The Macrotheme Review

A multidisciplinary journal of global macro trends

Information Searching Skills among Malaysian Youth: The Case of National Service Training Programme (NSTP) Trainees, Selangor Malaysia

NOR ERLISSA ABD AZIZ, ROSNITA SAHRANI, M. KHAIRULNIZAM ZAINI and HANIS DIYANA KAMARUDIN

Faculty of Information Management University Teknologi Mara, Malaysia
erlissa@salam.uitm.edu.my (corresponding author)

Abstract

This study concerns on the area of information searching skills using ICT among National Service Training Program (NSTP) trainees. Trainees were studied to determine their strengths and weaknesses in relations to their information searching skills. It was found that students (trainees) had limited skills in the area of searching information. The finding also denotes that insufficient skills-based training were factor contributed to the problem in their information searching skills. The aim of this research is visibly to determine the trainee strengths and weaknesses in terms of their information searching skills using ICT. Specifically the objectives of this study are twofold. First is to investigate the purposes of information access of these trainees from online or electronic sources and secondly to identify the state of information searching skills using ICT among them. This research was carried out at 9 (nine) NSTP camps in Selangor, Malaysia involving 367 trainees using questionnaires for data collections. Significantly, from this study a guideline on designing school programs or activities that promote information searching skills among secondary school students is anticipated. The results of the study finally defined the level of these trainees' awareness on information searching skills which is important in assisting policy makers in strategizing their education and training initiatives to Malaysian Youth.

Keywords*: Information searching, information searching skills, information skills, information literacy, information communication and technology.*

1.   INTRODUCTION

Advances of technology have given great effect on human life and had become debatable topic among social scientist and others. Increases of computer applications, has resulted easier access and dissemination of information. In general, people need information to satisfy their needs, for them to survive in the current technological centric environment. Globally, there are four barriers that can complicate or can even prevent successful access to information: these are economic, political, affective or cognitive (Boekhorst, 2003). In fact, information is considered valuable because it becomes important item or product in the daily life.

Due to this reason, some people are willing to get certain kind of information no matter how much they have to spend on it. Certain kind of information can help in achieving the target, mission and vision of people's life. People have to recognize their need for information and they need knowledge and skills to satisfy their needs. Over the ages, more knowledge and skill are needed due to the "informatisation" process (Boekhorst, 2003). Remarkably, students nowadays are surrounded with sources of information such as web pages, CD- ROMs with interactive programs, books, magazines, and other multimedia products. In greater views, accessing information has become increasingly important especially to the school students. At the same time, browsing, searching and navigating online are essential skills required in order for them to search, find, evaluate and present information. They need to access and interact with information to develop life- long information literacy skills to success.

Malaysia has implemented the first computer system in 1966. Since then, the Government has introduced various initiatives to facilitate the greater adoption and diffusion of ICT to improve capacities in every field of business, industry, education, and life in general. These measures include the enhancement of education and training programmes, provision of an environment conducive to the development of ICT, provision of incentives for computerization and automation, and creation of venture capital funds (Chan, 2002).

It is very essential for school students at early stage especially in primary level to have positive attitude towards computer skill in order for them to become literate. Computer skills are a sequence of interrelated actions. Every actions determine the course of the searching, thus affects its final results. Consequently, the searcher's reasoning is a key to the success of the searching process. (Nazim, 2008).

2. LITERATURE REVIEW

In order to survive in today's information flow, the capacity and skills to handle large amount of information are needed. According to Janson (1995), it is important to understand how information is organized, where to find it and how to use it effectively. Furthermore, a key challenge in information society is the need to provide individuals with skills that enable them to locate, access, retrieve, evaluate, interpret and act on information in their professional or personal lives, in other words to become information literate.

