

e-ShodhSindhu Consortium: Awareness and Use

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Abstract

At present the university libraries in India are actively engaged in incorporating electronic information resources and services. Ever-increasing prices of journal have forced institutions to resort to alternatives like consortia for resource sharing that offer access to electronic resources, bibliographic databases and services through Internet and World Wide Web. UGC had initiated Infonet E-journals Consortium. Recently MHRD formed e-ShodhSindhu merging three consortia, namely UGC-INFONET Digital Library Consortium, NLIST and INDEST-AICTE Consortium. Banasthali University library in Rajasthan is providing access to e-ShodhSindhu E-journals Consortium to its research community. This study seeks to examine how far the research community is aware of and is making use of e-ShodhSindhu E-journals Consortium. The study also seeks to examine the influence of Consortium on the users' research, to identify difficulties faced by the research scholars while accessing the Consortium and to make a few suggestions to strengthen the e-ShodhSindhu E-journals Consortium.

Keywords: Banasthali University, Consortium, Use and Awareness, e-ShodhSindhu E-journals, Information and Communication Technology, UGC-Infonet

1. Introduction

Developments in information technology have brought ample opportunities for sharing and providing access to electronic information resources particularly e-journals, considered a boon to the research community.

Ever-increasing prices of journals coupled with shrinking library budgets have forced libraries and institutions to explore alternatives like consortia (Bharati and Zaidi, 2008). Patil (2004)⁹ says "Consortia are commonly formed to increase the purchasing power of the collaborating institutions to expand the resource availability and to offer automated services. It is a strategic alliance of institutions that have common interests and therefore, it is basically a combination of group of libraries coming together with common interest to form consortium".

The demand for journals by the academic and research community has increased over the years. UGC initiated the e-ShodhSindhu e-journals Consortium. The consortium enables academic libraries to access a large number of scholarly journals from reputed publishers, aggregators and society publications. In India, e-ShodhSindhu is the biggest Consortium of University Libraries and 157 universities in India are covered under the e-ShodhSindhu E-journal Consortium.

1.1 e-ShodhSindhu: Consortium for Higher Education Electronic Resources

In 2016, based on the recommendation of an Expert Committee, the MHRD formed e-ShodhSindhu merging three consortia initiatives, namely UGC-INFONET Digital Library Consortium, NLIST and INDEST-AICTE Consortium. The e-ShodhSindhu will provide access to current as well as archives of more than 15,000 core and peer-reviewed journals and a number of bibliographic, citation and factual databases in different disciplines from a large number of publishers and aggregators to its member institutions including centrally-funded technical institutions, universities and colleges that are covered under 12(B) and 2(f) Sections of the UGC Act.

1.2 Aims and Objectives

The main objective of the e-ShodhSindhu Consortia for Higher Education E-Resources is to provide access to qualitative electronic resources including full-text, bibliographic and factual databases to academic institutions at lower rates of subscription. The major aims and objectives of the e-ShodhSindhu are as follows:

- Develop a formidable collection of e-journals, e-journal archives and e-books for perpetual access;

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- Monitor and promote usage of e-resources in member universities, colleges and technical institutions in India through awareness and training programmes;
- Provide access to subscription-based scholarly information (e-books and e-journals) to all educational institutions;
- Provide access to scholarly content available in open access through subject portals and subject gateways;
- Bridge digital divide and move towards an information-rich society;
- Provide access to selected e-resources to additional institutions including open universities and MHRD-funded institutions that are not covered under existing consortia;
- Take-up additional activities and services that require collaborative platform and are not being performed by existing Consortia; and
- Move towards developing a National Electronic Library with electronic journals and electronic books as its major building blocks.

Banasthali University provides access to the following full-text electronic journals and bibliographic databases, under the e-ShodhSindhu Digital Library Consortium:

1.2.1 Full Text e-Resources

- American Chemical Society,
- American Institute of Physics,
- American Physical Society,
- Annual Reviews,
- Wiley-Blackwell Publishing,
- Cambridge University Press,
- Economic & Political Weekly,
- Emerald Univ. Collection (133 titles),
- Institute of Physics,
- J-STOR,
- Nature,
- Oxford University Press,
- Project Muse,
- Royal Society of Chemistry,
- Springer Link, and
- Taylor and Francis.

