

Historical Learning through Independent Strategies using LMS in the Merdeka Curriculum



Tunggal Wijaya¹, Akhmad Arif Musadad², Deny Tri Ardianto³

^{1,2,3} History Education Postgraduate Program, Sebelas Maret University, Jl. Ir. Sutami No.36, Surakarta,57125, Indonesia

ABSTRACT: This study aims to describe the process of learning history using independent learning strategies through the media learning management system in the Merdeka Curriculum. This research was conducted qualitatively by taking the background of research at SMA 1 Ceper and SMA N 1 Cawas. Research data obtained from observations of media implementation, student interviews, documentation, and audiovisual materials are then described descriptively. The research results show that first, students can perform independent learning through MERRDEKA learning activities with synchronous and asynchronous modes. So, learning history using self-learning strategies is appropriate when combined with LMS technology. Broadly speaking, this technology helps students to carry out independent activities such as finding information, processing, and disseminating in digital form. Students with independent behavior can be seen from the ability of students to formulate learning strategies, carry out management, and evaluate their achievements. However, the role of teachers is still needed, especially in providing views to students for problems they cannot solve independently. Both LMS have a role in learning strategies to help implement learning programs with the availability of various learning resources that have been systematically compiled.

KEYWORDS: Self-directed learning, Learning Management System, Historical Education, Senior High School, Curriculum Merdeka

I. INTRODUCTION

The history learning in the Merdeka Curriculum is included in intracurricular activities per the Pancasila Student Profile framework as a reference for competence and character. The Pancasila Student Profile, based on the Badan Standar, Kurikulum, dan Asesmen Pendidikan Kemendikbudristek (2022: 1), explained that there are six dimensions, one of which is independent value. This independent value dimension will later be integrated into the content of activities and learning experiences of students to achieve one of the objectives of implementing the Merdeka Curriculum.

The Merdeka curriculum philosophically takes the thoughts of Ki Hajar Dewantara. Some parts of his thought speak of independent education. The writings of Ki Hajar Dewantara, published by Majelis Luhur Persatuan Tamansiswa (1977), allude to a free man. According to him, a free man is outwardly and mentally not dependent on others but instead relies on his strength. According to him, education must prioritize the freedom of inner life so that individuals can carry out their societal obligations and rights. Furthermore, Ki Hajar Dewantara defines independence as having three characteristics: standing alone, not depending on others, and being able to govern itself. In teaching practice, Ki Hajar Dewantara introduced *momong*, *among* and *ngemong*.

Based on the philosophical foundation of the Merdeka Curriculum, it can be understood that education should not be coercive; a teacher can intervene if necessary so that the educational thinking brought by Ki Hajar Dewantara provides opportunities for students to learn with a minimal role from a teacher. Students do a lot of independent activities to learn, while teachers will intervene if students need technical guidance or material on how to solve problems or actual content that must be discussed so that the learning program that needs to be compiled must consist of activities by emphasizing the role of students.

These activities must be detailed using independent learning theories so that they can determine the right learning strategy to achieve one of the dimensions of this Pancasila Student Profile. Referring to Tan & Ling's (2015: 11) view, independent learning is related to personal processes and attributes. Independent learning with a process point of view means that students are involved in decision-making activities on their learning activities, can monitor, learn at different levels, and are not isolated. Then related to attributes, it can be interpreted that there are self-qualities in the independent realm, such as finding needs, learning objectives, and carrying out the process of search and reflection.

The above aspects will be packaged in the MERRDEKA flow with the help of technology to achieve learning according to the new paradigm. The role of technology, if seen from the writings of Isaeni & Amar (2022), can facilitate the learning process, especially in the Merdeka Curriculum, through a differentiated learning process. Technology can provide opportunities for students to learn according to their progress. In addition, through technology, students can be facilitated by learning independently anywhere

Historical Learning Through Independent Strategies Using LMS in the Merdeka Curriculum

and flexibly. Then to further clarify the characteristics of learning using technology in the Merdeka Curriculum, we can refer to information from the Direktorat Sekolah Dasar Direktorat Jenderal PAUD Dikdas dan Dikmen Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi (2022) which explains that digitalization of new learning shows characteristics such as student-centered, multimedia, collaborative, information exchange, and critical thinking in information creation. Seeing the philosophical and technological characteristics used in new learning encourages innovations in learning. It takes the right learning strategy to integrate both aspects. Therefore, using a media learning management system (LMS) is directed to facilitate and facilitate the implementation of new learning values to develop students' independent attitudes.

