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## Information Seeking Behavior of Chemistry Research Scholars in the Universities of Hyderabad

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### **Abstract**

*User behavior towards information would help libraries to plead for better funds and provide better services. Indifferent attitude on the part of research scholar towards information would imply that libraries need not spend their precious resources on those areas where there is such an indifferent attitude of the user. On the other hand, the intensity of the user need and the sincere and serious information seeking behavior of user implies or demands that there is a need to spend more on the field of concerned The study was carried in three universities namely Osmania, JNTU and University of Hyderabad; these three universities are prominent universities in India, with the objectives To measure the behavior/attitude of the chemistry research scholars towards information and make suggestions to improve the existing system. A questionnaire having 15 statements was distributed to 250 scholars pursuing research in chemistry in the above three universities randomly and got responses from 215 scholars. Mean score test was adopted to know the seriousness or positive attitude of the scholar towards information. Findings of the study shown that majority scholars had positive attitude towards information, and school are more serious about seeking information*

### **Keywords**

Information seeking Behaviour; Research Scholar;  
Chemistry; University of Hyderabad

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## INTRODUCTION

Information seeking has become the fifth basic need of modern man after air water food and shelter In the present scenario clientele want information in a fast and precise way based on this libraries and information centers are trying to come up to the expectation of user. Any information system ultimate objective is to transfer information to the user. Burrow, BC (1973) states that main task of the library or information system is to maintain published information and bring this to notice of the user. Ever since the libraries have turned out to be service institutions the concept of customer service and customer satisfaction have extended into the librarianship to render user oriented /need based services and satisfaction services. Information requirement of user depend on his area of specialization and his background Line(1969) in his study of information requirements in social sciences enumerates 15 characteristics that may influence information and on which data need to be collected. The characteristics include age, experience in research, qualification, seniority, motivation, independence etc

To study psychological aspects such as seriousness on the part of user towards information is important as it helps in build up effective information systems. The dictionary or literal meaning of behavior is the manner of behaving and or action or reaction of anything under given circumstances (Thompson,(1955). Behavior is synonym to manner/mannerism., therefore information seeking behavior means the manner in which user seeks information. Further it includes its meaning in the overall pattern of attitude of the user at the time of seeking information. The pattern attitude may consist of such factors as seriousness or indifference of a user towards information he/she seeks. Attitude predicts behavior. Information seeking behavior is also very much influenced by the need experienced by the user for information, availability of information and user preference .Any study of information seeking behavior has to deal with attitude whether indifferent or serious on the part of information seeker while searching information, seriousness of the user may be understood from the user interaction with information system. .Attitude a predisposition or tendency to respond positively or negatively towards certain idea or person or a situation attitude influences an individual's choice of action.

Chemistry plays a pivotal role in science one hand it deals with biology and physics in other hand, its scope is immense as it covers living and non living. Over the years scientists and researchers have been contributing to the development of chemistry. In India NCL, IICT and other chemical related institutes contributing to the research in chemistry along with universities are also playing vital role in development of information in chemistry.

Research scholars use different information sources documentary and non documentary sources at different stages of their research i.e from selection of topic to conclusion of research. User behavior towards information would help libraries to plead for better funds and provide better services. However indifferent attitude on the part of research scholar towards information would imply that libraries need not spend their precious resources on those areas where there is such an indifferent attitude of the user. On the other hand, the intensity of the user need and the sincere and serious information seeking behavior of user implies or demands that there is a need to spend more on the field of concerned study.

## REVIEW OF LITERATURE

Fussler, Heman (1949) and Flowers (1965) made two studies to find out the use of research literature in the field of physics and chemistry, these studies concentrated on the form of literature used, important periodical titles and time spent in information gathering by scientists. KrishnaKumar (1968) find out importance of communication between the librarian and user. Singh RS(1981) concluded that there is need for establishment of National Information centre for chemistry and bio-technology. Vital Rao(1987) non scientists information seeking behavior is mostly non documentary and non formal in character. L Cheng (1992) information seeking behavior of humanities differs from that of scientists and social scientists, Charton, Barbara(1992) chemistry scientists working in industries government and academia depend heavily on the literature and there are striking similarities in their need of literature