1.2.2 Bibliographic databases

- ISID,
- JGate Plus (JCCC), and
- Web of Science.

2. Need of the Study

Doctoral students and researchers have realized the advantage of e-Journals. At present the university libraries in India, are actively engaged in incorporating electronic information resources and services to provide much needed primary research information. It is very important to know how far the research community is aware of and makes use of e-ShodhSindhu e-Journals Consortium.

3. Objectives of the Study

The study is designed to seek users' opinion regarding the awareness and use of e-journals by the research scholars of Banasthali University in Faculty of Science with the following objectives:

- To study the use and utility of e-ShodhSindhu for research scholars of Faculty of science,
- To ascertain the research scholars' preference of portals in e-ShodhSindhu,
- To identify the influence of e-ShodhSindhu on the users' research efficiency,
- To identify the difficulties faced by the research scholars while accessing e-ShodhSindhu, and
- To ascertain the adequacy of coverage of journals in Physical Sciences in e-ShodhSindhu.

4. Review of Literature

A number of surveys on the use of UGC-Infonet e-journals have been carried out during the last decade.

Singh, Nazim and Singh (2008)¹⁰ conducted a survey to know the awareness and use of UGC-Infonet Consortium by faculty members, researchers and students. They found that 85.71 percent of the respondents were aware and 14.29 percent were not aware of the availability of online journals. Majority of the respondents (58.57 percent) were using online journals for research work, 27.14 percent for writing papers and 15.71 percent for teaching. However, a study by Veenapani, Singh and Devi (2008)¹² found that 45 percent were not aware of the consortium.

Madhusudhan (2008)⁵ revealed that e-journals perform an increasingly important role in research in the Department of Library and Information Science, University of Delhi where not only current e-Journals are significant but electronic back runs are also required by the research scholars and students.

A survey conducted by Bhatt and Joshi (2009)¹ to assess the impact of UGC-Infonet Digital Library Consortium on academic community revealed that the number of research degrees awarded in the field of social sciences, humanities, pure and applied sciences had increased significantly. Patil and Parameshwar (2009)⁸ found that 62.91 percent of the faculty members expressed the need for more number of journals. Kumbar and Hadagali (2009)⁴ found that 64.29 percent of the faculty members needed regular training/awareness/orientation programmes for making best use of the UGC-Infonet Digital Library Consortium.

Khaiser and Pramodini (2007)² describe the use of e-journals and databases by the users of University of Mysore and examine the utilization and satisfaction levels of users with respect to the e-resources. A study conducted by Mounissamy and Rani (2005)⁶ reveals that 67 percent of researchers and 33 percent of faculty members regularly access and use the electronic journals for varied purposes”.

Murthy (2008)⁷ conducted a study regarding usage of UGC-Infonet resources and found that “the trend of high use of e-resources by the Indian scholars helped in reducing information gaps between rural and urban, privileged and less privileged, reachable and unreachable frontiers within the Country. This has revolutionized the Indian university campuses with a digital culture”. Kumbar (2006)³ opined that “e-resources are highly useful for research and academic community in the present ICT environment”. Sreekumar and Sunitha (2006)¹¹ through their study on the use of e-resources suggest that “the authorities of the university libraries must conduct the user awareness programs to train the research and academic community for the maximum utilization of these electronic resources effectively and efficiently”. Vishala and Bhandi (2007)¹³ advocate a “centrally administered consortium approach with innovative features for maximum utilization UGC-Infonet E-e-resources by the research community”.

5. Methodology

Data is collected using questionnaire administered to 75 research scholars in sciences.

6. Data Analysis and Interpretation

A total of 64 out of 75 returned their questionnaires giving

a response rate of 85 percent (Figure 1).

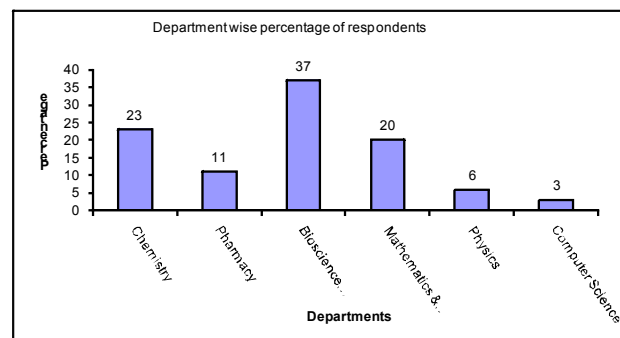


Figure 1. Faculty-wise no. of respondents.

