The Role of Digital Books in Learning from Home During the Covid Pandemic of Low Grade Students in Elementary Schools

1st Umi Khomsiyatun[1], 2nd Andayani[2], 3rd Sarwiji Suwandi[3], 4th Atikah Anindyarini[4]

{umikh2017@gmail.com[1], bu_anda09@yahoo.co.id.[2], sarwijiswan@yahoo.com[3], atikahanindyarini@gmail.com[4] }

Universitas Sebelas Maret & State Islamic University Prof. K.H. Saifuddin Zuhri Purwokerto, Central Java, Indonesia[1], Sebelas Maret University, Central Java, Indonesia[234]

Abstract. Digital books in the learning process from home become an important solution in the process of distributing knowledge to students. This happens because learning activities from home require a good collaboration between teachers, students, parents, and teaching materials used in transferring knowledge to students. Through learning activities using this digital book, understanding the concept of student learning materials can develop from the level of understanding to the level of achievement. The purpose of this study was to find out the role of the use of digital books on the learning achievement of low-grade students in elementary schools during the learning process from home. The results detect mapping the role of digital books for students in the learning process and the impact of using digital books on student achievement.

Keywords: The Role of Digital Books, Learning, Achievment, Student, Elementary Schools

1 Introduction

Digital technology is an important component in society. The development of digital technology has a very important role in restructuring the world of education [19]. Simon & Garcia Belmar explained that technological developments have provided innovations in realigning learning and learning methods after the covid pandemic. It is undeniable that the COVID-19 pandemic has become a momentum that changes all orders of life, such as the closure of educational institutions [1][2][3][12][25]. This condition becomes a bad thing in the process of receiving knowledge to students.

Restructuring or realigning the learning process needs to be done by the school. One of the restructuring that has begun to be carried out in the world of education, especially in Indonesia and other countries, is to conduct distance learning. Distance learning is one of the adjustments made by various countries in the world of education [15]. Distance learning is seen as a suitable

adjustment to re-stabilize the process of transferring knowledge to students. Distance learning is essentially online learning [20]. Distance learning in the midst of a pandemic is in the spotlight. This situation has an impact on the perception that online learning is an emergency [21].

However, apart from the negative impact of distance learning, it has a significant positive impact on the growth of innovation and creativity of teachers in providing learning to students. Thus, the goal of distance learning is to facilitate the learning process effectively and efficiently [5]. Distance learning can be done anywhere and anytime. Apart from the flexibility of time and place during the distance learning process, this situation requires teachers to be able to provide facilities that can facilitate students in learning by utilizing technology [26].This Word document can be used as a template for papers to be published in EAI Core Proceedings. Follow the text for further instructions on text formating, tables, figures, citations and references.

Weishberg [20] said that digital technology can be used for social interaction, recreation, communication and in the world of education; namely for learning and teaching. Education is seen as the most affected field in modern technology. One of the effects can be seen from the emergence of several modern learning methods that create e-learning platforms [24]. Online learning or e-learning is known as an education system centered on digital software. Thus, information can be relatively easily obtained in an efficient time. In addition, the use of online learning or e-learning can improve the quality of learning [1][10].

In his research, Alsalhi said that e-learning is claimed as a model for using digital books to improve students' ability to analyze data, facts and knowledge compared to contextual learning [1]. The use of digital books as a solution to meet the needs of students. Although, at the present time digital books may not be fully accepted and considered by all circles of society as a digital educational format tool [17]. Wong et al [23] showed that digital books can be effective in providing participation in motivating teaching and learning to students carried out by teachers.

Learning using digital books in elementary schools is interesting to study. One of the reasons is that there are many factors that influence the success of e-learning [4]. Learning using digital books is a new phenomenon in the learning process for students [7]. In Indonesia, the use of digital books as a medium for textbooks is increasingly being discussed after the pandemic [22]. Although there are many pros and cons to the use of digital books in learning, however, the use of digital books has a significant role in influencing students' learning.

