# The Impact of *Merdeka Belajar Kampus Merdeka* (Emancipated Learning) and Motivation on Students' Learning Outcomes in Higher Education in Indonesia

## Muhammad Harlanu<sup>1,\*</sup>, Agus Suryanto<sup>1</sup> & Taofan Ali Achmadi<sup>1</sup>

<sup>1</sup>Faculty of Engineering, Universitas Negeri Semarang, Indonesia

\*Correspondence: Faculty of Engineering, Universitas Negeri Semarang, Indonesia. E-mail: harlanu@mail.unnes.ac.id

Received: February 5, 2024	Accepted: March 18, 2024	Online Published: May 16, 2024		
doi:10.5430/jct.v13n2p299	URL: https://doi.org/10.543	org/10.5430/jct.v13n2p299		

#### Abstract

The implementation of Merdeka Belajar Kampus Merdeka (MBKM/Emancipated Learning) with a form of learning activity that is more involved in community life and a hybrid learning model is very likely to influence student learning outcomes. This study explores the impact of implementing the MBKM program, which emphasizes a learning approach integrated with community life and adopts a hybrid learning model. The objectives of this study are to analyze the determinants of students' learning outcomes in the context of MBKM through hybrid learning and assess factors that affect student learning outcomes in the same learning model. The methodology used was a quantitative survey design. These research steps involved questionnaires that had been proven valid and reliable for data collection. The collected data was then analyzed using descriptive and inferential statistics, with path analysis techniques to understand the relationship between the variables studied. The results reveal that 1) The learning model has a significant influence on student learning outcomes; 2) Learning motivation has a significant effect on learning model has a significant effect on learning motivation, and 5) MBKM structure affects student learning motivation significantly. This research provides important insights into the effectiveness of emancipated learning (MBKM) and hybrid learning in higher education in Indonesia.

Keywords: hybrid learning, emancipated learning, learning outcomes

#### 1. Introduction

Education in Emancipated Learning (*Merdeka Belajar*), according to the Minister of Education and Culture, invloves two key components: emancipated learning and educator mobilization. Emancipated Learning means that educators and students have the freedom to innovate, and the freedom to learn autonomously and creatively. In emancipated learning (MBKM), learning activities (BKP) include research, student exchanges, internships/teaching practices, entrepreneurship, project studies, assistance in education units, and community service (KKN). This activity faces many challenges when students are involved in the field.

On the other hand, various studies have been conducted as a result of the implementation of the online learning paradigm, which has been operating for about three years as the COVID-19 pandemic continued. There is a significant impact on the quality of online learning and student learning outcomes (Baber, 2020; Jaggars & Xu, 2016). Online learning has numerous effects on students, including continued confusion, students being passive, less creative and productive, and the accumulation of information or concepts in students being less beneficial (Dumford & Miller, 2018; Simamora, 2020).

Two factors cause the decline in student attention during online learning: internal and external. Internal factors are feelings, while external are environmental conditions, learning platforms, asynchronous forms of learning, classroom activities, and assignments (Allam et al., 2020; Tan & Shao, 2015). The results of the preliminary study imply that the fully online learning system needs to be evaluated by using a hybrid with face-to-face (offline) learning. Furthermore, the question is whether the hybrid learning method will be able to correct the shortcomings of online learning, especially with the demands of MBKM, which will certainly be a challenge later. Therefore, this

phenomenon needs to be observed and diagnosed to find the main causative factors and develop solutions that will enhance the quality of student learning outcomes.

The hybrid learning paradigm lends innovative and technological advances in online learning with interaction and involvement from traditional learning models (Aristika & Juandi, 2021; Cai et al., 2020). This concept integrates inperson and online learning by utilizing available technology. The hybrid learning with a flipped classroom model, means that all activities that should be done at home are replaced at school, and activities that should be done at school are changed to be done at home (Saichaie, 2020).

