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E-Resource Usage of Undergraduate Students at University of Peradeniya: A User Survey

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Abstract

This study was conducted to examine the usage of electronic resources by undergraduates at the University of Peradeniya library (UoP). 384 students in the third and final years were selected as the study sample. The survey research method was adopted for the study and a questionnaire was used as a data collection tool for the study. Descriptive statistics were used in analyzing the data collected. The study revealed that the use of electronic resources by the students in UoP were low. However, they mostly prefer to use print resources, they would prefer to use text-based e-resources as well as audio-visual materials for fulfilling their information needs. HINARI and Oxford Journals are the most preferred databases by students and 'browse by the title' is the most preferred search technique. Most of the students preferred to access the e-resources in the library and they perceived that e-resources are helpful for their course work and improve their academic performance. Moreover, the faculties get a high percentage of encouragement to use e-resources through guides and leaflets. Based on the findings the study recommended that the library should organize periodic training on e-resources for students and provides sufficient skills among them for accessing these resources. It is also recommended to provide access to e-resources through the library website while subscribing to more e-journals required for students. Introducing a course in Information Literacy for all students is recommended for enhancing the knowledge for using e-resources.

Keywords: Electronic resources, Undergraduate students, University of Peradeniya, Sri Lanka

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Introduction

Academic libraries are an integral part of universities, which exist to meet the information needs of students, staff, researchers and other users in the community. The university library has a vital role to play in supporting the mission of the university that is teaching, learning, and research. As such the library is an important intellectual resource centre of an academic community and it helps the university to fulfil the curriculum requirements and promote studies and research. (Onwudinjo, 2015) A library is a place of great interest to the undergraduates too as it provides relevant, adequate and up-to-date information which is needed for learning all potential courses offered. Hence, all academic library collections are set up to meet the information and research needs of all academic programs offered by the institution.

The advent of the internet and information and communication technology enhanced the electronic information resources which have become a major resource in every university library at present. (Shuling, 2007) The emergence of electronic information resources, simply referred to as electronic resources, has tremendously transformed information handling and management in academic environments and university libraries in particular. Electronic information resources are information resources provided in electronic form, and these include resources available on the internet such as e-books e-journals, online databases, CD-ROM databases and other computer-based electronic networks, among others (Tsakonas&Papatheodorou, 2006). Through the use of electronic resources, researchers and students; now have access to global information resources and particularly the internet for their scholarly communication. (Ellis & Oldman, 2005)

According to Rowley (2000), electronic journals take two different forms: journals that are published in print form, available in digital form and electronic journals which do not necessarily need a publisher, and which can be managed by an editor and the scholarly community. Both types may have a significant impact on scholarly communication and the way knowledge is created and disseminated. According to the opinions of the researchers, access to fresh international research results as they are presented in

international scholarly journals is a prerequisite for a meaningful research endeavour. (Jayasundara, 2006)

On the other hand, electronic resources can provide many advantages over traditional print-based resources (Tyner 2014; Ji, Michaels & Waterman, 2014). Electronic resources can contain current information because they can be updated frequently; they offer advanced search capabilities; they offer flexibility in the storage of search results; and they allow access to information without the restrictions of time and location (Togia&Tsigilis, 2009).

Therefore, there has been an exponential growth in electronic resources, and academic libraries have been spending a substantial amount of their annual budgets on subscribing online databases. As such it is necessary to ensure maximum utilization of these sources. Hence, this kind of user study is needed to find out the reasons for underutilization if occurred and make recommendations to improve the usage. Moreover, the study looks into the usage of electronic resources by the undergraduates of the university and the findings will help improve the provision of library services, particularly e-resources to meet the academic needs effectively.

Objectives of the Study

The main objective of this study is to examine the usage of electronic resources (e-resources) by undergraduates of the University of Peradeniya and the specific objectives of the study are as follows:

1. To identify the preferred type of information resources by undergraduates
2. To identify the preferred locations for accessing e-resources
3. To examine the extent of usage of e-resources provided by the library
4. To find out the impact of e-resources on their academic activities
5. To identify the prerequisite stratagem to promote the e-resources by undergraduates

Review of the Related Literature

The emergence of electronic information resources has tremendously transformed information handling and management in academic environments, and University libraries in particular (Ani &Ahiauzu, 2008). These dramatic changes include how information is provided to the University communities. Many electronic resources initiatives have been put in place to assist in the development of training and use of electronic resources in several academic institutions (Egberongbe& Sadia, 2011).

Several studies on the use of e-resources by undergraduate students have been carried out all over the world. A study conducted in India on e-resources was shown that there is not much difference in the use of e-journals and printed journals. The researcher has found that the use of Web OPAC is less than expected (Swain, 2010). The survey conducted by Khomdon Singh and others (2006) to examine the access to INFONET e-journals consortium by the users of Manipur University Library found that most of the users have knowledge and access e-journals consortium. The study also found that most of the users preferred to use print journals than e-journals and the study found encountered problems in the use of the e-resources made available to them by the library.

A study undertaken at Washington State University (Brady et al, 2004) found that some e-journals were used little or not at all, and there was a substantial increase in the use of some print titles. It is noticeable that the study revealed that most print journals were being used more than they were before the advent of e-journals. Another study carried out on the usage of e-resources at Redeemer's University Nigeria showed that although the students are aware of e-resources the usage is low. The reasons were mentioned as lack of searching skills, unawareness of filtering information after search, delay of downloading information, high costs etc. (Adeniran, 2013) Hussain (2013) surveyed the purpose of use of e-resources and further indicated that most of them are used for educational purposes. It has been found that the majority of users, that is, 20(50%) of the teachers and 30(50%) of the students use e-resources for study purposes whereas teachers 10(25%) and students 25(41.6%) used e-resources for research purposes. Followed by teachers 15(37.5%) and by students 10(16.6%) use e-resources for

publication of articles/books, while teachers 15(37.5%) and students 15(25%) use it to attend conferences /seminar/symposia. Further followed by 15(37.5%) of both use e-resources to carry out project works.