According to previous studies, there is a difference between electronic learning in the transition period and electronic learning by making careful preparation in advance [6]. Digital books are a new thing. Especially for students in areas that have access to technological developments that are not fast. Mastery of technology is also important for channeling knowledge to students in giving an impact on how the role of digital books in the learning process.

Therefore, it is necessary to study how the role of digital books for students in elementary schools in distance learning is carried out during the pandemic. Especially for students who sit in lower grades.

Researchers are well aware that all novelties certainly have an impact. Therefore, in this article, we will discuss the role produced by digital books for low-grade students in the distance learning process. So, it can be conceptualized the roles of digital books in the world of education.

2 Research Method

The research scenario was carried out by observing five students from several learning activities from five different schools, namely: Karangsari State Elementary School, State Elementary School 2 Karanggintung, State Elementary School 3 Bangsa, Madrasah Ibtidaiyah Negeri 3 Karangklesem, Madrasah Ibtidaiyah State 1 Karangpucung. The five students who became the research subjects were students from grades 1 to 3. The method used in this study was descriptive qualitative, namely a method that reveals, understands, and finds something behind unknown phenomena so as to provide more complex details [13], namely the phenomenon of the role of digital books in distance learning for lower grade elementary school students.

The description in the study aims to describe, explain, and find contextual learning phenomena for the learning activities studied. Data collection techniques were carried out by observation, in-depth interviews, and documentation. In-depth interviews were chosen because they are more flexible and open so that they allow researchers to obtain as much data as possible, complete, and specific [13]. The interview was intended to explore how the digital book plays a role for students in the distance learning process. Informants in this study were students. Documents are used to display data that has not been obtained in order to facilitate description. The documents used are photos that describe the learning process using digital books. While observations were made on the practices of distance learning activities carried out by teachers.

In this study used data analysis techniques in the form of interactive analysis. This model consists of three components, namely: (1) Data reduction, focusing, selecting, and simplifying data to obtain the main findings, namely finding important data regarding the role of digital books for students. (2) Data presentation, compiling and presenting data so that it is easy to understand and understand. (3) Drawing conclusions/verification, interpretation and interpretation of the data so that meaning is found to be the findings in the study.

3 Results and Discussion

Digital books in the learning process from home become an important solution in the process of distributing knowledge to students. This happens because learning from home requires collaboration between teachers, students, parents, and teaching materials used in transferring knowledge to students. Through learning activities using this digital book, understanding the concept of student learning materials can develop from the level of understanding to the level of achievement. This research focuses on the activities of the role of digital books in distance learning for lower grade students in elementary schools as an effort to discover concepts of the role of digital books in education. Especially for students.

Based on the focus of the research, it was found that there were five substances that conceptualized the findings made by the researcher. First, build material sustainability; Second, Empowering context; Third, Creating Student Edutainment, Fourth, Motivation for Learning, and Fifth, Creating Practical Learning. The five substance of the findings in this study are described as follows;

3.1. Build Material Sustainability

One of the impacts of e-learning is that the learning material is not fully conveyed. As a result, the objectives that have been planned in learning cannot be achieved. Of course this is something that cannot be denied by various educational units from various regions in Indonesia.

E-learning is learning that is new and comes suddenly. So it is necessary to find a way that is able to balance the achievement of various goals within the constraints of space, time, data sources or other educational structures. This balance in life is often a trap that keeps us doing all the 'good things' that keep us busy with minimal effect. We do not have clear priorities and achieve optimal impact. In the end, the method is indeed a "trade off" option [18].

In this context, digital books play a role as sustainability of materials that should be delivered by direct learning to students. So, even though learning is done during the pandemic using online learning, the material that should be given to students can still be given.

Digital books make the process of student learning and teaching for teachers more transparent through communication channels. So that it can provide consistent feedback to students. Digital books used during the pandemic process require the use of various assessment processes. Learning assessment which was initially only based on student results, is now an assessment carried out during learning, namely the process.

The findings in this study illustrate that the implementation of distance learning with digital books can build the sustainability of learning materials. Although, learning is now limited by distance and time, by using digital books, although limited materials can be delivered.