Students also experience the impact of COVID-19. Online lectures are chosen as a solution to conventional lecture activities that cannot be applied due to social restrictions. Distance learning minimizes crowds as a fundamental step in implementing health protocols to prevent the transmission of COVID-19 (Allam et al., 2020; Sofyan et al., 2020). Online lecturers, however, need to be adjusted in some disciplines, so they do not become a barrier for students. Aside from global casualties, the COVID-19 pandemic has had an impact on the economic sector, as well as other fields, such as education. Access to media, technology, and information is a major source of problems in education, as there is a population with higher incomes who can afford to pursue their education online (Karomah & Ramadhan, 2023; Safitri & Ramadhan, 2023).

Analysis of how the COVID-19 pandemic has affected social relationships, health behaviors, and educational activities is still needed. The COVID-19 pandemic is new, hence it is imperative that this study be investigated. Therefore, research on the effects of the pandemic is necessary in order to formulate strategies for overcoming challenges resulting from COVID-19 as well as for adjusting to new routines. Based on the premise supported by these data, this study is directed to diagnose the main determinants for student learning outcomes related to the implementation of hybrid learning and examine whether there is an influence of the Learning Model, Emancipated Learning (MBKM) program, and Motivation on student learning outcomes.

## 1.1 Hybrid Learning Concept

According to Sarwendah et al. (2023), hybrid learning is a model that blends interaction and participation from faceto-face or traditional learning models with innovation and technical advancements in online learning. This approach utilizes current technologies to integrate in-person and virtual learning. According to experts, hybrid learning may be classified into four models: online lab school, rotation, flex, and face-to-face driving models. The stages of hybrid learning include teachers presenting the information, practice questions being provided, using the internet to complete the practice questions, and practice questions being discussed (Aristika & Juandi, 2021; Hermita et al., 2024; Saichaie, 2020).

# 1.2 Forms of Emancipated Learning (MBKM) Programs

The purpose of the Emancipated Learning (MBKM) policy, also known as the "right to study three semesters outside the study program" program is to better prepare graduates as the nation's future leaders by increasing their hard and soft skills and making them more relevant and ready for the demands of the modern world. It is anticipated that flexible pathways in experiential learning programs will enable students to reach their full potential by pursuing their abilities and passions (Thamrin et al., 2019; Zhao & Watterston, 2021).

According to the Regulation of the Minister of Education and Culture Number 3 of 2020 Article 15 paragraph 1, learning activities can be conducted both inside and outside the study programs. These activities include student exchange, research, humanitarian projects, internship/practical work, entrepreneurial activities, independent studies/projects, community service/thematic real-work lectures, and teaching assistance in education units.

#### 1.3 Digital Literacy Competency (Digital Skill)

Isrokatun et al. (2022) and Sittisak (2020) define competence as the manifestation of a certain ability as a whole, which is a dialectic (fusion) between knowledge and ability. Competence generally refers to the ability to express, sustain, maintain, and develop oneself; these are life skills. Competency, also known as life skills, is demonstrated by actions, behaviors, habits, and performance that can be perceived and even assessed (Wahjusaputri & Nastiti, 2022). Because each level of digital literacy is more difficult than the last, it can be gradually mastered. Technology and computer literacy are prerequisites for digital literacy. However, one needs to be proficient in information, visual, media, and communication literacy in order to be considered digitally literate.

#### 1.4 Learning Motivation

Motivation is the concept we use when we describe the force acting on or within an individual to initiate and direct behavior (Duta et al., 2015; Puspitarini & Hanif, 2019). Motivation is a concept we use to describe the power of

action towards a person or in a person that directs the level of their behavior. Motivation is also defined as the urge to discover motivation, as well as the process that accounts for an individual's intense focus and perseverance in achieving a goal (Rafiola et al., 2020). We define motivation as a process that considers the strength, direction, and constancy that the individual has in his or her efforts to achieve a goal (Rahardjo & Pertiwi, 2020).

#### 1.5 Learning Outcomes

Learning outcomes are students' abilities obtained after carrying out learning activities and receiving learning experiences. Learning is someone who undertakes a process to obtain relatively sedentary behavior change (Baber, 2020; Isroani et al., 2022). Learning outcomes can guide students and teachers to know whether students pass or not. The characteristics possessed by learning achievement include a measurable change in behaviors, the result of the learning actions of an individual or student and is not the work of others, can be evaluated high and low based on predetermined provisions indicators, and can describe and classify the results of learning activities carried out consciously (Eom & Ashill, 2016; Kamil et al., 2023).

