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Social and Behavioral Sciences**ICIMTR 2013**International Conference on Innovation, Management and Technology Research,
Malaysia, 22 – 23 September, 2013**Library Usage of Medical Students: A Comparative Analysis of
First Year and Third Year Students in Universiti Putra Malaysia**Mohd Dasuki Sahak^{a*} and Mohamad Noorman Masrek^b^aPerpustakaan Sultan Abdul Samad, Universiti Putra Malaysia, 43400 UPM Serdang, Selangor Darul Ehsan, Malaysia^bAccounting Research Institute, Level 12, SAAS Building, Universiti Teknologi MARA,
40450 Shah Alam, Selangor, Malaysia**Abstract**

The rapid proliferation of information in the present era has important implications for the education and library usage of health professionals including medical students. The purpose of this study is to investigate the usage of library resources among first and third year medical students in the Faculty of Medicine and Health Sciences (FPSK), Universiti Putra Malaysia (UPM) from July 2009 until April 2010. Adopting a survey research methodology involving 205 students, the findings suggest that the three mostly used library resources are the Internet, newspaper and library websites while the three mostly used facilities are computer, reading area and discussion room. In addition, it is also found that there is no significant difference between male and female in most of the resources usage. In contrast, significant difference could be observed between Year 1 and Year 3 in most of the resources usage. The significance of the study could be assessed from both theoretical and practical perspective.

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1. Introduction

The rapid proliferation of information in the present era has important implications for the education of health professionals including medical students. Information is an important tool used in the realization of any objective or goal set by an individual or group. It is valuable resources required in any society, thus acquiring and using information are critical and important activities. Medical libraries as centre of information sources play important role to develop lifelong learning skills among the medical students (Graves and Seliq, 1986). They pointed out that “students need to develop skills in information management and in the use of information tools and database”. This skill will help them to search the right information sources that related with the medicine and health sciences and also contribute to the self-development. Library effectiveness can be described as information customized to meet individual needs. Studies on library usage in facilitating

*Corresponding author. Tel.: +603-89467040; Fax: +603-89483745
E-mail address: dasuki@upm.edu.my.

learning have acknowledged that academic libraries play a vital role among students by providing services, information resources and facilities (Fabunmi, 2004). The origins of human information seeking behavior are found in work on the users of libraries and in readership studies in general (Wilson, 2000). The quest to know about the type of materials preferred by users is an important factor to determine and satisfy their information needs. The specific user related characteristics or variables that have been measured include frequency of library/ information use, reasons for use, types of library/information use, attitudes and opinions regarding libraries, reading patterns, level of satisfaction, demographic data, personality, lifestyle and awareness of library services (Wilson and Allen,1998). Against this background, this paper reports a study aimed at investigating the usage of medical library resources and facilities among medical students of Universiti Putra Malaysia. In addition, it is aimed also at investigating the usage of resources and facilities between male and female students; and the usage of resources and facilities between senior and junior students.

Figure 1 below depicts the research framework of the study. The independent variables of the study are the demographic profiles, namely the gender and year of study. The dependent variables are the library resources usage and library facilities usage. Based on the context of the study which is the Medical Library of UPM, the library resources would be the Internet, newspaper, online database, text book, OPAC, project paper, EZ- Proxy, library websites, dictionaries, handbook, full text journal, encyclopedia, thesis, printed journal and statistical report. On the other hand, the library facilities include reading area, discussion area, prayer room, printing, photocopying, computer and self-check machine.

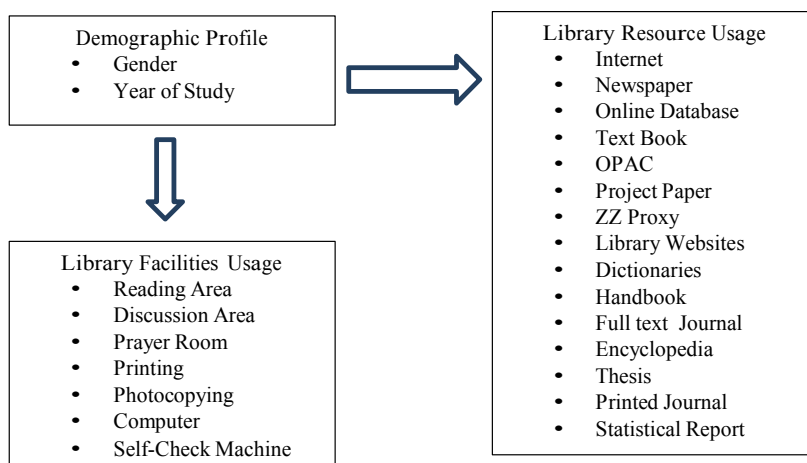


Figure 1: Research Framework

2. Methodology

The research method used in the study was survey. The instrument used for the data collection was a questionnaire. The population of the study was the medical students in Year 1 and Year 3 enrolled to the Faculty of Medicine and Health Sciences, Universiti Putra Malaysia. Students in Year 2, 3 and 4 were excluded because during the data collection only first and third year students are available on campus while students in Year 2 were having their semester break and students in Year 4, and Year 5 were doing clinical training in the hospitals. Prior to the actual data collection, the developed questionnaires were pre-tested and pilot tested with experts and prospective respondents so as to address both validity and reliability needs. This study used Kruskal-Wallis test and descriptive test for data analysis.

