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Blended Learning in an Effort to Overcome Learning Materials in Elementary Schools

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ABSTRACT: *Blended learning is an innovative learning model that integrates relevant technology with learning. This study aims to describe the application of blended learning and its effect on students at the elementary school level as an effort to overcome the risk of falling behind in subject matter after the Covid-19 pandemic. This research uses a case study approach, including qualitative methods. Data collection techniques with interviews, observation and documentation. The analysis technique uses Cresswell analysis. The research results show that the application of blended learning in Sukarno Hatta elementary school is included in several learning models. These models are station rotation models, blog models, online learning, and independent learning. Blended learning can be a valuable alternative for managing student learning at the elementary school level. By utilizing technology and combining various models of approaches, we can overcome the backwardness of learning materials from the effects of changes in the world's education cycle, especially after Covid-19.*

Blended learning merupakan model pembelajaran inovatif yang mengintegrasikan teknologi yang relevan dengan pembelajaran. Penelitian ini bertujuan mendeskripsikan penerapan pembelajaran *blended learning* dan pengaruhnya terhadap siswa pada tingkat sekolah dasar sebagai upaya mengatasi risiko ketertinggalan materi pelajaran pasca pandemi Covid-19. Penelitian ini menggunakan pendekatan studi kasus, termasuk metode kualitatif. Teknik pengumpulan data dengan wawancara, observasi dan dokumentasi. Teknik analisis menggunakan analisis cresswel. Hasil penelitian menunjukkan penerapan *blanded learning* di Sekolah Dasar Sukarno Hatta masuk ke dalam beberapa model pembelajaran. Model-model tersebut adalah *model station rotation, model blog*, pembelajaran online, dan pembelajaran mandiri. Penerapan *blended learning* dapat menjadi alternatif yang berharga untuk mengelola pembelajaran siswa di tingkat Sekolah Dasar dengan memanfaatkan teknologi dan menggabungkan berbagai model pendekatan dapat mengatasi ketertinggalan materi pembelajaran dari dampak perubahan siklus pendidikan dunia, utamanya pasca covid-19.

Keywords: *Blended learning, Subject Matter, Elementary School.*

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DOI: https://doi.org/10.35723/ajie.v8i1.447

e-ISSN: 2599-3046 (online) | Volume 8, Issue 1 | January - March 2024
p-ISSN: 2657-1781 (print)

Received: *September 8, 2023;* ***Revised:*** *September 24, 2023;* ***Accepted:*** *January 16, 2024*

I. INTRODUCTION

The Covid-19 pandemic has brought significant changes in various aspects of life, including education. This change requires rapid adaptation of all education stakeholders to face new circumstances. The spotlight is on the education sector, grappling with efforts to find the most suitable solution for implementing education during a pandemic. One of the actual impacts of the Covid-19 pandemic is the widespread adoption of online schools.

Online learning has proven effective for high school and college-level students who have the independence and self-study skills needed to succeed in this format. However, challenges arise at the elementary school level because students prefer to play rather than study. Online learning for primary school students is often seen as a formality, and parents end up helping with assignments, leading to increased grades that may not reflect actual student achievement.

For teachers, ensuring an efficient and meaningful online learning experience for primary school students is a significant challenge that requires innovative approaches and support from parents and guardians. As educators, teachers are expected to be creative in their teaching methods. More than just applying traditional learning models is required; there is a need for continuous innovation in the educational process. In today's digital era, the proper integration of technology is essential in facilitating communication and enabling teachers and students to interact and engage in face-to-face interactions, regardless of their physical location. The ultimate goal is to increase educational effectiveness and achieve the desired learning goals.

In the era of the Covid-19 pandemic, even though various technologies have been used, the learning process still faces challenges, so its effectiveness has decreased. One of the issues of concern is the length of time studying at home, which can lower students' progress and learning skills. The uncertainty of the pandemic significantly impacted the education sector, causing substantial learning losses (Azubuike et al., 2021);(Monroy-Gómez-Franco et al., 2022).

The potential for learning loss or falling behind in material has been anticipated since the start of school closures around the world during the Covid-19 pandemic. According to the school reopening framework report jointly published by UNESCO, UNICEF, World Bank and WFP in April 2020, the decision to close schools globally was made to address the devastating impact of the pandemic on education, welfare and protection of children. (Yu & Xiao, 2023);(Bergen et al., 2023).