## 1.6 Research Hypotheses

This study aims to examine five primary hypotheses related to the relationships between the following variables:

Hypothesis 1 (H1): The Relationship between the Learning Model (X1) and Learning Outcomes (Y1). This hypothesis proposes that the Learning Model (X1) positively influences Learning Outcomes (Y1). In essence, innovation and effectiveness in the Learning Model are expected to enhance the quality and achievement of student learning outcomes. As proposed by Piaget (1964) and Vygotsky (1978), the constructivist theory underscores the importance of context and interaction in the learning process. An interactive and context-based learning model is anticipated to facilitate deeper understanding, thus improving learning outcomes.

Hypothesis 2 (H2): The Relationship between Motivation (X2) and Learning Outcomes (Y1). This hypothesis explores the possibility that Motivation (X2) positively contributes to Learning Outcomes (Y1). It is posited that a higher level of student motivation will impact their academic performance positively. Motivational theories, presented by Maslow (1987) and Ryan and Deci's (2000) self-determination, suggest that intrinsic motivation plays a crucial role in academic achievement. Motivated students are likely to be more focused, determined, and capable of overcoming learning challenges.

Hypothesis 3 (H3): The Relationship between the MBKM Form (X3) and Learning Outcomes (Y1). This hypothesis examines whether and how the MBKM Form (X3) affects Learning Outcomes (Y1). Effective implementation of MBKM is expected to strengthen student learning outcomes. Based on Kolb's (1984) experiential learning theory, direct experiences in real-world environments (as offered by the MBKM program) can enrich the learning process and solidify conceptual understanding. This is expected to enhance the quality of learning outcomes.

Hypothesis 4 (H4): The Relationship between the Learning Model (X1) and Motivation (X2). This hypothesis tests whether the Learning Model (X1) influences student Motivation (X2). It is hypothesized that innovative and engaging learning models can increase learning motivation among students. Bandura's (1977) Social Learning Theory indicates that a supportive learning environment and positive models can enhance learning motivation. Dynamic and engaging learning models are expected to spark interest and higher motivation for learning.

Hypothesis 5 (H5): The Relationship between the MBKM Form (X3) and Motivation (X2). The final hypothesis evaluates the impact of the MBKM Form (X3) on student Motivation (X2). In this context, the variety and flexibility in the MBKM program can contribute to increased learning motivation among students. The theoretical support from Dewey (1938) suggests that practical experience and real-world application can enhance learning motivation. The MBKM program, providing opportunities for learning through real-life experiences, is expected to boost student motivation and engagement in the learning process.

#### 2. Method

This study used quantitative methods with a survey design (Creswell, 2012). Research procedures involve research designs and methods. The questionnaires employed in the data collection method were deemed valid and reliable. Additionally, path analysis techniques were used to process and examine the data by utilizing the descriptive and inferential statistics. The results of the analysis were discussed, and finally, a conclusion was made.

Data collection instruments were completed through questionnaires distributed online using Google Forms. The guideline questionnaire referred to the title and problems to be solved in the research. A causal relationship was the pattern of relationships between the variables that needed to be investigated. A statistical technique called Structural

Equation Modeling (SEM) was applied to test a series of relatively complicated and simultaneous relationships.

The analysis technique used was Partial Least Square (PLS) with the following procedure: 1) Inner Model Design, 2) Outer Model Design, and 3) Goodness of Fit Outer Formative Model, evaluated based on its substantive content, namely by looking at significance and weight, which include Convergent Validity seen from the value of Loading 0.5 to 0.6, Discriminants Validity where the value of AVE or Cross Loading is greater than 0.05. The accepted limit value for the composite reliability level (pc) is 0.7. The last analysis was The Goodness of the Fit Inner Model measured using Q – Square predictive relevance where the  $Q^2$  value is equal to the total coefficient of determination.

# 3. Results

#### 3.1 Structural Equation Model (SEM) Analysis

At this stage, model suitability testing reviews various goodness of fit criteria: some conformity index designs, cutoff values, and model test results.