3. Findings

3.1 Demographic profiles of respondents

Table 1 below shows the frequency table of the respondents' profile. Out of 205 respondents who participated in the study, the female scored a higher percentage (54.1%) compared to the male (45.9%). In terms of year of study, students from Year 1 were more dominant (51.7%) compared to Year 3 (48.3%).

Table 1. Demographic Profile of Respondents

Demographic	Variable	Frequency	Percentage
Gender	Male	94	45.9
	Female	111	54.1
Year of study	Year 1	106	51.7
	Year3	99	48.3

3.2 Purpose of visiting the library

All of the respondents indicated that the purpose of visiting the library were to study and use the Internet. Apart from this it is interesting to note that 97.1% indicated that they frequented the library to do their; 85.9% responded "to do discussions with friends" while 93.7% ticked "for leisure reading". Overall, the result of this study is almost consistent with previous study by Ajayi (2006) and Callinan (2005).

3.3 Use of the reference resources

As mentioned in the previous section, one of the objectives of the study is to investigate the use of reference resources by the medical students. Based on the responses indicated by the respondents, the resources usages are ranked as shown in the last column in Table 2. Evidently, the five top most resource usages are the Internet, newspaper, library websites, online database and dictionaries. In contrast, the five lowest usages are full text journal, encyclopedia, thesis, printed journal and statistical report.

Table 2. Frequency usage of library resources (n=205)

Library Resources	% Never used	% Once a Semester	% Monthly	% Weekly	% Daily	Rank
Internet	0	0	0	9.3	90.7	1
Newspaper	0	0	14.1	51.7	34.1	2
Library Websites	0	0	22.9	50.2	26.8	3
Library Online Database	2.9	17.1	30.7	46.8	2.4	4
Dictionaries	0	26.3	34.1	33.7	5.9	5
Handbooks	0	13.2	60	26.8	0	6
Textbooks	0	14.1	64.9	21	0	7
Library OPAC	0	30.7	40.5	28.8	0	8
Project Paper	0	45.9	41.5	12.7	0	9
EZ-Proxy	6.3	55.6	34.6	3.4	0	10
Full Text Journal	7.8	53.2	37.1	2	0	11
Encyclopedia	15	42	40.5	2.9	0	12
Thesis	47	26.3	22	4.9	0	13
Printed Journal	43	38	13.7	5.4	0	14
Statistical Reports	57	23.9	13.7	5.9	0	15

3.4 Use of the reference collection (resources) between male and female

In order to test whether there is a significant difference between male and female in terms of their usage of reference collection, a Kruskal Wallis test was executed. According to UCLA (2007), the Kruskal Wallis test is used when there is one independent variable with two or more levels and an ordinal dependent variable. The results of the test as shown in Table 3 suggest that there is no significant difference between male and female in 11 out of 15 listed library resources (p values greater than 0.05). Significant differences could be observed in only four resources namely, newspaper, handbooks, full-text journal and statistical reports (p values less than 0.05). Upon further scrutiny on these four resources of the mean rank shows that the score for the female is higher compared to male in terms of newspaper, full-text journal and statistical report, hence implying that the female are more inclined in using these resources compared to the male. Nonetheless, the mean rank for handbook use shows that the male respondents scored higher compared to female which suggest that the male respondents are more interested in using handbooks compared to female.

Table 3. Results of Kruskal-Wallis test between male and female on library resources use

Library Resources	Mean Rank		Chi-Square	p-value	Interpretation
	Male	Female			
Internet	101.60	104.19	0.37	0.56	No significant difference
Newspaper	89.67	114.29	10.70	0.00	Difference is significant
Library Websites	114.85	92.96	9.23	0.00	No significant difference
Library Online Database	95.34	109.49	3.36	0.07	No significant difference
Dictionaries	104.87	101.41	0.19	0.66	No significant difference
Handbooks	119.24	89.24	17.07	0.00	Difference is significant
Textbooks	105.02	101.29	0.28	0.60	No significant difference
Library OPAC	98.30	106.98	1.24	0.27	No significant difference
Project Paper	107.68	99.04	1.30	0.25	No significant difference
EZ-Proxy	95.45	109.40	3.58	0.06	No significant difference
Full Text Journal	93.98	110.64	5.03	0.03	Difference is significant
Encyclopedia	100.77	104.89	0.29	0.59	No significant difference
Thesis	99.21	106.21	0.82	0.37	No significant difference
Printed Journal	107.89	98.86	1.37	0.24	No significant difference
Statistical Reports	93.90	110.71	5.29	0.02	Difference is significant