Learning lag, or learning loss, refers to a situation in which students have difficulty grasping knowledge or skills, leading to decreased academic performance, often due to continuous interruptions in the learning process. These disruptions can be caused by various factors, including the impact of the previous Covid-19 pandemic. In addition, this concept is characterized by the absence of an effective and efficient learning process in educational institutions (Tao & Gao, 2022). When the learning process is less than optimal, it can result in students not obtaining information effectively, which causes substandard learning outcomes. Consequently, the quality of human resources produced

DOI: https://doi.org/10.35723/ajie.v8i1.447

during the Covid-19 pandemic could be affected by learning conditions that could have been better (Kabilan & Annamalai, 2022).

The effectiveness of the learning process depends on various factors, with the teacher playing an important role. In facilitating the learning process, teachers must carefully select and utilize diverse teaching tools to ensure students can understand the material quickly, promote enjoyable learning experiences and encourage active student engagement. Therefore, teachers must implement appropriate innovative learning strategies, methods and models to meet the unique needs of their students. One alternative model that teachers can consider is the blended learning model (Müller & Mildenberger, 2021).

Blended learning is an educational approach that combines online content delivery and interaction with traditional classroom methods. It integrates technology into the learning process (Ikhwan, 2018). In Indonesia, especially in elementary schools, the application of blended learning by teachers still needs to be improved. Blended learning combines face-to-face and online systems (Mariam et al., 2023). By implementing this model, teachers can better identify students' weaknesses and strengths, enabling them to provide personalized guidance in the learning process (Koraneekij & Khlaisang, 2015).

Researchers will analyze blended learning in elementary schools as an effort to overcome the risk of falling behind in subject matter. So far, the results of studies related to learning using blended learning, especially in elementary schools, moreover this research is more in discussing the backwardness of learning materials which are still very minimal. Like the study conducted (Wulandari & Talib, 2022);(Ikhwan & Qomariyah, 2022) with his research on the application of blended learning in primary schools, this research is still very general in its discussion. Almost the same study (Winarti et al., 2022) but the debate is more focused on blended learning to realize the quality of education.

Furthermore, research (Hardianto & Wati, 2023) designs a blended learning model that includes parenting with students' parents and guardians. The last research (Fidiatun et al., 2018) is the application of blended learning based on the school application, in which a learning model like this will make students increasingly workload, whereas, in this research, it's the other way around so that students can still absorb the subject matter without adding assignments burdensome. Based on the description above, this article aims to explain the application of the blended learning model and its effect on students; in this case, the research was conducted at the Sukarno Hatta elementary school, North Lampung. With that, teachers in elementary schools are interested in developing and implementing blended learning models in their schools to overcome the risk of falling behind in learning.

II. METHOD

The method used in this research is qualitative by taking a case study approach at the Sukarno Hatta elementary school, North Lampung. This approach was chosen because it involves an in-depth analysis of a related case to comprehensively understand the phenomenon being studied (Creswell, 2013). In this study, the primary sources of researchers focused on data collection in the form of interviews, observations, and documentation, as well as secondary sources from various related articles, journals, encyclopedias and books to describe and analyze the existing situation. When the

DOI: https://doi.org/10.35723/ajie.v8i1.447

e-ISSN: 2599-3046 (online) | Volume 8, Issue 1 | January - March 2024
p-ISSN: 2657-1781 (print)

phenomenon being studied is difficult to separate from its context, or when the researcher is interested in a rare or unusual case, case studies are frequently employed. In this research, data analysis entails a process of gaining a comprehensive comprehension of data collected from various sources (Ikhwan, 2021). The purpose of this analysis is to identify patterns, themes, and relationships that arise from the existing data and to develop a more comprehensive understanding of the phenomenon under study. Analysis of case study data concentrates on a comprehensive and in-depth understanding of the phenomenon being studied, including organising steps, compiling findings, classification, thematic analysis, drawing conclusions, verification and triangulation, as well as interpretation and discussion (Creswell, 2019).

III. RESULT AND DISCUSSION

Blended Learning Learning Model in Elementary Schools

Blended learning models, approaches that combine face-to-face and online learning, are gaining importance in today's fast-paced technological environment (Lima et al., 2021);(Hamzah et al., 2022). This model gives students access to educational content and materials online, allowing for flexible learning hours and locations. Blended learning integrates traditional classroom instruction with digital resources and technology-based learning strategies. The incorporation of integrated learning from internet-based tools facilitates student autonomy by enabling them to engage in learning at their own pace and convenience (Alsubaie, 2022); (Isha & Wibawarta, 2023).