6.1 Age Group-wise no. of Respondents

Most of the research scholars 67 percent (43) are in the age group 20-25 years (Figure 2).

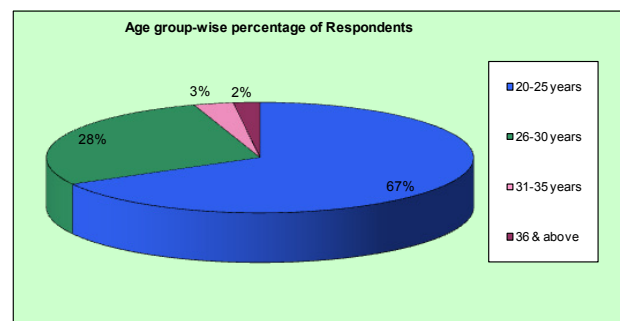


Figure 2. Age group-wise percentage of respondents.

6.2 Awareness and use of e-ShodhSindhu e-Journals Consortium

In responses to a question 95% of the mentioned that they are aware of and are using the Consortium (Figure 3).

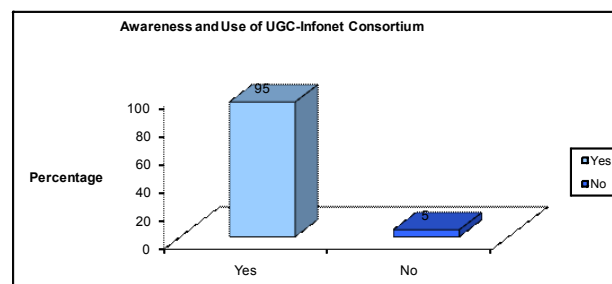


Figure 3. Percentage of awareness and use.

6.3 Frequency of use of e-ShodhSindhu Consortium

This is the most important and basic aspect related to the appraisal of the usefulness of the e-ShodhSindhu Consortium. The findings of the study show that most of the respondents use the e-ShodhSindhu e-journals frequently. It is seen from Figure 4 that 36 percent (22) of the respondents make use of the consortium daily, 33 percent (20) 2-3 times in a week, 8 percent (6) of the respondents make use of the same 2-3 times in a month and occasionally and another 8 percent (5) once a week. Only 3 percent (2) use the e-ShodhSindhu e-journals once in a month.

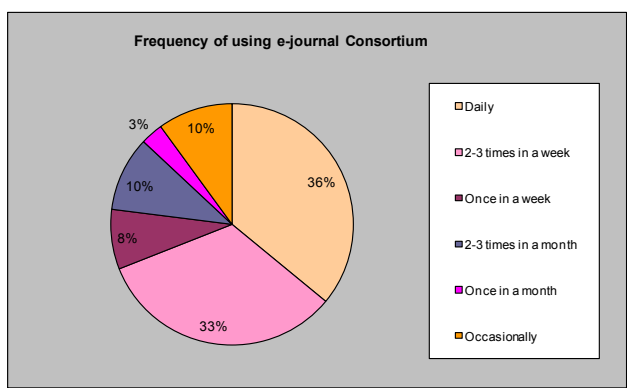


Figure 4. Frequency of using e-ShodhSindhu e-journals.

6.4 Access to e-ShodhSindhu e-Journals

Table 1 indicates the place from where the respondents access e-ShodhSindhu e-Journals. Ninety five percent (58) of the respondents are accessing e-journals from their departments or computer labs on the campus, followed by 16 percent (10) from library on campus. As of now access to e-journals from the hostels is not possible. It is strongly

recommended that e-journals access should be provided to research scholars in the hostels also.

Table 1. Access point of e-ShodhSindhu e-journals

Access Point	Respondents	Percentage (%)
Library on Campus	10	16
Computer lab on Campus	58	95
Hostel	0	0

Note: Respondents were permitted multiple answers.

6.5 Accessing of e-Journals

Figure 5 shows that 90 percent of the respondents access e-journals through search engines like Google, Yahoo and only 21 percent access through specific URL of publishers and portals.

