

COMPUTER LITERACY AMONG IAIN LHOKSEUMAWE STUDENTS

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ABSTRACT

Having certain level in computer literacy is very important to educational setting for students. They should have skill and positive attitudes toward computer to achieve effective teaching and learning process. This study aimed to measure the computing skills, knowledge of IAIN Malikussaleh students about computers, also their attitude toward computers. It is also to determine whether students' characteristics such as field of study, duration of students' exposure to computers have significant influence on their computer literacy. From the computation it can be seen that the level of IAIN Malikussaleh students' computer skills applied was 4.306 of mean from the highest score of 5 with standard deviation 0.82624 in general. This number indicated that IAIN Malikussaleh students' level of computer skill is above average. English and Arabic department students possess quite similar ability or skill in term of computer literacy. The most notable result of this result is the respondents' attitude toward computer. The respondents who possess good computer skills should have positive attitude toward computer. However, the IAIN Malikussaleh students' attitude toward computer is average.

Keywords

Computer literacy, students, computer skill, computer attitude.

INTRODUCTION

Exposure to computer is nearly unavoidable for students especially who learn in higher education and for people who involved in business economic (Smith & Necessary, 1996). Many educators have seen the need for computer literacy to begin in educational settings, almost all assignment

written, presented and published using computer. To use computer in applied setting, at least students must have certain level of computer literacy. They should develop skills and positive attitudes toward the use of computers, because of their essential role in the effectiveness of teaching and learning process.

Indonesia has big number of students who register or enrol in university level. The number of students who pursue their study indicates that Indonesia as a developing country try to develop the human resources. Especially, IAIN Malikussaleh Lhokseumawe has numbers of student who enroll everyyear. In developing human resources, the information, communication, computer, and technology is needed. That is why this study is needed to get actual information about the IAIN Malikussaleh students' toward computer literacy to prepare the readiness of the country toward ICT era.

Computer literacy among IAIN Malikussaleh students' as well as students from other universities is one of the most important issues in education. As we know that Indonesia as one of developing country should prepare man power that is equipped for this era of informational technology. Although IAIN Malikussaleh students' use computers regularly, yet their level of computing skills and knowledge, their attitudes toward computer, and the underlying factors that influence their computer literacy are not clear.

The main purpose of this study is to measure the computing skills, knowledge of IAIN Malikussalehstudents about computers, also their attitude toward computers. In addition, this study tries to determine whether students' characteristics such as field of study, duration of students' exposure to computers have significant influence on their computer literacy. The

Research Question of this reasearch are to what extent do IAIN Malikussaleh students' master computing skills? What is the computer literacy level of IAIN Malikussaleh students'? What are the IAIN Malikussaleh students'' attitudes toward computer use?

Limitation of the Study

This study involved only IAIN Malikussaleh students', more over the sample only used few samples from the actual population of IAIN Malikussaleh students'. That is why the result may not be generalized to other students.

Definition of Term

Computer literacy: is whatever understanding, skills, and attitudes one needs to function effectively within a given social role that directly or indirectly involves computers (Anderson, 1990). IAIN Malikussaleh students': Students who register or enroll to IAIN Malikussaleh. Computer: an electronic device that receives data, put them into storage, operates on them according to given instructions, and outputs the result to the users. Attitude: is defined as the degree of enjoyment or pleasure on knowing computers, the anxiety towards the computers and the confidence or efficacy in using computer. Atitudes also defined as a predisposition to respond in a favorable or unfavorable way with respect to a given object that is person, activity, idea, etc. (Hart, 1989).

LITERATURE REVIEW

This part outlines the debate over the definitions of computer literacy. In addition, a review is presented of the literature on the need for

computer literacy. Finally, knowledge, skills, and attitudes require to be a computer literate are also discussed. These factors form the basis for the research questions this study address.

1. Definition of Computer literacy

There are many definitions that can be found about computer literacy but no one seems to have a clear notion of what computer literacy is (Computer literacy-USA association). Computer literacy is defined as whatever understanding, skills, and attitudes one needs to function effectively within a given social role that directly or indirectly involves computers (Anderson, 1990). This definition is not solely adopted by individual involve in instructional technology as well as by people who involved in educational institutions. In other side, Simonson, Mauere, Montag Toradi and Whitaker mentioned (as cited in Du, Y. & Wayne State University, 2004) that the definition of computer literacy is an understanding of computer characteristics, capabilities, and application, as well as an ability to implement this knowledge in the skillful, productive use of computer application suitable to individual roles in the society.