2.1 Research on Information Searching

Findings indicate that although students need to develop skills in locating sources and finding information, they also need to develop skill in using information once it has been located. As mentioned by Kuhlthau (2000), research on skills for using information are at the very core of education for the technological environment and are central to the mission of the school in the information age school. Skills and strategies of using ICT for information searching differ from using traditional methods. Understanding user information behavior is crucial in the design of their information tools. (Vilar & Zumer, 2011). Furthermore, in a study conducted by Mohammad Nazim (2008), lack of training and information about searching skills were indicated as some factors affecting to find the accurate information. This limits students' capabilities to satisfy their information needs.

According to Boekhorst (2003), searching is a skill that is more difficult to master. Users have to understand the search process, how to choose keywords, Boolean searching, the differences between search engines and others. Therefore users need information skills that will help in-finding, evaluating and resent the information. The report of the National Committee of Enquiry into Higher Education (The Dearing Report, 1998) emphasized the importance of information skills which denoted as 'key to the future success of graduates whatever they intend to do in later life. There are also researchers who tackle specific group like (Gannon-Leary, Banwell and Childs, 2001) which supposed that when students obtained numerous, irrelevant results using such simple searching this contributed to their frustration and their feeling that it was all a waste of time.

2.2   Information Searching Skills

When discussing on the information searching skills, there are a lot of different needs that users want to tackle. Enochsson (2005) in her research found that student does not always succeed very well when searching information on the Internet. It is claimed that there is a need for teaching and training for information literacy, since students are found to often having a lack of experiences. When people assess information, they at all times noticed that the characteristics and value of some information are not always consistent (Rieh and Brian, 2008). In other words, people may find text that seems to be clearly written but is inaccurate, that is easy to obtain but out of date, that is current but no sufficiently comprehensive and so forth. While other researchers found that the process approach to information skills involves active use of information and ideas for learning across the curriculum the most used and needed. Batane (2002) concluded that although students need to develop skills in locating sources and finding information, they also need to learn to develop skill in using information once it has been located. Two dimensions are needed to define and contrast between seeking and information searching; which is the person's context or goal and the type of interaction with the environment being sought (Puustinen and Rouet, 2009). Ever more, school students should be responsible for their own learning in order to improve their computer skills. They should have their own ways of doing so and teachers have to make sure, they have the necessary skills to do so. Teachers, as a result have to move away from conventional text based approaches of teaching of computer skills to resource-based instructions as well as student centered learning in order to develop independent learners for life.

3.   METHODOLOGY

Malaysia has implemented National Service Training Programme (NSTP) at year 2004 started with 85, 000 youth and began with 85 camp. (Cecilia, 2000). It is totally different from military organization and is under National Service Acts for youths at the age of 17-36 years old. In this study, the samples of this research were selected from nine National Service Training Program (NSTP) camps in Selangor, Malaysia. About 367 trainees were selected in this study. The PLKN trainees were asked to respond to the questionnaires. This method of data collection was used to represent all groups of samples.

Determination of the sampling uses the Yamane (1967) sampling techniques. To calculate sample sizes, the formula is as follows:

$$n = \frac{N}{1 + N(e)^2} = \frac{4500}{1 + 4500(0.05)^2} = 367$$

Based on the sample size determined from the formula, a stratified sampling technique is then engaged to determine the number of questionnaires to be distributed to each camp.

CAMP	N(POPULATION)	N(SAMPLE)
NSTP Camp Kuala Kubu Bharu	510	42
NSTP Camp Millenium	580	47
NSTP Camp Paya Indah	540	44
NSTP Camp Temasya	490	40
NSTP Camp Setia Ikhlas	560	46
NSTP Camp Geo Kosmo	490	40
NSTP Camp Princess Haliza	420	35
NSTP Camp Pelangi Hill Resort	450	37
NSTP Camp Jugra Banting	460	36
TOTAL	4500	367

Table 1.0 Number of Population and Sample for Each Camp

3.1 *Analytical Procedure*

After obtaining the responses, the data were gathered to run in the SPSS. In this research, SPSS version 17.0 was used to analyse the data. Next, frequencies were used to represents all possible values the variable could take on and the frequency with which each of those values occurs. To look at two variables at once, crosstabs table were used to see the differences or similarity between the variables. Multiple response command were used to analyze a number of separate variables at the same time. And finally, to make the results looks more meaningful, bar charts is used to determine whether there are significant differences between the variable.