This research will look at the role of LMS media as a digital technology that supports today's learning in developing learning per the Merdeka Curriculum. Through learning with LMS media, students will carry out activities independently per the principles of the Merdeka Curriculum, namely, building lifelong learners.

II. METHODOLOGY

This research belongs to the qualitative type. Because the study was conducted in a real contemporary setting, this research is included in the type of case study. The research was conducted in specific places, namely SMA N 1 Ceper and SMA N 1 Cawas, each of which is located in Klaten Regency. Overall, the research was conducted in two grades, 10, which had applied the Merdeka Curriculum before. The position researcher here acts as an educator who applies to learning using LMS media for approximately one and a half months and completes one topic of learning about Hindu-Buddhism.

Data on research activities were obtained through observation of media implementation, student interviews, documentation, and audiovisual materials. In observation activities, researchers are fully involved by acting as educators and observers. The subjects observed in this study were grade 10 learners in two different classes. Students who are the research subjects are specially selected, namely those with low to good academic abilities. Further data collection is documentation and audiovisual materials. The documentation that will be the material for analysis here is based on learning recordings in the form of student work. After that, audiovisual material refers to the analysis of the function of the media used, namely in the form of an LMS.

The data that has been collected is then analyzed descriptively. Researchers need to describe the various value factors of independent learning strategies, LMS technology, and learner behavior changes. After that, an interpretation of the case will be carried out so as to obtain accurate data.

III. RESULT

HISTORY LEARNING SELF-STUDY STRATEGIES

Based on the analysis of learning planning documents, it was found that the teaching and learning process was carried out using online and offline modes. This process is evident from the design of core learning activities involving three independent and four group activities. Each is an activity starting from the self, exploring concepts and connections between materials categorized as independent. While collaborative activities such as collaboration spaces, guided reflections, contextual demonstrations, elaboration of understanding, and concrete actions. Because the mode used is combined, this learning uses a blended learning model. The following will be described these activities in the form of a table.

Learning Activities (MERRDEKA flow)	Information	MODE
Mulai Dari Diri Teachers ask students to work on activities starting from self-learning in the LMS.	Students give their opinions individually about the images contained in the starting part of themselves. Learners can answer according to learners initial knowledge of the image according to Hindu-Buddhist topics.	Online/Asynchronous
Eksplorasi Konsep The teacher then directed the students to the material of Hindu-Buddhist kingdoms consisting of Kutai, Tarumanegara, Kalingga, Srivijaya, Ancient Mataram, Kediri, Singosari, Majapahit on concept exploration activities in the LMS application.	Students independently read the primary material contained in the concept exploration section. This material is intended to increase students' mastery of knowledge about the history of Hindu-Buddhist kingdoms in Indonesia.	Online/Asynchronous
Ruang Kolaborasi	Students cooperatively work to resolve discussion topics related to the	Offline/Synchronous

Historical Learning Through Independent Strategies Using LMS in the Merdeka Curriculum

