

Implementation of Digital Literacy in the Learning Module in Class VI Primary School

Suprihati^{1*}, Utaminingsih, Sri² & Suad³

^{1,2,3}Faculty of Teacher Training and Education, Universitas Muria Kudus, INDONESIA

*Corresponding author email: suprihpepehh@gmail.com

Received: 15 August 2022; Revised: 29 August 2022; Accepted: 31 August 2022; Available online: 21 September 2022

Abstract: This study analyses the need for digital literacy and its application in thematic learning modules for grade VI elementary schools. This research method is descriptive and qualitative. Data collection was carried out through observation, interviews and documentation study. The data collected in the study were analysed through data analysis, data reduction, and conclusion. Meanwhile, the credibility test was carried out by triangulation, discussion with peers, and negative case analysis. The study results found that the need for digital literacy in thematic learning for grade VI elementary schools has not been maximally implemented. Therefore, a digital literacy-based thematic learning module for grade VI elementary schools is needed.

Keywords: Digital Literacy, Thematic Learning Module

1. Introduction

The 2013 curriculum is a curriculum that integrates abilities, themes, concepts, and topics in a single discipline, contains several fields and contains several lessons. Regulation of the Minister of Education and Culture number 67 of 2013 concerning the Basic Framework and Structure of the Elementary School or Islamic Elementary School Curriculum explains that the 2013 curriculum was developed with a refinement of the mindset that teacher-centred learning patterns become learner-centred learning and passive learning patterns become active-seeking learning. In the 2013 curriculum, it is hoped that 21st-century learning can be implemented. This is to respond to the increasingly competitive demands of an era. Students are required to have the ability to face the 21st century, namely being able to find out from various sources, think critically analytically, work together and collaborate in solving problems (Sudirtha, Widiartini & Anggendari, 2021). The 21st century is a digital age.

21st-century learning implies that students are allowed to explore various learning information and complete learning tasks via the internet network. Nurjanah, Rusmana, & Yanto (2017) states that the ability to understand and use data in multiple formats from various digital sources displayed through computers is called digital literacy. Digital media presents learning materials in a contextual, engaging, and interactive manner (Harun et al., 2021). The digital era is expected to encourage students to take advantage of digital literacy in accessing up-to-date educational information that is critical in responding to communication.

The ease of accessing various information via the internet resulted in students being less selective in choosing the information sources to be used. Therefore, we need a literacy pattern. A literacy pattern is a form or structure carried out continuously by a group of people in a series of lessons starting from receiving, reading and creating (Numertayasa, Suardana & Adiwijaya, 2020). Students are equipped with digital literacy skills to extract information wisely. Teachers can take advantage of digital developments in learning, whose purpose is to increase motivation and the quality of education. One of them is being able to develop digital-based games (Zaenap & Utaminingsih, 2021).

The application of digital literacy is still rarely implemented in learning in elementary schools (Masyhura & Ramadan, 2022). On average, teachers and students only use printed teaching materials that are readily available in the teaching and learning process. Meanwhile, the thematic teaching materials currently used in grade VI elementary schools still have limited material. This causes limited information and knowledge that students have. Therefore, it is necessary to apply digital literacy in thematic learning in grade VI elementary schools. Teaching materials occupy an essential component in increasing student understanding. The use of exciting teaching materials can help increase student motivation in learning. Teachers are expected to be able to develop exciting teaching materials according to the level of student development, one of which is by utilising technology (Widarwati & Utaminingsih, 2021). Based on the review above, it is necessary to implement digital literacy in the thematic learning process in grade VI elementary schools.

2. Methodology

This research method is descriptive and qualitative. data collection technique in this development research using observation, questionnaire (questionnaire), and documentation. The data collected in this study were analysed through data analysis, data reduction, and conclusion. The credibility test is done by triangulation, peer discussion, and negative case analysis.

3. Results and Discussion

3.1 Need Analysis of the Digital Literacy

Analysis of digital literacy needs was carried out through interviews with several grade VI teachers in the Nusantara cluster, Karanganyar sub-district, Demak district. Based on the results of the interview, it can be obtained information that the thematic books used in daily learning still have some shortcomings. The material in the teacher's book is minimal because it only contains a summary of the answers to the questions in the student book. In contrast, the material in the student book is inadequate, so the knowledge and experience of the students are minimal. Therefore, it is necessary to develop learning materials for teachers and students. According to Liza & Andriyanti (2020), the application of digital literacy for the development of learning materials can provide students with experiences about digital technology culture and support students to expand their knowledge critically in participating in learning.

