

Identifying the Issues of Digital Literacy Skills of Undergraduate Students in Universitas Negeri Padang in Applying Internet as Online Learning Resource

Dedi Supendra, Septriyana Anugrah, Fitri Maiziani
 Educational Technology, Faculty of Education,
 Universitas Negeri Padang
dedi.supendra@fip.unp.ac.id

Abstract-Engaging with online learning materials and resources have been common activities undertaken by undergraduate students in discovering knowledge and in particular situation, assisting them doing their assignments. However, there are some problems emerged during this process so that it cannot reach the maximum learning outcome. This study aims to identify the issues of digital literacy skills encountered by the students of Universitas Negeri Padang in the learning process. This research applies qualitative method with observation and interview session. 50 students of the Introduction to Education course (Dasar-dasar Ilmu Pendidikan) are observed to identify how they conduct their assignment using online learning resource and three of them are invited randomly to join the interview process. From the data collected, it is found that most of the students have basic digital literacy skills such as operating technological devices, browsing, and compiling the information online. However, some students are indicated to have some issues with more comprehensive digital skills in searching online learning materials, such as selecting the appropriate keywords for specific learning topics, finding the trustworthy website, integrating online materials with relevant learning context.

Keywords: digital literacy, digital literacy skills, digital literacy issues, online learning materials

I. INTRODUCTION

The development of various types of technology nowadays has a significant impact on changes in the dynamics of education. The learning process and its system must gradually integrate digital tools into the learning environment as needed. This integration aims to simplify and streamline the learning process and maximize the potential and learning objectives to be achieved. Related to this, the application of technological devices in learning has been applied to various levels of education, such as elementary schools, junior and senior high schools, and universities.

Since the emergence of the World Wide Web in 1980 by Sir Tim Berners-lee, the Internet can no longer be separated in modern learning systems. The internet as a product of digital innovation has become one of the trends of learning today, such as e-learning, e-assessment, etc. The internet has been integrated into the learning process of students both in the classroom and in the classroom (Alvermann, 2008; Honan, 2008; Labbo, 2006; Veen & Ben, 2006). There are various functions of the Internet that can be used to support the achievement of learning goals, such as the internet as a learning media, the internet as a learning resource, and others. The internet has also been integrated into the process of delivering material, as well as giving assignments to students.

The internet as a learning resource means that the Internet provides a variety of information and knowledge that can be accessed by anyone, anytime and anywhere. Through the internet, the references obtained by students are more diverse and wider than if they only rely on printed-books. Not only that, the search for knowledge on the Internet is more effective than having to look for information on printed books (Lukasiewicz, 2007). However, in fact, not all information published on the Internet can be justified (Pow

and Li, 2015). Everyone with a different background and level of education can disseminate the desired information through websites or personal blogs. Plus, there are many websites that are made to spread fake information. Although, there are also experts in certain fields to publish the results of research and thought on the Internet. This then raises confusion from information seekers including students to find the right and valid information according to the learner's needs. Combes (2009a, 2009b) found that students have less knowledge when finding online information for academic personal interactions such as online communication, entertainment, etc. This is a challenge and problem for students to access and utilize online resources for academic needs (Kinley, Tjondronegoro & Partridge, 2010).

This phenomenon is getting crucial because it will affect the quality of learning outcomes for students at the university (Ogbuiyi, Ogbuiyi, Oriogu, 2014). Therefore, it is necessary to study the emerging issues related to digital literacy skills of students in Universitas Negeri Padang in applying the internet as an online learning resource. Digital literacy skills not only relate to one's ability to operate digital technology, but also the mastery in choosing the right way to get information that fits their needs. Skills in finding the right knowledge online right have a positive influence on improving the quality of academic activities, including critical thinking and problem solving (Joo & Choi, 2015, Chavez, 1997). By knowing the problems regarding digital literacy skills students use the internet as a learning resource, especially in finding information that is relevant to learning needs, it is expected that there will be an advanced program to develop students' digital literacy skills to the critical digital literacy level so that learning objectives can be maximally achieved.

