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User's Needs and Behaviour of Information seeking in Pure Science Departments in Burdwan University

Amit Kumar Das* and Dr. Sukumar Mandal**

Abstract

Purpose

Library and information science, information needs and information seeking behavior is an important research area for finding the users' needs and user survey on the use of information resources. University library is the hub of widely-used and available information resources. ICT, web, and advancements of arrays of application have changed today libraries system and services. University library system is the not the exception. Assessment of information seeking behaviour is very much essential for users of university library mainly the research scholars and the faculty members.

Methodology

The respondents in this present investigation were pure science departments' (mainly Chemistry, Mathematics, and Physics) specifically faculty members and research scholars in Burdwan University. Google form, online questionnaire survey has been framed for data collection. Two sets of framed questionnaire has been distributed through different communication channels to 241 research scholars and 51 faculty members of pure science departments. The overall response rate is 63.7% (186). The collected data were quantitatively and qualitatively analysed in Statistical Package in Social Sciences (SPSS) (V.25) and described in figures to depict the user's information needs and seeking behavior of pure science departments in Burdwan University.

Findings

The study found the following results :- inspiration for library among pure science departments' respondents, self – motivated of using library in pure science department is 65.6%. Respondents' motivation by self from mathematics, chemistry and physics are 72%, 71.8% and 51.7% respectively. 36.6% pure science respondents have accessed daily. The second highest university library visit time is one day in a week for 22.6% respondents. 19.9% respondents have accessed university library for three days in week as third highest. 91.9% pure science department respondents have always recorded the histories of information seeking. 40.3% respondents of pure science departments have successfully retrieved their relevant information at the rate of 80%.

Keywords:- Users need, Information Seeking Behaviour, Pure Science, Burdwan University

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Introduction

In the field of library and information science, information needs and information seeking behavior is an important research area for finding the users' needs and user survey on the use of information resources. Today information is driving factors for every sphere in the daily life and considered as fundamental aspects. It also affects our personal and professional life Information needed by all to making decisions and required as other natural resources in their day to day activity. Information plays a crucial role in today's information society. The steps of information searching, collecting and utilising information are simply defined as information seeking behavior. Information seeking behaviour is the key aspects for faculties, research scholar and learners because they all need right and nascent information for their various needs. Information seeking behavior is a comprehensive phrase terminology, it encompasses various steps of activities by users or communities to find out the information needs, information searching, verified relevant information to satisfy their required needs. University library is the hub of widely-used and available information resources. ICT, web, and advancements of arrays of application have changed today libraries system and services. University library system is the not the exception. Assessment of information seeking behaviour is very much essential for users of university library mainly the research scholars and the faculty members.

Burdwan University : Brief introduction

The University of Burdwan was established in 15th June, 1960. Students have been registered in different science departments, namely Physics, Chemistry, Mathematics, and others since 1960. Since the science departments' inception, departments have consistently produced quality output in education, research and development. Master's programme in all science departments are of two years. Students of science departments inculcate exhaustive knowledge of sciences for teaching and research. They have learned various techniques, hands on of various advanced scientific instruments, research and development, communication and teaching techniques to groom for carrier guidance as academic as well as non-academic positions. The University of Burdwan has produced numerous eminent scientists from the beginning.

Pure Science

The term Science came from Latin word "scientia", and the meaning is "knowledge" (OED, 2014). It is a systematic method to discover the new classified knowledge with the help of experimental techniques and quantification of various properties of various substances in the nature and the universe. Scientific phenomenon have distributed in various form in the nature and universe. Scientific discovery has been derived from the various scientific techniques and formula with the help of various instruments to establish it scientific proofs, scientific prototypes, or scientific thoughts. In recent trends, "science" (MWOD, 2014) is a way of nascent thoughts to discover in a systematic methodical process (Wikipedia, 2014). In the last three centuries researchers have tried to derive various laws, physical and chemical properties of various substances of nature as well as universe. In 19th century, the term "science" has shifted to scientific technique, and systematic approach to discover the universe, namely physics, chemistry, mathematics, etc. Scientific literature comprises the original discoveries of pure and applied research of natural sciences (namely various disciplines, chemistry, mathematics, physics, etc.). According to Collins dictionary "Pure science or pure research is concerned only

with theory and not with how this theory can be used in practical ways.” As per biology online definition “basic knowledge for the discovery of unknown laws based on well controlled experiments and deductions from demonstrated facts or truths”. Pure Sciences domains discover various theories, applications, and predictions of nature and universe. Pure Sciences are often called as “natural science”, “basic science” or “fundamental science”. Society has been benefited from scientific knowledge and technological innovations as essential resource. Physics, Chemistry, and Mathematics are known as the major discipline in pure sciences from earlier times. To achieve the goal and free flow of universe of knowledge, advance of socio-economic enhancement, UNESCO have started to promote open knowledge movement to access scientific literature freely for the benefit living beings (UNESCO, 2014).

It is very essential to develop the scientific information retrieval system to design and records of scientific and engineering knowledge. Recorded information and knowledge help to the researchers for their information needs. Scientific information are of various forms i.e. text-or multimedia-based resources. The efficiency of scientific information retrieval systems has to evaluate regular basis according to researcher’s information need and information seeking process. Research and development in library infrastructure, systems and services are not the exception with the change of universe.

Review of Related Literature

Lomax et al. (1999) investigated the overview of information needs, seeking and use of information resources in various purposes in oncology using a mixed method survey of 7 oncology practice groups of medical oncologists and semi structured interview of 8 oncologists at Sheffield, UK, 1998. The study had tried to design a conceptual framework.

