

INFORMATION BEHAVIOUR: GRADUATES' PATTERN IN SEEKING INFORMATION

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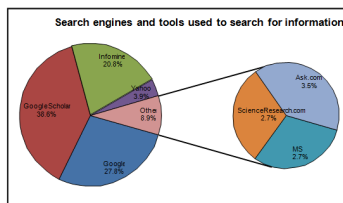
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Graphical abstract



Abstract

Past researches on students' information seeking behaviour concluded that students have difficulty in searching the literature and unable to find the required information during the searching processes. The problem must be addressed as students need exposure on the knowledge of information searching and retrieval. This study explores graduate students' information seeking behaviour in seeking research-based information with the intention of accomplishing their research tasks. The data was collected through survey method by using web-based questionnaire. A total of 193 respondents have responded to the survey questionnaire. The collected data was analyzed by using Statistical Package for Social Sciences (SPSS) for Windows version 12.0. The findings of this study conclude that most of the graduate students prefer to use electronic information sources when seeking for research-based information. This can be used as guideline to improve information services and facilitate graduate students to construct better strategies during information seeking activities in effectively finding the relevant research-based information.

Keywords: Information seeking behavior, information retrieval, information behavior, pattern, graduate student

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1.0 INTRODUCTION

Information Technology is the era of information and knowledge where various types of information can be obtained through Information and Communication Technology (ICT). The rapid development of ICT in Malaysia supports the teaching and learning processes, especially in higher education. For example, facilities such as digital library and learning portal are provided to support students to complete assignments, solve problems and gain knowledge.

Past researches on information seeking behaviour were from various fields such as Management [1], Health [2] and Information Technology [3]. Students are motivated to search for information in order to fill in their knowledge gaps. Information searching processes are different based on its situation and the individuals involved in the processes [4].

In seeking for information effectively and efficiently, graduate students' understanding of their information needs and different types of information sources that can be utilized is very important. The approach involved in retrieving the relevant information or also known as the information seeking behaviour should begin with identifying the needed information. This is followed by selecting the appropriate sources of information and finding the required information by using selected strategies. However, there are graduate students who are unfamiliar with this approach.

This paper discusses past research on information seeking behaviour and a study that was conducted to explore graduate students' information seeking behaviour.

2.0 PROBLEM STATEMENT

The knowledge gaps that exist encourage graduate students to find information based on the identified information needs with the purpose of enhancing their knowledge or solving a problem. However, some students have difficulty in finding the information to meet their needs [5, 6]. In addition, some students have difficulty in information searching processes [7]. The problem must be addressed and emphasis should be given to the study of information seeking behaviour in order to help students in finding the required information that meet their information needs.

Limberg [8] reported that only a few studies has been conducted on students' information seeking behaviour. Sinnasamy [9] as well as Ajiboye and Tella [10] discussed that students have low knowledge on information seeking behaviour and require more exposure about the process of searching for information. Therefore, study on students' information seeking behaviour need to be conducted and enhanced so that students will have guidelines on finding the required information in order to carry out their research [11].

3.0 INFORMATION SEEKING BEHAVIOUR

Information seeking behaviour differs between each individual due to the specific information needs and information gaps that exist within the individual. Information is needed to fulfill these gaps. According to Wilson [12], each individual should be concerned on their insufficient knowledge and should try to find relevant information to meet their information needs.

Information seeking behaviour includes information needs, the use of information sources to retrieve information and ends with the use of the retrieved information [13]. Various factors such as individual factors, tasks and environment can influence the processes of information seeking behaviour [14]. According to Nazim [15], the development of information sources in the electronic environment also had an impact on information seeking behaviour. Therefore, a study on information seeking behaviour should aim to understand the needs of information, information retrieval methods, environments and the source of information used by individuals in order to find information which is relevant to their needs [16].

George *et al.* [17] defines information seeking behaviour as graduate students' behaviour when obtaining and using information for their research processes. Information seeking behaviour is the circumstances whenever students realize their information needs, finding the required information and use it effectively [9]. In the study of Pettigrew, Fidel and Bruce [18], information seeking behaviour was defined as the way an individual needs, seeks and use information in a variety of different situations.