Furthermore, students synchronously collaborate with their classmates. Students are divided into 4-5 groups to discuss Hindu-Buddhist kingdom material. The topic of discussion was why the kingdoms in Indonesia have a maritime economic system. Name and explain these kingdoms!	maritime system and the kingdom related to the system.	
Refleksi Terbimbing Teachers classically provide guidance to students to strengthen the results of discussions.	The teacher provides guidance related to the results of discussions that are the subject of discussion among students. The teacher looks at the work of the students to see the core materials that must be added if they have not become.	Offline/Synchronous
Demonstrasi Kontekstual In this section, students vicariously give presentations related to the results of their findings. Other learners give opinions or questions at least 1.	Teachers provide opportunities for students in groups to convey the results of their discussions into the class forum. Other learners respond and the teacher provides reinforcement at the end of the lesson.	Offline/Synchronous
Elaborasi Pemahaman Based on the video presented, learners use previously acquired knowledge to analyze the information displayed.	Teachers encourage learners in groups to use previously learned concepts in explaining the information presented.	Online/Asynchronous
Koneksi Antar Materi In this section, please make a reference (summary) about the material that has been learned from the beginning!	Students independently rewrite the knowledge that has been obtained previously during the learning process that is passed.	Online/Asynchronous
Aksi Nyata In this section, students in groups are asked to produce the results of their understanding using several media (digital / print) such as images, illustrations, infographics, mind maps, or podcasts about the material they already understand.	Students cooperatively compile the results of their understanding in digital form.	Offline/Synchronous

Based on the table above, students have extensive opportunities to learn independently with minimal teacher roles. Based on observations made, the teacher acts as a facilitator who tries to explain learning activities. Meanwhile, students do it independently or collaboratively through the problems available in each activity. The results of individual and group work in MERRDEKA activities show that students can work and complete activities according to the learning outcomes in historical learning materials.

In more detail, the independent activity starting from the self is recognizing two images. This image is a trigger for learners to enter into the material. Here students are encouraged to express their opinions according to their knowledge. The teacher gave no special instructions other than the technical work. The results obtained from the students' answers show that they can argue or even elaborate on the answers of other individuals to reinforce what they convey. However, the answers given vary significantly from very simple to complex. However, if further interpretation, their answers can already provide a common thread related to early knowledge of the royal system and temple relics associated with Hindu-Buddhist material.

In the second activity, students were instructed to read material about Hindu-Buddhist kingdoms in Indonesia asynchronously. Students also get additional material from the resources the teacher provides in the forum. These materials reinforce the exploration of concepts that discuss history in more detail. For example, the maritime development of Hindu-Buddhist kingdoms in Indonesia has been indirectly mentioned in the exploration of concepts. However, this material is specifically discussed again using additional resources provided in other sections.

Students use this activity to process information about historical events, especially maritime Hindu-Buddhist kingdoms in Indonesia. Especially in collaboration and guided reflection space activities, students actively work independently to solve the

Historical Learning Through Independent Strategies Using LMS in the Merdeka Curriculum

questions. The teacher then strengthened the results of the discussion to each group to see the students' work in digging and processing information provided by the teacher about the maritime history of the Hindu-Buddhist kingdom in Indonesia.

The activity continued with the presentation of the student's answers and discussions between each group to exchange the results of their respective interpretations. Here students, based on observations, have different progress. This can be seen in each group's ability to explore maritime kingdom material. Some groups explore only one maritime empire and try to describe its marine activities. Others could describe the maritime activities of Hindu-Buddhist kingdoms in more detail based on trade routes and geographical conditions. Another activity seen during classroom observation was that some learners were seen using various resources provided on the LMS to solve questions given to them. However, some other students choose to answer more simply.

Learning activities are continued with the elaboration of understanding. Learners use pre-learned concepts to help answer questions about Hindu-Buddhist kingdoms provided by the teacher. Students answer questions from these by elaborating on the materials that have been learned before. The results of student work during the process of understanding elaboration activities show that students can use previously learned knowledge in the form of new information.

The last activity is connecting materials by making written and real-action summaries; the results are poured into digital form. Students here try to pour back during the learning process. This activity is vital to help students monitor their performance, and teachers can provide feedback on each individual. Then at the end of learning, students are encouraged to create digital works in infographics to disseminate the learning results they have obtained collaboratively.

Overall, the impact of self-learning strategies on learners needs to be explored from their perspective. Some things that need to be explored include their views and roles during the learning process. Students see that independent learning using LMS media is more comfortable than conventional teaching. They argue that the availability of complete learning resources is beneficial in exploring their knowledge as they wish. Moreover, through independent learning strategies, students feel that their learning is very structured and per the cognitive level because each individual is encouraged to think and answer according to what is understood. The rest of the varied work results become reciprocal for teachers to reflect according to the extent to which they understand the material provided.