Reneker, Jacobson, and Spink (2001) conducted a study for the session 1998 – 2000 with mixed method approach (qualitative and interview) for investigation on all branches of the US military Naval Postgraduate School (NPS) faculty, staff and students’ information needs and information seeking behaviours and Use study (ISIC-3) at Gothenburg, Sweden, 2000. The study depicted the various information needs, problems in information seeking, and the exclusivity of the NPS environment.

Wallis (2006) studied on information needs and seeking behaviour and unavailability of information of faculty members (teachers and mentors) in schools of public health, Illinois University at Chicago using questionnaire survey among 210 members. The study found that 47 members gave feedback, and faculty members did not take assistance from librarian for their research, teaching, and service.

Bitso and Fourie (2011) conducted a study on research framework of Leckie, Pettigrew and Sylvain's (1996) models on secondary level geography faculty’s information-seeking behaviour in Lesotho. The study discussed the similarities between five processes of Leckie et al. (1996) model and three work roles (academic, administrative and non-academic) that affects information needs. It also discussed the use pattern of syllabus documents, books and non-documentary resources as major resources.

Al-Suqri (2011) made an investigated with mixed method approach (e-mail, interviews, and interviews) on social science faculties’ and scholars’ of information-seeking behavior at Sultan

Qaboos University in Oman. NVIVO software is applied for qualitative content analysis in this study. An integrated model of social science information-seeking behavior had been designed and tested the model to examine the information-seeking of faculties and scholar in this investigation.

Objectives

The major research objectives are as follows:-

- **To find out information needs of the pure science departments**
- **To find out the priority of information needs of the pure science departments users in daily life.**
- **To found the information sources used by the pure science departments users**
- **To know the seeking pattern of information of pure science departments users**
- **To identify the satisfaction level of pure science departments users on university library infrastructure and services**

Methodology

The respondents in this present investigation were pure science departments' (mainly Chemistry, Mathematics, and Physics) specifically faculty members and research scholars in Burdwan University. Google form, online questionnaire survey has been framed for data collection (Das and Mandal, 2021, 2021a, 2021b). Two sets of framed questionnaire has been served through different communication channels to 241 research scholars and 51 faculty members of pure science departments with pick n choose and open ended descriptive questions on the information needs and seeking behavior. Out of 292 participants in pure science departments, the overall response rate is 63.7% (186). The collected data were quantitatively and qualitatively analysed in Statistical Package in Social Sciences (SPSS) (V. 25) and described in figures to depict the user's information needs and seeking behavior of pure science departments in Burdwan University.

Analysis and Discussion

			Subject			Total
			Mathematics	Physics	Chemistry	
Motivation of using library	Self	Count	36	30	56	122
		% within Subject	72.0%	51.7%	71.8%	65.6%
	Parents	Count	8	3	13	24
		% within Subject	16.0%	5.2%	16.7%	12.9%
	Teachers	Count	6	20	8	34
		% within Subject	12.0%	34.5%	10.3%	18.3%
	Friends	Count	0	5	1	6
		% within Subject	0.0%	8.6%	1.3%	3.2%
Total		Count	50	58	78	186
		% within Subject	100.0%	100.0%	100.0%	100.0%

Table 1 Motivation of using library

Table 1 shows the inspiration for library among pure science departments' respondents. Self – motivated of using library in pure science department is 65.6%. Respondents' motivation by self from mathematics, chemistry and physics are 72%, 71.8% and 51.7% respectively. Second highest motivation is 18.3% get from teachers. Teachers' motivation on respondents' of physics, chemistry and mathematics have 34.5%, 10.3%, and 12% respectively. The third highest is 12.9% motivation from parents of using library in pure science departments. Library using motivation from parents in chemistry, mathematics and physics are 16.7%, 16% and 5.2% respectively. Only 3.2% is lowest motivation factor i.e. friends. 8.6% physics and 1.3% chemistry respondents have motivated from friends. (Figure – 1)

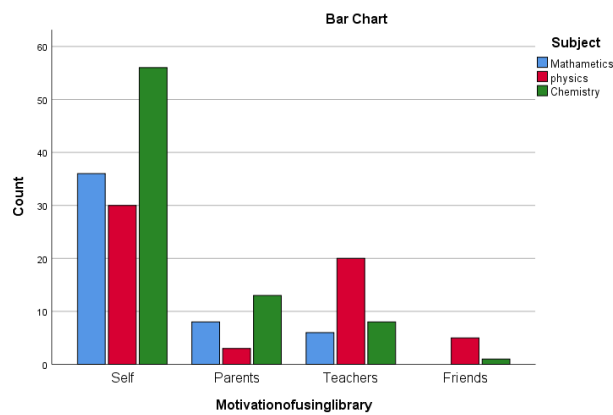


Figure 1 Motivation of using library

			Subject			Total
			Mathematics	Physics	Chemistry	
Starting of Library use	Public Library	Count	13	2	6	21
		% within Subject	26.0%	3.4%	7.7%	11.3%
	College Library	Count	9	33	34	76
		% within Subject	18.0%	56.9%	43.6%	40.9%
	School Library	Count	25	23	38	86
		% within Subject	50.0%	39.7%	48.7%	46.2%
	University Library	Count	3	0	0	3
		% within Subject	6.0%	0.0%	0.0%	1.6%
Total		Count	50	58	78	186
		% within Subject	100.0%	100.0%	100.0%	100.0%