Ellis, David et al(1993) made a comparison of the information seeking patterns of researchers in the physical and social sciences opined that information needs of physical sciences researchers is different from that of social sciences. Sathish NG (1994) attitude towards information has positive effect on information use. Higher motivation, high level of

aspiration, professional experience are positively related to attitude towards information. Noble Ruth and Coughlin Carol (1997) made a study to investigate the pattern of research and information and information seeking practices in chemistry in a Canadian university to obtain better understanding academic chemists information needs, preferences and their perceptions. Liao, YM (1998) made a survey to understand information seeking behavior of agricultural researchers. Prasad and Tripathi(1998) highlights the methods used by scientists for gathering information and their information needs, the findings provide significant insight into the similarities and differences in the information seeking behavior.

## STUDY AREA

Human progress is broadly governed by attitudes, attitude a predisposition or a tendency to respond positively or negatively towards certain idea or person or situation. In the field of research, particularly in Indian universities, the individual researchers are influenced by the attitude they have developed on their own or and those imposed on them by community of scholars to the academic. So therefore, it was considered, for the purpose of the present study, to examine the attitude of selected population of chemistry research scholars to seeking information in their field of research.

**Scope:** The study was carried in three universities namely Osmania, JNTU and University of Hyderabad; these three universities are prominent universities in India

**Objectives:** 1 To measure the behavior/attitude of the chemistry research scholars towards information  
2 Suggestions to improve the existing system.

**Methodology:** A questionnaire having 15 statements was distributed to 250 scholars pursuing research in chemistry in the above three universities randomly and got responses from 215 scholars. Mean score test was adopted to know the seriousness or positive attitude of the scholar towards information

The population of chemistry research scholars' attitudes towards information was measured in terms of 15 items each with a 5 point scale covering various aspects of information seeking behavior of the respondents. There are 11 negative statements and four positive statements given in the questionnaire. These items elicited the evaluative opinion of the

respondents on the statements on five point scale. Answer categories ranged from strongly agree to strongly disagree. The degree of agreement indirectly reflect the intensity of their attitude towards information.

For positive statement the response 'strongly agree' indicates favorable attitude of the scholar. Likewise,

for negative statement also the response 'strongly disagree' indicates favorable attitude of the scholar.

In order to measure the seriousness of the research scholar in the study towards information Likert five point attitude scale of SA = Strongly Agree A= Agree UC= Uncertain DA= Disagree SDA= Strongly Disagree used.

**Table 1: Statements and Data**

S.No	Statement	SA	A	UC	DA	SDA	Total
1	Research scholars in Chemistry feel that somebody else should search or collect information on their behalf	14(6.5%)	11(5.1%)	16(7.4%)	68(31.6%)	106(49.3%)	215
2	Research scholars in the field of chemistry feel that laboratory works/experiments are more important than seeking information from the library	11(5.1%)	26(12.1%)	22(10.2%)	43(20%)	113(52%)	215
3	Spending more time in the laboratory is better than spending time in the library	2(.9%)	38(17.7%)	45(20.9%)	44(20.5%)	86(40.0%)	215
4	Chemistry scholars seldom have willingness to go to the library	18(8.4%)	41(19.1%)	36(16.7%)	35(16.3%)	85(39.5%)	215
5	Research scholars in the field of chemistry are busy with experiments so they do not seek information regularly	11(5.1%)	63(29.3%)	11(5.1%)	35(16.3%)	95(44.2%)	215
6	Current information is not essential for carrying out research in chemistry	14(6.5%)	17(7.9%)	14(6.5%)	75(34.9%)	95(44.2%)	215
7	For chemistry scholars ,published information(books ,periodicals reference books) is useful at the stage of formulation or identification of problem and review of literature, there after they rarely need information.	12(5.6%)	41(19.1%)	12(5.6%)	53(24.7%)	97(45.1%)	215
8	Chemistry scholars need not necessarily gather all the available information in their area of specialization	5(2.3%)	25(11.5%)	14(6.5%)	59(27.4%)	112(52.1%)	215
9	Chemistry scholars should spend more time in the library for searching and for seeking information(positive)	104(48.%)	15(7.0%)	41(19.1%)	49(22.8%)	6(2.8%)	215
10	Most of the current information is overlooked by research scholars, because they are engaged in the laboratory work	16(7.4%)	14(6.5%)	25(11.6%)	46(21.4%)	114(53.0%)	215
11	There is a great importance to published						