Learners argue that history learning using independent strategy flows and LMS media allows them to set learning objectives, management, and evaluation. Here we see from the management of students when looking at the sequence of material in the MERRDEKA flow. After completing one task in the MERRDEKA flow stage, they have the opportunity to prepare for the next phase so that it can be helped in learning at a pace respectively. In addition, the MERRDEKA flow can be completed online at home for independent tasks in several stages. Students are also greatly helped by the presence of LMS to make it easier to do management independently. Learning management is related to how students complete the tasks in their way. Some students choose to prepare material that will be done in groups at home as discussion material when meeting face-to-face or by distributing tasks to each individual. The best point after management is the ability to evaluate. After following the MERRDEKA flow described in the table above, students see that the answers obtained from teachers and other individuals benefit from increasing their knowledge. Students consider input from teachers to evaluate themselves regarding essential material that has yet to be mastered. It is emphasized that learners should write reflections on the connections between materials to gauge how much their understanding of the kingdom Hindu-Buddhism has been mastered. Learners also compare the answers of each other individually as material to understand the material delivered by the teacher.

Finally, the analysis conducted on the learning outcomes document shows that students can cognitively achieve the competencies that have been determined. The objectives of the learning that have been prepared are 1) Students can understand the development of Hindu-Buddhist kingdoms in the archipelago, 2) Students can explain the evidence of the relics of Hindu-Buddhist kingdoms in the archipelago. 3) Students can present evidence products of the relics of Hindu-Buddhist kingdoms in the archipelago. For the first purpose, evidence of student achievement can be seen from their performance, explaining that Hindu-Buddhist kingdoms in Indonesia have a maritime system in the form of writing or class discussions. The evidence that can be used for this achievement assessment is their work documents after making presentations/discussions. Teachers focus on three indicators to see the achievement of their material, namely the suitability of the material's content, creativity, and completeness of the information. Then, in the second learning objective, students can explain the information in the video to elaborate understanding activities. Validation of achievement based on work documents prepared by students using the same indicators. Then for the third purpose, students are asked to be able to present products in digital form regarding what has just been learned. Evidence is in the form of digital infographic results and uses the same indicators as the previous section. A summative test was carried out at the end of the learning, and an average of 86 was obtained, which is a very good category.

The Role of LMS Media in Independent Learning Strategies

The media learning management system (LMS) used during the learning process functions as a digital classroom that involves students interacting with individuals, information retrieval, information processing, and disseminating learning outcomes. The LMS used helps students in planning, management, and evaluation. In independent learning, teachers need to provide complete resources that have been structured so that students can understand the learning flow easily. Before entering the material, students are presented

Historical Learning Through Independent Strategies Using LMS in the Merdeka Curriculum

with several planning documents that they can access in the learning design features. There are teaching modules (learning planning in the form of documents involving several descriptions of objectives, flows, and assessments), learning models (providing descriptions of how learning is carried out in detail), and the competencies to be achieved in each activity. Then the material is presented in a combination of text, images, and videos arranged using the MERRDEKA flow in online and offline modes. Then in each activity, students can interact with other individuals through comments on their answers. Finally, there are forums as a forum for discussion and additional material resources that they can use to explore historical events more specifically. Here the teacher provides other writings outside the subject matter as a matter of discussion.

The role of LMS media needs to be explored deeper, especially from the student's perspective. Here it can be seen that the media used in history learning is a place to interact with each individual. Students engage in information exchange activities which help them complete independent and group tasks. Learners, through LMS, can obtain the opinions of others as well as elaborate on them with the understanding that they have to design new information. Another role seen from LMS media for students is to help them to learn according to their respective learning styles. Some learners love text, images, audio, and video. Various resources are provided in the material to make students interested in learning independently. Finally, students see that LMS encourages them to learn outside the classroom. Using digital classes in the form of LMS can properly encourage students to learn individually.