Blended learning offers numerous advantages to both students and teachers. By incorporating online components, students gain the flexibility to access educational materials and resources outside of the traditional classroom. They are able to study independently, consult content as needed, and partake in interactive activities on multiple digital platforms. In addition, technology increases student participation and engagement, resulting in a more dynamic and interactive educational experience (Chafiq et al., 2014);(Hadijah, 2017).

Blended learning provides educators with opportunities to implement innovative instructional methods and strategies. Educators can create more engaging and interactive courses by utilising a variety of online tools, multimedia resources, and virtual simulations. In addition, the capability to monitor student progress and performance via the online portal permits personalised feedback and a customised learning experience (Liang & Zhao, 2023).

However, it is important to recognize that implementing blended learning requires careful planning, allocation of resources, and ongoing support for both students and teachers. Appropriate training and technical assistance are needed to ensure that educators can use technology effectively and adapt their teaching strategies to meet the needs of diverse learners. To ensure equal learning opportunities for all, tackling issues of accessibility, internet connectivity and digital literacy among students must also be top priority.

The implementation of integrated learning models in schools is a promising strategy for addressing difficulties in general education, such as teacher shortages and limited access to learning resources. By incorporating technology into the learning process, students are able to autonomously access vast quantities of information and resources, enabling them to better comprehend concepts and acquire pertinent data. Blended learning has

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the potential to stimulate student curiosity and motivation, thereby enriching the learning experience and making it more meaningful. Consequently, students tend to be more engaged in their studies and to expand their knowledge beyond the traditional classroom setting (Christina et al., 2019);(Han et al., 2019).

Blended learning is designed to accommodate the diverse needs and learning approaches of students. This allows for the provision of a variety of teaching methods and materials to accommodate students with different preferences and abilities. This teaching flexibility can lead to a more inclusive and individualized learning environment, ensuring that students receive the academic support and resources they need to thrive (Setyowati, 2021).

The blended learning paradigm, which integrates face-to-face and online learning, offers a set of distinctive characteristics that enhance the learning process. First, it enables the incorporation of various learning models and methods, adapting to each student's learning style and utilising a variety of technological and communication-based learning aides. Second, combining the benefits of in-person teacher interaction with the adaptability of online learning. By incorporating a variety of learning delivery methods, learning approaches, and student-specific learning styles, this synergy guarantees an effective learning experience (Donovan et al., 2023);(Xu et al., 2023).

The integrated learning model incorporates a number of important components, each of which contributes to a comprehensive learning experience. These components include face-to-face class sessions where instructors interact with students and provide explanations of course material. Self-study opportunities simultaneously empower students to take responsibility for their learning, encouraging independent learning and time management skills. Using apps and educational resources increases student engagement and reinforces learning concepts, while tutorials provide students with individual support and assistance (Müller et al., 2023).

Blended learning is an innovative educational strategy that combines various delivery methods, teaching models, and learning styles, encouraging a dynamic exchange of ideas and information between facilitators and students (Chiu, 2021). This innovative learning model integrates traditional classroom-based instruction and technology-based learning experiences in a seamless way (Ellis et al., 2023).

In the integrated learning model, instructors have the freedom to employ a variety of teaching strategies, allowing them to adapt to the learning preferences of each student. This individualised approach enables students to actively engage with course material and partake in meaningful discussions, thereby enhancing their comprehension of course material. The use of technology, such as online resources, interactive platforms, and multimedia tools, enhances traditional learning processes and offers students diverse learning opportunities (Peng et al., 2023).

By adopting a blended learning model, educational institutions can optimize the learning environment by leveraging the power of technology to complement traditional teaching methods. This integration increases accessibility to learning materials and encourages more intense collaboration and communication between students and teachers. Learners also benefit from the flexibility of online learning, which allows them to learn at a personal pace while still getting face-to-face interaction with instructors and peers during face-to-face sessions (Marie, 2021).

DOI: https://doi.org/10.35723/ajie.v8i1.447

e-ISSN: 2599-3046 (online) | Volume 8, Issue 1 | January - March 2024
p-ISSN: 2657-1781 (print)

Blended learning, as a multidimensional strategy, incorporates four important concepts that enhance its efficacy in educational settings. Initially, it entails the incorporation of diverse technologies to accomplish specific learning objectives (a). Educators can create engaging and interactive learning experiences for their students, tailored to their individual requirements and preferences, by utilising a variety of digital tools and resources. b) Blended learning incorporates multiple pedagogical approaches, including behaviourism, constructivism, and cognitivism. This amalgamation of various pedagogical philosophies promotes active participation, critical thinking, and deeper comprehension among students, regardless of the use of technology.