	information in chemistry in conducting the research(positive)	115(53.5%)	69(32.1%)	10(4.7%)	15(7.0%)	6(2.8%)	215
12	Cumbersome procedures often discourage the user from seeking information(positive)	4(1.9%)	131(60.9%)	27(12.6%)	39(18.1%)	14(6.5%)	215
13	Most of the scholars in the field of chemistry feel that earlier research reports will be misleading ,Hence they need not consult those reports.	3(1.3%)	23(10.7%)	47(21.9%)	45(20.9%)	97(45.1%)	215
14	Library should charge for Internet browsing, online databases ,use of chemical soft wares and CDROM searching	57(26.%)	70(32.6%)	28(13%)	34(15.8%)	26(12.1%)	215
15	A National Information center for Research scholars in the field of chemistry has to be set up in India by UGC(positive)	135(62.5%)	55(25.6%)	14(4.7%)	10(4.7%)	1(.7%)	215

#### DATA ANALYSIS

In the analysis Agree and Strongly Agree taken as one opinion and Disagree and Strongly Disagree taken as one opinion From the above data for( statement No 1) 80.9 % of the scholars did not want others to collect information They want to search information on their own .This is favorable attitude and concluded that they are serious about information and not interested to delegate information search to others. However 11.6% are not serious about information as they want others to search information .

From the above data for( statement No 2) 72.6% opined that they seek information from the library even though experiments in the lab are important. This indicates that they are seeking information from the library and are serious about seeking information even though they are busy with experiments. This reflects that they sought information even experiments in the lab were playing a vital role in their research work. 17.2% of the scholars in the study are giving importance to lab.

From the above data for( statement No 3) spending time in the laboratory is better than spending time in the library. 60.5% of the scholars are positive towards spending their time in the library for information, it indicates they are giving importance to information seeking it reflects a favorable attitude ,they are treating library and lab equally, as they are serious about spending time in the library . even if

they are busy with experiments in lab. However 18.6% of the scholars are spending their time in labs and it shows they are giving priority to lab and not serious about information. It is interesting to note that 20.9% of the scholars were not certain over the priority between lab and the library.

From the above data for( statement No 4) Chemistry scholars do their research work in the lab ,automatically they wish to go to lab only. But 55.8% majority scholars were willing to go the libraries and information centers for seeking information; it reflects a favorable attitude to the library as a source of information. This shows that they had habit of visiting libraries for seeking information. 27.5% of the scholars are going to the libraries rarely, this indicates they are not serious about willing to go the library.

From the above data for( statement No 5) Generally chemistry scholars are busy with experiments in the lab due to this they do not seek information regularly. It is found that 60.5% of the scholars sought information regularly even though busy with experiments. It is favorable attitude because even busy with experiments and lack of time they seek information regularly from library to obtain current and latest information about their topic. This indicates that they are serious about information; lab would not be an obstacle for seeking information. However 34.4% scholars do not seek information regularly as they are busy with experiments.

From the above data for( statement No 6) 79.1% of the scholars felt that current information is essential for carrying out research in chemistry, it indicates that scholars using journals, abstracts, internet attending conferences, seminars etc for their research work and are positive towards use of current information and are serious about current information sources and it is favorable attitude. And current information is playing major role in their research. On other hand 14.4% scholars opined that they are not giving importance to current sources.

From the above data for( statement No 7) majority of the scholars 72.6% are positive and are serious about information seeking not only at initial stages like selection of topic and review literature but also at the subsequent stage. i.e from selection of topic to conclusion of research. It reflects that they need published information in the form of books, journals up to completion of research .published sources vital for research scholars and sought information from these sources. 24.7% need published information at initial stages of research ,indicates later part of their research not depend on the published sources.

From the above data for( statement No 8) 69.5% of the scholars gather all the available information in their area of specialization which indicates that they were serious about collecting information comprehensively in their area of specialization. It is positive attitude of gathering information comprehensively which not only help in getting knowledge about the specialization and also helps to get good result of their work. It reflects that they are serious about information and in depth searching of information is being done for successful completion of research. It is a favorable attitude and are consulting different sources of information. Only 13.9% not interested in collecting information comprehensively.