Indices		Goodness of Fit	Cut off Value	Result	Conclusion
Absoloute indices	fit	Chi-Square $\chi^2$ (P)	P>0.05	0.000	Not Fit
		RMSEA	$\leq 0.08$	0.14	Not Fit
		GFI	> 0.90	0.81	Marginal Fit
		RMR	< 0.08	0.05	Fit
		SRMR	$\leq 0.05$	0.086	Marginal Fit
Incremental Indices	Fit	AGFI	$\geq 0.90$	0.71	Not Fit
		NFI	$\geq 0.90$	0.88	Fit
		NNFI (TLI)	$\geq 0.90$	088	Marginal Fit
		CFI	$\geq 0.90$	0.90	Fit
		IFI	$\geq 0.90$	0.90	Fit
		RFI	$\geq 0.90$	0.85	Marginal Fit
Parsimony indices	fit	PGFI	> 0.50	0.55	Fit
		PNFI	> 0.50	0.69	Fit

Table 1. Design of Goodness of Fit Test Results Structural Model

In Table 1, although several model indices are not yet fit, the overall GOF index value can be said to be fit because it meets 9 GOF criteria. In each index, absolute, incremental, and parsimony, there is at least one GOF that is fit or fulfilled. Furthermore, interpretation is carried out for further discussion. The results of the complete analysis are contained in the results of the SEM analysis; if all data obtained in the field are inputted into the SEM, a hypothesis testing results design will be obtained, which is determined earlier.

 Table 2. Design of Direct Influence Hypothesis Test Results Design

Hypothesis Number	Relationships Between Variables	Standardize	CR	t-value	Conclusion
1	Learning Model (X1) to Learning Outcomes (Y1)	0.22	0.77	2.35	Ha is accepted
2	Motivation (X2) to Learning Outcomes (Y1)	0.34	0.66	2.40	Ha is accepted
3	MBKM Form (X3) to Learning Outcomes (Y1)	0.32	0.79	3.39	Ha is accepted
4	Learning Model (X1) to Motivation (X2)	0.47	0.69	5.19	Ha is accepted
5	MBKM Form (X3) to Motivation (X2)	0.49	0.71	5.37	Ha is accepted

Based on the hypothesis testing above, it is found that the first hypothesis in the study states that there is a significant influence between the Learning Model variables and Learning Outcomes. Furthermore, the Motivation variable also

has a significant influence on Learning Outcomes. Similarly, the MBKM Form variable significantly impacts student learning outcomes. Furthermore, the motivation variable is significantly affected by the learning model and the MBKM form.

Meanwhile, indirect influence testing is used from several direct influence testing results and is obtained from the product between two or more direct influence coefficients that make it up. Based on the theoretical model developed in this study, it is found that the learning model variable indirectly influences student learning outcomes by 0.160 through student motivation. Meanwhile, the MBKM form variable indirectly influences the student learning outcomes variable through the motivation variable of 0.167.

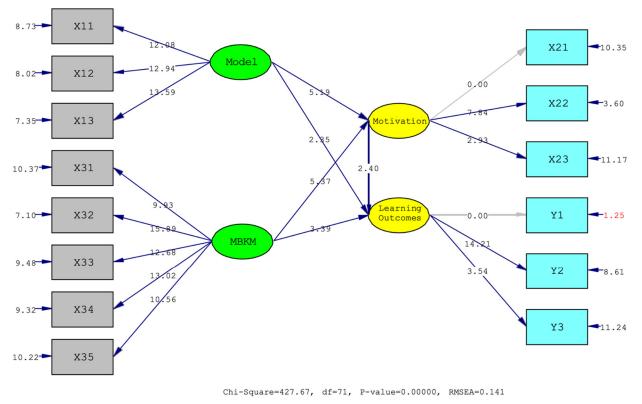


Figure 1. Structural Equation Model Analysis

#### 4. Discussion

Compared with previous studies, the results of this research reveal that most students face challenges in their academic pursuits, specifically related to internet connectivity, sufficient data for attending lectures, completing assignments, and understanding the material, among other issues. This aligns with the results of Nicola et al. (2020), which highlight a digital divide where populations with higher incomes have better access to technology and digital education. Another challenge this study identified is the restrictions on research activities due to COVID-19. The previously designed student proposals, which might have required physical contact, now necessitate reconsideration and adaptation to new methods in light of physical distancing requirements.