II. METHODS

This study uses qualitative methods by making questionnaires, observation, and interviews to collect data. The population of this study was 50 students who took the Basic Education subject in the January - June 2019 semester. Three students were asked randomly to take part in the interview session. In the initial stages, students are asked to make a paper on topics that are in accordance with the syllabus using references from printed books and sources from the internet. After all assignments have been collected, the researcher checks the suitability of the contents of the paper with the references used. In line with that, researchers also distributed surveys related to students' engagement with digital devices. Interview sessions were carried out to find out the process of making the paper and what obstacles were found in the process of finding information that was relevant to the topic to be discussed and linking these activities to the digital literacy skills they had. Interviews are conducted individually in a duration of about 15-30 minutes per student. The data collected was then analyzed in a descriptive qualitative.

III. FINDINGS AND DISCUSSION

The survey is the first method applied in this study to generally find out the 50 students' engagement and experiences with digital devices, such as a computer, laptop, and handphone which are tools to search online information and internet activities. The data can be seen from the table below:

Table 1. Students' engagement and experiences with digital devices

| Questions | Responses | |
|---|------------------------|--------------------------|
| Are you a computer literate | Yes (N = 50) | No (n = 0) |
| Have you got computer training? | Yes (N = 9) | No (n = 41) |
| How long you have engaged with internet | < 1 year (n = 0) | > 1 year (n = 50) |
| Do you access the internet every day? | Yes (n = 50) | No (n = 0) |
| Do you have email account | Yes (n = 47) | No (n = 3) |
| Do you have, at least, one kind of social media? | Yes (n = 50) | No (n = 0) |
| Do you have a personal website? | Yes (n = 4) | No (n = 46) |
| Do you search for information on the Internet for educational purposes? | Yes (n = 50) | No (n = 0) |
| Do you use a search engine or official website the first time you search for information? | Search engine (n = 50) | Official website (n = 0) |

From the table above, it can be seen that all the participants extremely engage with digital technologies. Generally, they have experienced with the Internet for more than one year. Even though, only

20 % of them who have learned computer skills on the course or training, but the data showed that they are frequently active on social media, online entertainment, and searching for information on the Internet.

Furthermore, the total number of essays submitted by the students were 50 essays. From those assignments, it can be found in various components of digital literacy skills in searching, sorting, and finding online information cited in their essays. Generally, they have performed good basic literacy skills, such as writing their essays in Microsoft Word properly. Most of the students' essays use references from the internet. This can be seen from the link shown in the bibliography, both ebook, and e-journal. However, the website chosen is not in accordance with the context of the material requested, such as a personal blog from another student. Some selected websites do not show credibility in terms of content or authors. Some students use Wikipedia.

The issue of online plagiarism is also seen here. Most of the students only move the writing on the website into their duties, regardless of the correct citation rules. Along with this, students do not understand the management of writing in essays, so that the sign of copy-paste can be clearly seen in their essays, both in terms of differences in language used, font type, font size, and font color. For example, the color of the writing letters from the website will turn blue when copied into Microsoft office and students are not aware of this.

Based on interviews with three students of the Introduction to education course, all students answered that they were used to using technological tools such as mobile phones, laptops, and computers from junior high school with a duration of 2-4 hours per day. Moreover, since becoming a student, the quantity has increased along with the number of tasks that must be completed from the subjects - courses taken in that semester. At the very least, they use digital technology to make paper assignments, reports. Student 1 said that almost every day using digital devices (laptops, computers, or cellphones) both for typing assignments, social media, and entertainment needs, reading news online, and looking for information for lecture needs.

Regarding the ability to find relevant information to learning needs and lecture assignments, all interviewees also stated that the references used were also taken from the internet because it was easier and faster to find the information expected. They use an average search engine and type in the keywords they want. However, the complaint that they often encounter is, as expressed by student 2, there is some scientific articles or journals that cannot be downloaded and accessed. "I know to look for articles on Google Scholar, but not all the articles there can be downloaded. So lazy to search further" (Student 2). This causes them to use more websites that can be accessed, which have an impact on the level of reliability of the information used for these tasks.

Once they were asked about the issue of online plagiarism emerged when they just put all the materials without referencing, citing, or paraphrasing them properly, one of them said they did not know about that while the other two answered, "I had no much time to think about that. We have many assignment and deadlines."