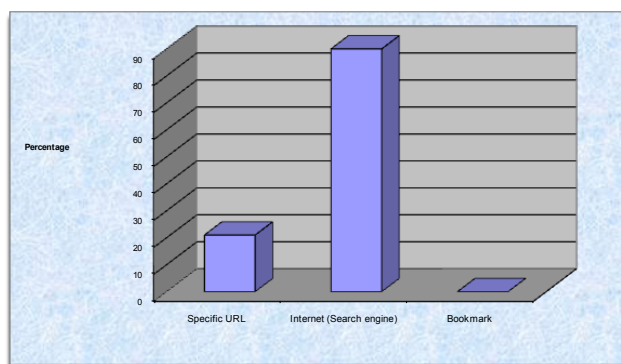


Figure 5. Accessing of e-journals.

6.6 Purpose of using e-ShodhSindhu e-Resources

While all respondents use e-ShodhSindhu e-resources for research work (thesis/dissertation/project work), a significant 54 percent use for publishing articles/books, 48

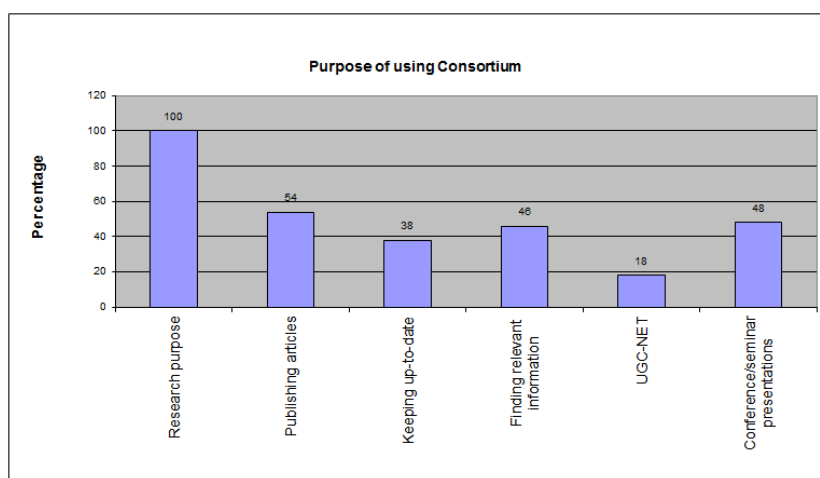


Figure 6. Purpose of using e-ShodhSindhu e-journals.

percent for preparing conference/seminar presentations, 46 percent for finding relevant information in the area of specialization, 38 percent use for keeping up-to-date. Some (18 percent) also used the consortium to prepare for the UGC-NET (essential qualification for appointment of Lecturers and Assistant Librarians in Indian universities or colleges) (Figure 6).

6.7 Portals/Databases used by Research Scholars

Most of the electronic journals in Physical Sciences available in e-ShodhSindhu Consortium published by Elsevier, Springer, and Willey Blackwell, Taylor and Francis. J-gate Custom Content for Consortia (JCCC) bibliographic database is often used by research scholars for requesting articles from other institutions. The number of research scholars and students who search the full-text journals published by these publishers is presented in Figure 7. It is noted that the Springer is the leading publisher as 77 percent (47) research scholars who responded said that they search electronic journals published by the Springer, followed by Elsevier 62 percent (38), Willey Blackwell 34 percent (21) and 13 percent (08) research scholars search the full-text journals on JCCC database.

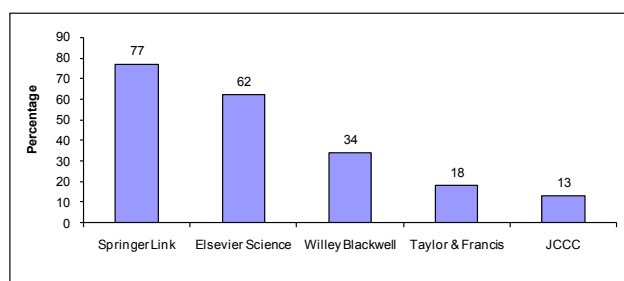


Figure 7. Portals/databases of e-ShodhSindhu consortium mostly used by physical science.