In addition, integrated learning incorporates a variety of technologies, including web-based platforms, videos, and interactive simulations (c). These technological tools enrich the educational voyage by disseminating content, facilitating communication, and encouraging collaborative learning experiences. Finally, the combination of technology and tasks in blended learning positively impacts learning outcomes (d). Integrating technology into assignments and assessments allows students to engage with the material in new ways, receive timely feedback, and access more personalized learning experiences, leading to improved student learning outcomes and achievement.

The blended learning model offers advantages and disadvantages that contribute to its effectiveness and challenges in its implementation. Some of the benefits of this approach include (a) encouraging student independence in learning materials as they are available online and empowering students to control their own learning pace. (b) Students can engage in discussions and seek clarification from teachers or friends outside regular face-to-face sessions, encouraging continuous learning and interaction. (c) Teachers can monitor and guide students' learning activities outside traditional school hours, ensuring ongoing support and tracking progress. (d) Teachers can enhance the learning experience by incorporating complementary material through internet sources, enriching students' understanding and knowledge. (e) By conducting a pre-test, teachers can assess students' prior knowledge and adjust learning content accordingly, promoting a targeted learning experience. (f) The blended learning model allows teachers to conduct quizzes, provide timely feedback, and effectively use test results to optimize learning outcomes. (g) Students can easily share files and collaborate, cultivating a sense of community and teamwork.

Despite its advantages, the blended learning model also faces certain limitations. Some drawbacks include (a) the need for diverse media and resources, which can be challenging to implement if the infrastructure needs to be more complete to support technology-dependent aspects. (b) Access to necessary facilities, such as reliable computers and the internet, varies among students, which can create gaps in learning opportunities and outcomes between different groups. Addressing these weaknesses requires careful consideration and proactive action to ensure fair access to technology and resources for all learners (Rakhmawati, 2022).

Implementation of Blended Learning in Overcoming Lesson Materials

Sukarno Hatta Elementary School applies a blended learning model, including the station rotation type, by incorporating various activities to improve students' literacy skills. In the station rotation type blended learning model, students carry out five literacy activities: independent reading, writing, reading aloud to others, listening to reading

DOI: https://doi.org/10.35723/ajie.v8i1.447

friends, and completing individual assignments. This activity will develop language skills and transfer digital technology skills to paper and pencil assignments.

The implementation of the station rotation-type blended learning model involves several steps. First, teachers must set up four stations for online activities and ensure all the necessary teaching tools and materials are available. Second, students are organized into heterogeneous study groups. Third, the teacher introduces the subject matter at their station to give initial instructions. Fourth, students participate in station learning which involves various activities, including online learning, discussions, reading, drawing, colouring, observing, role-playing, making posters, and writing stories. Fifth, students cycle through different stations to experience diverse learning activities. After the training, students present their learning experiences, and the teacher provides feedback. Finally, the teacher reflects on the overall results by evaluating the activity results.

The station rotation type blended learning model offers an interactive and dynamic learning environment that encourages student engagement and enhances literacy skills through technology-based and traditional activities. By combining various learning approaches and encouraging student-centred learning experiences, this model aims to create a more effective and personalized learning journey for students at Sukarno Hatta Elementary School.

To support the literacy of Sukarno Hatta Elementary School students, the blended learning model is integrated with blogs as an example in the context of learning science. Applying the combined learning model with blogs to improve students' scientific literacy skills includes three stages: *First*, information seeking: At this stage, students are encouraged to pursue various information from various sources, both online and offline, that are relevant to the topics discussed. In order to establish a firm foundation for their scientific comprehension, they are taught to dig and acquire information from reputable sources.

After collecting the necessary information, students comprehend it and incorporate it with their prior knowledge and ideas. Utilising online and offline resources, they analyse data, interpret findings, and communicate their understandings effectively. In this stage, students develop critical thinking skills and the ability to convey their thoughts. Furthermore, the knowledge synthesis stage involves integrating and compiling the information obtained. Students engage in discussions, analyze data, and draw rational conclusions based on their analysis. This process empowers students to construct their knowledge and encourages a deeper understanding of scientific concepts.

By integrating blogs into the blended learning model, students will experience a more interactive and exciting learning experience. Blogs allow students to express their ideas, collaborate with peers, and receive feedback from teachers and fellow students. In addition, using technology in the learning process will also increase students' digital literacy, a valuable skill in the current era, which is dominated by technology.