2. The need for Computer Literacy

With the various roles of computers in the development of a country, there have been calls everywhere in Indonesia to educate the population to cope with computer literacy. There is a growing concerns everywhere, including in IAIN Lhokseumawe, that computer literacy - people know how to use information technology - would be the main agenda of informal and formal education that needs to be achieved. In big cities, private agents have already offered informal courses and trainings on this subject since few years back. Even though to some extent, IAIN Malikussaleh are not able to

provide hardware infrastructures for learning process of information technology and challenged to subsidy some programs on this subject, however the man power who has same degree of computer literacy must be prepared. Another focus is on the technology and information.

The students want computer literacy skills in order to become competitive in their upcoming careers and give them ease in their day-to-day activities. Computers become indispensable tools to the students from making their assignments, writing research papers, helping in their studies, learning new information to making new friends from around the globe. The different computer skills that students want include the need of word processing programs to make various types of invitations, make reports, format documents and write resumes.

Computer literacy is needed to gain insights and abilities on the complexities of life, especially in finding a lucrative job. In this way, the students are much prepared when they finished their studies and start their real job. Attractive and eye bulging reports are created using presentation software such as Microsoft Power Point. These students should know this ability properly to present their propositions, so it would spell a difference between good and not.

In classes involving mathematical problems, the students must learn spreadsheets, data entry and related subjects. The latest trend among the students is the use of the internet. Hundreds of tools are available to students to allow them unlimited use of their creativity. Through the computers, the students learn to surf to their favorite websites, make the required reports at a shorter period, learn and explore new trends and developments with ease.

Among the students' favorites are chat rooms, games, blogs and other interactive sites. Free downloads are also available such as music, software, skills training and others. Through the internet, the students are freed from spending so much money in purchasing their favorite music and movies, as well as in gaining knowledge in tradecraft and other profitable skills.

Computer literacy skills are very much needed in properly navigating the internet to browse the sites that they need. Lack of the necessary skills and know how would make the students land on sites that are not suited and deplorable. The good news is that thousands of jobs could be accessed through the internet. These jobs include data entry, web and logo design, computer programming and so on. Landing on high paying jobs require the needed knowledge and skills in computers and computer applications. Of course, this knowledge could be acquired through formal education, but to the freelancers, learning through the internet is profitable and worthwhile. One word of caution, having learned some computer literacy skills could make a student a useful citizen by applying what he knows for his personal and career growth within the bounds of the law. But it could also be used to advance personal interests out of greed such as creating viruses and programs contrary to law. The latter must be avoided.

3. The Skills and Knowledge Required

It is not clear what knowledge and skills students required to use hardware and software. Some educators claim that the students do not need to know anything about computer to use them. He points to the need for knowledge in case of the occurrence of hardware and software problems and more importantly to realize the power of machine. Mead feels that it is

important to have a notion for the underlying reality to make full and confident in using computer. The students need exposure to a variety computer system and application.

4. Attitude Required

Loyd (1986) (as cited in Gokalp, 2011) said that students should have positive attitudes toward the use of computer so they can enjoy and value the use of computer. In addition, it will increase confidence in using computer and be free from anxiety. Age and gender should be consider in relation to students' attitudes toward computer as some researchers found that male have more positive attitude toward computer. Furthermore, experiences and learning about computers are also affecting the attitudes toward computer.

METHODOLOGY

Sampling Procedure

Sample is a subgroup of the target population that researcher plans to study for generalizing about the target population. Sample is a technique or a method to find the representative sample of population. The population of IAIN Malikussaleh students' is large enough to do sampling method, where not all students of IAIN Malikussaleh will be involved in gathering the data. Purposive sampling will be used in choosing the samples to gather the data in this research. The number of population is more than 400. However, this study will take 60 respondents based on the calculator of sample size with level of confident is 90 % and alpha level 10%.

Instrument of Study

Instrumentation is a method for collecting data by giving some questions to respondents to get some data and information. This study will

use the survey design as this is a popular design in education. The data or information based on report or knowledge or opinion of respondents in questionnaire. This technique is employed to get the opinion of computer literacy among IAIN Malikussaleh students' in general. The result of questionnaire will appear in the form of table, statistical analysis and description of research. Therefore, the quantity of data analysis is based on the result of questionnaire. The primary method used in this study is quantitative.