3.2. Empowering Context

The learning process is divided into three sub-indicators, namely interactions, assignments, and teaching materials. These three things are things that teachers prepare in online-based learning. Teachers need to ensure that interactions occur, adequate teaching materials and evaluation through assignments [16].

The criteria for this learning process are independent learning and student understanding. The use of digital books in the distance learning process can involve and collaborate between students, teachers, parents and families. Involvement between students, teachers, parents or families is an important resource that contributes to the achievement of learning objectives. The contribution of parents or family during distance learning creates opportunities to transfer experience and knowledge directly to students.

This is what is meant by achieving the empowerment of contexts from different places and times of students into a collaboration to create educational goals.

3.3. Creating Student Entertainment

As people who have passed the level of education, we often forget that students learn at this time and in this place. Internal motivation to learn will only appear if what is learned is meaningful, involves children, is fun, relates and relates to current life. Therefore, this is one of

the most important tasks of how the learning process can be a fun internal motivation for students.

Of course, e-learning learning by utilizing digital books can indirectly create student entertainment and reduce student boredom. It is undeniable that e-learning causes a lot of boredom. Based on research conducted on five students by conducting interviews, the researchers obtained findings showing that the level of boredom that many students experienced was when delivering material through lectures by the teacher (The interview was conducted on October 18, 2021 at 15.30 WIB to informants.)[1]

This is certainly in line with the research conducted by Lin et al. [11], Puspaningtyas & Dewi, [16], and Pavlovic et al. [14] which states that many students also find it difficult when learning without direct guidance from the teacher. So, many students have the perception that online learning is something that is boring and burdensome for them. Therefore, it is certainly deemed necessary to rearrange the formulation of material delivery to students. One of them is by using digital books.

It is undeniable that the learning process during a pandemic requires all sectors to transform towards digital. Both the process and the material. The learning process that occurs during the pandemic season [8]. The use of digital books as materials used by teachers in providing material to students is done by providing soft files of books to students through the learning platform used.

Through observations, interviews and data collection of documentation conducted by researchers to informants, it is shown that digitally formatted learning books are fun. This is as stated by one of the informants named Farah. He said, "Learning with digital books while at home makes me happy. Because learning sauce can see and play sheet by sheet of learning books. In class, you definitely can't."

If, informant Farah said that the entertaining role of digital books because they can play sheets on the screen, is different from what was said by informant Malva. Malva said that "Reading a book on a cell phone is better. We don't need to carry heavy books everywhere. Sitting while looking at colorful pictures makes me happy."

From this, it can be seen that the use of digital books during distance learning makes children happy. Thus, for students, the use of digital books plays a role in providing entertainment to students and eliminating boredom when learning takes place online.

3.4. Building Motivation for Learning

Distance learning is considered positive in helping learning take place during the pandemic. However, to change habits is very difficult, moreover, teaching and learning habits that have been going on for a long time undergo sudden changes that feel unexpectedly fast, this is what is being experienced at this time. Of course, students inevitably have to be able to change

---

[1] The informants consist of five elementary school children in lower grades, each of which is as follows: Farah Nisa Azzahara (Karangsari State Elementary School, Zakawaliy Heru Dian (Madrasah Ibtidaiyah Negeri 3 Karangklesem, Beauty Eka Malva (Madrasah Ibtidaiyah Negeri 2 Karang Pucung, Ameera Azahra (State Elementary School 2 Karanggintung), and Hafiz Gancar Widodo (State Elementary School 3 Nations)-Central Java, Indonesia.

learning styles, as well as teachers, where teachers are expected to be able to change learning strategies and methods, changing the learning styles that have been done so far.

Changes in the education system also have an impact on students' self-motivation. We certainly understand that each individual has a pattern and character and ability (motivation) that are different from one another. Differences in motivation and individual abilities (students) in the process of learning are considered as important factors for the effectiveness or not of a learning and training. The step that is considered appropriate in overcoming this problem is to use technology in education. One way is to use digital books.

Digital books besides being able to entertain students, digital books can also build motivation to learn in students.