Applying the blended learning model with blogs improves students' scientific literacy skills and fosters creativity, critical thinking, and communication skills. Through information-seeking, acquiring, and synthesising knowledge, students at Sukarno Hatta Elementary School can develop a thorough understanding of scientific concepts and proficiently utilise digital tools to communicate their ideas effectively. This integrated approach ensures students have the skills necessary to thrive in a knowledge-based society.

DOI: https://doi.org/10.35723/ajie.v8i1.447

e-ISSN: 2599-3046 (online) | Volume 8, Issue 1 | January - March 2024
p-ISSN: 2657-1781 (print)

In addition, to improve digital literacy, Sukarno Hatta Elementary School students apply a blended learning approach that begins with online learning via WhatsApp. The learning process starts with the teacher sending subject matter and assignments to students, who respond by sending photos and videos according to the assignments given. Suppose students experience difficulties or have questions regarding material or assignments. In that case, they can ask for clarification at any time by utilizing the WhatsApp class group or a private chat with the teacher.

In cases where some students still have difficulty understanding concepts during e-learning, they are allowed to take turns attending face-to-face learning sessions at school. During these sessions, teachers review assignments and engage with students who need additional support via private chat.

By incorporating WhatsApp into the blended learning model, students can learn at their own pace and access educational resources remotely. This strategy promotes digital literacy by teaching students to navigate online platforms, communicate effectively through digital media, and seek assistance independently. Online and face-to-face learning provides a flexible and individualised approach, ensuring that each student's educational requirements are met.

The implementation of integrated learning at Sukarno Hatta Elementary School addresses the difficulties posed by a dearth of face-to-face interactions. It empowers students with increasingly valuable digital abilities in the digital age. By leveraging technology and personal communication channels, teachers can provide timely support and feedback to enhance student learning outcomes and overall digital literacy.

Soekarno Hatta Elementary School adopted blended learning as an alternative to independent learning models during the period of adaptation to the new average era in order to enhance the quality of education. During the new average adaptation period, the deployment of blended learning is an alternative model of independent learning that improves learning quality. *First*, the planning stage includes preparing all the necessary instruments, such as sharing Google Classroom codes and WhatsApp groups for communication, making observation sheets to monitor teacher and student activities, compiling lesson plans, preparing learning materials and media, and compiling student response questionnaires.

Second, the implementation phase begins with the teacher confirming student participation through the WhatsApp group and guiding them to access the Google Classroom platform. In Google Classroom, teachers introduce learning themes and set clear learning goals. To increase student involvement, the teacher starts apperception activities for ten minutes. In addition, the teacher shares YouTube links about the human respiratory system to complement the lesson. Teachers and students participate actively throughout the entire learning process, with the teacher acting as a mediator and students taking responsibility for their own education.

Third, during the surveillance phase, researchers closely monitor changes in student conduct and attitudes resulting from the implementation of blended learning. Using various instruments, an observer, who is typically a colleague, helps monitor the learning process. These instruments consist of evaluating teacher and student participation in the classroom, as well as evaluating test results and student responses to thematic learning using a blended learning model.

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In the *final step*, reflection, the results obtained during implementation must be analysed and interpreted. Researchers gain insight into the efficacy and impact of the blended learning approach by meticulously scrutinising the collected data. This phase provides the opportunity to identify areas for development and potential adjustments that could further enhance the learning experience.