The information seeking behaviour terminology used in this study refers to the behaviour of graduate students during the processes of seeking information

for their research. In the context of this study, the term, information seeking behaviour is used to refer to the processes of identifying the needed research-based information, using information sources to search for the required information, information searching and using the required information in satisfying research needs.

4.0 METHODOLOGY

This study used survey method for data gathering. The selected sample for this study comprises of graduate students at Faculty of Information Science & Technology (FTSM) and Faculty of Engineering & Built Environment (FKAB), Universiti Kebangsaan Malaysia (UKM). The sample included doctoral and masters' students. The graduate students use email as a method of communication within the graduate student groups. Therefore, a web-based questionnaire was developed and distributed for the survey.

The entire construct developed for the questionnaire were derived from the literature review and constructed by using Lazarsfeld's Scheme. The questionnaire has been validated in terms of content and face validity. It was distributed through FTSM and FKAB graduate students' mailing lists with the permission from the respective faculty.

A total of 193 graduate students (87 doctoral students; 106 masters' students) responded to the web-based questionnaire. 154 of the respondents were involved in research project in the current semester.

5.0 RESULTS AND DISCUSSION

The survey involves 193 graduate students, comprising of 103 females and 90 males. The majority of the respondents were between 20 to 29 years old ($n=98$ or 50.8%) and the majority were Malays ($n=114$ or 59.1%). Most of the respondents were masters' students ($n=106$ or 54.9%). As shown in Table 1, out of the 193 graduate students, only 154 graduate students were involved in research processes during the duration of the survey.

Table 1 The status of the respondents' research progress

Feature	Item	Frequency (n = 154)	Percentage (n = 154)	
Research status	Selecting research topic	11	7.1	
	Doing a literature review	32	20.8	
	Writing research proposal	22	14.3	
	Collecting data	48	31.2	
	Analyzing data	16	10.4	
	Writing a thesis	23	14.9	
	Others	2	1.3	

5.1 Methods Used by Graduate Students to Search For Research-based Information

The methods used by graduate students to obtain information were analyzed based on their responses to the questionnaire. Figure 1 illustrates the preferred methods frequently used by graduate students to search for research-based information.

The findings showed that most graduate students preferred to surf the Web to retrieve information for their research. In addition, majority of the graduate students prefer to obtain information by using the following methods: electronic information sources (20.5%), seeking information on the Web by using search engines (20.2%), seeking assistance from supervisors (19.3%) and finding information on the Web by using subject directory (19.1%).

The findings of this study also showed other methods used by graduate students to find research-based information. These methods are: using printed information sources, asked other students and review books in the UKM library shelves.

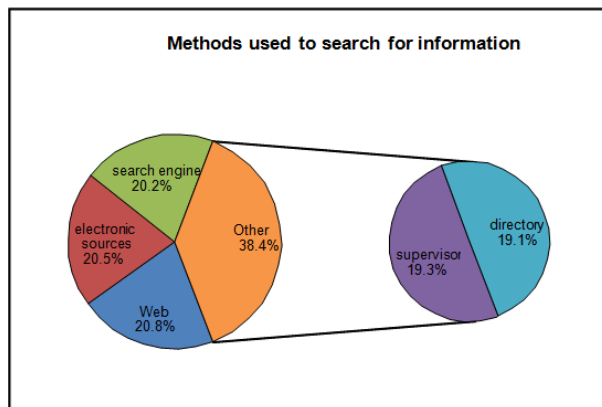


Figure 1 The methods used to search for research-base information

The findings of this study indicate that most graduate students find the information for their research by using electronic information sources particularly through surfing the Web. In line with the development of information technology, information is more accessible by using electronic information sources compared to other sources of information. This encourages graduate students to use electronic information sources when searching for research-based information relevant to their needs. This findings support the studies conducted by George *et al.* [17] as well as Nai-Cheng and Jiin-Huai [19] which showed that most graduate students search for information by surfing the Web because it is easy, fast and enable them to acquire up to date information.