Relating to students preferred places to access e-resources were found out. In 2013 Hussain has surveyed Saudi Arabia and mentioned that almost all the students and teachers were aware of major electronic information services in the Charan Singh University. Moreover, he identified that 10(25%) of the teachers and 25(41.6%) of the students are found through the library website. 15(37.5%) of the teachers and 30(50%) of the students are linked through publishers websites. 20(50%) of the teachers and 25(41.6%) of the students are linked through search engines. 15(37.5%) of the teachers and 30(50%) of the students are linked through online resources websites.

In the Sri Lankan context few studies are available on electronic information resources usage by undergraduate students. According to Girakaduwa, (2019) 62.7 % have been used e-resources and services to get aware of the information. Moreover 56.9 % were used to enhance their subject knowledge and 44 % of them were used to prepare for the examinations. Although much e-resources usage should be required for the research work and assignment writings, unfortunately, it was indicated that significantly low respectively 34.9 % and 60.7 %. Further that only 28.7 % of users used e-resources to prepare their lecture notes. Sritharan (2018) identified that most of the respondents (98.6%) use e-resources for learning and updating knowledge; 71.6 % of the respondents use e-resources for their research work; 70.5% of the respondents use to gather general information. A study conducted by Murugathas and Chandresekaram (2013) at the University of Jaffna found that although all the respondents of the survey stated that e-resources were either very important or moderately important, 69% of them preferred to use print formats for their studies. The study further revealed that 89% of the respondents believed that e-resources were very useful for their studies and they mainly used e-resources for their course work and updating knowledge.

Premarathne (2017) conducted a study to examine E-resources usage of the final year Arts undergraduates in the University of Peradeniya and it was

found that most of the students used the Internet rather than specialized databases or full-text resources when writing final year dissertation. The significant finding was 88% of the respondents had never used the library web page to search E-resources and only 10% were familiar with the e-resources available in the library.The study conducted by Wijetunge and Peiris (2017) revealed that final year engineering students at the University of Peradeniya rely more on search engines, Wikipedia and classmates while scholarly databases are used only by a smaller percentage. Results of their study revealed that the engineering students have a higher preference for some digital resources than the other types of resources and most of them use self-taught methods rather than traditional reliable methods as evaluation criteria. The majority of them mentioned that have not received any formal training in searching or evaluating digital resources and they also commented that it would be beneficial to have training in the use of library and internet resources.

Vithana (2016) investigated to study the usage of Electronic books by the undergraduate of UwaWellassa University who found that E-book usage is limited due to the limited number of freely available E-books and it was suggested the need of establishing e-book facilities in UvaWellassa University. The study was conducted by Lavanya and Santharooban (2018) to investigate the usage of online resources by Agriculture undergraduates at the Eastern University of Sri Lanka and results indicated that most of the students access the Internet through smartphones for different educational purposes. Among them, purposes such as preparation for lectures and doing literature reviews are associated with the academic year. Results of their study revealed that even though significant positive perception towards online resources is observed, students are mostly unaware of both open access and university subscribed online resources, while they rely primarily on Google search. The study also revealed the slow Internet connectivity, unavailability of time, lack of awareness and viruses and other malware pop-ups as barriers to access online resources. The study recommended introducing a premeditated information literacy programme for all students regardless of their academic year to access information effectively. A similar study conducted by Wijetunge (2015) affirmed that the search engines, Wikipedia, classmates, lecturers and recommended readings are

used often by all students and there is a variation in the usage across the academic years. It was found that there is no difference in the use of search engines across the years but the use of Wikipedia and Government Websites decreased in the fourth year. That study also recommends offering a well-planned information literacy programme for all the students of the faculty irrespective of their year of study.

Methodology

As there are nine faculty libraries in the University of Peradeniya, the study was conducted by considering all these libraries. After considering the Annual Statistical book (2018) of the University of Peradeniya, altogether there was 3833 student population in the entire university in 2019. Based on the population of each faculty and the consideration of their studying year, the study was conducted with 3rdand 4th year students and when selecting the Faculty of Medicine it was taken the 4th-5thyears. Third and fourth-year students are selected because they are more familiar with different types of library resources and they are engaged in research studies during these years.

A random sample of 10% of undergraduates (384) of third and final year was selected as the study sample by representing the nine faculties of the University of Peradeniya. The questionnaire was distributed among this study sample from 5th March 2019 to 30th May 2019. The study was able to achieve a 91% of respondent rate and the collected data were analyzed by using SPSS (21.0) version.

Data Analysis

Demographic data

Figure 1 shows that of the 349 respondents, 84 (24%) were from the Faculty of Arts, 83 (23.8%) were from the Faculty of Engineering and more than 11% were from the Faculty of Agriculture (n=41) and Medicine (n=43). Twenty eight (8%) were from the Faculty of Allied Health Sciences while 21 (6%) were from Faculty of Science and 17 (4.9) were from Faculty of Veterinary Medicine. The lowest respondents were from the Faculty of Management and Faculty of Dental Sciences.