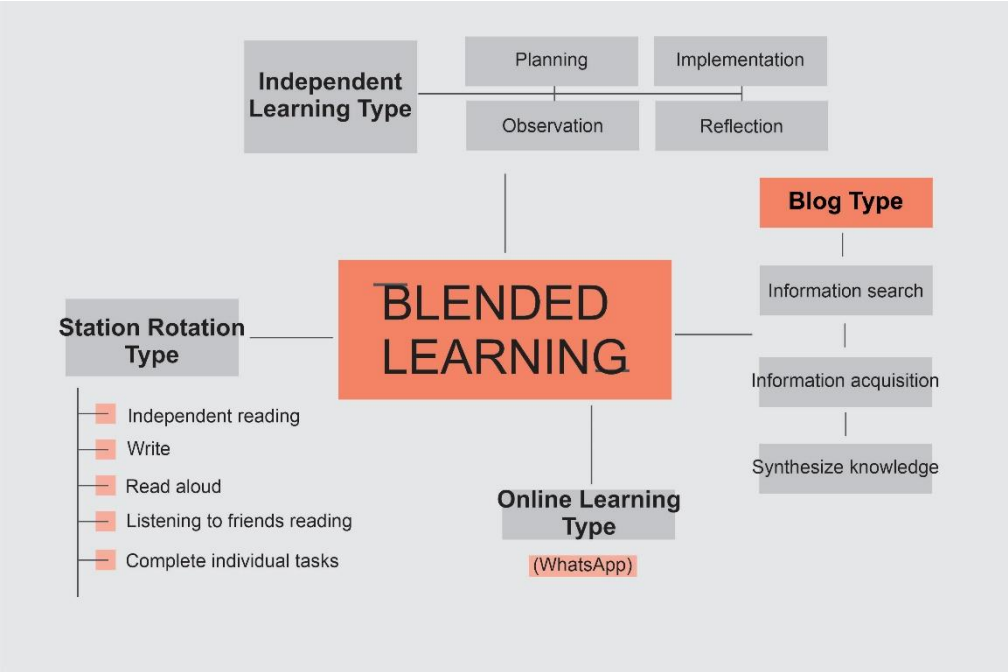

Figure 1. *Application of Blended Learning in Elementary Schools*

Through this research, the implementation of blended learning has shown its potential to encourage active and independent learning among students, enabling them to overcome delays and adapt to new learning models. The combined learning model integrates face-to-face interactions with digital learning platforms, creating a more exciting and interactive learning environment and ultimately improving student learning outcomes and development.

IV. CONCLUSION

Applying the blended learning model offers several advantages, including encouraging student independence in learning, increasing learning motivation, creating a fun learning process, and improving learning outcomes and critical thinking skills. However, this model also faces challenges, such as the need for more student involvement in online learning without direct teacher supervision. Nevertheless, considering the demands of education in the 21st century and the times, integrating technology into learning is very important. The blended learning model can be a valuable alternative to managing student learning, especially in elementary schools. By utilizing technology and combining various learning approaches, blended learning can effectively meet students' individual needs and overcome learning lags. The study results indicate that educators should consider implementing a blended learning model

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e-ISSN: 2599-3046 (online) | Volume 8, Issue 1 | January - March 2024
p-ISSN: 2657-1781 (print)

in primary schools to address potential gaps in teaching materials and create a more interactive and engaging learning environment. Teachers must seek to utilize technology effectively and ensure students remain active participants in the learning process. Adequate training and support for teachers in adopting and managing blended learning is critical to its successful implementation.

V. REFERENCES

[1] Alsubaie, M. A. (2022). Distance education and the social literacy of elementary school students during the Covid-19 pandemic. *Heliyon*, *8*(7), e09811. https://doi.org/10.1016/j.heliyon.2022.e09811

[2] Azubuike, O. B., Adegboye, O., & Quadri, H. (2021). Who gets to learn in a pandemic? Exploring the digital divide in remote learning during the COVID-19 pandemic in Nigeria. *International Journal of Educational Research Open*, *2*, 100022. https://doi.org/10.1016/j.ijedro.2020.100022

[3] Bergen, N., Kirkby, K., Fuertes, C. V., Schlotheuber, A., Menning, L., Mac Feely, S., O'Brien, K., & Hosseinpoor, A. R. (2023). Global state of education-related inequality in COVID-19 vaccine coverage, structural barriers, vaccine hesitancy, and vaccine refusal: findings from the Global COVID-19 Trends and Impact Survey. *The Lancet Global Health*, *11*(2), e207–e217. https://doi.org/10.1016/S2214-109X(22)00520-4

[4] Chafiq, N., Benabid, A., Bergadi, M., Touri, B., Talbi, M., & Lima, L. (2014). Advantages and Limits of the Implementation of Blended Learning for Development of Language Skills in Scientific Students. *Procedia - Social and Behavioral Sciences*, *116*(21), 1546–1550. https://doi.org/10.1016/j.sbspro.2014.01.432

[5] Chiu, T. K. F. (2021). Digital support for student engagement in blended learning based on self-determination theory. *Computers in Human Behavior*, *124*, 106909. https://doi.org/10.1016/j.chb.2021.106909

[6] Christina, S., Rusijono, & Bachtiar, B. (2019). The Application of Blended Learning's Station Rotation Method in Elementary School's Science Education to Improve Higher Order Thinking Skills. *Dinamika Jurnal Ilmiah Pendidikan Dasar*, *11*(2), 79–85. https://doi.org/10.30595/dinamika.v11i2.5048

[7] Creswell, J. W. (2013). *Qualitative Inquiry & Research Design: Choosing Among Five Appoaches*. SAGE Publication.