Thematic books contain process skills that must be mastered by students in learning but do not contain questions on the knowledge aspect due to time constraints. Therefore, assignments and competency test questions can be given via the internet. Many teachers prefer traditional teaching methods in learning, such as lectures, question and answer with students, note-taking, and teacher-centred learning. If this is allowed to continue, students will experience verbalism and get bored because they just imagine what the teacher reads or talks about. Digital literacy will help students understand the outside world. Learners can access sources of knowledge and information in various formats and modes, such as video, audio, or animation. So that will eliminate verbalism. Digital literacy makes learning more fun (Martin, 2008).

3.2 Application of Digital Literacy in Thematic Learning Module Class VI Elementary Schools

Concerning the description above, it can be concluded that teachers and students require additional learning resources that are attractive and provide convenience in achieving goals. The development of digital literacy-based modules in thematic learning for grade VI elementary schools is the solution. According to one of its characteristics, this module is adaptive (El Bachari, Abdelwahed, & El Adnani, 2010). The module should have high adaptive power to scientific and technological developments and be flexible.

Modules are a form of teaching material that is packaged comprehensively and systematically, which contains a set of learning experiences that are planned and designed to help students master specific learning goals (Hončík & Tomiczková, 2019). The same thing is stated by Dewinta et al. (2021) that the module is a teaching material arranged systematically in language that is easily understood by students and according to the level of knowledge and age of the student so that students can learn independently with minimal assistance or guidance from educators. A module is a complete unit that stands alone and consists of a series of learning activities designed to help students achieve a number of specific and formulated goals (Matanluk et al., 2013).

Applying digital literacy-based modules in thematic learning give students opportunities to use digital technology. Digital literacy integrated with thematic learning modules is provided as assignments, considering that digital facilities and infrastructure in primary schools are still minimal. One of the main obstacles in implementing digital literacy is internet network access, digital technology equipment and skills to use it (Sepasgozar & Davis, 2019). Giving assignments and competency test questions that can be accessed via the internet will encourage students to be active and creative.

The following is the concept of digital literacy action in the thematic learning module of grade VI elementary schools, as follows:

- a) Integrate digital literacy during syllabus analysis to describe learning indicators in the module
- b) Integrating digital literacy in the formulation of learning objectives. Make questions about the assignment of aspects of knowledge or skills and make applications for competency test questions on a google form. Students can work on the questions by accessing the link address provided by the teacher.
- c) Integrate digital literacy-based activities to develop limited thematic learning materials and create material summaries from information on the internet.
- d) Establish digital literacy-based activities as assignments at the end of learning activities and competency test questions at the end of each sub-theme. The assignment at the end of the learning activity is adjusted to the goal. Competency test questions can be accessed via google form with the link address contained in the module.
- e) Students carry out digital literacy activities to work on assignment questions for aspects of knowledge or skills and make applications for competency test questions on Google Forms. Students can work on the questions by accessing

the link address provided by the teacher.

- f) Forming groups to give assignments, communicate, and display student works online.

Digital literacy includes five aspects, namely information literacy, computer literacy, media literacy, communication literacy, visual literacy, and technological literacy (Gamire & Pearson, 2006).

Table 1: Implementation of Digital Literacy in Thematic Learning Modules

No.	Aspects of Digital Literacy	Dimensions	Implementation
1.	Information Literacy	Skills to find, access, interpret, analyse, manage, create, communicate, and think critically of any information.	Students find and access information to develop learning materials or make summaries.
2.	Computer Literacy	The ability to use computers to create, communicate, and collaborate in certain communities.	Students take ICT lessons and can operate computers used to do assignments.
3.	Media Literacy	Media Literacy Skills in applying digital media, emphasising understanding, selecting, evaluating, and using media.	Students use cell phones and laptops connected to the internet to complete learning tasks; communicate using digital media, and display assignments.
4.	Communication Literacy	Communication literacy. The ability to create ideas from various information	Students make works/products and are included in the class group WA
5.	Visual Literacy	Visual Literacy The ability to understand, construct, communicate, and think critically from various visual information representations.	Students submit online assignments; submit project reports.
6.	Technology Literacy	Technology Literacy The ability to use and determine technology effectively. complete competency test questions via google form	Students can complete competency test questions via google form.

This implementation must be integrated with learning activities in the digital literacy-based thematic learning module. The implementation of digital literacy in thematic learning modules is expected to support 21st-century skills, including 1) critical, through various information obtained from the internet, students can think critically in solving learning problems, 2) communication, students can understand what is being learned and are trained to produce creative ideas and communicate these ideas in the learning process, 3) collaborating, the student can collaborate with other students in sharing knowledge, information, and experiences through digital media, 4) creative, students are more creative in completing assignments because of the large amount of experience they have to produce quality work.