Table 2 Starting of Library use

Table 2 illustrates that maximum 46.2% pure science respondents have accessed library from school. The second highest 40.9% respondents have started using library from college. It is very significant 11.3% pure science respondents have accessed public library. Only 1.6% respondents

have initiated from university library. Maximum 26% mathematics respondents have accessed public library among all pure science respondents. Chemistry and physics respondents have 7.7%, and 3.4% respectively started accessing public library facilities. The highest 56.9% physics respondents have accessed college library. The second highest college library users are 43.6% chemistry respondents. Only 18% mathematics respondents accessed college library services. Maximum 50% mathematics respondents accessed school library services. Second highest school library users are 48.7% chemistry respondents. 39.7% physics respondents have used school library. Only 6% mathematics respondents have started library facilities from university. (Figure – 2)

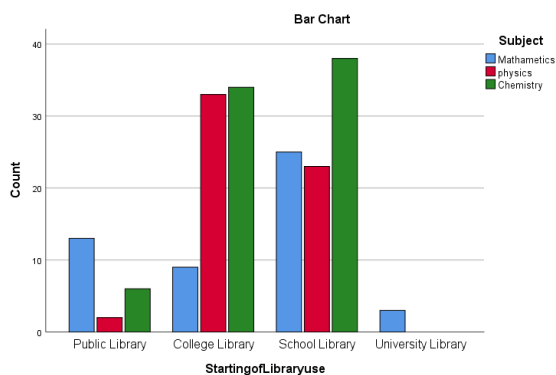


Figure 2 Starting of Library use

			Subject			Total
			Mathematics	physics	Chemistry	
University Library access time	Daily	Count	27	32	9	68
		% within Subject	54.0%	55.2%	11.5%	36.6%
	1day/week	Count	15	19	8	42
		% within Subject	30.0%	32.8%	10.3%	22.6%
	2days/week	Count	2	2	14	18
		% within Subject	4.0%	3.4%	17.9%	9.7%
	3days/week	Count	3	4	30	37
		% within Subject	6.0%	6.9%	38.5%	19.9%
	5days/week	Count	0	1	4	5
		% within Subject	0.0%	1.7%	5.1%	2.7%
	According to need	Count	3	0	0	3
		% within Subject	6.0%	0.0%	0.0%	1.6%
	4days/week	Count	0	0	13	13
		% within Subject	0.0%	0.0%	16.7%	7.0%
Total		Count	50	58	78	186

	% within Subject	100.0%	100.0%	100.0%	100.0%
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Table 3 University Library access time

Table 3 shows that highest 36.6% pure science respondents have accessed daily. The second highest university library visit time is one day in a week for 22.6% respondents. 19.9% respondents have accessed university library for three days in week as third highest. The fourth position, 9.7% respondents have accessed for 2 days/week. 7% respondents have visited for 4 days/week as fifth highest. Only 1.6% pure science respondents accessed library according to their needs. Highest 54% mathematics and 55.2% physics respondents have visited university library daily. Where as highest 38.5% chemistry respondent have accessed library for 3 days/week. The second highest 30% mathematics and 32.8% physics respondents have accessed university library for 1 day/week. In case of chemistry respondents, 17.9% have visited for 2 days/week as second highest position. 3 days/week, the third highest visit in library are 6% and 6.9% of mathematics and physics respondents respectively. 16.7% chemistry respondents have accessed university library for 4 days/week as third highest. Only 11.5% and 10.3% chemistry respondents have accessed library for daily and 1 day/week respectively. (Figure – 3)

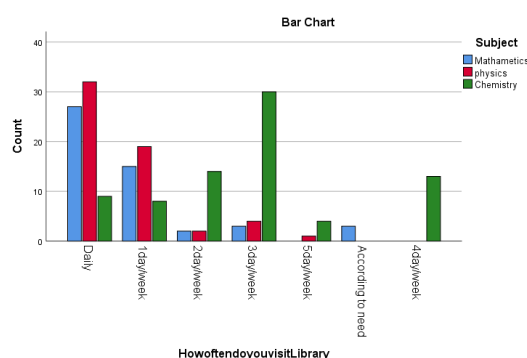


Figure 3 University Library access time

		Subject				Total
		Mathematics	physics	Chemistry		
Visiting hours in University Library	30 min	Count	1	0	0	1
		% within Subject	2.0%	0.0%	0.0%	0.5%
	1hr	Count	6	5	0	11
		% within Subject	12.0%	8.6%	0.0%	5.9%
	2 hrs.	Count	21	30	49	100

	3 hrs.	% within Subject	42.0%	51.7%	62.8%	53.8%
		Count	17	12	17	46
	4 hrs.	% within Subject	34.0%	20.7%	21.8%	24.7%
		Count	4	11	12	27
	1.3 hrs.	% within Subject	8.0%	19.0%	15.4%	14.5%
		Count	1	0	0	1
Total	Count	50	58	78	186	
	% within Subject	100.0%	100.0%	100.0%	100.0%	

Table 4 Visiting hours in university library

Table 4 describe that majority of 53.8% pure science respondents have spent maximum two hours in university library. 24.7% respondents have for three hours as second highest time consumption. The thrid highest is four hours time spent in unversity library by 14.5% respondents. Only few pure science respondents visited for less than one hour. Highest two hours are spending times in unversity library by 62.8%, 51.7% and 42% chemistry, physics and chemistry respondents respectively. 34% mathematics, 21.8% chemistry and 20.7% physics respondents have expended for three hours as second highest. The thrid highest university library visiting time is four hours for 19% physics, 15.4% chemistry and 8% mathematics respondents. Only 12% mathematics and 8.6% physics respondents expended one hour to access university facilities. (Figure – 4)