5.2 Search Engine and Tools Used by Graduate Students to Search for Research-based Information

As illustrated in Figure 2, most graduate students prefer to use Google Scholar as the main search engine when searching for research-based information. Google Scholar has been chosen because it provides the ability to search for academic materials located from across the Web. The time allocated to search for the required information will be reduced when they use Google Scholar service.

Another two search engines and tools mostly used by the graduate students were Google (27.8%) and Infomine (20.8%). Some of the graduate students utilized Infomine when searching for research-based information because it provides academic and scholarly resources.

These findings were consistent with the results of previous studies which found that Google and Google Scholar were the search engines mostly used by students in order to find information on the Web [20].

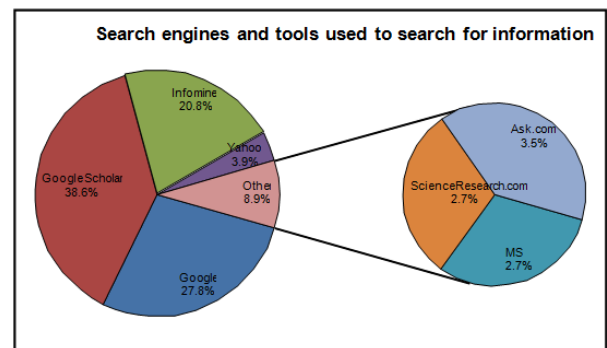


Figure 2 The preferred search engines and tools used to search for research-based information

5.3 The Electronic Information Sources Used to Search for Research-based Information

Graduate students are active information seeker. They need information in order to fulfill their research needs. One of the sources of information they frequently used are the electronic information sources. Figure 3 illustrates the most frequently used electronic information sources by graduate students.

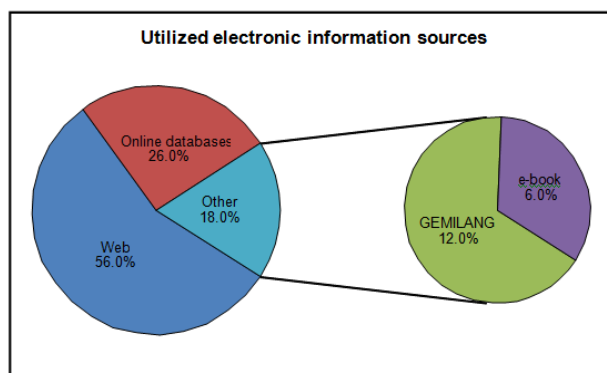


Figure 3 The electronic information sources used to search for research-based information

As illustrates in Figure 3, the Web was the most utilized electronic information sources. The graduate students preferred to use the Web because of its accessibility and ease of use. They can use the Web anywhere, anytime as long as there is an Internet connection. The findings of this study support previous studies results which showed that the Web is one of the electronic information sources most frequently used in the process of searching for information.

The graduate students also used the facilities provided by UKM library to search for the research-based information that meet their needs. They used online databases (26.0%), online public access catalog-GEMILANG (12.0%) and e-book (6.0%) when searching for the information.

The findings of this study support previous findings conducted by Williamson *et al.* [13], Nai-Cheng and Jiin-Huai [19] and Vezzosi [20] who found that graduate students rely heavily on electronic information sources particularly the Web as a strategy for searching the required information.

The findings of this study showed a pattern of the tendencies of using electronic information sources during the processes of searching for research-based information. Majority of electronic information sources are listed among the main sources of information frequently used by the graduate students when searching for research-based information that meet their research needs. The findings are aligned with the findings of Nazim [15], Liu [21], Saiti and Prokopiadou [22] as well as Ming-der and Shih-chuan [23] which suggested that graduate students were particularly fond of using electronic information sources when searching for information.

6.0 CONCLUSION

In this study, information seeking behaviour comprises of identifying research needs, determining the sources of information, finding the required information using selected information sources and strategies plus using the retrieved information with the intention of completing research projects.

In conclusion, the pattern of graduates' information seeking behaviour illustrates online information seeking behaviour because most of the graduate students prefer to use variety of electronic information sources as the main sources of information when searching for research-based information that fulfill their research needs. The findings of this study can be used by lecturers to provide suitable information searching and retrieval trainings designed for graduate students to facilitate them in searching for research-based information effectively.

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