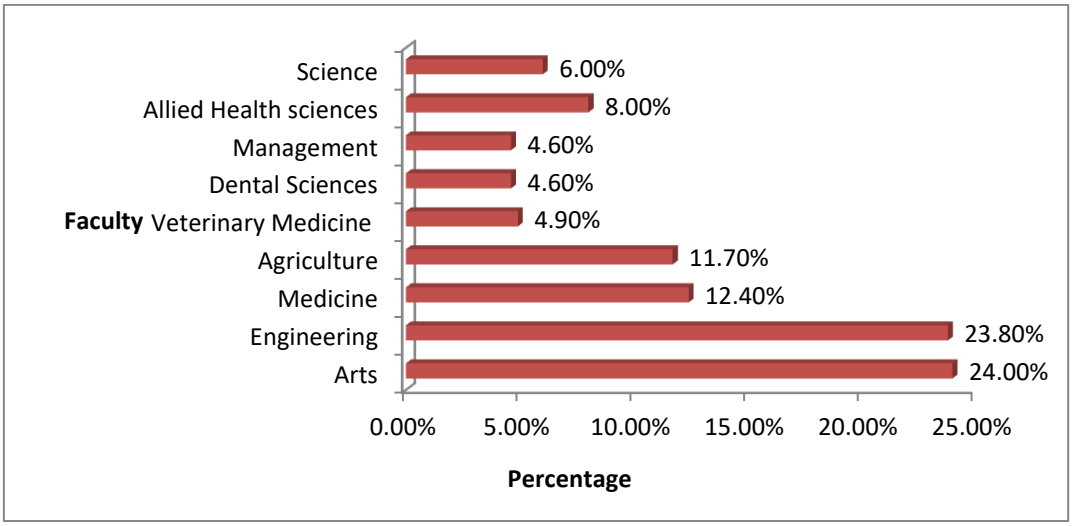

Figure 1: Faculty wise distribution

According to the year-wise distribution of the respondents, the majority (n = 187, 54.2%) were from the 4th year followed by 145 (42.6%) from the 3rd year and only 17 (4.3%) from 5th year, the reason may be only the Faculty of Medicine conducts 5 year undergraduate programme (Table 1). Only from the Faculty of Medicine, both 4th and 5th-year undergraduates were selected for the study.

Table 1: Year wise distribution

No	Year	Frequency	%
1	3rd	145	42.6
2	4th	187	54.2
3	5th	17	4.3
	Total	**349**	**100**

Preferred types of information resources

The findings revealed that 78% of the respondents preferred to use printed formats and only 44% (n=154) preferred the e-resources or e-journals. On

the other hand 76 (21.7%) mentioned that they did not prefer to use print information resources whereas nearly 56% (n=195) mentioned that they did not like to use e-resources or e-journals as information sources and 20(5.8%) did not mark any preference. The information format they preferred is depicted in Table 2.

Table 2: Preferred information resources

	Information format	**Yes**	**%**	**No**	**%**
1	Printed	273	78.3	76	21.7
2	EIS or e-journals	154	44.1	195	55.9
3	No preference	20	5.8	329	94.2

The respondents were asked to indicate their choice whether e- resources replaced existing printed materials or represent new resources. Of the respondents, 168 (48%) agreed that the e-journals represent new resources while 110 (31%) mentioned the e-journals replaced existing printed materials. More than twenty per cent (n=71, 20.4%) of the respondents refrained from marking any choice given (Table 3). These results are consistent with the study carried out by Dadzie and Perpetwa (2005) the printed ones that are based in the traditional library.

Table 3: Perception of e-resources vs. print resources

No	**Perception**	**Frequency**	**%**
1	Represent new resources	168	48.1
2	Replaced existing printed materials	110	31.5
3	No response	71	20.4
	Total	**349**	**100**

Owing to examine the respondents' preference towards the various information resources, the respondents were asked to rate how much they preferred on four different information resources on a scale from 1 to 5, where 1 indicated ' Most Preferred" and 5 indicated ' Not preferred at all.

Table 4: Descriptive statistics of preferred resources

	Information Resource	**(1) Strongly Preferred No. (%)**	**(2) Preferred No. (%)**	**(3) Neutral No. (%)**	**(4) Not Prefer No. (%)**	**(5) Not prefer at all No. (%)**	**Mean score**	**SD***
1	Print	175 (50)	49 (14)	45(13)	38(11)	42(12)	1.62	1.182
2	Text- based electronic resources	59 (17)	88 (24)	66(19)	80(23)	56(16)	2.15	1.391
3	Audio-visual	59 (17)	88 (24)	73 (21)	63 (18)	70 (20)	2.00	1.375
4	Multimedia resources	42 (12)	63 (18)	87(25)	87 (25)	66 (19)	2.25	1.448
Scale: (1) SP= Strongly Preferred, (2) PR = Preferred, (3) NUT= Neutral, (4) NP= Not Preferred, (5) NPA= Not Preferred at All, SD= Standard Deviation*								

As it can be gleaned from Table 4, the majority of the respondents (n=224, 64%) reported that they either prefer or mostly prefer to use print resources while more than 40% of them either prefer or strongly prefer to use text-based e-resources or audio-visual materials. Further 30% either prefer or strongly prefer to use multimedia resources to fulfil their information needs. The results give an insight that most of the respondents are preferred to use print resources rather than other information formats with having the lowest mean score of 1.62.

Place of access of e-resources

The places of using e-resources by undergraduates are library 43.1%, IT centre 29.2% off campus 23.9% and faculty 23.4%. Some students use e-resources in more than one location. However, the majority of the students use e-resources in their libraries (Figure 2).

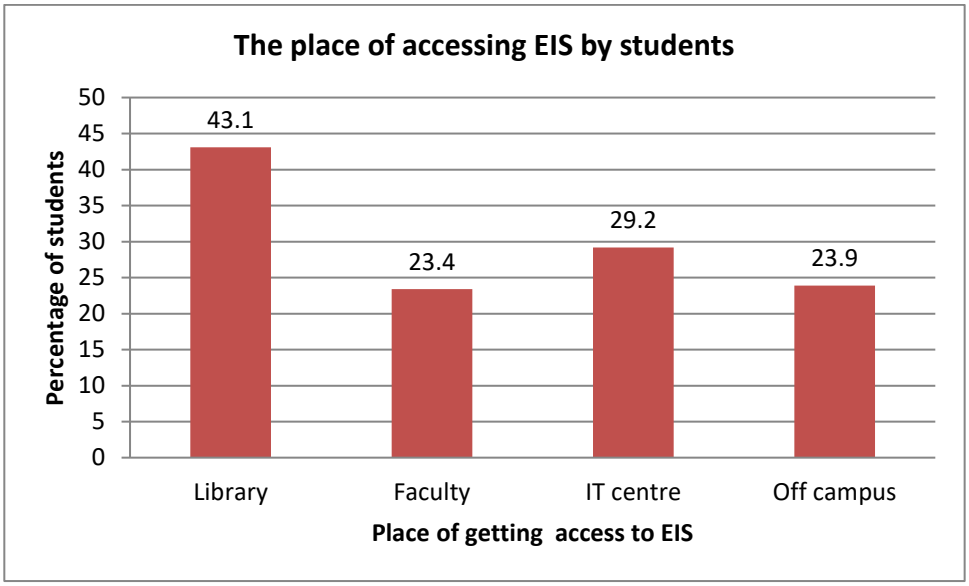

Figure 2: Place of access of E-resources

The students were asked about their preferred location in using e-resources and a majority of students prefer to use them in the library rather than elsewhere and off-campus. (Figure 3)