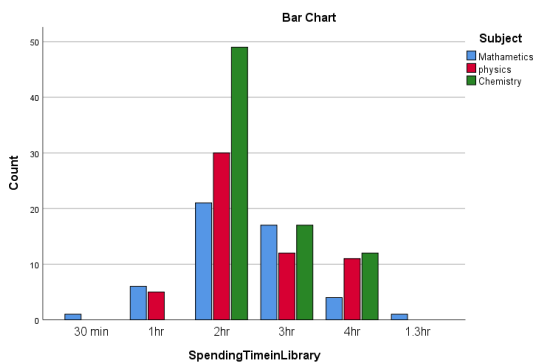


Figure 4 University library visit hours

		Subject				
		Mathematics	physics	Chemistry	Total	
Visit in departmental library	Yes	Count	50	58	78	186
		% within Subject	100.0%	100.0%	100.0%	100.0%
Total		Count	50	58	78	186
		% within Subject	100.0%	100.0%	100.0%	100.0%

Table 5 Visit in departmental library

Table 5 illustrates that all the pure science respondents have accessed departmental library.

26.88% mathematics respondents, 31.18% physics and 41.94% chemistry respondents have taken departmental library facilities. (Figure – 5)

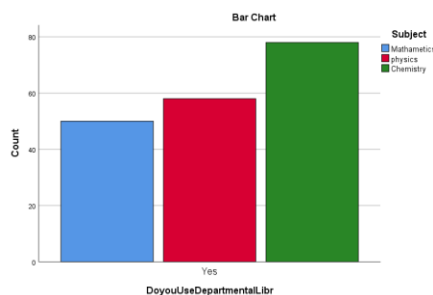


Figure 5 Visit in departmental library

			Subject			Total
			Mathematics	physics	Chemistry	
Access in other Libraries	Yes	Count	36	40	62	138
		% within Subject	72.0%	69.0%	79.5%	74.2%
	No	Count	14	18	16	48
		% within Subject	28.0%	31.0%	20.5%	25.8%
Total		Count	50	58	78	186
		% within Subject	100.0%	100.0%	100.0%	100.0%

Table 6 Access in other Libraries

From the above table 6 it is found that 74.2% respondents of pure science have visited other libraries. Maximum of 72% of Mathematics department respondents have access other libraries beside University library. In case of Physics department 69% respondents have used other library services. 74.2% respondent in Chemistry department have taken the facilities of other libraries. (Figure – 6)

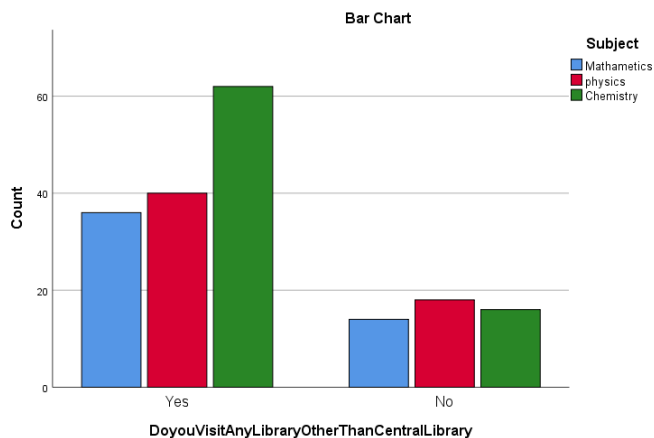


Figure 6 Access in other Libraries

			Subject			Total
			Mathematics	physics	Chemistry	
Visiting hours in other libraries	Not spend	Count	15	20	16	51
		% within Subject	30.0%	34.5%	20.5%	27.4%
	Weekly 1 hrs.	Count	5	12	1	18
		% within Subject	10.0%	20.7%	1.3%	9.7%
	Weekly 2 hrs.	Count	19	7	7	33
		% within Subject	38.0%	12.1%	9.0%	17.7%
	Weekly 3 hrs.	Count	4	2	1	7
		% within Subject	8.0%	3.4%	1.3%	3.8%
	Weekly 4 hrs.	Count	3	5	0	8
		% within Subject	6.0%	8.6%	0.0%	4.3%
	Monthly 2hrs.	Count	2	1	18	21
		% within Subject	4.0%	1.7%	23.1%	11.3%
	Monthly 3hrs.	Count	2	11	25	38
		% within Subject	4.0%	19.0%	32.1%	20.4%
	Monthly 4hrs.	Count	0	0	10	10
		% within Subject	0.0%	0.0%	12.8%	5.4%
Total		Count	50	58	78	186
		% within Subject	100.0%	100.0%	100.0%	100.0%

Table 7 Visiting hours in other libraries

In this table 7 comparative qualitative subject-wise analysis on visiting hours in other libraries, maximum 38% mathematics respondents accessed other libraries in weekly 2 hours, surprisingly 30% have not spent, 10% respondent used in weekly 1 hour, 8% in weekly 3 hours accessed in other libraries. In cases of physics department, majority of 34.5% have not accessed other library facilities, 20.7% visited in weekly 1 hour, 19% get accessed in weekly 3 hours and 12.1% respondents spent in weekly 2 hours. In the remaining chemistry department, maximum 32.1% respondents visited other libraries in weekly 3 hours, 23.1% in monthly 2hours, specifically 20.5% respondents never accessed other libraries. 12.8% chemistry respondents spent monthly 4

hours. Overall in Pure science departments, majority of 27.4% respondents never accessed other library facilities beside university library system. 20.4% of pure science respondents have spent monthly 3 hours, 17.7% in weekly 2 hours and 11.3% in monthly 2 hours in other libraries. It shows that the tendency to visit other library is very much minimal in Pure Science department. Table reflected the satisfaction level of the university library system and services. (Figure – 7)

