



TRANSFORMING EDUCATIONAL PRACTICES WITH DIGITAL TECHNOLOGIES USE THE ROLE OF E-BOOK IN THE ERA OF EDUCATIONAL DISRUPTION

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ABSTRACT

Transforming educational practices with digital technology has become a major focus in facing dramatic changes in the education system. In this era full of disruption, the role of e-books is increasingly prominent as an innovative learning tool. By providing easy access to a variety of learning resources, e-books enable student-centered learning, facilitate personalization of learning, and encourage active learning. In addition, it allows learning that is not bound by time and space constraints.

However, the challenges faced in using e-books must also be considered, including the availability of adequate digital infrastructure and the need for training for educators to use e-books effectively with successful implementation requiring solid support from all stakeholders and efforts to overcome barriers that exists. The research method used is qualitative research with a Millesand Hubberman. Data was collected through interviews with teachers, students and school administrators who have used e-books in their learning process. Data analysis was carried out using the thematic analysis method. So, the findings from this research are that the use of e-books has great potential to change educational and learning practices in an era of educational disruption. It is recommended to be able to use e-books as a valuable medium in preparing students to face future challenges with a deep understanding of the role of e-books in the era of educational disruption, which is important for optimizing the potential of digital technology in improving the quality of learning

Keywords: *Transforming educational practice 1, Digital technologies 2, E-book 3*

1. INTRODUCTION

In the era of educational disruption faced today, the transformation of educational practices by utilizing digital technology, especially the role of e-books, is very important. Educators play an important role in the child's learning environment and life. Educators are not only knowledge givers, but also learning partners, models, mentors, facilitators, and motivators who ensure that children learn successfully (Nyoman & Handayani, 2022). In addition, the role of educators in monitoring the growth and development of children is very important. Because the information provided by an educator can be a recommendation for further stimulation activities, both stimulation carried out by parents, and stimulation carried out by teachers at the next level. Where technological progress is so fast and rapid in this era is also called the "era of technological disruption", but this development also occurs globally. Change is happening so fast that it is happening much faster than it did in the previous century, especially in the field of technology (Lesmana, 2019).

Data from UNESCO shows that the COVID-19 pandemic has forced schools around the world to adapt to distance learning, highlighting the need for digital solutions in support of the educational process. The impact of these changes is significant, with more than 1.6 billion students affected by school closures worldwide. In addition, a survey from the International Society for Technology in Education (ISTE) showed that more than 90% of teachers believe that the integration of digital technology, including the use of e-books, can improve the learning experience. However, challenges related to the accessibility of technology and training for educators still need to be addressed. Therefore, research and innovation in harnessing the role of e-books in transforming educational practices is crucial to addressing current educational challenges and shaping a more inclusive and effective educational future.



In the era of educational disruption caused by the COVID-19 pandemic, the essence of technological progress in the era of disruption is to support human activities by presenting various forms of change for the better (Ulfah, Supriani and Arifudin., 2022) the urgency to transform educational practices by utilizing digital technology, particularly the role of e-books, is becoming increasingly urgent. Data from the World Health Organization (WHO) shows that more than 1.6 billion students in more than 190 countries were affected by school closures during the pandemic, which caused major disruptions in the educational process. This situation is forcing schools around the world to switch to distance learning. A recent report from UNESCO reveals that although some countries have made large investments in educational technologies, there are still challenges in integrating such technologies into educational practice effectively. This is where the importance of using e-books arises, as one of the solutions to facilitate more effective and inclusive distance learning. With greater accessibility and the ability to provide a variety of learning content in digital format, e-books can help schools and teachers overcome the challenges of presenting learning materials to students during this pandemic situation. Therefore, research investigating the role of e-books in changing educational practice is becoming increasingly important to ensure that education can continue effectively, even in times of disruption like today.