The primary reasons for the suboptimal internet use in education include a lack of human resources, technological transformation, telecommunication infrastructure, and the legal framework governing it (Baber, 2020; Dumford & Miller, 2018). Additionally, telecommunications technology, multimedia, and information infrastructure are needed. There is a need to expand internet access. Students residing in campus areas generally avoid facing these challenges; however, those living in more remote areas often encounter difficulties, prompting some to seek locations with better signal reception.

According to Hermita et al. (2024), blended learning and hybrid learning can be alternative learning approaches nowadays since they integrate online and face-to-face instructions. Hybrid learning is a more adaptable and sophisticated strategy that balances face-to-face and online training. Students can choose to attend class face-to-face or online based on their circumstances and preferences. Furthermore, the online and face-to-face components of the

hybrid learning mode are interchangeable, allowing students to seamlessly shift between them (Singh et al., 2021).

Hybrid learning seeks to establish a harmony between online and offline or face-to-face learning. It incorporates the advantages of both face-to-face and online instruction while reducing their potential drawbacks, such as lack of interactions and schedule problems (Juwita & Purwoko, 2022). Hybrid learning enables students to learn both online and offline, facilitating them to progress at their own pace and in the most effective format for them (Olapiriyakul & Scher, 2006). As a result, students can personalize their learning experience to their specific preferences and individual needs, which improves knowledge retention and increases motivation. Furthermore, hybrid learning can give students access to a broader selection of resources and materials, learning videos, interactive simulations, and multimedia presentations, which can help them become more interested and motivated in studying the content. The development of hybrid learning-based instruction has increased student participation in the learning process and simplified instructor's work. This concept can be expanded into a practical approach to adjusting to new norms. Some courses with basic theoretical and practical content entail face-to-face instruction, but others can be completed both online and offline (Hermita et al., 2023; Rafiola et al., 2020; Saichaie, 2020).

In implementing hybrid learning, students are expected to develop competencies encompassing self-motivation, selfmanagement, self-monitoring, and self-modification. Self-motivation relates to the students' initial preparation and motivation before engaging in learning activities and their responsibility in executing tasks and planning their studies. Self-management involves controlling behavior and creatively solving problems with independent decision-making. Self-monitoring is associated with self-reflection and self-evaluation throughout the learning process. Selfmodification pertains to behavioral changes resulting from self-monitoring and received feedback.

The execution of hybrid learning for students at the research site, particularly during the pandemic, has been effectively combined with digital media to facilitate student learning, aligning with the expectations of digital learning in the current era of 4.0. Independent learning at home, undertaken by students, is more than unsystematic self-study but a programmed and directed learning process. In this context, educators and parents can guide students to leverage digital literacy as a resource or medium to achieve their goals during independent learning.

## 5. Conclusion

This study concludes with several significant findings. Firstly, it has been established that the Learning Model exerts a considerable impact on student learning outcomes, with innovative and interactive teaching approaches enhancing the depth of understanding and quality of learning. Secondly, student motivation has been identified as a crucial factor affecting learning outcomes, where higher motivation levels correlate with improved academic performance. Thirdly, implementing the emancipated learning (MBKM) form significantly influences learning outcomes, enriching the learning process through experiential opportunities. Additionally, a strong relationship is noted between the learning model and student motivation, with dynamic and engaging models boosting student interest and motivation for learning. Lastly, the study finds that the MBKM form significantly impacts student motivation, with its diversity and flexibility contributing positively to learning motivation, mainly through real-life experiences and practical application. Based on these findings, this study recommends further research incorporating additional variables and indicators not covered in this research to provide a more comprehensive understanding of the factors influencing student learning and motivation. Since this study is conducted only at one public university in Indonesia, further research needs to be carried out with a wider range of participants from different levels of education and various regions, so there will be facts and reality of implementing hybrid learning and this emancipated learning programs. Additionally, follow-up actions are essential in light of the observed shift in student learning methods from pre-pandemic to the ongoing pandemic situation. These actions should address students' evolving educational needs and preferences within blended and hybrid learning environments.