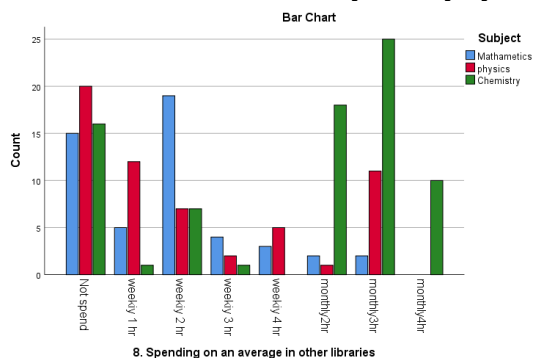


Figure 7 Visiting hours in other libraries

			Subject			Total
			Mathematics	physics	Chemistry	
Major aspects of Information Needs	Professional Purpose	Count	1	0	0	1
		% within Subject	2.0%	0.0%	0.0%	0.5%
	Research	Count	19	2	8	29
		% within Subject	38.0%	3.4%	10.3%	15.6%
	Study	Count	3	9	6	18
		% within Subject	6.0%	15.5%	7.7%	9.7%
	Research and Study	Count	23	42	64	129
		% within Subject	46.0%	72.4%	82.1%	69.4%
Others	Count	4	5	0	9	
	% within Subject	8.0%	8.6%	0.0%	4.8%	
Total		Count	50	58	78	186
		% within Subject	100.0%	100.0%	100.0%	100.0%

Table 8 Major Information Needs of Pure Science Departments

Table 8 shows that research and study is the highest needs of information seeking of 69.4% pure science departments. 15.6% respondents have only research, the second most important need from university library. 4.8% respondents have accessed library for other purpose of information needs. Only 0.5% pure science departments respondents fulfil their professional information needs. In respect of the individual department, majority of 46% chemistry respondents have visited to satisfy for research and study purpose, 38% accessed for only research purpose, 6% for only study and only 2% users have visited to fulfil their professional needs. In case of physics

department, 72.4% respondents highest information needs is research and study. The second highest information needs is only study of 15.5% respondents. 8.6% users have accessed university library for other purpose. Only 3.4% physics respondents have visited for research purpose. And the last remaining chemistry department, majority of 82.1% have visited for research and study, 10.3% respondents for only research purpose, and 7.7% for only study purpose. (Figure – 8)

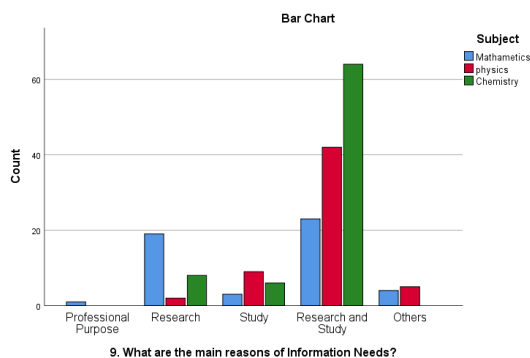


Figure 8 Major Information Needs of Pure Science Departments

			Subject			Total
			Mathematics	physics	Chemistry	
Purpose for University library visit	Study	Count	1	0	0	1
		% within Subject	2.0%	0.0%	0.0%	0.5%
	Borrow books	Count	1	2	0	3
		% within Subject	2.0%	3.4%	0.0%	1.6%
	All of above	Count	48	56	78	182
		% within Subject	96.0%	96.6%	100.0%	97.8%
Total		Count	50	58	78	186
		% within Subject	100.0%	100.0%	100.0%	100.0%

Table 9 Purpose for University library visit

Table 9 illustrates that majority of 97.8% respondents of pure science departments have taken all the university services (photocopy services, online resources, internet services, borrow books, access of periodical, study newspapers). Only 1.6% and 0.5% respondents accessed for only borrow books and study respectively. Department wise point of view, 96% chemistry respondents. (Figure – 9)

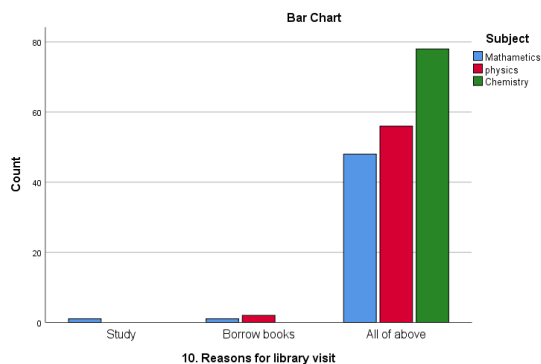


Figure 9 Purpose for University library visit

			Subject			Total
			Mathematics	physics	Chemistry	
Pure science departments key Information needs	New knowledge	Count	2	0	0	2
		% within Subject	4.0%	0.0%	0.0%	1.1%
	Study/research work	Count	2	1	0	3
		% within Subject	4.0%	1.7%	0.0%	1.6%
	All of above	Count	46	57	78	181
		% within Subject	92.0%	98.3%	100.0%	97.3%
Total		Count	50	58	78	186
		% within Subject	100.0%	100.0%	100.0%	100.0%