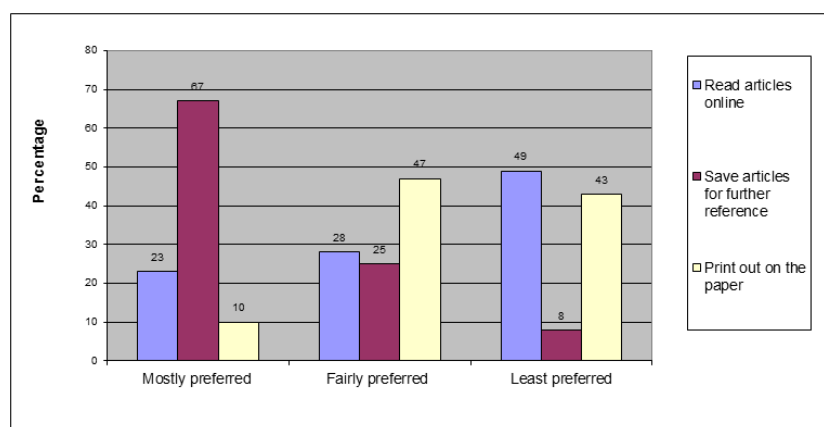


Figure 8. Method of using e-journals.

6.8 Methods of Reading Full-Text Articles

Figure 8 shows the various methods used for reading e-ShodhSindhu full-text articles. Sixty seven percent (41) preferred to save articles for further reference. 23 percent (14) respondents prefer to read on the computer screen or online. Only 10 percent (06) respondents most prefer to read full – text articles by printing on the paper.

6.9 Search Strategy

The most important and often the most difficult aspect of the search is the search strategy. The choices provided by the questionnaire are graphically presented in Figure 9. For most of the respondents, the most popular search technique was “Field Searching”, with 100 percent (61) of the respondents preferring this technique. The second most used option was searching using “Phrase search” (52 per cent) followed by “Boolean Search” (44 percent) and “Wild Card” (38 percent). Accessing electronic resources has, in the past, required users to use different interfaces. To some extent this is still true, but the concept of cross database-searching multiple databases is now well established – a single user interface enabling access to a wide variety of underlying services.

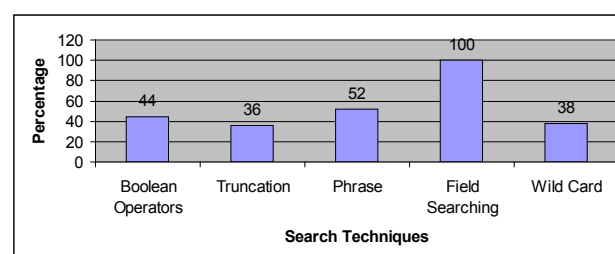


Figure 9. Search techniques.

6.10 Problems Faced while Accessing the e-ShodhSindhu e-Journals

Figure 10 shows the problems faced by the respondents in using e-ShodhSindhu e-journals. The most common problem faced by the users is that of accessing full-texts of papers (75 percent). Forty Nine (49) percent of the respondents state limited number of terminals is a major barrier to use of e-journals, 36 percent of respondents are of the opinion that it has only core journals (Physical Sciences) which are limited, 34 percent faced slow internet connectivity, 31 percent find the system to be slow, 26 percent have retrieval problems, 13 percent find it difficult to get the relevant information and they also face problems reading from computer monitor, 10 percent report that due to insufficient time and training, they cannot make use of e-journals effectively, and 02 percent feel that the websites are poorly designed.

6.11 Need for Orientation/Training Programmes

Von Ungern-Sternberg and Lindquist (1995)¹⁴ observe that “researchers can potentially access information resources from all over the world without even entering the library and this could be devastating for the library in its role as information provider”. However, with a number of electronic journals being published and the variety of different interfaces, more sophisticated searching and retrieving skills are necessary. In view of this, research scholars and students were asked whether orientation/training is required. The responses are shown in Table 2. It

reveals that out of 61 respondents, 40 (66 percent) wanted training in using e-journals for current awareness and on retrieving e-journal references and also for locating full text from references. However, remaining 21 (34 percent) respondents stated that the training programme is not required. The reason behind this probably is that they are familiar with the skills and techniques for searching information on the internet.