IV. DISCUSSION

The following will be presented based on the findings, namely 1) historical learning self-learning strategies, and 2) the role of LMS media in independent learning strategies.

History Learning Self-Study Strategies

Self-learning strategies using the MERRDEKA flow described in the findings need to be reviewed, especially by looking at the principles of strengthening learning independence. Considering that independent learning is one of the values that must be embedded in the Merdeka Curriculum, the strategies prepared must impact students' attitudes. In addition, cognitive value is also a measure of the effectiveness of independent learning strategies in achieving learning competencies. To see both, discussing the strategies applied when learning history is necessary. Here educators apply learning, which is divided into two modes, namely online and offline. The online mode involves students in independent activities without direct intervention from other parties, while offline involves all individuals working together collaboratively to gain knowledge.

Looking at research conducted by Diana, Wirawati, & Rosalia (2020: 19), indicators were obtained regarding the application of blended learning mode and its impact on learning independence, which includes 1) not depending on others, 2) confidence, 3) discipline, 4) responsibility, 5) initiative, and 6) having control. Strategies carried out using the two modes above impact students, especially in the part of confidence, discipline, responsibility and initiative. Even though it is in an independent corridor, it does not mean that learning is isolated from other individuals. However, the strategies applied can be carried out directly or in a collaborative atmosphere with direct reciprocity. So that the strategy designed involves several tasks that need to be done independently, while some encourage students to work collaboratively.

Meanwhile, indicators of confidence, discipline, responsibility, and initiative can be seen in the activities of students while working on tasks in MERRDEKA activities. They are individually encouraged to argue, collect based on a predetermined time frame, and have creativity in answering based on various sources. Finally, control indicators can be seen in how students organize themselves in completing tasks. At the practical level, it is necessary to explain more specifically the behavior of students when following the MERRDEKA independent learning strategy through online and offline modes. Here it is necessary to see the writings of Anshu, Gupta, & Singh (2022: 333), which explain the level of learning independence consisting of dependent learners, interested learners, involved learners, and self-directed learners. It should be noted that these levels range from low to top. Here a teacher who finds the level of independent learning ability of students who are still low needs to be strengthened gradually until they reach the stage of self-directed learners. Based on this concept, students who follow the independent learning strategy above are at the third level or involved learners. Involved learners put learners and teachers in an equal position in decision-making. However, over time learners can take over this role entirely. Students can actively work in independent or group frames, and teachers become facilitators who see their learning progress. Involved learners also involve learners to understand the objectives and resources provided by the teacher fully and then independently able to carry out learning management own effectively. Students are also involved in many independent or collaborative activities that involve cognitive problem-solving skills.

Concerning cognitive abilities, learners' quality in working independently can be described in more detail by looking at what is proposed by Patterson, Crooks, & Lundy-Child (2022: 25) About the six competencies of learning independence. Especially in critical thinking competence, students' ability is at the lowest level. This is because the role of the facilitator is still there in terms of providing stimulus to build critical thinking activities. Higher activity in Patterson's four levels of critical thinking competence was more fully independent. However, this still needs to be noted, considering the different levels of education that are the object of research. However, suppose you look at the philosophy of Kurikulum Merdeka, per the educational view of Ki Hajar Dewantara. In that case, there is a term method among students (Majelis luhur persatuan taman siswa Yogyakarta, 1977: 242). This method

Historical Learning Through Independent Strategies Using LMS in the Merdeka Curriculum

generally explains that children can be released as long as they are on the right track. Teachers intervene if it is felt that the education carried out by students does not follow certain rules. So students are encouraged to learn independently until it is felt necessary for teachers to provide instruction. However, as Anshu argued before, in this learning, students can grow fully independent over time.

The activity of the research results when viewed in more detail, the research results show independent activities that involve the experience of seeking information from various sources, solving problems, making presentations, and doing projects. Bagheri, Ali, Abdullah, & Daud (2013: 25-26) wrote about project-based learning activities on independent learning skills, where it was found that this strategy positively impacted independent learning. They explained; further learners learning activities are at a specifically determined time, encouraging them to take advantage of learning situations. Also written, some information about the role of technology that makes it easier for students to collect information and then present the results. The principles of independent learning strategies brought by Bagheri are broadly per research conditions involving activities that combine collaboration, solving problems, and ending with the digital information creation project.