# References

- Allam, S. N. S., Hassan, M. S., Mohideen, R. S., Ramlan, A. F., & Kamal, R. M. (2020). Online distance learning readiness during the COVID-19 outbreak among undergraduate students. *International Journal of Academic Research in Business and Social Sciences*, 10(5), 642-657.
- Aristika, A., & Juandi, D. (2021). The effectiveness of hybrid learning in improving the teacher-student relationship in terms of learning motivation. *Emerging Science Journal*, 5(4), 443-456.
- Baber, H. (2020). Determinants of students' perceived learning outcome and satisfaction in online learning during the pandemic of COVID-19. *Journal of Education and E-Learning Research*, 7(3), 285-292.

Bandura, A. J. (1977). Social learning theory. Englewood Cliffs, NJ: Prentice Hall.

- Cai, W., Yang, J., Yu, Y., Song, Y., Zhou, T., & Qin, J. (2020). PSO-ELM: A hybrid learning model for short-term traffic flow forecasting. *IEEE Access*, *8*, 6505-6514.
- Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Boston, MA: Pearson.
- Dewey, J. (1938). Experience and education. New York: Macmillan.
- Dumford, A. D., & Miller, A. L. (2018). Online learning in higher education: Exploring advantages and disadvantages for engagement. *Journal of Computing in Higher Education*, 30, 452-465.
- Duta, N., Panisoara, G., & Panisoara, I.-O. (2015). The Effective Communication in Teaching. Diagnostic study regarding the academic learning motivation to students. *Procedia-Social and Behavioral Sciences*, 186, 1007-1012.
- Eom, S. B., & Ashill, N. (2016). The determinants of students' perceived learning outcomes and satisfaction in university online education: An update. *Decision Sciences Journal of Innovative Education*, 14(2), 185-215.
- Hermita, N. E., Alim, J. A., Putra, Z. H., Mahartika, I., & Sulistiyo, U. (2024). Hybrid learning, blended learning or face-to-face learning: which one is more effective in remediating misconception?. *Quality Assurance in Education*, 32(1), 64-78. https://doi.org/10.1108/QAE-02-2023-0019
- Isroani, F., Jaafar, N., & Muflihaini, M. (2022). Effectiveness of E-Learning Learning to Improve Student Learning Outcomes at Madrasah Aliyah. *International Journal of Science Education and Cultural Studies*, 1(1), 42-51.
- Isrokatun, I., Pradita, A. A., Ummah, S. A., Amalia, D. Y., & Salsabila, N. S. (2022). Digital Literacy Competency of Primary School Teacher Education Department Student as the Demands of 21st Century Learning, 9(3), 466-483.
- Jaggars, S. S., & Xu, D. (2016). How do online course design features influence student performance? *Computers & Education*, 95, 270-284.
- Juwita, R., & Purwoko, L. F. (2022). Design and implementation of hybrid learning. *International Journal of Educational Dynamics*, 4(2), 14-23. https://doi.org/10.23871/ijed.v4i2.334
- Kamil, N., Sultan, H., & Ramadhan, S. (2023). Bibliometric study: Project-based learning in education on learning outcomes Scopus publication 2021-2023. Jurnal Inovasi Dan Teknologi Pembelajaran, 10(2), 201. https://doi.org/10.17977/um031v10i22023p201
- Karomah, R. T., & Ramadhan, S. (2023). Loose Part Media Publications Based on Scopus: A Bibliometric Study. *Khizanah Al-Hikmah: Jurnal Ilmu Perpustakaan, Informasi, Dan Kearsipan, 11*(1), 92-102. https://doi.org/10.24252/kah.v11i1a9
- Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs, NJ: Prentice-Hall.
- Maslow, A. H. (1987). Motivation and personality (3rd ed.). Delhi, India: Pearson Education.
- Nicola, M., Alsafi, Z., Sohrabi, C., Kerwan, A., Al-Jabir, A., Iosifidis, C., Agha, M., & Agha, R. (2020). The socioeconomic implications of the coronavirus pandemic (COVID-19): A review. *International Journal of Surgery*, 78, 185-193.
- Olapiriyakul, K., & Scher, J. M. (2006). A guide to establishing hybrid learning courses: employing information technology to create a new learning experience, and a case study. *The Internet and Higher Education*, 9(4), 287-301.
- Piaget, J. (1964). Part I: Cognitive development in children: Piaget development and learning. *Journal Research in Science Teaching*, 2(3), 176-186. https://doi.org/10.1002/tea.3660020306
- Puspitarini, Y. D., & Hanif, M. (2019). Using Learning Media to Increase Learning Motivation in Elementary School. Anatolian Journal of Education, 4(2), 53-60.
- Rafiola, R., Setyosari, P., Radjah, C., & Ramli, M. (2020). The effect of learning motivation, self-efficacy, and blended learning on students' achievement in the Industrial Revolution 4.0. *International Journal of Emerging Technologies in Learning (iJET)*, 15(8), 71-82.
- Rahardjo, A., & Pertiwi, S. (2020). Learning motivation and students' achievement in learning English. JELITA, 1(2),