4. Conclusion

Based on the results and discussion described above, it can be concluded that the need for digital literacy in thematic learning in grade VI primary schools is not optimal. Therefore, a digital literacy-based thematic learning module is needed that integrates digital activities in the learning process. Based on the above conclusions, the suggestions that can be given in this study are that teachers should be able to apply digital literacy in designing learning by developing digital literacy-based modules.

Acknowledgement

The authors would like to thank fellow authors and organizations whose intellectual properties were utilized for this study.

Conflict of Interest

The authors declare no conflicts of interest.

References

- Dewinta, A., Nur, F., Sri, S., Imaniar, P., & Tahira, A. Z. (2021). Development of Teaching Material Local Wisdom-Based" Pati" in Elementary School. *Asian Pendidikan*, 1(2), 59-64. <https://doi.org/10.53797/aspen.v1i2.10.2021>.
- El Bachari, E., Abdelwahed, E., & El Adnani, M. (2010). Design of an adaptive e-learning model based on learner's personality. *Ubiquitous Computing and Communication Journal*, 5(3), 1-8.
- Gamire, E., & Pearson, G. (Eds.). (2006). *Tech tally: Approaches to assessing technological literacy*. Island Press.
- Harun, F., Suparman., Hairun, Y., Machmud, T., & Alhaddad, I. (2021). Improving Students' Mathematical Communication Skills through Interactive Online Learning Media Design. *Journal of Technology and Humanities*, 2(2), 17-23. <https://doi.org/10.53797/jthkss.v2i2.3.2021>.
- Honzík, L., & Tomiczková, S. (2019). Preparation of digital educational resources on solving motion word problems in the thematic module Mathematics and its application in the project Support for the development of digital literacy. In *ICERI2019 Proceedings* (pp. 1494-1503). IATED.
- Liza, K., & Andriyanti, E. (2020). Digital Literacy Scale of English Pre-Service Teachers and Their Perceived Readiness toward the Application of Digital Technologies. *Journal of Education and Learning (EduLearn)*, 14(1), 74-79.
- Martin, A. (2008). Digital Literacy and the "Digital. *Digital literacies: Concepts, policies and practices*, 30, 151.
- Masyhura, N., & Ramadan, Z. H. (2021). Implementation of digital literacy in elementary schools. *International Journal of Elementary Education*, 5(4), 639–647. <https://doi.org/10.23887/ijee.v5i4.39480>.
- Matanluk, O., Mohammad, B., Kiflee, D. N. A., & Imbug, M. (2013). The effectiveness of using teaching module based on radical constructivism toward students learning process. *Procedia-Social and Behavioral Sciences*, 90, 607-615.
- Numertayasa, I. W., Suardana, I. P. O., & Adiwijaya, P. A. (2020, December). The Effect of Literacy Pattern and Mother Tongue on the Language Learning Ability during Learning from Home. In *4th International Conference on Language, Literature, Culture, and Education (ICOLLITE 2020)* (pp. 310-315). Atlantis Press.
- Nurjanah, E., Rusmana, A., & Yanto, A. (2017). Hubungan literasi digital dengan kualitas penggunaan e-resources. *Lentera Pustaka: Jurnal Kajian Ilmu Perpustakaan, Informasi Dan Kearsipan*, 3(2), 117-140.
- Sepasgozar, S. M., & Davis, S. (2019). Digital construction technology and job-site equipment demonstration: Modelling relationship strategies for technology adoption. *Buildings*, 9(7), 158.
- Sudirtha, I. G., Widiartini, N. K. & Anggendari, M. D. (2021). Development of 21st century skill learning designs through the application of the concept of independent learning in the vocational field. *Journal of Physics: Conference Series*, 1810(1), 012062. <https://doi.org/10.1088/1742-6596/1810/1/012062>.
- Zaenap, S., & Utaminingsih, S. (2021, March). Media Technology Takontikasi Games Based on Realistic Mathematics. In *Journal of Physics: Conference Series* (Vol. 1823, No. 1, p. 012090). IOP Publishing.
- Widarwati, D., & Utaminingsih, S. (2021, March). STEAM (Science Technology Engineering Art Mathematic) Based Module for Building Student Soft Skill. In *Journal of Physics: Conference Series* (Vol. 1823, No. 1, p. 012106). IOP Publishing.