IV. DISCUSSION

Digital literacy is a relatively current notion in Indonesia which comes along with the advent of digital technology including wave in every daily basis of human activities. In the learning context, there are many activities engage with the Internet. It is common that students nowadays used to apply the Internet to accomplish their assignments. Prensky (2001) stated that people who have born after 1985 are called digital native which means that they have exposed to technologies since they were a child. This characteristic influences how they learn something. Students are not keen on printed-book and tend to rely on the Internet to find whatever information they want.

However, understanding how to operate digital technologies does not mean they also understand how to utilize them properly. In the case of searching online information for educational purposes, students still have some critical issues which can bring to more serious learning problems. For example, identifying appropriate and relevant information for a certain topic. Frequently, students only rely on one link and copy the content to their essay, rather than exploring several more links to collect more comprehensive data. According to Harter and Cheng (1996), it is students' cognitive level which causes troubles to novice

students to search for information properly on the Internet. Beside, Nwokendi (2007) stated that the positive impact of the Internet is concealed because of the lack of searching skills of the users.

V. CONCLUSIONS

From the explanation above, it can be concluded that most of the undergraduate students studied in this research have a close relationship with digital technologies including Internet with sufficient basic digital literacy skills, such as operating computer, laptop, or handphone. However, there have been some issues appeared once it comes to more critical activities on the Internet, specifically to find and sort online information and materials for academic purposes. Many students cannot put appropriate keywords to obtain relevant knowledge with the learning context. In addition, they also have an issue with online plagiarism, just because they do not have time to cite properly or too lazy to cite properly.

References

- Alvermann, D. E. (2008). Why bother theorizing adolescents' online literacies for classroom practice and research? *Journal of Adolescent and Adult Literacy*, 52(1), 8-19.
- Chavez, C. (1997) "Students take Flight with Daedalus: Learning Spanish in a Networked Classroom". *Foreign Language Annals*, 30(1):27-37
- Combes, B. (2009a). Digital natives or digital refugees? Why we have failed Gen Y? Paper presented at the 38th Annual Conference of the International Association of School Librarianship: Preparing students for the future. Padua, Italy.
- Combes, B. (2009b). Generation Y: Are they really digital natives or more like digital refugees? *Synergy*, 7(1), 9. <http://www.slav.schools.net.au/synergy/vol7num1/coombes.pdf>
- Harter, S. P., & Cheng, Y. R. (1996). Colinked descriptors: Improving vocabulary selection for end-user searching. *Journal of the American Society for Information Science*, 47(4), 311-325.
- Honan, E. (2008). Barriers to teachers using digital texts in literacy classrooms. *Literacy*, 42(1), 36-43.
- Joo, S., & Choi, N. (2015). Factors affecting undergraduates' selection of online library resources in academic tasks: Usefulness, ease-of-use, resource quality, and individual differences. *Library Hi Tech*, 33(2).
- Kinley, K., Tjondronegoro, D., & Partridge, H. (2010). Web searching interaction model based on user cognitive styles. In *Proceedings of the 22nd conference of the computer-human interaction, Special Interest Group of Australia on Computer-Human Interaction* (pp. 340-343).
- Labbo, L. D. (2006). Literacy pedagogy and computer technologies: Towards solving the puzzle of current and future classroom practices. *Australian Journal of Language and Literacy*, 29(3), 199-210. <http://www.alea.edu.au/sitecontent/publications/documents/ajll/Labbo.pdf>
- Lukasiewicz, A. (2007) Exploring the Role of Digital Academic Libraries. *Library Review*, 56(9): 821-827
- Nwokedi V. C. (2007) Impact of Internet use on teaching and research activities of the academic staff of faculty of medical sciences, University of Jos: A case study. *Gateway Library Journal*, 10(1): 13-22.
- Ogbuiyi, C. O, Ogbuiyi, Oriogu, S. U., C. D. (2014). Influence of Computer Literacy Skill and Online Searching on Undergraduates' Use of Academic Materials in Babcock University Library. *Journal of Humanities and Social Science (IOSR-JHSS)* Volume 19, PP 49-53
- Premsky, M. (2001). Digital natives, digital immigrants, part 1. *On the horizon*, 9(5), 1-6.
- Veen, W. & Ben, V. (2006). *Homo sapiens: Growing up in the digital age*. London: Network Continuum.