56-64.

- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68-78. https://doi.org/10.1037/0003-066X.55.1.68
- Safitri, D., & Ramadhan, S. (2023). Tren Riset Media Kartun dalam Pendidikan Berdasarkan Database Scopus Tahun 2000-2023: Analisis Bibliometrik. Jurnal Basicedu, 7(3), 1757-1767. https://doi.org/10.31004/basicedu.v7i3.5126
- Saichaie, K. (2020). Blended, flipped, and hybrid learning: Definitions, developments, and directions. *New Directions for Teaching and Learning*, 2020(164), 95-104.
- Sarwendah, A. P., Azizah, N., & Mumpuniarti, M. (2023). The use of technology in hybrid learning for student with special needs. *Journal of Education and Learning (EduLearn)*, 17(2), 317-325.
- Simamora, R. M. (2020). The Challenges of online learning during the COVID-19 pandemic: An essay analysis of performing arts education students. *Studies in Learning and Teaching*, *1*(2), 86-103.
- Singh, J., Steele, K., & Singh, L. (2021). Combining the best of online and face-to-face learning: hybrid and blended learning approach for COVID-19, post-vaccine, and post-pandemic world. *Journal of Educational Technology Systems*, 50(2), 140-171. https://doi.org/10.1177/0047239520983581
- Sittisak, A. (2020). Digital Literacy Competency for Personnel of the Faculty of Humanities and Social Sciences, Khon Kaen University. *Journal of Information Science*, *38*(4), 61-81.
- Sofyan, H., Hartati, S., Anggereini, E., Muazzomi, N., & Ramadhan, S. (2020). Developing e-module local wisdom based for learning at kindergarten in Jambi, Indonesia. *Elementary Education Online*, 19(4), 2074-2085. Scopus. https://doi.org/10.17051/ilkonline.2020.763331
- Tan, M., & Shao, P. (2015). Prediction of student dropout in e-learning program through the use of machine learning method. *International Journal of Emerging Technologies in Learning*, 10(1).
- Thamrin, D., Wardani, L. K., Sitindjak, R. H. I., & Natadjaja, L. (2019). Experiential learning through community co-design in Interior Design Pedagogy. *International Journal of Art & Design Education*, 38(2), 461-477.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Wahjusaputri, S., & Nastiti, T. I. (2022). Digital literacy competency indicator for Indonesian high vocational education needs. *Journal of Education and Learning (EduLearn)*, 16(1), 85-91.
- Zhao, Y., & Watterston, J. (2021). The changes we need: Education post-COVID-19. *Journal of Educational Change*, 22(1), 3-12.

#### Acknowledgments

Not applicable.

**Authors contributions** 

Not applicable.

Funding

Not applicable.

**Competing interests** 

Not applicable.

Informed consent

Obtained.

#### **Ethics** approval

The Publication Ethics Committee of the Sciedu Press.

The journal's policies adhere to the Core Practices established by the Committee on Publication Ethics (COPE).

#### Provenance and peer review

Not commissioned; externally double-blind peer reviewed.

#### Data availability statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

#### Data sharing statement

No additional data are available.

#### **Open access**

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (http://creativecommons.org/licenses/by/4.0/).

#### Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.