4.   RESULTS AND DISCUSSION

4.1 *Demographic*

In this section, the segregation of demographic of the respondent which includes their training camp, gender, ethnic, religion, availability of Internet at home and their electronic sources are presented.

As informed above, the respondent of this research are 4500 National Service Trainees from nine National Service training camps in Malaysia. Thus, from the first frequency table we can see that the segregation of respondent from each camp is between 9% -to 12%. So, this result shows fair distribution of sample that is used in the studies.

Camp

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Kuala Kubu Baru	42	11.4	11.4	11.4
	Millenium	47	12.8	12.8	24.3
	Paya Indah	44	12.0	12.0	36.2
	Temasya	40	10.9	10.9	47.1
	Setia Ikhlas	46	12.5	12.5	59.7
	Geo Kosmo	40	10.9	10.9	70.6
	Princess Haliza	35	9.5	9.5	80.1
	Pelangi Hill Resort	37	10.1	10.1	90.2
	Jugra Banting	36	9.8	9.8	100.0
	Total	367	100.0	100.0	

Table 2.0: National Service Trainee's Camp Frequency

Internet

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	288	78.5	78.5	78.5
	No	79	21.5	21.5	100.0
	Total	367	100.0	100.0	

Table 3.0: Respondent Internet access at home

To identify where the trainees accessing their Internet sources, the questionnaire was developed using multiple choice questions where they can choose more than one answers. It can be shown that 94.3% of the trainee used the Internet at school lab, 97.8% at the library, 94.3% at the cyber café, 45.2% at home and 56.1% used the Internet access from other places such their mobile phone. This result shows that even though the trainees have Internet access at home, they are also use the Internet at public areas such as at schools and cyber cafes.
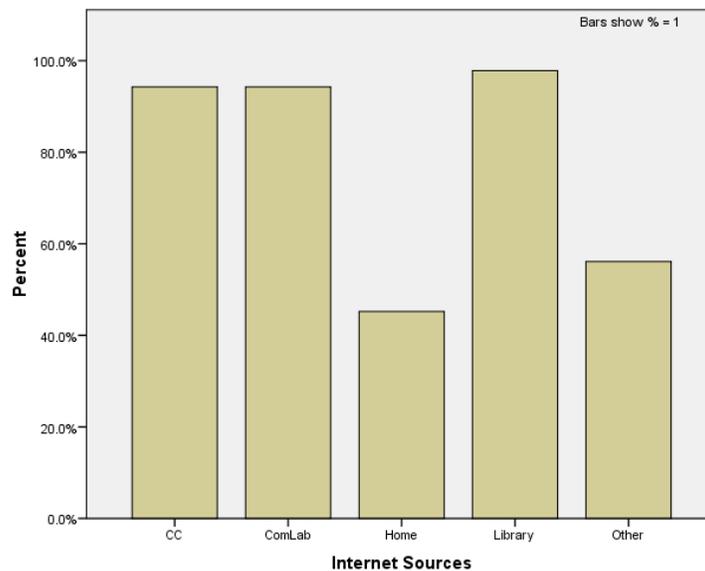
Sources Frequencies

	Responses		Percent of Cases
	N	Percent	
Home	166	11.7%	45.2%
CComputer Lab	346	24.3%	94.3%
Library	359	25.2%	97.8%
Cyber Café (CC)	346	24.3%	94.3%
Other	206	14.5%	56.1%
Total	1423	100.0%	387.7%

a. Dichotomy group tabulated at value 1.

