The Effect of Digital Literacy on Language Ability in Higher Education: Experience From a Developing Country

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The digital literacy abilities of several developing countries are already promising. Indonesia is one of them. In fact, in the industrial revolution 4.0 era, students are agents of change to have good digital literacy skills in facing multidimensional challenges and prospects in the future. This research itself focuses on the influence of the existence of digital literacy on Indonesian language skills. Ten Respondents of Institut Technology of Sepuluh Nopember 2021 Urban and Regional Planning Students were sampled to prove this through quantitative research using survey methods and user tests. Respondents with a high duration of using social media to represent digital literacy show high Indonesian language proficiency test results. Meanwhile, respondents with a reasonable period of social media use showed more volatile results due to the influence of several other variables. Overall, a high level of digital literacy can improve one's Indonesian language skills. From this, it can be seen that digital literacy among students is critical in the future, especially in enhancing their Indonesian language skills.

Keywords: digital literacy, language skills, higher education

INTRODUCTION

In the era of the industrial revolution 4.0, the development of science and technology is getting faster and more sophisticated, so good quality and competent human resources are needed, especially in the technology field. Students as the next generation grow up in the era of cyber or digital ecosystems, where there are no boundaries between continents, including language. Pramoedya Ananta, one of the world's leading writers, once said that "without learning their language, people will not know their nation." Based on this, language becomes essential to analyze the massive digitalization to design the next step.

In this article, we will take Indonesia as a case study because there is a need for mapping students' digital and language skills in developing countries (Hashemi, 2018). Indonesia, as a developing country, its people have not been able to use technology appropriately and properly (W Manusubroto, AS Wicaksono, 2020). There are still many people who can only receive information without understanding and managing

the data. So that people tend to swallow the information obtained raw. Therefore, good information technology skills must support by excellent language and digital literacy skills (Son, Jeong-Bae; Park, Sang-Soon; Park, 2017), which also happens among students. Although most students can operate gadgets, it does not mean they have good digital literacy skills. The rise of plagiarism cases that occur (Jereb E, Perc M, Lämmlein B, Jerebic J, Urh M, Podbregar I, 2018)in Indonesia carried out by students is one proof that these students do not have good language skills.

According to a survey conducted by the Katadata Insight Center (KIC) and the Ministry of Communication and Information (Kominfo) regarding Indonesia's digital literacy in 2021, the Indonesian digital literacy index is on a scale of 3.49 from an index of 0-5 scale (Katadata, 2021). That shows Indonesia's digital literacy skills are still in the medium category. Based on internet world stats data, Indonesia is the 3rd largest internet user in Asia, with a total of 212.35 million users (Internetworldstats, 2022). Comparing the two data shows that many Indonesian people know about technology and the internet, but the literacy skills of the Indonesian people are not good. Students must have good digital literacy skills because they are generation Z who understand technology compared to generations above or below (Pangrazio, 2020). Students with good digital literacy skills will select and understand important information and can convey these ideas to the digital world. Therefore, digital literacy skills can determine student success.

There have been many definitions of "digital literacy" put forward by experts. In Gilster's classic book, digital literacy is the ability to understand and use information in various formats that come from sources presented via computers (Giltser, 1997). The term undergoes specialization and expansion of meaning. The latest definition by Hobbs argues that digital literacy is a constellation of knowledge, skills, and competencies needed to thrive in a technology-dominated culture (Hobbs, 2017). Several studies related to digital literacy have been carried out. Hary Harjono concluded that the flexibility offered by digital literacy in the context of language learning could improve one's language skills (Soedarto, 2018). The term also refers to knowing how to act safely and responsibly when surfing online. Aydin's research shows that the language skills of students in Turkey are high in English compared to Turkish, and this is due to the high digital literacy of the younger generation (Aydin, Erkan, Erol, 2021)

Both studies show a relationship between digital literacy and language skills. In this article, we will take Indonesia and university students at the Sepuluh Nopember Institute of Technology as a measure of student ability in developing countries in ASEAN, which has not been widely used. This article looks at the influence of digital literacy on the Indonesian language skills of Urban and Regional Planning students at the Sepuluh Nopember Institute of Technology. In addition, does digital literacy have a negative impact, or does it have a positive side in developing their Indonesian language skills?