From the above data for (statement No 9) 55.4% of the scholars are spending time in the library to search and seeking information. Data indicates that half of the population were serious about information and spending more time in the library for seeking information and are positive towards library for searching information .It is a favorable attitude and are serious even though they did not find much time due to their laboratory work. While 19.1% were uncertain 25.6% are not interested in searching and seeking information, this indicates that these scholars

are not serious about spending time in the library for searching and seeking information.

From the above data for (statement No 10) 74.4% of the scholars were not missing current information even though they are busy in lab. It is a favorable attitude and scholars are serious about current information it is a positive attitude and are putting sincere efforts in retrieving current information.12% were uncertain. However 13.9% are engaged in lab work missing current information.

From the above data for (statement No 11) majority scholars i.e 85.6% opined that published information in the form of books and journals are playing a vital role in their research work even in this IT based environment .It is positive attitude and the scholars are serious about published information .only 10% scholars said published information is not important to them in doing research. It is an indifferent attitude of the scholars towards information. They might have got information from non documentary sources.

From the above data for( statement No 12) 62.8% of the scholars opined that cumbersome procedures such as library timings, issue of materials, use of IT based services etc are inhibiting the scholars from seeking information while 24.6% cumbersome procedures are not hampering their research.

From the above data for( statement No 13) 66% of the scholars were scanning the earlier research reports ,it indicates a favorable attitude towards information present in the earlier research reports and are serious about earlier reports. It is interesting that 21.9% are not certain about earlier research reports. Only 12% of the scholars felt that earlier research reports not useful to them hence these are not consulted by them. On the whole are scholars serious about earlier reports as these are useful to them in doing research work

From the above data for (statement No 14) 59.1% opined that library should charge for internet browsing use of CDs, chemical softwares. This data indicates they are serious about information and wanted to pay money for IT based services as they were interested in collecting information at any cost, this is a positive attitude and save their time by paying money for information to complete the research,27.9% said that libraries should not charge money for IT based services.

From the above data for( statement No 15) only 5% scholars were not in favour of establishing a National Information Centre by UGC . Rest of the population agreed that National Information centre is essential for the scholars, it is favorable attitude and indicates their seriousness about the centre. It saves their time in contacting the other centers for information.

### MEASUREMENT OF THE ATTITUDE

The scale consists 11 negative items and 4 positive items. Questions are positively directed items and was scored in an order 5 to 1 , five for strongly agree and one for strongly disagree. Negatively directed items was scored in the order 1 to 5, five for strongly disagree and one for strongly agree.

Thus the higher total score is on an attitude towards information on part of respondents represented by positive or favorable attitude. Total attitude towards information obtainable scores range for items 1-75(mean—45) and obtained range was from 25 to 69. Mean score test has applied to know the attitude of the scholars. It is observed that a research scholar who gets more than 45 score is regarded as having highly favorable attitude towards information. There were approximately 184( 85.5%) scholars who had positive attitude towards information where as 31(14.5%) had no positive attitude towards information

### FINDINGS

In all three universities taken for the study majority scholars had positive attitude towards information, and scholars are more serious about seeking information. Major findings in the study are, user want to search the information on their own, they do not have wish to have assistance of intermediaries, and they are willing to pay for the information and information services and are giving more importance to information even though they are busy with lab experiments. Scholars giving importance to published sources, more over they are seeking current information, they are collecting information comprehensively to get thorough knowledge about subject i.e for selection of topic to conclusion of research.

### SUGGESTIONS

Keeping the finding of the above in view few suggestions were made Libraries should enhance budget for printed sources like books, journals etc.

Libraries should provide 24\*7 online services to users from any location in the university premises such as lab, library, campus to save their time. Cumbersome procedures of the libraries may be withdrawn, if possible Inter Library Loan be provided.UGC and Government of India should establish a National Information Centre for chemistry research scholars to provide comprehensive, update and recent information.

### CONCLUSION

Chemistry is major discipline in the sciences, and a large number of Research scholars are pursuing research in the field of chemistry in Indian universities. Majority scholars need information for successful completion of research; moreover they are serious about information seeking and had positive attitude towards information even though they spend most of the time in lab. It is the duty of Government of India, UGC and University libraries to provide required information to the chemistry scholars without wasting their time, this would in turn help the country.

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