

STUDENTS' PERCEPTION OF DIGITIZING LEARNING MATERIALS: READINESS AND CHALLENGES

Oleh:

Afifah Nisfatul Laila¹⁾, Oikurema Purwati²⁾, Syafi'ul Anam³⁾

^{1,2,3}Universitas Negeri Surabaya

¹afifah.20032@mhs.unesa.ac.id

²oikuremapurwati@unesa.ac.id

³syafiul.anam@unesa.ac.id

Abstrak

Penelitian ini bertujuan untuk menggambarkan kesiapan siswa dan tantangan terkait materi pembelajaran digital. Jenis penelitian yang dipergunakan adalah deskriptif melalui pendekatan kualitatif. Teknik pengumpulan data pada penelitian ini menggunakan observasi dan wawancara. Observasi dilakukan untuk mengetahui dan mengukur kesiapan siswa dalam menerima materi pembelajaran digital dan mengakomodir tantangan yang mereka hadapi dalam menerima materi pembelajaran digital. Sedangkan wawancara dipergunakan untuk memperkuat data yang belum ada. Persepsi sebagian besar peserta didik terkait materi pembelajaran digital dari sudut pandang kesiapan dan tantangan sebagai berikut: sebagian besar respondent menyatakan bahwa mereka siap dalam menerima materi pembelajaran secara digital. Sedangkan tantangan yang dialami oleh respondent yaitu terkait kepemilikan smartphones, sumber digital yang kurang memadai, serta keberagaman latar belakang respondent.

Kata Kunci: persepsi peserta didik, materi pembelajaran digital, kesiapan belajar, tantangan peserta didik

1. INTRODUCTION

Digital and emerging technology have impacted how we learn, live, get information, and access services and goods (Soomro et al., 2018). Talebian et al. define that people in today's information world must access information to keep up with the latest information and communication technologies (ICTs) and the most recent news (2014). The fast uptake of Internet-based services, wireless technology, and the blending of hitherto disparate ICTs like rapid socio-economic development is aided by broadcasting, computing, and communication. The country's electronic and developing technology development has also had an impact. Kwapong identified digital learning as a means of delivering higher education to the unreached and opening up education to a sizable number of individuals (2009).

There is a point of confluence between digitization, ICTs, and distance education. Learning, information, and communication technology have been increasingly inextricably linked during the last two decades. ICT is a product of digitization and is the primary tool for delivering teaching and learning. The definition of the term "digitalization" has undergone various iterations. Digitalization (of study materials), according to Witten and David (2003), is transforming print-based resources such as books and papers into electronic form, where they may be modified and stored by computers. According to Lovasz (2014), a system that handles a collection of digital information resources can be referred to as material digitization.

According to Fabunmi (2006), digitization is converting materials from physical copies to electronic versions. However, it's important to note that digitalization encompasses more than just scanning; movies, music files, images, portal document format (pdf), and word processing formats are also included in the fundamental data conversion from catalogue cards or paper to digital format. The existence of digitization has drawn people, claim Peter and Deimann (2013).

In this sense, digitization is the act of transferring existing hardcopy learning procedures and materials to digital formats and making them available online. As opposed to that, E-learning refers to the use of digital or Internet-based methods for teaching and learning.

Learners must be digitally digital instructional resources that are ready to use. Several studies have looked at digital preparedness through various lenses and perspectives.

Digital readiness, consists of two essential parts, according to Dawn (2017): digital citizenship and literacy. Heitin (2017) defines digital literacy as the ability to use technology for information access and evaluation, the creation of digital content, and information sharing. Digital citizenship, on the other hand, refers to Ribble's standards of appropriate and responsible technological use (2017). Digital readiness, or e-preparedness, is defined by van Zyl et al. (2013) as the ability of students to use ICT and eLearning in their studies, including how to access, evaluate, and adapt online resources for learning. Miglani and Awadhiya (2017) assessed teachers' readiness to engage with technology based on

technological device availability (device readiness) and skills (skills readiness) to use the devices in a study on the readiness and perception of teachers on mobile learning in an Open University in Asia. The device's internet connectivity and appropriate screen size were also considered under technological availability.