Table 4.0: Internet Sources for the Respondent

Internet Usage and Electronic Sources
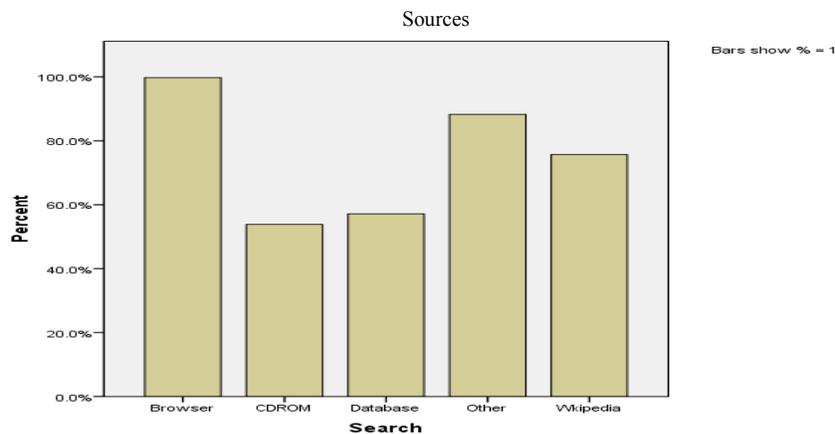

Graph 1.0: Internet Sources Bar Chart

Table 4.0 and graph 1.0 shows how usually the trainees search their information. From the table, it can see that 100% of the respondents search the information using Internet browser. 75.5% search information using Wikipedia, 57.2% using database, 53.7% using CD ROM and 88% of the respondent is using other way to search information.

Search Frequencies

		Responses		Percent of Cases
		N	Percent	
Search	Browser	367	26.7%	100.0%
	Database	210	15.3%	57.2%
	Wikipedia	277	20.2%	75.5%
	CDROM	197	14.3%	53.7%
	Other	323	23.5%	88.0%
Total		1374	100.0%	374.4%

a. Dichotomy group tabulated at value 1.

Table 5.0 Trainees Information

Graph 2.0: Information Sources bar chart

In second parts of the questionnaire, respondent were asked on the reasons of why they are using the Internet. From the findings it took the highest percentage for each question to make a measurement in this research. Thus, 53.4% of the respondents totally agree that they are using the Internet for chatting, 44.4% totally agree they use Internet to find information, 40.9% agree they use Internet for sending or reading emails, 37.3% agree that they use Internet for downloading files, 37.3% agree that they use Internet to listening to music and 41.1% of the respondent totally agree that they use Internet to gain knowledge. Thus from the results, it can see that most of the respondents agreed that they used the Internet for chatting, to find information, reading or sending emails, download files, listening to music and to gain general knowledge.

4.2   Skills

In the third part of the questionnaire, respondent skills in finding the information are tested. The questions were asked is whether they have been learned, thought, exposed or they have no help in finding the information using sources such as the Internet, Wikipedia, database and CD-ROM. About 45.5% of the respondents totally agree that they have learned how to use Internet, 50.7% totally agree that they have been thought how to use the Internet, 36.5% agree that they always been exposed to information on ICT and the Internet and 25.3% agree that they need no help in finding information using the Internet. Thus as a conclusion, the respondents mostly agreed that they have learned how to use the Internet, they also agree that they have been thought how to use the Internet at school. Furthermore, they have always been exposed to information on ICT and Internet and they agree that they need no help in searching information using Internet.

Next, 26.7% of the respondents totally disagree that they have learned how to use database to find information, 37.6% disagree that they have been thought how to use data base to find information at school, 34.1% of them totally disagreed that they have been exposed on how to find information using the database and 30.2% of the respondent totally disagree that they need no help in finding information using database. As a result, it shows that the respondent are mostly disagree that they have learned how to find information using the database, have been thought to used it at school, have been exposed on information on database development and they disagree that they need no help to use the database.