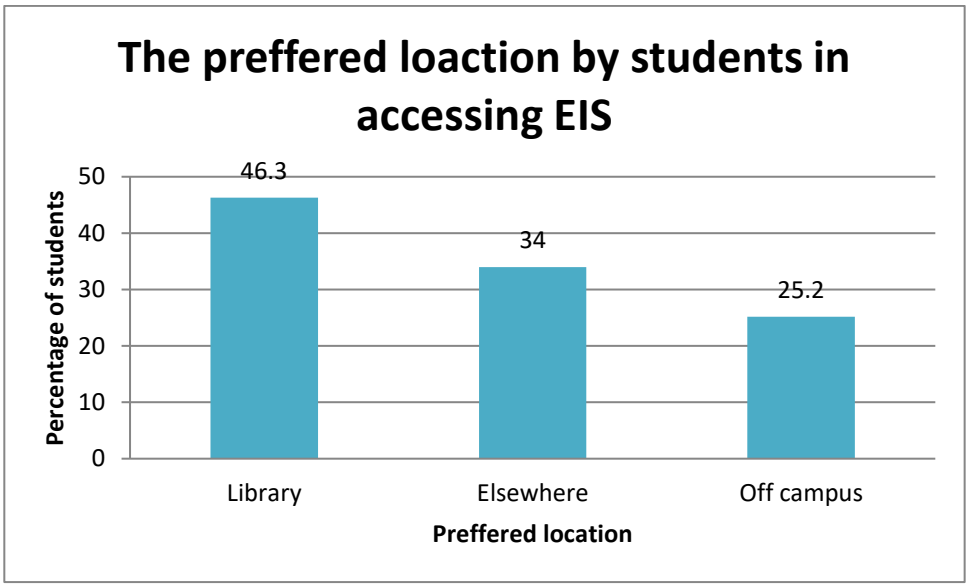

Figure 3: Preferred location for accessing

Then the researchers wanted to know when they accessed e-resource recently. Four options were given in the questionnaire and Table 5 indicates the results. The results revealed that just over two-thirds of the respondents access e-journals either within the last week or last month and only sixteen per cent of them access within the last semester. It is notable that nearly sixteen per cent
(n=54, 15.6%) of the respondents never access e-journals.

Table 5: Access of e-journals

No	Access	Frequency	%
1	Within the last week	165	47.4
2	Within the last month	66	19.0
3	Within last semester	56	15.9
4	Never	54	15.6
5	No response	08	2.3
	Total	**349**	**100**

Problems faced in accessing e-resources

Some students report to library staff regarding the problems they encountered when accessing e-resources. Only 27 % of students consult the library staff when there are problems in accessing e-resources (Figure 4). The students should be encouraged to discuss their problems regarding e-resources with the library staff to solve their problems. Addressing their problems will be helpful for decisions makers in providing access to e-resources in future.

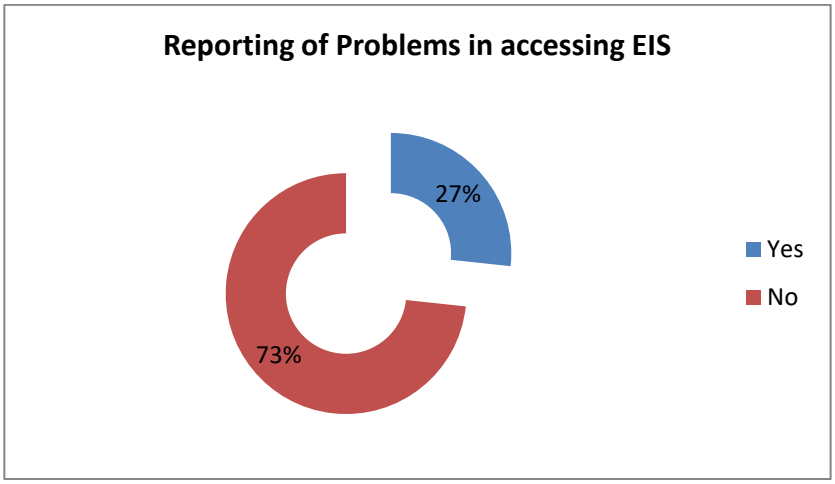

Figure 4: Reporting of problems

Student's satisfaction in answering their problems by library staff is also low i.e. 26% (Figure 5). Although they are satisfied with the assistance they received from library staff in using e-resources still are not willing to seek assistance from library staff when there are problems in accessing e-resources.

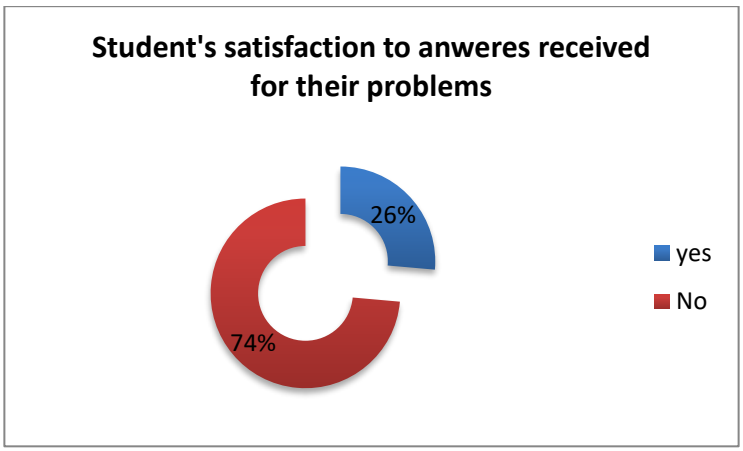

Figure 5: Satisfaction for answering problems

Usage of e-resources provided by the library

Figure 6 represent the breakdown of the responses of the respondents when they were asked to indicate how they first heard about the e-resources resources. Of the respondents, 27% (n=94) were aware of e-resources from

library orientation programs while 19% were from library websites, 18.6% from friends and 18.4% from lecturers. More than 15% (n=53) said they were not aware of e-resources resources. This shows that a majority (approx.46%) of the respondents were first heard about e-resources from services provides by the library.