Based on the information above, history learning using independent strategies is very appropriate when combined with LMS technology. This technology helps students to carry out independent activities such as finding information, processing, and disseminating in digital form. Students with independent behavior can be seen from the ability of students to formulate learning strategies, carry out management, and evaluate their achievements. However, the role of teachers is still needed, especially in providing views to students for problems they cannot solve independently. Teachers have a duty as facilitators who provide various learning resources and carry out quality learning experiences.

The Role of Media Learning Management System (LMS)

Learning Management System (LMS) is a software media whose objective is to deliver learning programs that contain systematic steps and material. LMS is a digital technology that supports online and offline-based learning. In their research, Bagheri, Ali, Abdullah, & Daud (2013) explained that technology positively influences independent learning compared to conventional models. It further said that learners in online mode have regular feedback mechanisms with teachers so that they can direct themselves in learning. Sobri, Nursaptini, & Novitasari (2020) also wrote the same thing, that independence can be formed from online learning through active learning activities such as accessing teaching materials, doing worksheets, discuss with other students.

Talking about the independence activities above can be understood that the independence of learning using technology is related to the activities of students to be able to work alone. Then there is the condition where students get feedback, and the teacher sees their progress regularly. Through activities such as accessing teaching materials, doing worksheets, and discussing, they can continuously direct themselves according to the feedback that becomes their study records. Looking at the results of research conducted by Siagian, Marpaung, & Simanjuntak (2021: 57), independent learning using LMS consists of at least teaching materials consisting of several sub-materials, videos, student worksheets, and chat forums. Learning independent strategies with LMS media can run effectively through some of these features. Students are expected to be able to determine goals and strategies, management, and evaluation of learning, especially in online and offline modes.

The online and offline mode strategies applied in LMS in the results of the study above can refer to one type of blended learning, namely flipped classroom. Bishop & Verleger (2013) explain that flipped classrooms apply asynchronous teaching and activities in learning. By the results of the study, asynchronous-based learning activities are independent and can be carried out outside the classroom. Students in asynchronous mode have tasks with lighter characteristics than in the classroom. As in the initial meeting, learners were only asked to reflect on their knowledge of Hindu-Buddhist concepts and then write them down. In addition, other asynchronous tasks are reading the material, doing problems with problems that are in the video, and then reflecting on the learning as a whole. This has a lighter load where students get help from the teacher directly in class, and the tasks given are more complex by completing discussion reports or learning projects. According to Zainuddin & Perera (2018), flipped classroom activities can increase learning independence. Furthermore, it is explained that LMS helps students to be fully prepared when activities in class, for example, when they have seen their previous material, will be better prepared in discussions.

The conclusion that can be obtained from the role of LMS in independent learning strategies is to help implement learning programs with the availability of various learning resources that have been systematically compiled. Resources related to independent learning strategies can be teaching materials/materials, videos, student worksheets, and discussion forums. All of these resources are intended to help carry out asynchronous and synchronous activities where each has specific specifications, such as the online mode, students are encouraged to learn On their own, and offline, they must complete learning collaboratively. Both activities are carried out with minimal role from the teacher, while students can determine their strategies in completing the learning program that has been provided.

CONCLUSION

Based on the research that has been done, it is concluded that LMS media can support history learning using independent learning strategies. Students show attributes of independence when they carry out learning activities in LMS, such as determining strategies, conducting management, and evaluating learning. Moreover, through LMS, students can work individually or in groups with the

Historical Learning Through Independent Strategies Using LMS in the Merdeka Curriculum

help of complete learning resources and appropriate activities. These resources students can use to complete problem-based worksheets and projects. Teachers as facilitators of this learning strategy monitor their student's progress and help if they experience technical or theoretical obstacles related to their learning experience. Then if you look at learners' cognitive abilities, they have good learning outcomes. However, in the process, students still need teachers, especially to stimulate them in solving learning problems or working on projects.