Table 2. Need for orientation/training programme

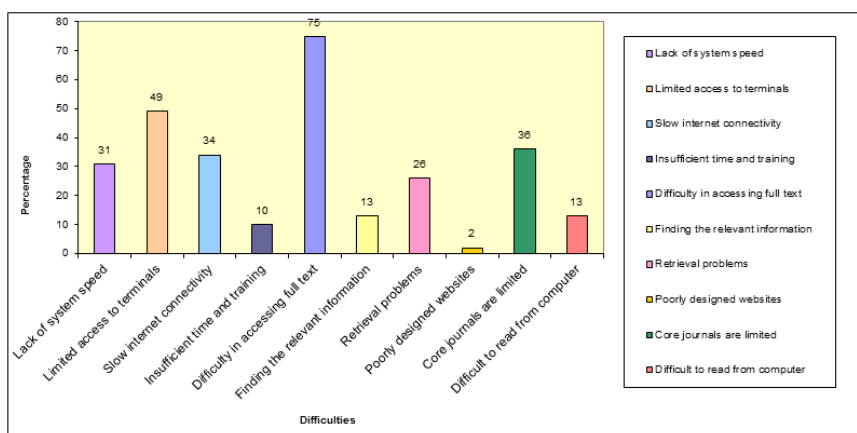
Particulars	Respondents	Percentage
Needed orientation/training programmes	40	66
No need for orientation/training programmes	21	34
Total	61	100

6.12 Satisfaction with Existing Internet Facilities

For browsing electronic journals, there is a need for good bandwidth and Internet facilities in the university campus. Table 3 revealed that 66 percent (40) of them are satisfied with existing Internet facility that is available but the remaining is not satisfied with present bandwidth (speed of the Internet).

Table 3. Satisfaction with existing Internet facility

Satisfied with Internet Facility	Respondents	Percentage
Yes	40	66
No	21	34
Total	61	100



Note: Respondents were permitted multiple answers.

Figure 10. Difficulties in using e-journal consortium.

6.13 Influence of e-ShodhSindhu e-Journals on Research Efficiency

E-journal collections have also provided a way for research scholars and students to locate more articles, which they are reading and citing in their work. In this way, library e-journal collections are enabling researchers to find materials they would not have otherwise found. Table 4 shows the influence of e-ShodhSindhu e-journals on the research efficiency of the research scholars and students. The information available in the e-journals has proved to be a great asset to many of the respondents.

Table 4. Influence of e-ShodhSindhu e-journals on research efficiency

Influence	Respondents	Percentage (%)
Expedited the research process	44	72
Improved professional competence	18	30
Access to current/ up-to-date information	39	64
Access to a wider range of information	22	36
Easier access to information	22	36
Faster access to information	20	33

Note: Respondents were permitted multiple answers

6.14 Evaluation of e-ShodhSindhu Consortium

There is a need to evaluate the e-ShodhSindhu consortium. Only users can decide the usefulness of the services. The data presented in Table 5, reveals that 48 percent (29) of the respondents are satisfied and gave positive opinion about the e-ShodhSindhu e-journals consortium; they said it is very good, followed by 31 percent (19) who rated it as good, 11 percent (07) rated it as fair, and remaining 10 percent (6) rated the consortium as excellent.

Table 5. Rating of e-ShodhSindhu consortium

Rate	Respondents	Percentage (%)
Excellent	6	10
Very Good	29	48
Good	19	31
Fair	7	11
Poor	0	0
Total	61	100

6.15 Need for more e-Journals in Consortium

Electronic resources are invaluable for research, which complement print-based resources in any traditional library. E-journals have now been recognized as a major link in scholarly communication. The timely publication, ease in delivery, incorporation of multimedia contents, hyper linking and search facility, etc. are some of the features which have attracted interest of both library and scholarly communities. They also provide access to current information as these are often updated frequently. To know the curiosity of the research scholars and students of library and information science in use of e-journals as well as to know, whether they are happy with the available journals or expecting many more journals, a simple question was asked. The opinion of the respondents is presented in Figure 11. It is very interesting to note that, 97 percent of research scholars and students are not happy with existing number of e-journals available in the consortium; they are expecting many more useful e-journals in the e-ShodhSindhu consortium.