LITERATURE REVIEW

Research conducted by authors of scientific articles takes references from previous research. This research is a continuation of the study carried out by (Soedarto, 2018) under the title "Digital Literacy: Prospects and Implications in Language Learning." This research is a qualitative research technique of literature study. The results of this study show that the flexibility offered by digital literacy in the context of language learning can provide multidimensional prospects for improving one's language skills.

The rapid development of technology indirectly forces everyone to adapt and shift the direction from conventional elements to everything digital-based in every way, including literacy (Alakrash & Razak, 2021). In the perspective of its definition, digital literacy is a constellation of relationships between the knowledge, skills, and competencies of a person who has an essential urgency in responding to challenges from a layer of life dominated by technology (McMillan, 2021)

The existence of digital literacy in the scope of education turns out to influence one's language skills. In this case, excellent and practical language skills will certainly make it easy for someone to express what they want to convey. So, the writer wants to share will be in harmony with what is understood by the reader or listener (Lyotard, 2000).

Regarding good language skills, a person's ability to speak Indonesian today has urgent attention that cannot be ignored. As a benchmark for Indonesian language proficiency, various Indonesian language proficiency tests have now been developed according to standards, including listening, speaking, reading, and writing. Through the assessment of this Indonesian language proficiency test correlated with measuring the intensity of a person's use of social media as a picture of digital literacy, we know whether the existence of digital literacy does positively influence improving one's language skills or not.

METHOD

The research method used is a quantitative research method with user tests and survey methods. Quantitative research is a process of finding the knowledge by using data in the form of numbers to analyze information about what you want to know. The user test method was carried out on ten samples consisting of 10 Institut Technology of Sepuluh Nopember Urban and Regional Planning students batch 2021 by holding a language class trial at the end of the session. There was an Indonesian language proficiency test using four assessment indicators: the ability to read, write, speak, and listen.

The survey method used in this study is a primary data collection method by giving several questions to respondents according to existing targets/criteria (Creswell, 2013). The survey was conducted using a questionnaire made using the Google Form media; in other words, the survey was conducted online. The distribution of the Google Form link was carried out either by distributing it directly to 10 research respondents. The researcher uses a survey method to quantitatively describe a specific population's tendencies, attitudes, and opinions. At the same time, the reason for using the Google Form media is the need for data variation and the ease of link distribution so that the target range of respondents can be more precise and accurate. The aspects of the questions posed in this study are the respondents' tendencies in terms of Indonesian language skills, respondents' opinions regarding existing problems, and respondents' opinions regarding solutions to existing problems. This study consists of two independent variables (X) and the dependent variable (Y). The time recapitulation of the use of social media is the independent variable (X), and the results of the Indonesian language proficiency test are the dependent variable (Y)

The data for this research is the Indonesian language proficiency test results and the time of using social media for students of the 2021 batch of the Department of Urban and Regional Planning, Sepuluh Nopember Institute of Technology. The data sources in this study were ten students of the 2021 batch of the Department of Urban and Regional Planning.

RESULT AND DISCUSSION

The authors conducted the Indonesian Language Proficiency Test to determine the effect of digital literacy on the Indonesian language skills of PWK 2021 students. Based on the results of the tests carried out on March 16, 2022, which were carried out by supporting four assessment indicators, namely the ability to read, write, speak, and listen, there were 4 out of 10 samples that obtained results in the excellent category. The rest got results in the good category. The types used are values 0-45, included in the less category, 46-80 in the good variety, and 81-100 in the excellent category. Based on the data analysis, the independent variable values (the results of the Indonesian language proficiency test) were obtained from the respondents. Namely, the lowest score was 60, and the highest value was 93.5.

TABLE 1
INDONESIAN LANGUAGE PROFICIENCY TEST RESULTS

No.	Name	Listening	Speaking	Reading	Writing	Average	Category
1.	Student 1	100	72	70	70	78.5	Average
2.	Student 2	100	84	100	90	93.5	Good
3.	Student 3	60	80	50	50	60	Average
4.	Student 4	60	76	100	80	79	Average
5.	Student 5	80	72	50	70	68	Average
6.	Student 6	70	80	70	50	67.5	Average
7.	Student 7	90	80	80	100	87.5	Good
8.	Student 8	80	92	90	80	85.5	Good
9.	Student 9	90	80	80	90	85	Good
10.	Student 10	90	64	100	50	76	Average

Note: The white table represents the good category, while the orange table represents the moderate category.