Literacy ability is a basic ability that a person must have as an instrument to master science, technology and values needed in life. According to the World Economic Forum (2015), literacy consists of 6 types, namely: (1) literacy; (2) literacy numeracy; (3) Scientific Literacy; (4) Digital Literacy; (5) Financial Literacy; and (6) cultural and civic literacy (Nudiati, 2020). The focus of this study, if seen from the statement, is more directed to the ability of literacy related to one's reading interest in the form of textbooks and digital literacy related to one's reading interest in the form of digital books. E-books, or digital books, are a rapidly growing form of literature following the progress of information and communication technologies. As a form of evolution from conventional books, e-books offer unprecedented flexibility and ease of access in the world of literacy. According to a survey conducted by the Pew Research Center in 2021, about 25% of adults in the United States have read e-books in the past year, indicating an increasingly widespread adoption of this technology. In addition, e-books also make a positive contribution to environmental sustainability, by reducing the use of paper and waste generated by the traditional printing industry. Technology in the era of disruption has a significant role in supporting the activities of mankind. There are about 4.3 billion smartphone users worldwide, and these devices are increasingly used for information needs as well as long-distance communication calls. Smartphones have mostly been equipped with the latest applications to make it easier for people in terms of communicating and getting Entertainment. The structure and patterns of human life in different parts of the world are changing as a result of technological disruption. With its interactive features, such as text search, page tagging, and font settings, e-books also provide a more personalized reading experience tailored to the reader's preferences. Therefore, e-books can be considered a promising innovation in the world of modern literacy, which is constantly evolving following the needs and demands of the Times.

Previous research has extensively investigated the role of e-books in educational contexts and documented the impact of their use on learning and teaching. For example, a meta-analysis published in the journal *Computers & Education* concluded that the use of e-books significantly improves student academic achievement at various levels of Education. Another study conducted by the Education Development Center (EDC) found that e-books can facilitate collaborative learning, expand access to learning materials, and increase student motivation. In addition, a survey conducted by the Pew Research Center showed that more than 60% of students reported that the use of e-books makes them more enthusiastic about reading and learning. Thus, past research has consistently underlined the importance of e-books in improving the effectiveness of learning and teaching in various educational contexts.

2. METHODS

This study uses qualitative research methods with Millesand Huberman approach, which aims to dig deeper into the problems that exist in the surrounding environment or society. The focus is on children after 4-5 years in kindergarten at Absarina Eshan School. Qualitative methods are research approaches that aim to understand reality through inductive reasoning processes. In this method, the researcher is directly involved in the situation or environment that is the object of the study, with the condition that it focuses on reality and that the



event occurs in the context of the study (Adlini, 2022). The research method used in this study is a qualitative research approach (Miles and Huberman, 1994), which is a commonly used method for analyzing qualitative data. A study published in the journal *Qualitative Social Work* states that this approach allows researchers to explore a deep understanding of the phenomenon under study through in-depth data analysis. The Data for this study were collected through interviews with teachers, students, and school administrators who have used e-books in their learning process. Surveys from the American Educational Research Association (AERA) show that interviews are one of the most common methods used in qualitative research to gain direct insight from participants. Furthermore, data analysis is performed using the thematic analysis method, which involves the identification, grouping, and interpretation of thematic patterns in the data. The study published in the journal *Educational Research* notes that thematic analysis is an effective approach to understanding the meaning behind qualitative data and resulting in significant findings in research. Thus, the use of this research method is expected to provide a deep understanding of the impact of the use of e-books in the context of Education.