[8] Creswell, J. W. (2019). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Sage Publications.

[9] Donovan, S., Maggiulli, L., Aiello, J., Centeno, P., John, S., & Pisani, A. (2023). Evaluation of sustainable, blended learning workforce education for suicide prevention in youth services. *Children and Youth Services Review*, *148*. https://doi.org/10.1016/j.childyouth.2023.106852

[10] Ellis, R. A., Han, F., & Bliuc, A.-M. (2023). Innovations in university student learning research into blended course designs: incorporating self-report and observational data. In R. J. Tierney, F. Rizvi, & K. B. T.-I. E. of E. (Fourth E. Ercikan (Eds.), *International Encyclopedia of Education* (pp. 74–82). Elsevier.

https://doi.org/10.1016/B978-0-12-818630-5.02093-5

[11] Fidiatun, E. N., Indrawati, C. D. S., & Ninghardjanti, P. (2018). Penerapan Blended Learning Berbasis Aplikasi Schoology Sebagai Upaya Untuk Meningkatkan Hasil Belajar Administrasi Humas Dan Keprotokolan. *Paedagogia*, *21*(1), 85–96. https://doi.org/10.20961/paedagogia.v21i1.18454

[12] Hadijah, S. (2017). Challenges, Benefits, and Instructional Best Practices of Blended Learning: Tantangan, Manfaat, dan Praktik Instruksional Terbaik Blended Learning. *Perspektif Pendidikan Dan Keguruan*, *8*(2), 59–66. https://journal.uir.ac.id/index.php/Perspektif/article/view/760/455

[13] Hamzah, N., Zainol, Z. N., & Hassan, A. (2022). Study on Elements of Teacher Authority in Islamic Online Learning. *Al-Hayat: Journal of Islamic Education*, *6*(2), 505–514. https://doi.org/10.35723/ajie.v6i2.208

[14] Han, X., Wang, Y., & Jiang, L. (2019). Towards a framework for an institution-wide quantitative assessment of teachers' online participation in blended learning implementation. *The Internet and Higher Education*, *42*, 1–12. https://doi.org/10.1016/j.iheduc.2019.03.003

[15] Hardianto, D., & Wati, U. A. (2023). Design of a participatory blended learning model in partnership with schools and parents of elementary school students. *Jurnal Inovasi Teknologi Pendidikan*, *9*(3), 355–366. https://doi.org/10.21831/jitp.v9i3.57615

[16] Ikhwan, A. (2018). Management of Learning Assesment Using Curriculum 2013 (Case Study in Islamic Primary School (MI) Muhammadiyah 5 Wonoasri Ponorogo - East Java - Indonesia). *MUADDIB: Studi Kependidikan Dan Keislaman*, *08*(02), 108–123. https://doi.org/10.24269/muaddib.v8i2.1422

[17] Ikhwan, A. (2021). *Metode Penelitian Dasar (Mengenal Model Penelitian dan Sistematikanya)*. STAI Muhammadiyah Tulungagung.

[18] Ikhwan, A., & Qomariyah, S. N. (2022). Manajemen Sarana dan Prasarana di Era Disrupsi Sebagai Pendukung Proses Pembelajaran Pasca Pandemi Covid-19. *JIE (Journal of Islamic Education)*, *7*(1), 100–114. https://doi.org/10.52615/jie.v7i1.253

[19] Isha, S., & Wibawarta, B. (2023). The impact of the COVID-19 pandemic on elementary school education in Japan. *International Journal of Educational Research Open*, *4*, 100239. https://doi.org/10.1016/j.ijedro.2023.100239

[20] Kabilan, M. K., & Annamalai, N. (2022). Online teaching during COVID-19 pandemic: A phenomenological study of university educators' experiences and challenges. *Studies in Educational Evaluation*, *74*, 101182. https://doi.org/10.1016/j.stueduc.2022.101182

[21] Koraneekij, P., & Khlaisang, J. (2015). Development of Learning Outcome Based E-Portfolio Model Emphasizing on Cognitive Skills in Pedagogical Blended E-Learning Environment for Undergraduate Students at Faculty of Education, Chulalongkorn University. *Procedia - Social and Behavioral Sciences*, *174*(12), 805–813. https://doi.org/10.1016/j.sbspro.2015.01.664