4 Conclusion

Digital books in the learning process from home become an important solution in the process of distributing knowledge to students. This happens because learning from home requires collaboration between teachers, students, parents, and teaching materials used in transferring knowledge to students. Through learning activities using this digital book, understanding the concept of student learning materials can develop from the level of understanding to the level of achievement. This research focuses on the activities of the role of digital books in distance learning for lower grade students in elementary schools as an effort to discover concepts of the role of digital books in education. Especially for students.

Based on the research focus, it was found that there were four substances that conceptualized the findings made by the researcher. First, build material sustainability; Second, Empowering context; Third, Creating Student Edutainment, Fourth, Building Capacity Building for Learning.

References

[1] Alsalhi, N. R., Al-Qatawneh, S., Eltahir, M., Althunibat, F., & Aljarrah, K.: The role of academic electronic books in undergraduate students' achievement in higher education. *Heliyon*, *6*(11), e05550. https://doi.org/10.1016/j.heliyon.2020.e05550. (2020)

[2] Ciotti, M., Angeletti, S., Minieri, M., Giovannetti, M., Benvenuto, D., Pascarella, S., Sagnelli, C., Bianchi, M., Bernardini, S., & Ciccozzi, M.: COVID-19 Outbreak: An Overview. *Chemotherapy*, *64*(5–6), 215–223. https://doi.org/10.1159/000507423. (2020)

[3] Dhawan, S.: *Online Learning: A Panacea in the Time of COVID-19 Crisis - Shivangi Dhawan, 2020.* Journal of Education Technology Systems. https://journals.sagepub.com/doi/full/10.1177/0047239520934018. (2020)

[4] Elkaseh, A., Wong, K. W., & Fung, C. C.: A review of the critical success factors of implementing E-learning in higher education. *International Journal of Technologies in Learning*, *22*(2), 1–13. https://doi.org/10.18848/2327-0144/cgp/v22i02/49160. (2015)

[5] Herodotou, C., Rienties, B., Hlosta, M., Boroowa, A., Chrysoula, M., & Zdrahal, Z.: The scalable implementation of predictive learning analytics at a distance learning university: Insights from a longitudinal case study. *The Internet and Higher Education*, *45*. (2020)

[6] Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A.: *The Difference Between Emergency Remote Teaching and Online Learning* (March). Educause Review. https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning. (2020)

[7] Kearney, M., Schuck, S., Burden, K., & Aubusson, P.: Viewing mobile learning from a pedagogical perspective. *Research in Learning Technology*, *20*(1), 14406. https://doi.org/10.3402/rlt.v20i0.14406. (2021)

[8] Khomsiyatun, U., Andayani, Suwandi, S., & Anindyarini, A.: *MAPPING CONCEPT INNOVATION TEACHERS CHANGES IN LEARNING LITERATURE APPRECIATIONS OF CHILDREN IN ELEMENTARY SCHOOLS DURING THE PANDEMIC PERIOD OF COVID-19*. (2021)

[9] Jiang, B., Yuan, J., & Tao, Y.: The impact of social distancing and epicenter lockdown on the COVID-19 epidemic in mainland China: A data-driven SEIQR model study. *MedRxiv*, *2019*(December 2019), 1–14. https://doi.org/https://doi.org/10.1101/2020.03.04.20031187. (2020)

[10] Lepik, M.: Analyzing the use of textbook in mathematics education: the case of Estonia. *Acta Paedagogica Vilnensia*, *35*, 90–102. (2015)

[11] Lin, Y. W., Tseng, C. L., & Chiang, P. J.: The effect of blended learning in mathematics course. *Eurasia Journal of Mathematics, Science and Technology Education*, *13*(3), 741–770. https://doi.org/10.12973/eurasia.2017.00641a. (2017)

[12] Moravec, J. W.: International education in the era of COVID-19: Making learning visible. *Sociální Pedagogika | Social Education*, *8*(1), 38–42. (2020)

[13] Nugraheni, F.: *Metode Penelitian Kualitatif dalam Penelitian Pendidikan Bahasa. Diakses dari:* digilibfkip.univetbantara.ac.id/materi/Buku.pdf. (2018)