On the other hand, skills preparedness was measured using mobile phone activities. According to the report, 86 per cent of people had access to technical equipment that could connect to the internet. Using Pew Research Centre survey findings, The attitudes and behaviors that support people's comfort and readiness with using digital resources for learning were explored by Horrigan (2016). Five key elements were taken into consideration to assess the respondent's digital readiness: (1) comfort with technology use; (2) technical aptitude; (3) use of digital tools for learning; (4) capacity to assess the validity of online material; and (5) knowledge with current "education tech" phrases. The results showed that those who expressed a greater degree of preparation for using technology in the classroom also scored higher on IQ tests than the average.

According to Miglani and Awadhiya, the definition of preparedness utilized in this study was "the availability of capabilities and resources to conduct a given activity that needs specialized skills and infrastructure" (2017). As a result, the authors investigated 1) distance students' access to digital technologies, 2) distance students' access to the internet, and 3) whether or not distance students' digital devices had internet capabilities. The ability to execute a certain task requiring specialized skills and infrastructure, particularly with regard to digital tools, was described in this study as a student's preparedness.

In contrast to their developed counterparts, many issues have been recognized as obstacles to the adoption and deployment of technology in developing countries. In many industrialized nations, problems like poor internet connectivity and a lack of access to digital devices are not considered to be big problems, but in developing countries, they are. For instance, Mwakyusa and Mwalyagile (2016) conducted an empirical assessment of Tanzania's technology adoption hurdles. The poll found that the biggest barriers to technology adoption in higher education institutions were a lack of technological infrastructures, such as a shortage of computers, insufficient internet speed, and poor ICT proficiency. Esterhuysen and Scholtz (2015) categorized the problems in an exploratory study undertaken in South Africa to identify barriers to eLearning implementation in organizations into four categories: assistance, social interaction, personal, and external factors. People's resistance and lack of interest in using an e-learning system were mentioned as particular difficulties. Emotional issues are more likely to arise from e-learning participants

than from the system. The absence of connection amongst learners produces frustrations, as does the instructor's incapacity to provide the necessary help to learners. To reduce the impact of these issues on the successful use of digital content, they must be identified and controlled.

The obstacles that learners are expected to experience when using digitized learning resources were investigated in this study. Students access to digital materials may be limited due to these problems.

As a result, the following questions are crucial to this research:

- How are the students' readiness in receiving digital learning materials?
- What are the students' challenges in using digital learning materials?

2. RESEARCH METHODS

This study's qualitative research design uses descriptive data to guide the study's execution. According to Creswell & Creswell (2018), qualitative inquiry can be both inductive and exploratory. As the study's written conclusion, it investigates and comprehends the significance of specific people or groups in light of how the researcher interprets the goal of the data.

According to Moleong (2008), qualitative research aims to grasp the phenomenon experienced by the study subject, such as behaviour, perception, motivation, act, and many others, by descriptively employing words and language in a natural and scientific setting. According to Mackey and Gass (2005), qualitative researchers seek to investigate persons in their natural environments.

According to Creswell (2008), research participants are people who are thought to be able to give detailed information on the study's problems provided to the researcher. The participants in this study were a single class from a Gresik private junior high school.

All students were pseudonyms and selected for particular reasons. Closed-ended and open-ended questionnaires were used to collect data. The questionnaire was created using Google Forms and was divided into two sections. The first section intended to learn about the pupils' names, genders, grades, and ages. The second section was designed to assess students' readiness for digital learning materials and their obstacles in receiving them.

It also performed a virtual interview as a follow-up to delve deeper into students' responses to the open-ended survey. WhatsApp was used to get in touch with each participant. The data was acquired in January 2022, and its purpose is to stop the spread of Covid-19. The data gathered from the closed-ended items were analyzed using descriptive statistics.

3. RESULTS AND DISCUSSIONS

1. Students' readiness to use digital learning materials

The overview of the respondents' demographic traits is shown in Table 1.

Table 1: Demographic Profile of the Respondents

Variable	Category	Frequency
Age		14,6
Gender	Male	14
	Female	12
Grade Level	Eighth	8
	Ninth	18

Respondents questioned their readiness to employ digital learning materials and how much they prepared to do so. They must choose from the following stages: (1) Not ready; (2) extremely ready. Following is how the scores were interpreted: The students' readiness was shown by the lowest possible score of 1, which is a poor response, and the maximum possible score of 3, which indicates an extreme positive readiness to use digital learning materials. In Table 2, the breakdown is displayed.

