College Library .Textbooks using sources of information better than the female students.
- Male tertiary level students have less uses of Internet, seminar, workshop, Discussion room than female students.
- It is also observed that male tertiary level students e-mail, websites using electronic resources performed better than the female students.

V. Discussion

Omobolanle Seri Fasola & et al.,(2013) study revealed that information-seeking behaviour of college students influenced by a wide variety of needs which may be personal, professional, academic, leisure and /or recreational. Present study also goes in line with these results. Obuh Alex Ozoemelem (2009) found that the male students were better than the female students in the use of electronic resources. Present study also goes in line with these results. Amutha.S & et al., (2015) observed in her study that male tertiary level students performed better than the female students in terms of using e-mails. Same result were obtained in the present study regarding the e-mail usage.

Recommendations for Policy Making

In light of the above, the following recommendations were made;

- Internet connectivity should be available without the interruption in the library to enable students to access the available electronic databases.
- Students' demands for information sources should be given importance in order to improve existing services in the library.
- Information sources should be well-organized, classified accurately to ascertain enable ease of access.
- Government should ensure adequate funding of academic institutions to develop their e-resources.
- Epileptic electricity supply and poor telecommunication infrastructure should be addressed by government.
- Information and communication technology literacy skills should be incorporated into academic curriculum at undergraduate level.
- Tertiary level chemistry students should be adequately equipped with computer systems and get connected with internet so as to have access to online learning.

Suggestions for further research

Based on the findings of the present study, the following Suggestions were made for the further studies

- The research finding of this study reveals that there is gender difference in the information seeking behaviour of tertiary level students. The information seeking behaviour of female tertiary level students were better than that of male tertiary level students. But the sample size of female students is lower than their male counterparts. Hence the study may be conducted to study the cause for gender difference in the information seeking behaviour.

VI. Conclusion

Information seeking is an important part of people's everyday lives. To obtain information, people use Web search engines, consult authorities, ask questions of friends, go to libraries, read newspapers, and watch television, among other methods. Through such activities, people continually make judgments about how useful

information is to their particular needs, actively construct meaning, and form judgments about the relevance of the information to their goal based on various attributes or criteria (Nicholas J. Belkin, 1993).

Information and Communication Technology has dynamically affected the information seeking behaviour of the user community. Now- a- days, access is considered more important than ownership. In the changing scenario, library and information centers have to focus towards the user community in understanding their changing information needs and information seeking behaviour (Jalpa Bhardwaj, 2007).

Online technologies are changing and challenging higher education. Tertiary level education are facing the challenge of using technology effectively while maintaining a commitment to academic quality. Web-based learning offers colleges an important tool for reaching new students, interacting with current students in new ways, reducing costs, and making better use of limited resources in order for Web-based learning to be used most effectively in higher education (Daniel W.Surry & et al.,2009).

Students in tertiary institutions of learning need information for their academic activities, Internet has facilities that supports the teaching and learning processes in institutions (Esew, Michael & et al., 2014).

This study has created awareness on ISB and also the resources available offline and online to update their knowledge and skills of undergraduate chemistry students.

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