About, 35.1% of the respondents totally disagree that they have learned how to use Wikipedia, 31.1% disagree they have learned about Wikipedia usage at school, 30% of the respondents are not sure if they have been exposed on Wikipedia, and 29.2% were not sure if they were able to find information using Wikipedia without assistance. Here it clearly shows that most of the respondents have not learned how to use Wikipedia, they have not been taught how to use it at school, not much exposure on how to use it and unsure if they need any helps to use it.

Furthermore, the respondents were asked on their skills to find information using CD-ROM. 27.5% of the respondents agree that they have learned how to use CD-ROM to find information, 28.3% have been thought at school how to use it, another 25.9% disagree that they were exposed on how to use the CD-ROM and 30% of the respondent totally disagree that no help is needed to find information using CD-ROM. It shows that the respondents agree that they have learned and been taught at school how o use the CD-ROM to find information. However, they disagree that they have been exposed on how to use it and they also disagree that they need no help to find information using CD-ROM.

Lastly in third part of the questionnaire, respondents were asked on their frequency on their computer usage. 65.4% use the computer every day, 21% of the respondent use the computer at least once a week and another 13.6% use the computer at least once a month. Hence, it shows that most of the respondents use computer frequently.

Frequency

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Everyday	240	65.4	65.4	65.4
	Once Weeks	77	21.0	21.0	86.4
	Once Months	50	13.6	13.6	100.0
	Total	367	100.0	100.0	

Table 6.0: Frequency of Computer Usage by the Respondents

4.3   Problems

In the last section of the questionnaire the trainees have been asked on the problems that they faced when using the Internet and the electronic sources. Thus, 39.8% totally agree that it was because the system's speed, 35.1% totally agree that it was because of the information accuracy, 25.9% agree that it was because of the lack of understanding on information management, 35.4% of the respondents were unsure if it was because of the language barrier and 30.2% of them totally agree that they have problems on information research strategy. From the results above, it can concluded that most of the respondents agreed that they are having problems with the system's speed, information accuracy, information management, and language as well as information search strategy.

5.   Conclusion and Recommendation

It can be concluded that most of the National Service trainees have Internet access at home and have been using the Internet and electronic sources at other places as well such as school lab, library, and cyber café. Internet browsers are primarily selected as searching tool compared to other to find information and the reason they are using the Internet is for chatting with friends, finding information on school work, reading or sending emails, downloading files, listening to music and they also use the Internet to increase their general knowledge.

Besides, it is found that most of the respondents have better skills on finding information using the Internet compared to other sources such as database, Wikipedia and CD-ROM. However, they are facing problems such as system speed, research strategy and they are deficient in information management. Moreover, most of the trainees are using the computer almost every day. Thus, it is recommended that there should be additional courses on information research using ICT to the trainees during the National Service Program so that they will have better skills on information search and the use of ICT. This is to ensure that Malaysia will produce more youths with solid foundation in information and communication technology (ICT) skills so that that they will be able to use it and develop our nation in future.

Based on the research findings, there are several recommendations can be made to improve student's searching skills and good attitude in using in computer-based technology. The most important way is to foster positive attitude towards computer usage. Students must be taught on the use of computer for their learning process and how Internet is significant for that purposes. In order for them to be successful in the future, they need to continue to emphasize the usage of

informational technologies and electronic information access. Based on the findings the main recommendations made as follows:

5.1   Basic computer skills

As for the computer literacy, the schools especially teachers should actively promote or teach about basic computer skills. Searching skills and ICT subject should be taught to all level in schools as the usage of electronic learning tools is significant that may increases the level of interest of the students towards their learning processes. Thus, the particular educational department, together with the school management and teachers should actively work on this matter.

5.2   Training the teacher on the computer and information searching skills

Enhancing the searching skills and ICT expertise of teachers is essential for the benefit of students learning. Organizing searching skills and ICT course, training, workshop for the teachers and students is considered important as well. Students need information in order to fulfill their academic activities especially if they pursue their studies in tertiary education and this cannot be taken for granted. Teachers play the major roles in educating the students and they must become computer literates.