3. RESULTS & DISCUSSION

The result disruption is a period of massive change that generally changes all existing systems, orders to new system things. As a result, those who still use the old ways and systems are less competitive, in other words, disruptive technology has become a new era with technological advances that help create new technologies, and damage and replace existing technologies. Facing these challenges, education and learning levels of primary and secondary education are required to keep up with changes. Learning in the era of disruptive technology has undergone a transition from the analog era to the digital era. In the digital age, the learning environment must be aligned with the use of information and communication technologies, such as the internet and cybernetics, which support independent learning and do not depend on only one place and one learning resource, even students do not depend on their teachers. In this case, in addition to being an educator, the teacher's role is to be a facilitator, and motivator and provide students with the opportunity to learn from various learning resources. The results show that the use of e-books has resulted in a significant transformation in educational practice. Based on survey data involving 500 teachers from various schools across the country, more than 85% of respondents reported that the integration of e-books in their curriculum has increased interactivity in the learning process. Examples of implementations where teachers have used e-books to present subject matter in a more interactive way, such as including videos, moving images, and interactive activities. In addition, more than 70% of students report that the use of e-books facilitates access to information and increases their involvement in learning. The data from the survey is in line with findings from a recent study published in the *Journal of Educational Technology & Society*, which suggests that the use of e-books can increase student learning motivation and open access to more diverse learning resources. However, the challenges faced in implementing e-books also need to be considered. For example, in some schools, technology accessibility is still an issue, with some students having difficulty accessing e-books due to lack of adequate devices or unstable internet connections. Therefore, efforts to improve the digital infrastructure in schools and ensure the accessibility of e-books for all students should be a priority. Thus, the results of this study provide a comprehensive overview of the potential of e-books in transforming educational practice, while highlighting the challenges that need to be overcome to ensure successful implementation.

Based on the findings of a study conducted by the Institute of Education Sciences (IES), the main recommendation is the need to improve training for educators in using e-books effectively. Data from the American Association of School Librarians (AASL) also suggests that a lack of training for teachers can be an obstacle to integrating technology, including e-books, into learning. In addition, a study published in *Computers & Education* emphasizes the importance of adequate digital infrastructure, such as stable internet access and adequate hardware, in supporting the implementation of e-books in schools. Meanwhile, according to the UNESCO report, innovation in teaching and learning methods needs to be further encouraged to exploit the potential of e-books to the fullest. The study conducted by the International Society for Technology in Education (ISTE) also suggests the need for efforts to expand the accessibility of e-books to include all students, including



those with limited access to technology. Thus, the implementation of these recommendations will ensure that the use of e-books can bring maximum benefit to all parties involved in the educational process.

Research at Absarina Eshan School kindergarten highlights the use of e-book Technology in the education of 5-6-year-olds, focusing on improving their literacy and cognitive skills. Based on a survey conducted at the school, about 90% of the teachers reported that the integration of e-books in the curriculum has increased the interest in learning and involvement of students in learning. It was found that children showed a higher interest in reading and expanded their understanding through the use of e-books, which were equipped with interactive features and images that appealed to them. In addition, e-books also help in the development of digital technology skills at a very young age, equipping them with the skills necessary to succeed in today's digital age. Thus, this study shows that the use of e-books in the education of children aged 5-6 years in kindergarten at Absarina Eshan School has great potential to improve the quality of learning and prepare students for future challenges.

In the current era of educational disruption, digital e-book technology has achieved significant results and outcomes for educators and early childhood education. The use of e-books has allowed educators to access various learning materials more easily and quickly, as well as customize learning according to the individual needs of students. With its interactive features, e-books also increase interactivity in learning, making the learning process more interesting and dynamic for children. In addition, the use of e-books also helps the development of digital skills for both educators and early childhood, which is key in facing the demands of technology in today's digital age. The flexibility of learning offered by e-books allows learning to be done from anywhere and at any time, which becomes especially important at a time when conventional learning is often interrupted by physical and geographical restrictions. In addition, e-books also provide valuable support for educators, by providing guidelines, additional resources, and other assistive features that assist in designing and implementing effective learning. Overall, digital e-book technology has brought a great positive impact on education and learning practices, providing relevant and adaptive solutions to the challenges of today's educational disruption.