Table 10 Pure science departments key Information needs

Table 10 shows that majority of 97.3% respondents of pure science departments have visited for various key information needs like learning / research, current awareness, career advancement, New treasure of knowledge, attending in seminars / conferences etc., Curriculum related, writing of papers, etc. only 1.6% and 1.1% users have accessed for only study and research and new knowledge respectively. In department wise perspective, 92% mathematics, 98.3% physics and 100% chemistry users have visited for all the key information needs. The second major key information needs is study and research of 4% mathematics, 1.7% physics respondents. Only 4% mathematics have searched for new knowledge. (Figure – 10)

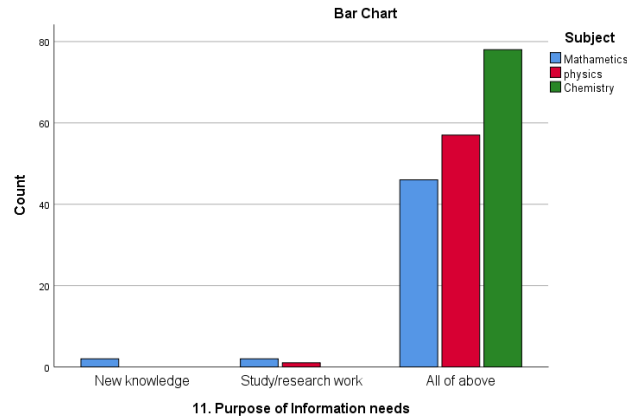


Figure 10 Pure science departments key Information needs

			Subject			Total
			Mathematics	physics	Chemistry	
Conversation with Teachers	Yes	Count	47	58	75	180
		% within Subject	94.0%	100.0%	96.2%	96.8%
	No	Count	3	0	3	6
		% within Subject	6.0%	0.0%	3.8%	3.2%
Total		Count	50	58	78	186
		% within Subject	100.0%	100.0%	100.0%	100.0%

Table 11 Conversation with Teachers

Table 11 describes that maximum 96.8% pure science departments respondents have shared the idea with teachers for their information needs. Only 3.2% users have never exchanged their views. In the case of departments' point of views, majority of 94% mathematics and 96.2% chemistry respondents have always consulted with their faculty members. Whereas in physics, all the respondents shared their ideas with teachers. Only 6% mathematics and 3.8% chemistry scholars and faculties have never exchange views with peers. (Figure – 11)

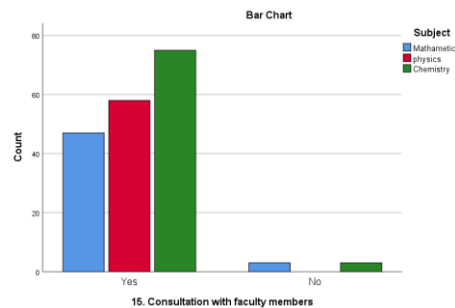


Figure 11 Conversation with Teachers

			Subject			Total
			Mathematics	Physics	Chemistry	
Accounts of information seeking	Yes	Count	46	57	68	171
		% within Subject	92.0%	98.3%	87.2%	91.9%
	No	Count	4	1	10	15
		% within Subject	8.0%	1.7%	12.8%	8.1%
Total		Count	50	58	78	186
		% within Subject	100.0%	100.0%	100.0%	100.0%

Table 12 Accounts on Information seeking

Table 12 reflects that majority of 91.9% pure science department respondents have always recorded the histories of information seeking. In the subject point of view, 98.3% physics, 92% mathematics and 87.2% chemistry faculties and scholars have kept their day to information seeking records. Among all the pure science departments, records maintenance rate is better in mathematics department respondents in percentage basis. (Figure – 12)

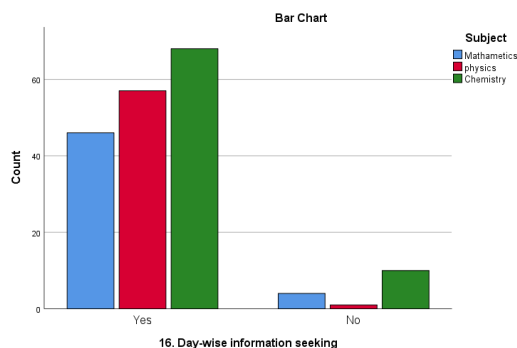


Figure 12 Accounts on Information seeking

			Subject			Total	
			Mathematics	physics	Chemistry		
Process of information seeking behaviour	Search engine	Count	1	1	0	2	
		% within Subject	2.0%	1.7%	0.0%	1.1%	
	Documentary, Non Documentary, Library services used, ICT infrastructure used	Count	3	0	0	3	
		% within Subject	6.0%	0.0%	0.0%	1.6%	
	All	Count	43	57	78	178	
		% within Subject	86.0%	98.3%	100.0%	95.7%	
	Using key terms for finding	Count	3	0	0	3	
		% within Subject	6.0%	0.0%	0.0%	1.6%	
	Total		Count	50	58	78	186
			% within Subject	100.0%	100.0%	100.0%	100.0%

Table 13 Process of information seeking behaviour

Table 13 illustrated that respondents of pure science departments, majority of 95.7% have utilised all types of search facilities like documentary, non documentary, library services, internet resources, search engine, ICT infrastructure, using key terms for searching information. Only 1.1% have used search engines. In departmental point of view, 100% chemistry, 98.3% physics and 86% mathematics respondents have taken help of all the above seeking behaviour processes. Only 6% each mathematics respondents have approached to use keywords and documentary and non documentary helps in information seeking. Very few of 2% mathematics and 1.7% physics scholars and faculties have taken assistance of search engines for information seeking approach. (Figure – 13)