5.3   Searching Strategy Method

The understandings of searching strategy method are required in the school and classroom particularly. Boolean operator, formulate strategy, thesaurus, keywords and several more are concepts that these students should grab as basic understanding. By enriching students' information searching skills from secondary level, they will be trained to produces high quality course assignment when they further their studies in a university. Therefore, it is good to have a proper and appropriate methods of information searching strategies rather than trial and error methods due to their own inadequacy.

5.4   Introduced computer skills program at the school level

School should also introduce computer skills programs to their students. Computer skills are needed to support the student's learning and not just as 'one off' exercises and for them to gradually gain confidence in brainstorming ideas and generating topic in learning processes. Commonly, a lot of programs could enrich students' computer skills by including a librarian as a member of the educational team. More significantly, it prepares students to take advantage of the information explosion, a skill necessary for professional success both today and in the future.

REFERENCES

Aidah Abdul Karim, Rosseni Din and Norizan Razak (2011). Investigating students' ways of learning information skills in Malaysia Higher Education. Procedia Social and Behavioral Sciences 15 (2011) 3849-3854. Available at: http://www.sciencedirect.com

AnnBritt Enochsson (2005). The development of children's Web searching skills – a non linear model. Information Resarch 11(1). Available at: http://www.informationr.net

Boekhorst, Albert K. (2003). Becoming information literate in Netherlands. Library Review, 52(7), 298-309. Available at: http://www.emeraldinsight.com

Bouwman, H. and Van der Duin, P. (2003). Research into the use of the information and communication technology in the home environment in 2010. Journal Foresight, 5(4), 8-19. Available at: http://www.emeraldinsight.com

Celia. 2000. National Service Training in Malaysia. Korean Press. Available at: http://www.koreanpress.net/news/view.asp?msection=2&ssection=13&idx=2179

Chan, Foong Mae, 2002. ICT in Malaysian Schools: Policy and Strategies. Available at: http://unpan1.un.org/intradoc/groups/public/apcity/unpan011288.pdf

Chapman, Robert and Slaymaker, Tom (2002). ICT and rural development: review of the literature, current interventions and opportunities foraction. Available at: http://www.cefe.net

Gannon-Leary, Pat, Banwell, Linda and Childs, Sue (2000). Enhancing ICT skills the how, who and when illustration from the JUBILEE project. Information Research, 9(2). Available at: http://www.informationr.net

Janson, Z. (1995). Information literacy: an issue which requests urgent action   in developing countries and countries in transition. Available at: http://www.nclis.gov

Kuhlthau, C. (2000). Learning in digital libraries: An information search   process approach. *Library Trends*, 45(4), 708-724. Available at: http://www.ics.ltsn.ac.uk

Mohd Nazim. (2008). Information searching behavior in the Internet Age: a users' study of Aligarh Muslim University. The International Information & Libraru Review (2008) 40, 73-81. Available at: www.sciencediredt.com

 Musliya Ahmad, 2010. Personal Communication. National Service Department.

Polana Vilar & Maja Zumer, (2011). Information searching behavior of young Slovenian researchers. Program electronic library and information system, Vol. 45, (3), 279-293. Available at: http://www.emeraldinsight.com

Rieh, Soo Young and Brian Hilligoss. 'College Students'Credibility Judgements in the Information-Seeking Process. Digital Media. Available at: http://rich.people.si.umich.edu/papers/rich_creadibility_chapter3.pdf

Rouet. J.F & Puustinen, M. (2009). Introduction to learning with ICT : News perspective on help seeking and information searching. Computer & Education. Available at: http://cerca.labo.univ-poitiers.fr/IMG/pdf_CE09-RouetColl.pdf

Shanmugan Anbikapathi (2001). The development of children's web searching skills – non linear model. Available at: http://www.informationr.net