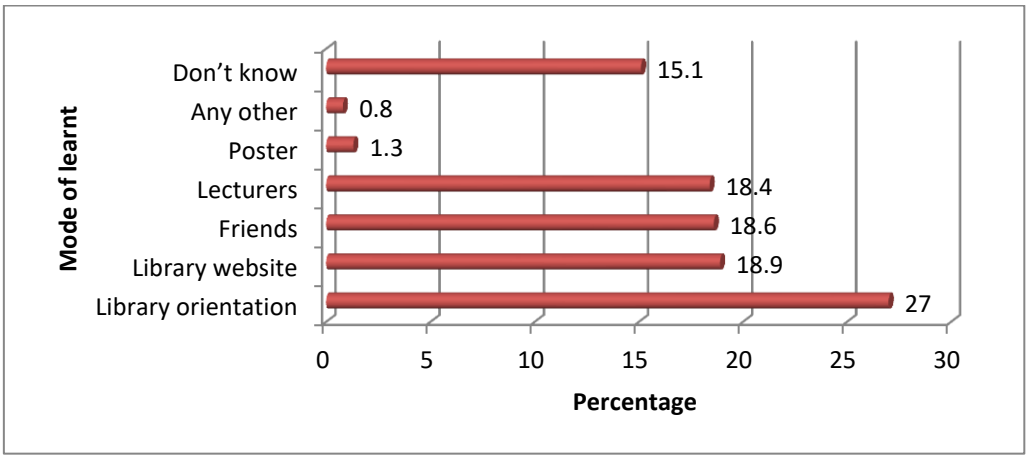

Figure 6: Mode of leant of e-resources

Owing to examine the usage of different electronic databases which provide access through the library webpage, the respondents were asked to indicate their usage against 16 databases given in the questionnaire and their responses are depicted in Figure 7.

From Figure 7, it is clear that a majority of respondents (72.3%) use HINARI followed by just over half (51%) use Oxford University Press and more than 40% use AGORA and JSTOR databases. Similarly, just over one-third of respondents use Wiley, Emerald, OARE and Taylor & Francis databases while more than 20% use the rest of the databases that provide access from the library webpage. Only 14.6% of respondents use the AIP database.

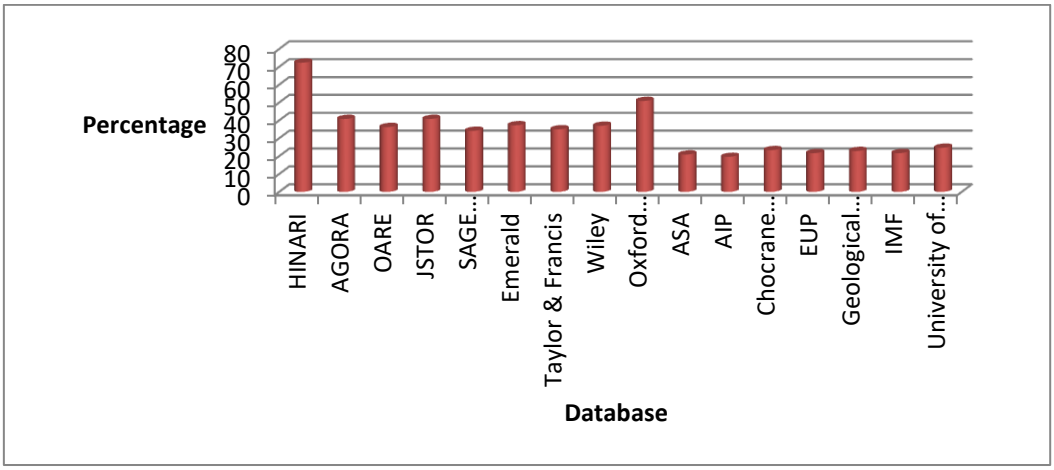

Figure 7: Usage of databases

Information searching technique used to navigate-resources

In order to find out the most helpful search technique that was used to retrieve relevant e-resources, the respondents were asked to indicate the most useful method they used for the purpose. Five searching techniques were given in the questionnaire and the results are presented in Table 6.

Table 6: Searching techniques used to navigate e-journals

Searching Techniques	Frequency	%
Brows by title	152	43.5
Simple search (using one word)	73	21.0
Brows by subject	55	15.8
Advanced search (using two or more words)	46	13.1
Searching phrases	23	6.6
Total	**349**	**100**

As it can be gleaned in Table6, 'Browse by title' is the most used method to perform the searches and the second most useful method is the 'Simple search '(using one word) with 21%. Of the respondents, nearly 16% (n=55, 15.8%) used to 'Browse by the subject' while 46 (13%) used 'Advanced search' technique and only 23 (6.6%) used 'Searching phrases' method for location e- journals.

Impact of e-resources for the academic purposes

It was tried to identify the impact of e-resources on their academic activities and the following questions were posed. The students were asked whether the e-resources have helped them to follow the course successfully. 76% of the respondents have answered that they were helpful (Figure 8).

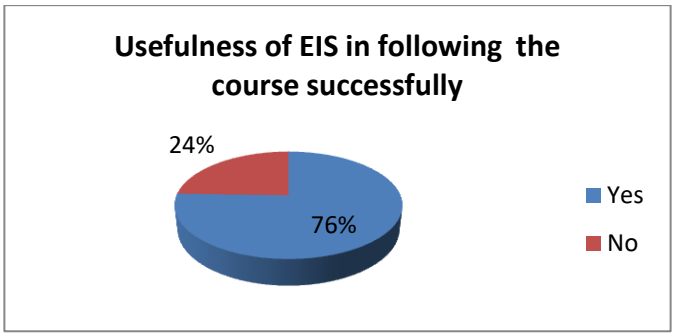

Figure 8: Usefulness of e-resources

Then the students were asked whether the e-resources provided by the library were helpful to improve the standard of their work and 80% of the students agreed that the e-resources contributed to improving their standard of work (Figure 9).