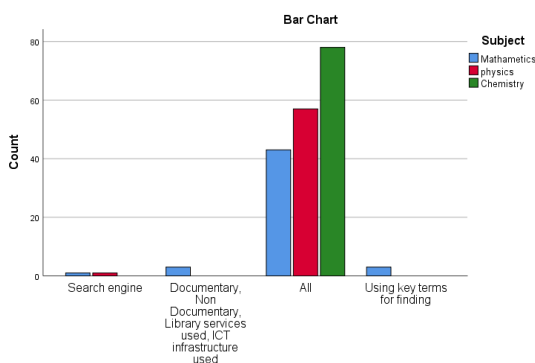


Figure 13 Process of information seeking behaviour

		Subject			Total	
		Mathematics	Physics	Chemistry		
Hours spent for Information seeking	1hr	Count	10	36	48	94
		% within Subject	20.0%	62.1%	61.5%	50.5%
	2hr	Count	33	20	30	83
		% within Subject	66.0%	34.5%	38.5%	44.6%
	3hr	Count	7	2	0	9
		% within Subject	14.0%	3.4%	0.0%	4.8%
Total		Count	50	58	78	186
		% within Subject	100.0%	100.0%	100.0%	100.0%

Table 14 Hours spent for Information seeking

Table 14 shows that 50.5% respondents of pure science departments have consumed one hour for information seeking process. 44.6% respondents have expensed two hours to seek information and only 4.8% have accessed for 3 hours. In case of subject comparison, 66% mathematics have

expended maximum 2 hours than other two departments whereas 62.1% physics and 61.5% chemistry respondents have spent one hour for information seeking process. Only 14% mathematics and 3.4% chemistry respondents have utilised 3 hours for information seeking process. (Figure – 14)

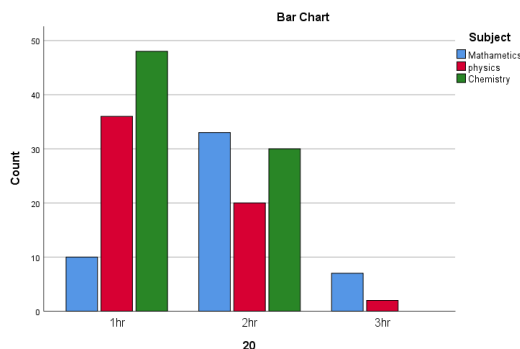


Figure 14 Hours spent for Information seeking

		Subject			Total	
		Mathematics	physics	Chemistry		
Rate of Success in Information seeking	100%	Count	18	10	0	28
		% within Subject	36.0%	17.2%	0.0%	15.1%
	90%	Count	7	7	19	33
		% within Subject	14.0%	12.1%	24.4%	17.7%
	80%	Count	10	30	35	75
		% within Subject	20.0%	51.7%	44.9%	40.3%
	70%	Count	10	10	24	44
		% within Subject	20.0%	17.2%	30.8%	23.7%
	60%	Count	5	1	0	6
		% within Subject	10.0%	1.7%	0.0%	3.2%
	Total	Count	50	58	78	186
		% within Subject	100.0%	100.0%	100.0%	100.0%

Table 15 Rate of Success in Information seeking

In this table 15 it reveals that 40.3% respondents of pure science departments have successfully retrieved their relevant information at the rate of 80%. The second highest success rate is 70% of 23.7% respondents. 17.7% and 15.1% pure science respondents have retrieved as the third and fourth highest rate of success 100% and 90% respectively. Only 3.2% respondents have 60% success of finding information. In the discipline comparison, majority of 36% chemistry department users have got 100% success in information seeking. 51.7% physics and 44.9% chemistry respondents have accessed 80% as highest success rate. It means pure science

departments users have retrieved greater than 60% success for their information needs from university library. (Figure – 15)

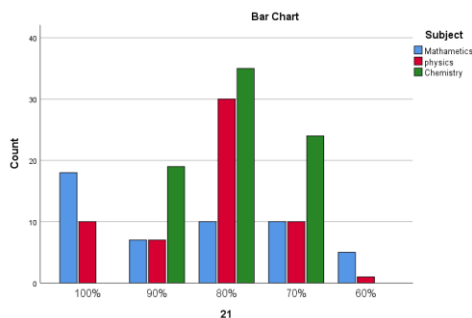


Figure 15 Rate of Success in Information seeking

		Subject			Total	
		Mathematics	physics	Chemistry		
Unhappiness on University Library visit	No dissatisfaction	Count	22	25	4	51
		% within Subject	44.0%	43.1%	5.1%	27.4%
	No comments	Count	7	1	12	20
		% within Subject	14.0%	1.7%	15.4%	10.8%
	Need more resource	Count	21	32	62	115
		% within Subject	42.0%	55.2%	79.5%	61.8%
Total		Count	50	58	78	186
		% within Subject	100.0%	100.0%	100.0%	100.0%

Table 16 Unhappiness on University Library visit

In this table 16 it is found that majority of 61.8% pure science departments users want more resources in university library. 27.4% respondents have not unhappy on university library systems. Only 10.8% users have abstained on answering the question. In the discipline comparison, majority of 44% mathematics department users have not unhappy on university library and 42% have requested more subscription of resources. Similarly majority of 79.5% chemistry and 55.2% physics scholars and teachers have demanded for more subscription. 43.1% physics and only 5.1% chemistry respondents have satisfied on university library system. Only 15.4% chemistry and 1.7% physics users have silent on dissatisfaction. It reveals that few users of pure science departments dissatisfied on various matters like staffing in library, awareness and orientation on library services, internal activities of library, etc. (Figure – 16)