According to Fitzpatrick, Sanders, and Worthen (as cited in Du, Y. & Wayne State University, 2004), survey is "one of the most important data collection tools available in evaluation" (p.341). This aspect of the research was concerned with assessing the computer literacy among IAIN Malikussaleh students' associated with attitude toward computer. With quantitative research, it will allow a researcher to analyze social reality using variables, and it generates numerical data to represent the social environment (Gall et al., 1996). There is only one part of instrument validation is used in this research, it is face validity.

The instrument of this research divided into three, which is personal profile and computing background, computing skills and knowledge, and attitude toward computers. Originally, this questionnaire has four chapters, which added with Training needs. Moreover, in this research only used three parts of the questionnaire. The questionnaire adapted from study done by Siti Zaiton (1988) and Hairati (1997). Section A describes about the students demographic background, meanwhile in Section B is about computing skills and knowledge, and in Section C about students attitude toward computer.

Research Framework

Demographic Information

The questionnaire gathered demographic information on respondents' gender, age, level of study, computer experience, and duration of engage in computer activities in a day.

Scale Instrument

This instrument is self-administered and comprises of a 17-item questionnaire that is designed to identify the level of computer literacy among IAIN Malikussaleh students'. Five questions are assigned for hardware skills, 7 questions for using application software, and five questions for attitudes toward computer. Each question is recorded using a 5-point likert scale.

FINDINGS AND DISCUSSION

Introduction

This section is aimed to answer the research questions mentioned in section one. The section presents the results of the data analysis collected from 60 students of IAIN Malikussaleh students' from various semesters. The section starts with presenting the results of demographic variables and follows other statistical analysis.

Data collected were analysed using SPSS Computer Software Version 18.0. Descriptive and other statistical analyses were conducted. Descriptive data were initially analysed to find the frequency for the demographic variables. Tests were conducted to identify significant differences regarding computer literacy among IAIN Malikussaleh students'.

Demographic Findings

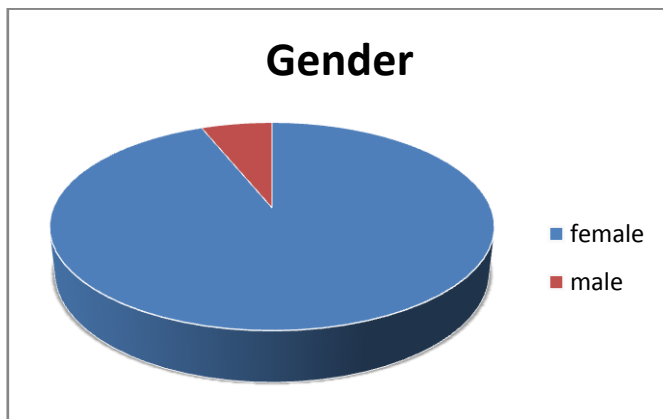
Data from the survey were first analysed to ascertain the frequency and distribution of gender, age group, level of study, computer experience and duration in engaging in computer activities every day. The figures below provide a snapshot of the demographic profile of the samples. The 60 samples were selected purposively from IAIN Malikussaleh students'.

Gender

In terms of gender distribution, 49 of the participants are female while 11 are male. Gender distribution across the cohort saw 49 female students (81.6%) and 11 male students (18,3%) participated in the study (See figure 1.1)

Figure 1.1

The Distribution Of Gender Among The Respondents.



Age

There are two groups had been chosen. The first group is below 20 years old, there are 45 respondents (75%), second group is above 20 years old, there are 15 respondents (25%).The frequency distribution of ages across the sample is shown in table 1.2.