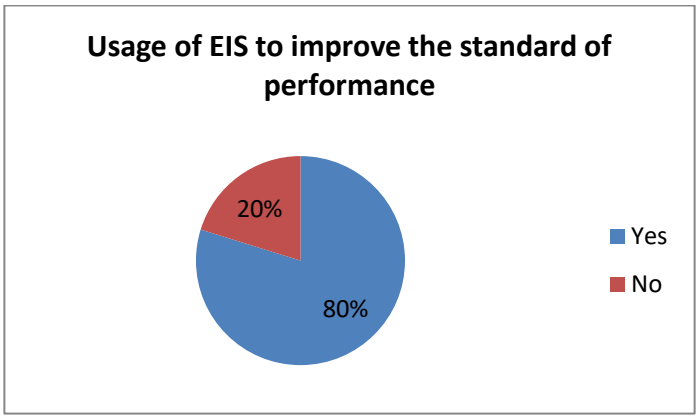

Figure 9: Improvement of the standard of performance

The overall results show that the e-resources are useful for their course work and also improve the standard of work. Therefore students are positive about using e-resources for the upliftment of their educational activities.

The students were also asked how the e-resources have changed their approach to studies. The majority of the students i.e. 42.8% said that the e-resources have enhanced their subject knowledge while 37% use e-resources to improve lecture notes and 34.8% of the respondents mentioned that e-resources have changed the approach of writing assignments. Only 28.2% use e-resources in their research work (Figure 10).

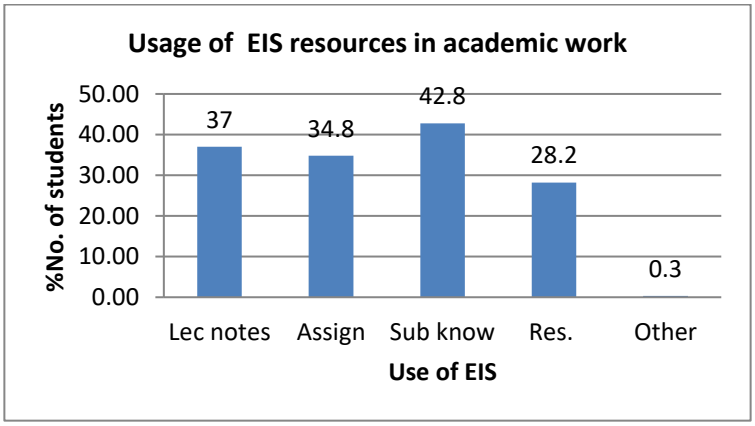

Figure 10: Use of e-resources for academic work

According to the results, it shows that majority of students use e-resources to enhance their subject knowledge. The use of e-journals and databases for research work is low and it should be improved because journals are a good source of information for research work.

The next question was about the contribution of the library staff to use e-resources successfully for their learning needs. 15.1% of students said that the library staff completely fulfilled the learning needs in using e-resources and 35 % of students said that they fulfilled their learning needs. Only 10.6% of students said that their needs were not fulfilled by the library staff.

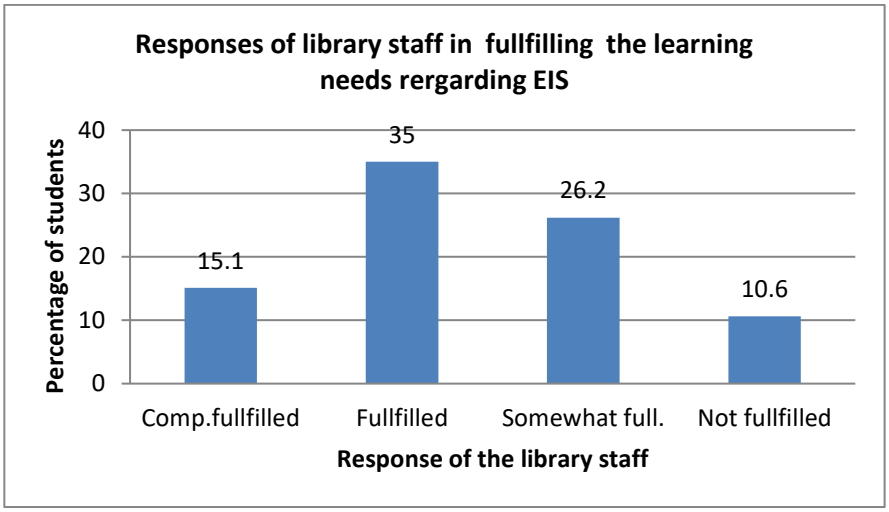

Figure 11: Contribution of staff to use e-resources

Sufficiency of e-resources

In order to get an idea of the sufficiency of e-resources in the library, the question was posed to know whether they have sufficient e-resources in their subject areas. According to Table 7the majority of students in Dental Sciences, Arts, Law, Agriculture, Veterinary Medicine and Medicine mentioned that they have sufficient e-resources for their subject areas.

Table 7: Sufficiency of e-resources for Subject Area

Faculties	Yes	%
Agriculture	22	53.7
Allied Health Science	14	50.0
Arts	63	77.0
Dental Science	13	78.1
Engineering	30	36.1
Medicine	22	51.2
Management	07	43.8
Science	09	42.9
Veterinary Science	09	51.5
Total	**189**	**54.1**

Method of Identification of New e-resources

There are many ways and means to find the new e-resources and their development. The following figure 12 depicted the most used method to find the e-resources by the undergraduates. Accordingly, it is notable that 63% (n=220) of undergraduates used the Internet to find out the new e-resource and their developments.