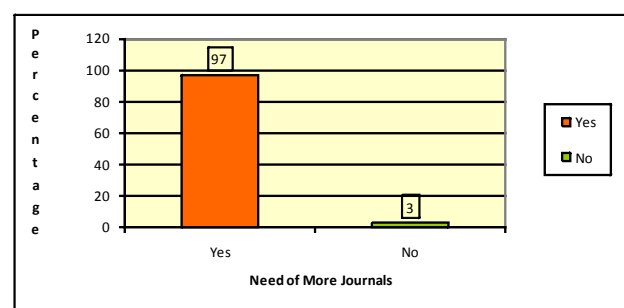


Figure 11. Need for more e-journals in e-ShodhSindhu consortium.

7. Findings of the Study

Research scholars and students should be motivated to use the e-ShodhSindhu e-Resources for academic purposes. They should be made aware of the many resources on the e-ShodhSindhu Consortium, which can benefit them academically. Faculty members and research supervisors should also encourage their students and research scholars to use e-ShodhSindhu e-resources rather than to rely on printed sources alone. In this respect Library orientation programmes will be helpful.

Major findings of the survey are:

- Ninety five percent of the respondents to the survey

- responded that they are aware and are using the Consortium. A majority of the respondents (36 per cent) use the e-ShodhSindhu e-journals daily,
- Ninety percent of the respondents access e-journals through search engines like Google, Yahoo and only 21 percent access through specific URL of publishers and portals,
 - All the respondents use e-ShodhSindhu e-resources for research work (thesis/dissertation/ project work,
 - The most popular publisher in Physical sciences e-journals for searching full-text is Springer (77 percent),
 - For most of the respondents, the most popular search technique was “Field Searching”, with 100 percent of the respondents preferring this technique. The second most favorable option was searching by “Phrase search” (52 percent) followed by “Boolean Search” (44 percent) and “Wild Card” (38 percent); while 22 respondents (36 percent) often used “Truncation” searching technique,
 - The most common problem faced by the users is that of accessing full-text papers (75 percent). Forty Nine (49) percent of the respondents feel limited access to terminals as barrier to use of e-journals, 36 percent of respondents are of the opinion that it has only core journals (Physical Sciences) which are limited,
 - Sixty-six percent of the respondents strongly attest to the fact that they need proper training/orientation for searching e-ShodhSindhu e-journals, and
 - Hundred percent of the respondents admit that e-journals are good substitutes for conventional resources if the access speed is fast, access to all the important core LIS e-journals is provided and more speed computer terminals are provided.

8. Suggestions and Recommendations

Based on the findings of the study, the following suggestions are put forward to improve the use of e-ShodhSindhu e-journals in Physical Sciences among research scholars:

- The Central Library website should be developed for accessing the e-journal consortium. This will help the users to find the desired information quickly and will also maximize the use of e-journals of e-ShodhSindhu Consortium,
- Most of the research scholars of faculty of science need the journals of Elsevier Science and Nature Portal, they suggested that the Elsevier Science and Some of

- the journals of Springer Link, Wiley-Blackwell and Taylor and Francis should be made accessible,
- Most of the time research scholars are not able to access full-text papers of available journals in e-ShodhSindhu consortium, so it very necessary to improve the accessibility of the journals,
- E-journal consortium should be made accessible at every computer terminal situated in Campus of Banasthali University so that maximum utilization of consortium could be made possible,
- More high-speed computer terminals should be installed in the Department/Computer Laboratories, Department Library, Central Library, etc.,
- Bandwidths should be sought so as to provide faster access that will save much of the users’ time and be a source of motivation to use the e-journals of the consortium,
- For research scholars, facility of access to e-ShodhSindhu e-journal Consortium should be extended to the hostels for maximum utilization of consortium,
- Periodic feedback should be taken from research scholars to improve the ongoing facility of e-journal consortium, and
- Awareness or training programmes should be organized regularly to make aware the research scholars about consortium and to trained the scholars in accessing for maximum utilization of its resources.

To summarise, e-ShodhSindhu e-journals are seen as having a positive impact, and the study has enabled the respondents to express their satisfaction and their aspirations for improvements. It can be inferred from the study that research scholars need to accept and adapt new technology and electronic information skills in order to effectively utilize the wide variety of electronic resources being made available to them. Further research is needed to investigate how the research scholars of Social Sciences and Humanities actually interact with information, what specific electronic sources they visit more than others, what search strategies they use, as well as the extent to which their information needs are satisfied.

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