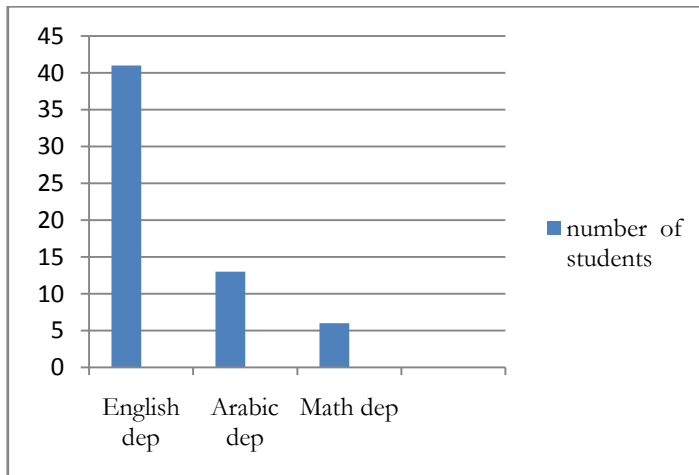
Table 1.2
The Distribution of Age Group among Respondents

Age (years)	Number of respondents	Percentage
<20	45	75%
>20	15	25%

Students' Department

Students' department distribution across the sample was relatively not uniformly spread (see figure 1.3). There were 41 respondents at English department and 13 respondents at Arabic department, and only 6 respondents from Math department (see figure 1.3) and there is no respondent from other departments. It can be concluded that the biggest number of samples responded in this study are from the English department students' (78,3%) with the least from the Math department (21,6 %).

Figure 1.3
Distribution of department of study among the respondent



Computer experience

The computer experience among the age groups showed that the group above 20 years old had the highest mean which is 3,51. It indicated that the older groups used computer earlier than the younger one. In contrast, the group below 20 years old is only 3,46 in term of mean. This explained that there is only slight different in terms of computer experience among the age groups. Furthermore, in term of level of departments displayed that the students in English department had highest computer experience (3,53) compared to arabic department (3,44) and math department students (3,46).

Hours in Engaging Computer Activities Every Day

Hour in engaging in computer activities showed that the students in English department (3,85) used computer longer than Arabic department students (3,38). It because of English department students' had more assignment finished using computer. From the whole sample, most of students (80%) are engaging in computer activities more than 3 hours in a day, meanwhile only 6,66% of them used computer between 1-2 hours in a day, then the rest only 13,3% who used computers with duration between 2-3 hours in a day. Furthermore, there is no student who use computer less than 1 hour. To make this clear, see the table below.

Table 1.4
Number of hours in engaging in computer activities per day.

Number of hours engage in computer activities	Percentage
< 1 hour	0
1-2 hours	6,6%
2-3 Hours	13,3%

>3 hours	80%
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Research Question Number One, two, and three.

The level of IAIN Malikussaleh students' in mastering computer skills described in the table below. Statistics was used to compute the mean score of the computer skills among IAIN Malikussaleh students'. From the computation it can be seen that the level of IAIN Malikussaleh students' computer skills applied was 4.306 of mean from the highest score of 5 with standard deviation 0.82624 in general. However, the IAIN Malikussaleh students' attitude toward computer is quite low as the mean is 2.88 with 0.54393 of standard deviation. Furthermore, the IAIN Malikussaleh students' ability in using and utilizing software is 4,1884 with standard deviation of 0.9065. This number indicated that IAIN Malikussaleh students' level of computer skill is above average. English and Arabic department students possess quite similar ability or skill in term of computer literacy.

Respondent attitude toward computer

Basically, there are ten statement measuring students' attitudes toward computers. However, for this research the writer only used 7 items related to attitudes. For each statement the responses were coded 1 for strongly disagree and 5 for strongly agree. Overwhelmingly, IAIN Malikussaleh students' have neutral attitude toward the computers as the mean for this attitude is 2,88 of 0.54393 standard deviation. This indicates that even though IAIN Malikussaleh students' have good knowledge on computer and software, their attitude toward computer is not really positive.

CONCLUSION

Assessing IAIN Malikussaleh students' computing skills and knowledge, such as using software application, awareness about the different hardware components, and technical problems of computer, the respondents generally have good computer skills and knowledge. Their computer skills are quite high. The most notable result of this result is the respondents' attitude toward computer. The respondents who possess good computer skills should have positive attitude toward computer. This finding about attitude are contrary to the theory of instructional technology which is evidenced by many studies that students who has better computer skills and knowledge have more positive attitude toward computer. However, the IAIN Malikussaleh students' attitude toward computer is average.

SUGESTIONS

IAIN Malikussaleh should encourage students to internalize the use of technology in their campus activities not only limited to the using of e-mail and power point or windows program, but also encourage the students in using computer based learning and teaching to improve the students attitude toward computer in the instructional practices.

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