Table 2: Students' Readiness to Use Digital Learning Materials

Grade level	Extent of readiness	
	Not Ready	Extremely Ready
Eighth	3 (37,5%)	5 (62,5%)
Ninth	4 (22,2%)	14 (77,8%)
Total (N=26)	7 (26,9%)	19 (73,1%)

The table indicates that more than 50% respondents (19, 73,1%) were ready to use digital learning materials. It was made up from 5 respondents of eighth grade level and 14 respondents of ninth grade level.

According to the respondents' self-efficacies, the majority of students (more than 70%) said They were prepared to use the online teaching resources. Self-efficacy affects people's decisions on what to do, according to literature, how much effort they will make and how long they will maintain that effort when coping with stressful conditions (Bandura as cited in Wu and Tsia, 2006). As a result, the respondents' expectations and one's perception of confidence of adopting digital learning materials are a sign of the respondents' readiness for this study (Wu and Tsia, 2006).

This tends to imply that most respondents' favourable responses on their preparedness to employ digital learning resources are crucial and serve as a positive and essential benchmark for the institution to develop and implement a new learning system successfully. The respondents' comfort with technology use may be one factor that helps explain the high readiness levels. This finding is consistent with the South African study by van Zyl et al. (2013). The survey concluded that most of the students who participated were e-ready since 65.5 % of them found it simple to type exams on a computer. Nearly 71% felt at ease using computers.

2. Students' challenges to use digital learning materials

Students also draw attention to the difficulty and complexity of taking it into account when acquiring digital learning resources. For example, the following challenges could be addressed using the data collected:

3. Smartphone Ownership and Lack of Digital Resources

Not all the respondents or students have their smartphones. Thus, some students who do have not had own smartphones will get difficulty receiving digital learning materials. Especially when they all day long did not use their smartphones. Some use their brothers' and parents' smartphones while accessing digital learning materials. Automatically, it can get them in trouble if the teacher gives an assignment digitally because they could not access it. Even they did not know about the work.

Furthermore, digital resources are adequate. This condition makes students will be ignored and less motivated to learn. The extract can be drawn as follows:

S4: I usually use my brother's smartphone. So, I sometimes did not know if there was an assignment.

S8: only my father who has smartphone in my family. I asked my father if there was an assignment or not. I hope school can provide laptop or computer, so the students who do not have own smartphone also can follow the materials well.

S12: There is no time for learning digital resources. Usually I waste the time for playing games

This challenge seems to be contrary to students' use of digital technologies, sets the stage and establishes the foundation for the deployment of a technology-enhanced learning environment. Additionally, this allows students to study at a convenient time and place for them (Awadhiya et al., 2014). Therefore, the students expect the institution to provide computers or laptops for teaching-learning.

It will probably be simpler for students to access the information they need at a proper time. The most important contribution of ICT to the twenty-first century, according to Ozdamar Keskin et al. (2015), continues to be 24/7 access to information in the quickest manner feasible. Therefore, using digital technology in the digital age has become a crucial requirement for every society when considering the advantages of digital resources.

1) The Diverse Students in the Heterogeneous Classroom

The students are different and come from various backgrounds, in addition to the unfairness issue relating to the learner's capacity. The implementation of digital learning resources thus becomes difficult for the teachers. The data taken is as follows:

S1: my parents are busy. I learn by myself.

S5: My mom only allowed me holding smartphone after studying.

S6: I get trouble while doing the assignment. There is no one can help me.

The second difficulty is managing a diverse group of students in a heterogeneous classroom. Due to the low competence of some pupils in the class, it is challenging for teachers to assess whether digital learning resources can be practical or not. According to Planas Lladó et al. (2014), students typically have varying levels of comprehension regarding assessing, which might be reduced in several ways.

4. CONCLUSION

This study discovered secondary students' perspectives on the readiness and difficulties of digital learning resources. It has been investigated using the accounts of the 26 students who responded to the questionnaire and a virtual interview. In brief, it can be summarized that the students are ready to use digital learning materials in the classroom. Meanwhile, the challenges are related to smartphone ownership, lack of digital resources and the diversity of students at the school.

The study's present limitation is the small sample size, which prevents the generalizability of the findings. It only looks into how secondary EFL students feel about using digital learning tools in the classroom. Therefore, additional research can involve a larger sample size of participants from diverse institutions and levels.