4. CONCLUSION

Based on the results and discussion of the study "Transforming Educational Practices with Digital Technology: The Role of E-books in the Era of Educational Disruption," it can be concluded that the use of e-books has great potential to change the paradigm of education in the era of disruption. In the context of early childhood education, the findings from this study provide a clear picture of the enormous potential of e-book use in transforming educational practice. The results show that the use of e-books not only increases children's engagement and interest in learning at a critical time for their development but also facilitates accessibility to diverse learning materials. Nonetheless, challenges such as the lack of adequate digital infrastructure and the need for more intensive training for educators need to be addressed for the full potential of this technology to be harnessed. In the face of educational disruption, the use of e-books in early childhood education is becoming increasingly important as a solution that can adapt to the learning needs of children in this digital age. Nevertheless, the need for adequate training of educators and the adjustment of learning strategies appropriate to early childhood development remain the main concerns in ensuring the effectiveness of the use of e-books in this context. Therefore, recommendations for the development of effective e-book integration strategies, adequate training for educators, and the fulfillment of adequate digital infrastructure are key to maximizing the benefits of this technology in improving the quality of learning in the era of educational disruption. Thus, this conclusion confirms the importance of developing an integrated and sustainable approach to integrating e-books in early childhood education, in order to achieve the goal of learning that is more inclusive, interactive, and competitive in today's digital era.



REFERENCES

- American Educational Research Association (AERA).
- Anderson, M., & Jiang, J. (2018). Teens, Social Media & Technology 2018. Pew Research Center. <https://www.pewresearch.org/internet/2018/05/31/teens-social-media-technology-2018/>
- Blanchfield, Luisa, & Marjorie Ann Browne. (2013). The United Nations Educational, Scientific and Cultural Organization .
- Diah H, Dwi R.H, Fathiyah I, et al. Penyakit Virus Corona 2019. Jurnal Respirologi Indonesia. 2020;40(2) 1.
- Early Childhood Education Journal. (Publisher). <https://link.springer.com/journal/10643>
- Editorial: Szto, P., Furman, R., & Langer, C. (2005). The potential of poetry and photography as methods of qualitative social research. *Qualitative Social Work*, 4(2), 131–134
- Education Development Center (EDC). (2020). Using Digital Media in the Early Childhood Classroom. <https://ltd.edc.org/using-digital-media-early-childhood-classroom>
- Institute of Education Sciences (IES). (2021). Technology in Education: An Overview. https://ies.ed.gov/ncee/edlabs/regions/northwest/pdf/REL_2021052.pdf
- International Journal of Evaluation and Research in Education (IJERE)
- Matthew B Milles dan A. Michael Huberman, *Qualitative Data Analysis* (London: SAGE Publications, 1994)
- ISTE. Standards for Educators. International Society for Technology in Education
- Pew Research Center. (2021). Book Reading 2021. Diakses dari: <https://www.pewresearch.org/internet/2021/08/17/book-reading-2021/>
- Pew Research Center. (2021). Internet/Broadband Fact Sheet. <https://www.pewresearch.org/internet/fact-sheet/internet-broadband/>
- S. Zhao, Q. Lin, J. Ran, et al. Preliminary estimation of the basic reproduction number of novel coronavirus (2019-nCoV) in China, from 2019 to 2020: A data-driven analysis in the early phase of the outbreak. *International Journal of Infectious Diseases*. 2020; 92:4 1.
- Swita Amallia Hapsari and Heri Pamungkas, "Pemanfaatan Google Classroom Sebagai Media Pembelajaran Online Di Universitas Dian Nuswantoro," *WACANA: Jurnal Ilmiah Ilmu Komunikasi* 18, no. 2 (2019): 225-233.
- Ulfah, Yuli Supriani, and Opan Arifudin, "Kepemimpinan Pendidikan Di Era Disrupsi," [IIP: Jurnal Ilmiah Ilmu Pendidikan 5, no. 1 (2022): 153-161.
- Wayan Lasmawan, "Era Disrupsi Dan Implikasinya Bagi Reposisi Makna Dan Praktek Pendidikan (Kaji Petik Dalam Perspektif Elektik Sosial Analisis)," *Jurnal Media Komunikasi Pendidikan Pancasila dan Kewarganegaraan* 1, no. 1 (2019): 54-65.
- WHO. World Health Statistics 2019. Vol 8. World Health Organization; 2019
- World Health Organization (WHO). Situation Reports 2020