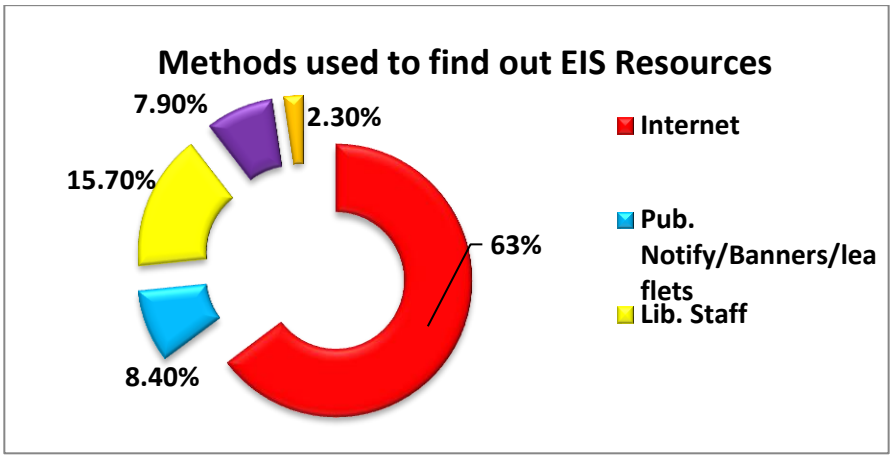

Figure 12: Methods used to find out New EIS resources

Other Resources preferred to get information

Another question was asked from the undergraduates about the resources they used for their academic work other than the e-journals and databases provided by the library (Table 8).

Table 8: Other Resources preferred to get information

Faculties	Printed Books (%)	E- Books (%)	Printed Journals (%)	Internet (%)
Agriculture	05 (12.2%)	09 (22%)	10 (24.4%)	09 (22%)
Allied Health Science	07 (25%)	13 (46.4%)	07 (25%)	11(39.3%)
Arts	20 (27%)	18 (24.3%)	09 (12.2%)	17 (23%)
Dental Science	05 (28.1%)	04 (21.9%)	01 (3.1%)	02 (12.5%)
Engineering	23 (27.7%)	30 (36.1%)	16 (19.3%)	11(13.3%)

Law	00 (.0%)	02 (20%)	00 (.0%)	00 (.0%)
Medicine	13 (30.2%)	13 (30.2%)	12 (27.9%)	08 (18.6%)
Management	04 (25%)	03(15.6%)	01 (3.1%)	03 (18.8%)
Science	06 (28.6%)	03 (14.3%)	03 (14.3%)	02 (9.5%)
Veterinary Science	05 (30.3%)	07(33.3%)	03 (15.2%)	03 (15.2)
Total	**88 (25.2%)**	**98 (28%)**	**56 (16.1%)**	**64 (18.4%)**

Table 8 depicted the other resources used by the undergraduates to find information. It is obvious that none of the mentioned resources was highly used by the students and all have less than a quarter of the percentage. When it describes with faculties it could be mentioned that Veterinary Medicine and Medicine respectively (30.3% and 30.2%) use printed books. While E-books are highly used by Allied Health Science and Engineering students (46.4 % and 36.1%) respectively. Usage of Printed Journals is not in a remarkable place and for Internet usage also highlighted by Faculty of Allied Health Sciences students marginally 39.3%.

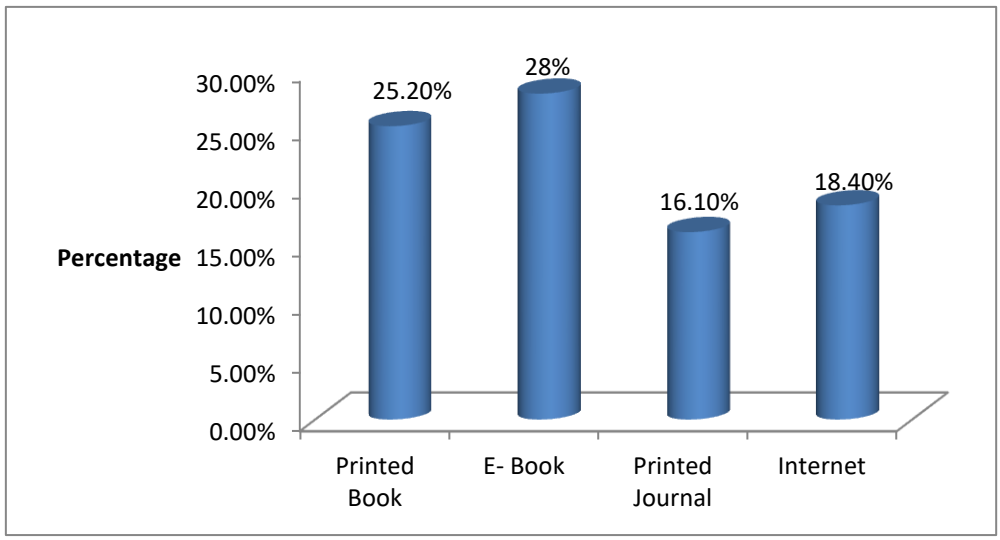

Figure 13: Other resources used to get information

Encouragement of other students to use e-resources

Another question was asked from the students whether they are encouraging other students to use e-resources for their studies and the following answer were received for the question (Table 9).

Table 9: Encouragement of other students to use e-resources

Faculty	Yes	%
Agriculture	33	80.5%
Allied Health Science	27	96.4%
Arts	75	89.2%
Dental Science	10	62.5%
Engineering	60	72.3%
Medicine	34	79.1%
Management	14	84.4%
Science	11	52.4%
Veterinary Science	13	75.8%
Total	**277**	**79.3%**

Table 9 describes the level of encouragement by other students to use e-resources. Significantly, almost all of the faculties get a higher percentage of encouragement in this regard although the students have not highly used it. Other than the Faculty of Science, almost all other faculties mentioned that they are encouraging students to use e-resources, which is above 75% in the figure. Faculties of Allied Health Sciences indicated the higher amount of percentage for the encouragement. Altogether 79.3% are in the attitude of promoting e-resources for other students.

Promotion of e-resources

If they are encouraging other students to use e-resources, researchers have posed the next question for them to get the ideas of what methods they are suggested to promote the e-resources more effectively. There are five options given for them to make their suggestions.