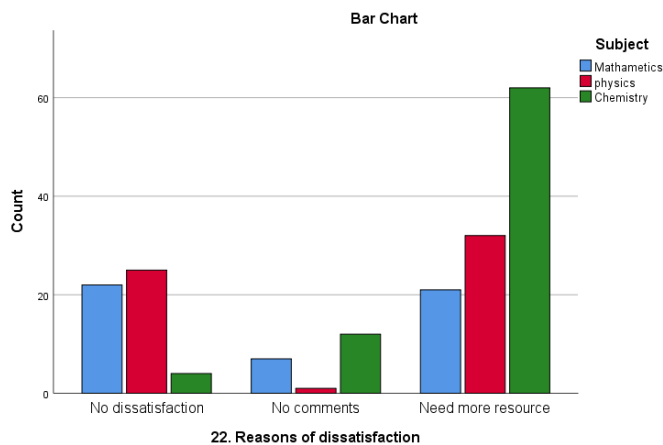


Figure 16 Unhappiness on University Library visit

			Subject			Total
			Mathematics	physics	Chemistry	
University library infrastructure enhancement	yes	Count	43	42	72	157
		% within Subject	86.0%	72.4%	92.3%	84.4%
	No	Count	0	12	0	12
		% within Subject	0.0%	20.7%	0.0%	6.5%
	No comments	Count	7	4	6	17
		% within Subject	14.0%	6.9%	7.7%	9.1%
Total		Count	50	58	78	186
		% within Subject	100.0%	100.0%	100.0%	100.0%

Table 17 University library infrastructure enhancement

In this table 17 it reveals that maximum 84.4% respondents of pure science departments have agreed with the enrichment of university infrastructure. 9.1% scholars and teachers have stayed silent. Only 6.5% pure science users have said that there is no need of infrastructural advancement. In comparison to departmental points of view, majority of 92.3% chemistry, 86% mathematics, and 72.4% physics users have suggested for library infrastructural upgradation. It is very significant that 14% mathematics, 7.7% chemistry and 6.9% physics have denied to comments. Only 20.7% physics teachers and scholars disagreed with the upgradation of library infrastructure. (Figure – 17)

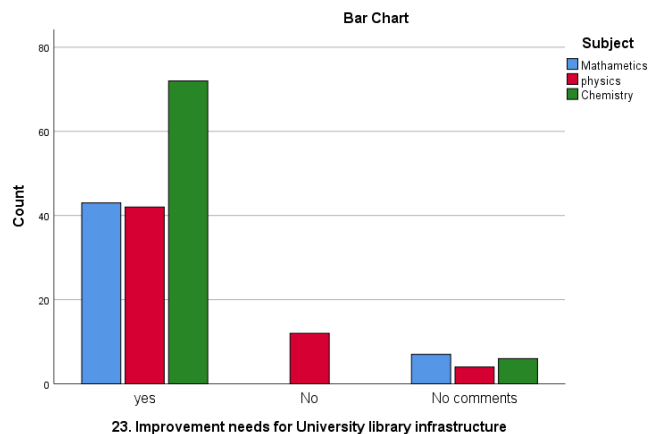


Figure 17 University library infrastructure enhancements

			Subject			Total
			Mathematics	physics	Chemistry	
Suggestion on University library services enhancement	Yes	Count	45	35	72	152
		% within Subject	90.0%	60.3%	92.3%	81.7%
	No	Count	0	19	0	19
		% within Subject	0.0%	32.8%	0.0%	10.2%
	No Comments	Count	5	4	6	15
		% within Subject	10.0%	6.9%	7.7%	8.1%
Total		Count	50	58	78	186
		% within Subject	100.0%	100.0%	100.0%	100.0%

Table 18 Suggestion on University library services enhancement

From the table it depicts that most of the pure science users (81.7%) have demanded for enlightenment of university library services. 10.2% respondents have not supported for enriching library services. Only 8.1% pure science departments patrons have played silence on uplifting library services. In comparison to the pure science departments, majorities of 92.3% chemistry, 90% mathematics and 60.3% physics patrons have requested for enhancing the university services. It is very interesting 10% mathematics, 7.7% chemistry and 6.9% have remained silent on up-gradation of library services. It is also very significant only 32.8% physics respondents have denied for upgradation. (Figure – 18)

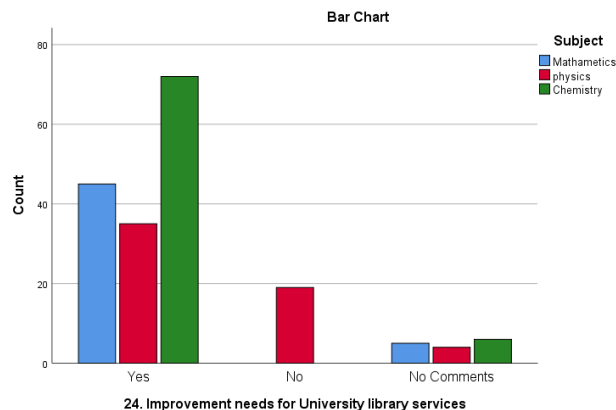


Figure 18 Suggestion on University library services enhancement

Conclusion

The users' information seeking behaviour investigation have made regularly to find out the variation of needs of users in respect of time. The advancement of library services updated with the implimentation of web technlogies. From the latest findings of the study, the Burdwan university library should impliment the user centric proposal of patrons from various pure science departments to enhance webbased services in the libraries. The users; expectations from the library are investigated through the behavioural studies of variours pure sciences depatments of the Burdwan University. This study will assist the burdwan unversity policy makers for smooth delivery of library sources and services to the patrons.

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