[14] Pavlovic, M., Vugdelija, N., & Kojic, R.: The use of Social Networks for E-Learning Improvement. *Hellenic Journal of Music Education, and Culture*, *6*(3), 13–17. (2015)

[15] Purwanto, A., Pramono, R., Asbari, M., Budi Santoso, P., Mayesti Wijayanti, L., Chi Hyun, C., & Setyowati Putri, R.: Studi Eksploratif Dampak Pandemi COVID-19 Terhadap Proses Pembelajaran Online di Sekolah Dasar. In *EduPsyCouns: Journal of Education, Psychology and Counseling* (Vol. 2, Issue 1). https://ummaspul.e-journal.id/Edupsycouns/article/view/397. (2020)

[16] Puspaningtyas, N. D., & Dewi, P. S.: Persepsi Peserta Didik Terhadap Pembelajaran Berbasis Daring. *Jurnal Pembelajaran Matematika Inovatif (JPMI)*, *3*(6), 703–712. https://doi.org/10.22460/jpmi.v3i6.703-712. (2020)

[17] Santoso, H. B., Batuparan, A. K., Isal, R. Y. K., & Goodridge, W. H.: The development of a learning dashboard for lecturers: A case study on a student-centered e-learning

environment. *Journal of Educators Online*, *15*(1). https://doi.org/10.9743/JEO.2018.1.1. (2018)

[18] Shihab, N.: *Diferensiasi Memahami Pelajar untuk Belajar Bermakna dan Menyenangkan*. Literati. (2017)

[19] Simon, J., & García-Belmar, A.: Education and textbooks. *Technology and Culture*, *57*(4), 940–950. https://doi.org/10.1353/tech.2016.0114. (2016)

[20] Tavangarian, D., Leypold, M., Nölting, K., Röser, M., & Voigt, D. Is e-Learning the Solution for Individual Learning?. *Electronic Journal of E-Learning*, *2*(2), 273–280. (2004)

[21] Weisberg, M.: Student attitudes and behaviors towards digital textbooks. *Publishing Research Quarterly*, *27*(2), 188–196. https://doi.org/10.1007/s12109-011-9217-4. (2011)

[22] Widodo, A., & Nursaptini, N.: Merdeka belajar dalam pandemi: Persepsi mahasiswa terhadap pembelajaran jarak jauh berbasis mobile. *Jurnal Pembangunan Pendidikan: Fondasi Dan Aplikasi*, *8*(2), 86–96. https://journal.uny.ac.id/index.php/jppfa/article/view/35747. (2020)

[23] Widodo, A., Nursaptini, N., Novitasari, S., Sutisna, D., & Umar, U.: From face-to-face learning to web base learning: How are student readiness? *Premiere Educandum : Jurnal Pendidikan Dasar Dan Pembelajaran*, *10*(2), 149. https://doi.org/10.25273/pe.v10i2.6801. (2020)

[24] Wong, K., Liong, C., Lin, Z. X., Lower, M., & Lam, P..: EBooks as teaching strategy - Preliminary investigation. *ASCILITE 2011 - The Australasian Society for Computers in Learning in Tertiary Education*, *2001*, 1343–1352. (2011)

[25] Wu, M. der, & Chen, S. C.: Graduate students' usage of and attitudes towards e-books: Experiences from Taiwan. *Program*, *45*(3), 294–307. https://doi.org/10.1108/00330331111151601. (2011)

[26] Zaharah, Z., & Kirilova, G. I.: Impact of Corona Virus Outbreak Towards Teaching and Learning Activities in Indonesia. *SALAM: Jurnal Sosial Dan Budaya Syar-I*, *7*(3). https://doi.org/10.15408/sjsbs.v7i3.15104. (2020).

[27] Zare, M., Sarikhani, R., Salari, M., & Mansouri, V.: The impact of E-learning on university students' academic achievement and creativity. *Journal of Technical Education and Training*, *8*(1), 25–33. (2016)