[22] Liang, X., & Zhao, D. (2023). Design and Research of Blended Collaborative Learning Model for Deep Learning. *2023 IEEE 12th International Conference on*

Educational and Information Technology, ICEIT 2023, 78–82. https://doi.org/10.1109/ICEIT57125.2023.10107857

[23] Lima, F. de B., Lautert, S. L., & Gomes, A. S. (2021). Contrasting levels of student engagement in blended and non-blended learning scenarios. *Computers & Education*, *172*, 104241. https://doi.org/10.1016/j.compedu.2021.104241

[24] Mariam, S., Khawaja, K. F., Qaisar, M. N., & Ahmad, F. (2023). Blended learning sustainability in business schools: Role of quality of online teaching and immersive learning experience. *The International Journal of Management Education*, *21*(2), 100776. https://doi.org/10.1016/j.ijme.2023.100776

[25] Marie, S. M. J. A. (2021). Improved pedagogical practices strengthens the performance of student teachers by a blended learning approach. *Social Sciences & Humanities Open*, *4*(1), 100199. https://doi.org/10.1016/j.ssaho.2021.100199

[26] Monroy-Gómez-Franco, L., Vélez-Grajales, R., & López-Calva, L. F. (2022). The potential effects of the COVID-19 pandemic on learnings. *International Journal of Educational Development*, *91*, 102581. https://doi.org/10.1016/j.ijedudev.2022.102581

[27] Müller, C., & Mildenberger, T. (2021). Facilitating flexible learning by replacing classroom time with an online learning environment: A systematic review of blended learning in higher education. *Educational Research Review*, *34*, 100394. https://doi.org/10.1016/j.edurev.2021.100394

[28] Müller, C., Mildenberger, T., & Steingruber, D. (2023). Learning effectiveness of a flexible learning study programme in a blended learning design: why are some courses more effective than others? *International Journal of Educational Technology in Higher Education*, *20*(1). https://doi.org/10.1186/s41239-022-00379-x

[29] Peng, Y., Wang, Y., & Hu, J. (2023). Examining ICT attitudes, use and support in blended learning settings for students' reading performance: Approaches of artificial intelligence and multilevel model. *Computers and Education*, *203*. https://doi.org/10.1016/j.compedu.2023.104846

[30] Rakhmawati, D. R. P. S. R. Y. (2022). Penerapan Pembelajaran Blended Learning Tipe Flipped Classroom untuk Meningkatkan Kemandirian Belajar Tematik Peserta Didik Sekolah Dasar. *Paedagogie*, *17*(2), 79–87. https://doi.org/10.31603/paedagogie.v17i2.8419

[31] Setyowati, S. W. Y. R. R. N. (2021). The Effect of Blended Learning Model With Telegram Application on Students' Critical Thinking Ability and Learning Outcomes on Social Studies Subject at Elementary School. *JURNAL PAJAR (Pendidikan Dan Pengajaran)*, *5*(5), 1397–1414. https://doi.org/10.33578/pjr.v5i5.8463

[32] Tao, J., & Gao, X. (2022). Teaching and learning languages online: Challenges and responses. *System*, *107*, 102819. https://doi.org/10.1016/j.system.2022.102819

[33] Winarti, Y., Hidayati, D., Listiyoningsih, S., & Nugraha, A. A. (2022). Penerapan Blended Learning Sebagai Upaya Mewujudkan Mutu Pembelajaran pada Masa Pandemi. *INSANIA : Jurnal Pemikiran Alternatif Kependidikan*, *27*(1), 13–25. https://doi.org/10.24090/insania.v27i1.6190

[34] Wulandari, W., & Talib, C. A. (2022). The Implementation of Online Learning in Elementary Schools During the COVID-19 Pandemic. *Mudarrisa: Jurnal Kajian Pendidikan Islam*, *14*(2), 121–140. https://doi.org/10.18502/kss.v6i2.9989

[35] Xu, Z., Zhao, Y., Liew, J., Zhou, X., & Kogut, A. (2023). Synthesizing research evidence on self-regulated learning and academic achievement in online and blended learning environments: A scoping review. *Educational Research Review*, *39*, 100510. https://doi.org/10.1016/j.edurev.2023.100510

[36] Yu, X., & Xiao, K. (2023). COVID-19 Government restriction policy, COVID-19 vaccination and stock markets: Evidence from a global perspective. *Finance Research Letters*, *53*, 103669. https://doi.org/10.1016/j.frl.2023.103669

DOI: https://doi.org/10.35723/ajie.v8i1.447