REFERENCES

- 1) Anshu, Gupta, P., & Singh, T. (2022). The Concept of Self-Directed Learning: Implications for Practice in the Undergraduate Curriculum. *Medical Education*, 333.
- 2) Standards Agency, K. d. (2022, February 15). COPY OF THE DECREE OF THE HEAD OF THE EDUCATION STANDARD, CURRICULUM, AND ASSESSMENT AGENCY OF THE MINISTRY OF EDUCATION, CULTURE, RESEARCH, AND TECHNOLOGY NUMBER 009/H/KR/2022 CONCERNING DIMENSIONS, ELEMENTS, AND SUBELEMENTS OF THE PANCASILA STUDENT PROFILE IN THE MERDEKA CURRICULUM. Jakarta, D.K.I Jakarta, Indonesia.
- 3) Bagheri, M., Ali, W. Z., Abdullah, M. C., & David, S. M. (2013). Effects of Project-based Learning Strategy on Self-directed Learning Skills of Educational Technology Student. *CONTEMPORARY EDUCATIONAL TECHNOLOGY*, 25-26.
- 4) Bishop, J., & Verleger, M. A. (2013). The Flipped Classroom: A Survey of the Research. *2013 ASEE Annual Conference & Exposition*. Atlanta, Georgia.
- 5) Diana, P. Z., Wirawati, D., & Rosalia, S. (2020). Blended Learning in the formation of learning independence. *Journal of Literary Language and Teaching*, 19.
- 6) Directorate of Elementary Schools Directorate General of PAUD Dikdas and Dikmen Ministry of Education, Culture, Research, and Technology. (2022, January 29). Taken back from <https://ditpsd.kemdikbud.go.id/artikel/detail/merdeka-belajar-manfaatkan-teknologi-sebagai-media-belajar-mengajar>
- 7) Isaeni, N., & Amar, N. (2022, August 10). *Technology in the Transformation of Merdeka Curriculum Learning*. Taken back from Directorate of teachers and basic education: <https://dikdas.devapps.id/news/teknologi-dalam-transformasi-pembelajaran-kurikulum-merdeka>
- 8) Khalid, M., Bashir, S., & Amin, H. (2020). Relationship between Self-Directed Learning (SDL) and Academic Achievement of University Students: A Case of Online Distance Learning and Traditional Universities. *Bulletin of Education and Research*, 140.
- 9) Patterson, C., Crooks, D., & Lunyk-Child, O. (2022). A New Perspective on Competencies for Self-Directed Learning. *Journal of Nursing Education*, 25.
- 10) Siagian, E., Marpaung, N., & Simanjuntak, M. P. (2021). LEARNING MANAGEMENT SYSTEM (LMS)-BASED LEARNING. *Journal of Physics Learning Innovation*, 57.
- 11) Sobri, M., Nursaptini, & Novitasari, S. (2020). REALIZING LEARNING INDEPENDENCE THROUGH ONLINE-BASED LEARNING IN UNIVERSITIES IN THE INDUSTRIAL ERA 4.0. *Glasser Journal of Education*, 69-70.
- 12) Tan, L., & Ling, J. K. (2015, December). *ResearchGate*. Taken back from https://www.researchgate.net/publication/285591239_Self-Directed_Learning_Learning_in_the_21st_Century
- 13) Majelis Luhur Persatuan Tamansiswa. (1977). Karya Ki Hadjar Dewantara: Pendidikan. Bagian pertama. Yogyakarta
- 14) Zainuddin, Z., & Perera, C. J. (2018, October 26). *Emeraldinsight*. Taken back from <https://www.emerald.com/insight/content/doi/10.1108/OTH-04-2017-0016/full/html>



There is an Open Access article, distributed under the term of the Creative Commons Attribution-Non Commercial 4.0 International (CC BY-NC 4.0) (<https://creativecommons.org/licenses/by-nc/4.0/>), which permits remixing, adapting and building upon the work for non-commercial use, provided the original work is properly cited.