3.5 Use of the reference collection (resources) between year 1 and year 3

Table 4 presents the results of Kruskal-Wallis test for identifying whether there is a significant difference between Year 1 and Year 3 in terms of library resources usage. The results of the analysis showed that there is a significant difference between Year 1 and Year 3 in 12 out of 15 listed resources (p values less than 0.05). Further introspection on the results showed that the score of the mean ranking for Year 3 students are mostly higher compared to the Year 1 students. The results could be explained by the fact that the Year 3 compared to Year 1 students, are more familiar with the resources provided by the library, hence leading towards higher degree of usage. In addition to that, the amount and nature of the assignments done by the Year 3 student which are more challenging compared to the Year 1 students, requires them to use the library resources more often. Apparently, irrespective of which year that a student belongs, the amounts of use of the Internet, dictionaries and textbook results of the analysis on these three show no significant differences.

Table 4. Results of Kruskal-Wallis test between Year 1 and Year 3 on library resources use

Library Resources	Year 1	Year 3	Chi-Square	p-value	Interpretation
Internet	99.23	106.29	2.331	0.27	No significant difference
Newspaper	113.93	91.29	9.10	0.00	Difference is significant
Library Websites	89.22	117.76	14.06	0.00	Difference is significant
Library Online Database	91.32	115.51	9.86	0.00	Difference is significant
Dictionaries	99.64	106.60	0.78	0.38	No significant difference
Handbooks	93.58	113.08	7.25	0.00	Difference is significant
Textbooks	108.98	96.60	3.12	0.08	No significant difference
Library OPAC	86.83	120.31	18.56	0.00	Difference is significant
Project Paper	86.83	120.31	19.64	0.00	Difference is significant
EZ-Proxy	88.53	118.49	16.60	0.00	Difference is significant
Full Text Journal	87.30	119.81	19.27	0.00	Difference is significant
Encyclopedia	87.02	120.11	18.60	0.00	Difference is significant
Thesis	79.14	128.55	40.90	0.00	Difference is significant
Printed Journal	80.74	126.84	35.82	0.00	Difference is significant
Statistical Reports	59.28	149.81	148.58	0.00	Difference is significant

4. Discussions

Based on the analysis of the collected data, it was found that, while the usage of certain library resources are very high, other resources were still underutilized. Specifically these resources are library on-line database, EZ-Proxy, full-text journal, encyclopedia, thesis, printed journal and statistical report. On the other hand, the usage of other resources such as dictionaries, handbooks, textbooks, library OPAC, and project paper are also very minimal. Perhaps because of the usage of the Internet is 100%, these students are more inclined to depend on the Internet rather than using all other available resources. These findings send a strong message to the authorities concerned, not only the librarians but also the educators on the need to educate the students on how to use the variety of resources other than the Internet. While it is undeniably that the Internet is a very rich and comprehensive information resource, there are also other reliable resources which are provided by the library. Acquisition on these resources requires huge amount of money, hence, if they are not fully utilized it would be a clear waste. More importantly is the information skills that should be applied by the students when searching and using information. The students should not be too dependent on the Internet only. In this paper, further analysis comparing between male and female in terms of resources usage. The findings indicate that not much difference could be detected across all listed resources. However, upon further analysis which compares the usage between Year 1 and Year 3, significant differences could be observed in several resources. Apparently, respondents from Year 3 compared to Year 1 reported higher degree of usage in almost all resources. The possible explanation to these findings could be because the senior students are more exposed to the libraries, hence their familiarity with the library resources are higher compared to the junior. Nonetheless, this finding should alert the relevant authorities, which includes the librarians and the educators on the need to expose the students to all library resources that are available. As for the librarians, they should provide more training on the use of library resources, while for the educators; they should assign students with task that requires them to use all the library resources.

5. Conclusions

The conduct of this study has been to identify the usage of medical library resources among medical students enrolled in Year 1 and Year 3 in Universiti Putra Malaysia. From the theoretical viewpoint, the study has developed an empirical-based framework which can be emulated by other researcher who are interested in investigating similar topic but in other library settings. From the practical viewpoint, the findings can be used as guidelines by the librarians on the library trainings needs by medical students.

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