5. REFERENCES

- Awadhiya, A. K., Miglani, A., & Gowthaman, K. (2014). ICT usage by distance learners in India. *TurkishOnline Journal of Distance Education*, 15(3), 242–253.
- Creswell, John W., and J. Davi. Creswell. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Fifth. Los Angeles: SAGE.
- Dawn, L. (2017). Online, blended and technology-enhanced learning: Tools to facilitate community collegestudent success in the digitally-driven workplace. *Contemporary Issues in Education Research – Fourth Quarter 2017.*, 10(4), 255–262.
- Esterhuysen, M., & Scholtz, B. (2015). Barriers to e-Learning in a Developing Country: An Explorative Study. Proceedings of the 9th IDIA Conference, IDIA2015, 354–367.
- Fabunmi, A. B., Paris, M., & Fabunmi, M. (2006). Digitization of library resource: Challenges and implications for policy and planning. *International Journal of African & African American Studies*, 5(2), 23–36.
- Heitin, L. (2017). What is digital literacy? *Education Week*, 36(12), 5–6. Retrieved from <http://www.edweek.org/ew/articles/2016/11/09/what-is-digital-literacy.html>
- Horrigan, J. B. (2016). Digital Readiness Gaps. Pew Research Centre. Retrieved from: <https://www.pewinternet.org/2016/09/20/digital-readiness-gaps/>
- Kwapong, O. (2009). Comparing knowledge and usage of ICT among male and female distance learners of an endowed and deprived area in a developing country in Africa. *Journal of Information Technology Education*, 8, 1–17.
- Miglani, A., & Awadhiya, A. K. (2017). Mobile learning: Readiness and perceptions of teachers of open universities of commonwealth Asia. *Journal of Learning and Development – JLAD*, 4(1), 58–71.
- Mwakyusa, W. P., & Mwalyagile, N. V. (2016). Impediments of E-learning adoption in higher learning institutions of Tanzania: An empirical review. *Journal of Education and Practice*, 7(30), 152–160.
- Özdamar Keskin, N., Özata, F. Z., Banar, K., & Royle, K. (2015). Examining digital literacy competences and learning habits of open and distance learners. *Contemporary Educational Technology*, 6(1), 74–90.
- Planas Lladó, Anna, Lúcia Feliu Soley, Rosa Maria Fruaguell Sansbelló, Gerard Arbat Pujolras, Joan Pujol Planella, Núria Roura-Pascual, Joan Josep Suñol Martínez, and Lino Montoro Moreno. 2014. "Student Perceptions of Peer Assessment: An Interdisciplinary Study." *Assessment and Evaluation in Higher Education* 39(5):592–610. doi: 10.1080/02602938.2013.860077.
- Peter, S., & Deimann, M. (2013). On the role of openness in education: A historical reconstruction. *Open Praxis*, 5(1), 7–14. Retrieved from: <https://openpraxis.org/index.php/OpenPraxis/article/view/23/8>
- Ribble, M. (2017). Digital Citizenship: Using Technology Appropriately. Digital Citizenship Institute. Retrieved from: <http://www.digitalcitizenship.net/nine-elements.html>
- Soomro, K. A., Kale, U., Curtis, R., Akcaoglu, M., & Bernstein, M. (2018). Development of an instrument to measure Faculty's information and

- communication technology access (FICTA). *Education and Information Technologies*, 23(1), 253–269. <https://doi.org/10.1007/s10639-017-9599-9>.
- Talebian, S., Mohammadi, H. M., & Rezvanfar, A. (2014). Information and communication technology (ICT) in higher education: Advantages, disadvantages, conveniences and limitations of applying E-learning to agricultural students in Iran. *Procedia - Social and Behavioral Sciences*, 152, 300–305. <https://doi.org/10.1016/j.sbspro.2014.09.199>.
- van Zyl, M. J., Els, C. J., & Blignaut, A. S. (2013). Development of ODL in a newly industrialized country according to face - to - face contact, ICT, and E- readiness. *The International Review of Research in Open and Distance Learning*, 14(1), 1–22.
- Witten, I., & David, B. (2003). *How to build a digital library*. London: Morgan Kaufman Publishers.
- Wu, Y.-T., & Tsia, C.-C. (2006). University students' internet attitudes and internet self-efficacy: A study at three universities in Taiwan. *Cyberpsychology & Behavior*, 9(4), 441–452.
- Wu, Y.-T., & Tsia, C.-C. (2006). University students' internet attitudes and internet self-efficacy: A study at three universities in Taiwan. *Cyberpsychology & Behavior*, 9(4), 441–452. Pub