Table 10: Suggested methods to promote e-resources by students

Faculty	User Awareness Programs (%)	Hands on exposure (%)	Leaflets, banners, posters (%)	Guides given through website (%)
Agriculture	33 (80.5%)	05 (12.2%)	05 (12.2%)	06 (14.6%)
Allied Health Science	18 (64.3%)	03 (10.7%)	11 (39.3%)	16 (57.1%)
Arts	39 (41.9%)	09 (12.2%)	20 (21.7%)	22 (31.1%)
Dental Science	10 (65.6%)	05 (28.1%)	03 (15.6%)	04 (21.9%)
Engineering	41 (49.4%)	21 (25.3%)	24 (28.9%)	27 (32.5%)
Medicine	31 (72.1%)	07 (16.3%)	07 (16.3%)	17 (39.5%)
Management	09 (56.3%)	01 (9.4%)	01 (9.4%)	04 (21.9%)
Science	04 (19%)	02 (9.5%)	02 (9.5%)	09 (42.9%)
Veterinary Science	07 (42.4%)	06(33.3%)	04 (21.2%)	06 (33.3%)
Total	**193(55.2%)**	**61(17.4%)**	**74(21.2%)**	**108(31%)**

After going through Table 10, all the faculties except Science students proposed that user awareness method arise most useful to promote the e-resources among the academic community. Nevertheless, when it goes to Hands-on exposure, none of the faculties suggests that method and more or less it was fairly accepted by the Veterinary and Animal Sciences faculty students by indicating 33.3%. The fourth option was the Leaflets, banners and posters and this is also not highly proposed other than the department of Law students (40%) followed by Allied Health Sciences students (39.3%). Guides given through web sites also recommended by only two faculties Allied Health (57.1%) and Sciences faculty students (42.9%) and more or fewer students from the Faculty of Medicine (Figure 14).

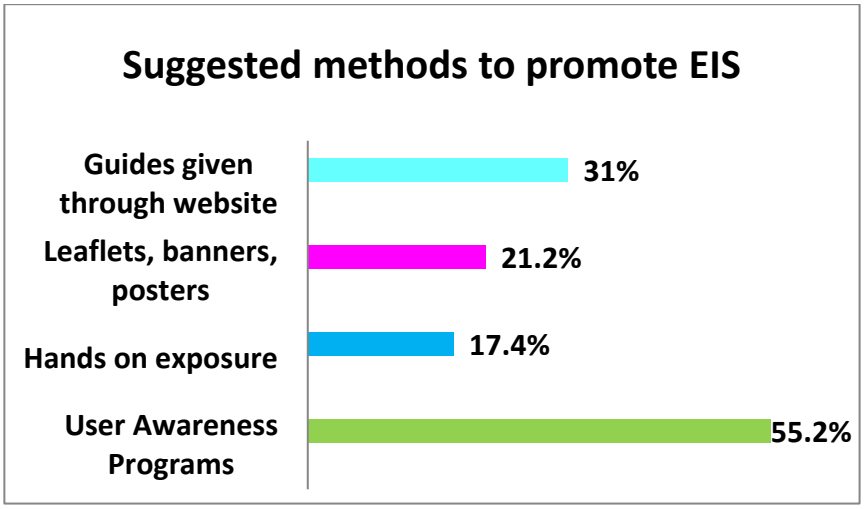

Figure 14: Proposed methods to promote e-resources

Conclusion

The present study sought to examine the use of e-resources by undergraduate students in the University of Peradeniya. It can be concluded that the highest response received from the Faculty of Arts and Engineering and the highest respondents are from 4thyear. The majority of the respondents preferred to use print resources than e-resources and more than half of the respondents do not like to use e- journals. Just below half of the respondents accepted that e-resources represent new resources while more than 30% believed that e-resources replaced existing printed materials.

The majority of student access e-resources from the library and their preferred location to use e-resources are also the libraries. 76% of the students have responded as e-resources are useful for their course work and 80 % have said that they have improved the standard of their academic performance. Although, e-resource usage is low among students, those who use them think that they are useful to follow the course successfully. 42.8% of students have used e-resources to enhance their subject knowledge and only 28.4 % have used them for their research work. As the journals are useful in research work suitable user education programmes have to be conducted to train the students to use e-journals in their research work.

It is also established that most of the respondents prefer to use 'HINARI' and 'Oxford University Press' databases than other resources and they used 'browse by the title' as a searching technique when accessing e-resources. The study further revealed that the majority of respondents were known about e-resources either from library orientation or library website which gives implications when planning library user education programs in future.

Although a majority of the respondent mentioned that e-resources are sufficient for them to use for academic purposes again 46% indicated that it is not enough for them and more than 63% find these e-resources through Internet only and other modes are not popular with them. In this study even though, there are e-resources available in the library still they would like to use printed books and e-books for them to use for education purposes. The findings of this study will be useful for the university library management for the implementation of information literacy programs on e-resources usage.

Recommendations

Based on the findings of the study the following recommendations were made:

1. The study has shown a low level of usage of e-resources by undergraduates in the University of Peradeniya. Therefore the library management should organize periodic training about e-resources and open access journals for students and provide sufficient skills among them for accessing these journals.

2. Provision should be made by the library authorities to access open access journals through the library website while subscribing more e-journals for students after assessing their information requirements. At the same time library should employ more effective strategies such as using e-mail alert messages, text messages and prizes as a method of promoting the use of these e- resources. Library staff visits to faculties to promote e-resources should be encouraged.

3. A course in Information Literacy should be made compulsory for all students irrespective of the disciplines. This will go a long way in increasing the knowledge level of the learners regarding the use of e-resources.

4. The library should update faculty members on the available e-resources. At the same time, academic staff should sensitize students on the usefulness of electronic resources to students and course works assignments requiring the use of electronic resources should be developed. This would compel students to utilize electronic resources.

5. It would be more effective if there is a provision to increase the access of these services in the university residential places like student hostels and rooms and this could make maximum use of these services.

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