Table 1 shows that Dina Kartika Audya Rachma obtained an average of 93.5 of the four indicators assessed, which is included in the good category. Likewise, respondents named Student 1, student 2, student 3, and student four obtained an average of 87.5, 85.5, and 85, so all of these respondents were included in the good category. In addition to the respondents already mentioned, they all obtained an average score of less than 80, so they are included in the good category.

TABLE 2
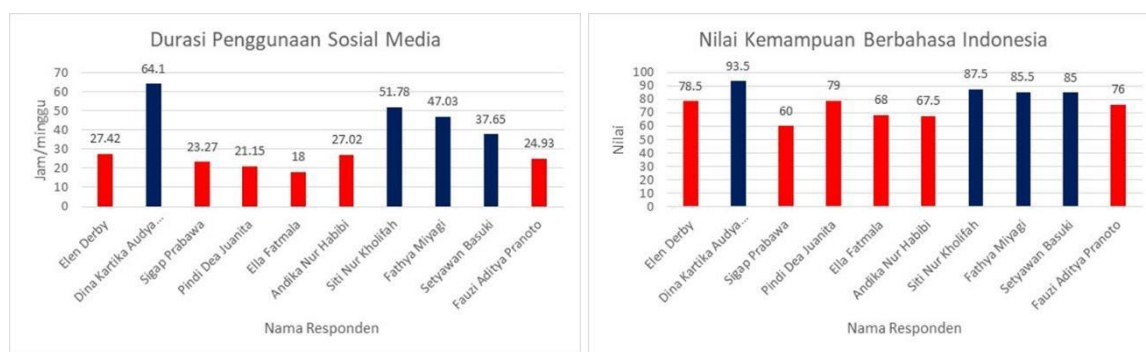**RECAPITULATION OF SOCIAL MEDIA USAGE TIME FOR ONE WEEK**
(31 MARCH-6 APRIL 2022)

No.	Nama	Whatsapp	Instagram	Twitter	YouTube	Total/Week
1	Student 1	9j,53m	15j	1j9m	1j 8m	27j25m
2	Student 2	54j	6j7m	8m	3j51m	64j06m
3	Student 3	15,1m	1j,48m	20m	4j62m	23j16m
4	Student 4	9j	0j	5j15m	6j54m	21j9m
5	Student 5	14j48m	60m	0j	3j31m	18j
6	Student 6	20j3m	4j,9m	0j	1j,22m	27j1m
7	Student 7	35j11m	11j5m	1j55m	3j36m	51j47m
8	Student 8	18j4m	16j7m	7j33m	5j18m	47j2m
9	Student 9	21j1m	5j17m	10j16m	1j5m	37j39m
10	Student 10	17j30m	28m	3j25m	3j33m	24j56m

Note: The white table represents the duration of use in the high category, while the orange table represents the duration of service in the medium type.

In addition, the authors also assessed the Indonesian language skills by using the duration of the use of social media to the respondents to see the effect of the use of social media on the Indonesian language skills of each individual. In this study, the authors used several social media platforms as assessment indicators. The platforms chosen by the author are considered the platforms most often used among students, including WhatsApp, Instagram, Twitter, and Youtube. From the table above, it can be seen that respondents who are in the good category on the results of the Indonesian language proficiency test tend to use social media for a long time compared to respondents who are in the good category. For respondents, student eight uses social media for a total of 47 hours and 2 minutes per week. Also, respondents named student 9, student 7, and student two who use social media relatively high times per week, with a total time of 37 hours 39

minutes, 51 hours 47 minutes, and 64 hours respectively. 6 minutes. Meanwhile, respondents who fall into the good category only use social media for less than 35 hours per week or an average of under 5 hours per day.

FIGURE 1
THE RELATIONSHIP BETWEEN THE RESULTS OF THE RECAPITULATION OF THE USE OF SOCIAL MEDIA FOR ONE WEEK WITH THE SCORE OF THE RESULTS OF THE INDONESIAN LANGUAGE PROFICIENCY TEST

Note: The blue diagram is a good category, while the red chart is a good category.

The graph of the relationship between the results of the recapitulation of the use of social media for one week with the Indonesian language proficiency test results scores shows that four respondents fall into the good category. Student two, with a score of 93.5, has a total duration of social media use of 64 hours 6 minutes per week. Student seven, with a value of 87.5, has an entire period of social media use of 51 hours 47 minutes per week; student eight, with a value of 85.5, has a total duration of social media use of 47 hours 2 minutes per week. Student nine with a value of 85 has an entire period of social media use of 37 hours 39 minutes per week. Based on the data results, the higher the intensity of the use of social media (as an indicator of digital literacy), the higher the score obtained during the Indonesian language proficiency test. This shows that digital literacy affects increasing respondents' Indonesian language skills. Therefore, based on this research, the results obtained by the author follow the theory from the literature review used, namely the analysis of Hary Harjono (2018) with the title "Digital Literacy: Prospects and Implications in Language Learning." According to the study, the flexibility offered by digital literacy in language learning can provide multidimensional prospects for improving one's language skills.

Meanwhile, there are six respondents on the graph of the relationship between the results of the recapitulation of social media use for one week with the Indonesian language proficiency test results that fall into the excellent category. Student one with a value of 78.5 has a total duration of social media use of 27 hours 25 minutes per week, student three with a value of 60 has an entire period of social media use of 23 hours 16 minutes per week, student four with a value of 79 has the total duration of social media use is 21 hours 9 minutes per week. Student five, with a score of 68, has a full-time social media use of 18 hours per week; student six, with a value of 67.5, has an entire period of social media use of 27 hours 2 minutes per week. Student ten with a score of 76 has a total duration of use of social media of 24 hours 56 minutes per week. Based on the data results in the excellent category, the comparison of scores between respondent one and the respondent is more volatile than the results in the superb category. When the author confirmed that the respondents were in a suitable variety, on average, they mentioned the cause because there were other factors during the Indonesian language proficiency test, such as lack of concentration and network constraints, causing the results to be less than optimal.

In addition to conducting a Language Proficiency Test, the authors also distributed questionnaires to strengthen the research results. All respondents answered that they are familiar with digital literacy, which is considered to have an effective influence in improving Indonesian language skills.

FIGURE 2
RESULTS OF RESPONDENTS' KNOWLEDGE OF DIGITAL LITERACY

FIGURE 3
RESULTS OF RESPONDENTS' VIEWS ON THE EFFECT OF DIGITAL LITERACY ON INDONESIAN LANGUAGE ABILITY

Based on the survey results, respondents explained that there were several benefits obtained after implementing digital literacy, including increasing the ability to be more critical in thinking and understanding information, increasing vocabulary mastery from various sources of data read, improving

productivity in utilizing available time, increasing capacity in using digital devices. It is easier and faster in terms of obtaining and knowing the information needed as well as the latest, as well as improving language skills following established linguistic rules.

At the end of the questionnaire that the author distributes, the author asks respondents' opinions about what solutions can offer in optimizing the digital literacy culture to improve each individual's Indonesian language skills. Most of them stated that optimizing digital literacy culture towards improving Indonesian language skills could be achieved by increasing awareness of the importance of digital literacy in each individual. Another solution presented is using social media as a medium of socialization by creating exciting content in the presentation of reading and literacy materials and developing digital applications so that people are interested in learning to use Indonesian properly and correctly.

CONCLUSION

Through the research, the authors can conclude that digital literacy positively influences Indonesian language skills in Urban and Regional Planning students, Institut Technology of Sepuluh Nopember 2021. From these results, respondents who get good category results have a relatively high duration of social media use. Where the use of social media represents the quantity of the respondent's application of digital literacy, other respondents obtained results in the moderate category with an intermediate duration of social media use with a fluctuating value range. From this, we know that respondents who have resulted in good categories tend to have a high intensity of applying digital literacy per the theory put forward (Soedarto, 2018). speak Indonesian in multidimensional prospects.

In addition, in this study, there are also deficiencies in the weakness of the assessment of other variables, which causes fluctuating results in respondents who get good scores. Suggestions for further research regarding the causes of fluctuations in Indonesian language proficiency test results must consider other variables that affect the final test results to obtain credible results.

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