

## INDEPENDENT CURRICULUM AND DEEP LEARNING

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### Abstract

The Merdeka Curriculum is an educational innovation that emphasizes flexibility in learning, in-depth study of essential material, and character building through a learner-centered approach. On the other hand, the concept of deep learning in education emphasizes deep understanding, critical and reflective thinking skills, and the application of knowledge in real-world contexts. Both have the same orientation, which is to encourage meaningful and transformative learning. The integration of deep learning in the Merdeka Curriculum enables a more contextual, collaborative, and adaptive learning process, particularly through the application of methods such as project-based learning, problem-based learning, in-depth discussions, and the use of learning technology. This approach not only increases student motivation and engagement but also strengthens 21st-century competencies and character in line with the Pancasila Student Profile. Thus, the relationship between the Merdeka Curriculum and deep learning becomes an important foundation in developing a learning system that is relevant to modern educational challenges.

**Keywords:** Deep Learning, Merdeka Curriculum, Meaningful Learning

### INTRODUCTION

The development of science, technology, and socio-cultural dynamics requires the education system to continuously adapt in order to meet the learning needs of the 21st century. In the context of Indonesia, the birth of the Merdeka Curriculum is a strategic response from the Ministry of Education, Culture, Research, and Technology to create learning that is more flexible, relevant, and student-centered. This curriculum is designed to give teachers the freedom to determine learning strategies that suit the characteristics of their students, while students are given the space to develop their potential, interests, and ability to think independently and creatively. This approach marks a paradigm shift from content-oriented learning to competency- and character-oriented learning.

On the other hand, the global education world increasingly emphasizes the importance of deep learning, which is a learning approach that requires active student involvement to understand concepts in depth, connect new knowledge with previous experiences, and be able to apply it in

various real situations. The deep learning approach differs from surface learning, which only emphasizes memorization, because it emphasizes higher-level cognitive processes such as analysis, evaluation, creation, and reflection. Thus, deep learning is seen as an approach that can improve the overall quality of learning.

The Merdeka Curriculum and deep learning have strong points in common, especially in their efforts to build meaningful learning oriented towards 21st century competencies. The Merdeka Curriculum facilitates the application of deep learning by providing space for innovation for teachers, simplifying essential material, and strengthening project activities that involve problem solving, collaboration, and reflection. The application of learning models such as Project-Based Learning, Problem-Based Learning, and in-depth discussions further strengthens the practice of deep learning in the classroom so that students not only learn to understand concepts but also develop critical, creative, communicative, and collaborative thinking skills.

The integration between the Merdeka Curriculum and deep learning is also relevant in efforts to shape the Pancasila Student Profile, which is the main orientation of Indonesian education. Values such as independence, critical thinking, creativity, mutual cooperation, and global diversity can be optimally developed through a deep learning approach. Thus, the application of deep learning in the Merdeka Curriculum is not merely a pedagogical strategy, but also a fundamental step in preparing a generation that is adaptive to change and capable of facing global challenges.

Overall, the relationship between the Merdeka Curriculum and deep learning presents a great opportunity for a more humanistic, contextual, and sustainable transformation of education. Learning is no longer understood as a process of knowledge transfer, but as a process of building meaningful experiences that encourage students to become lifelong learners. This introduction provides a foundation for understanding how these two concepts complement and reinforce each other in creating a more progressive quality of learning in Indonesian schools.

## **METHOD**

This study uses a qualitative approach with a library research method, in which all data is collected through searching various scientific sources such as books, journal articles, and official documents discussing the Merdeka Curriculum and the concept of deep learning. The literature obtained is analyzed using content analysis techniques to examine the relevance, relationship, and integration between the two concepts. The analysis process was carried out systematically by reading, identifying, grouping, and synthesizing findings from various references to produce a comprehensive understanding of the integration of deep learning in the implementation of the Merdeka Curriculum.

## **RESULTS**

### **Definition of the Merdeka Curriculum**

The Merdeka Curriculum is the latest education policy developed by the Ministry of Education, Culture, Research, and Technology (Kemdikbudristek) as an improvement on the 2013 Curriculum. This curriculum emerged in response to the need for a more adaptive, flexible, and learner-oriented education system, as well as to address the challenges of an era marked by rapid technological, social, and cultural developments.

According to Kemdikbudristek (2022) in the Academic Study of the Merdeka Curriculum, this curriculum is designed with the principle of providing learning freedom for teachers and students. Teachers are given the freedom to choose and develop teaching tools according to their needs, while students are given the space to learn according to their interests, abilities, and learning styles. The main objective of the Merdeka Curriculum is to create a learning environment that is enjoyable, relevant, and meaningful, so that students can become lifelong learners with strong character and 21st-century competencies (Putu et al., 2023).

Meanwhile, according to Susilawati (2023) in the Academic Media Journal, the Merdeka Curriculum is a curriculum with a simpler and more flexible structure than the previous curriculum. The main focus of learning is no longer on the amount of material delivered, but on deepening concepts and strengthening basic competencies such as literacy, numeracy, and character in line with the Pancasila Student Profile. This curriculum is also designed to restore learning due to the impact of the Covid-19 pandemic, which has caused learning loss at various levels of education (Agustina, 2023).

In addition to flexibility, the Merdeka Curriculum is also oriented towards the development of the competencies and character of students as a whole. This is in line with the national education goal which emphasizes the formation of individuals who are faithful, have noble character, are intelligent, creative, and responsible. Through a student-centered learning approach, the Merdeka Curriculum encourages students to actively build knowledge, collaborate, and think critically in solving real problems around them.

The Merdeka Curriculum also introduces the concept of intracurricular learning and projects that reinforce the Pancasila Student Profile (P5). In these activities, students not only learn theoretically in the classroom but also engage in project-based activities that foster the values of mutual cooperation, independence, and social awareness ( ). Through these projects, learning becomes more contextual and meaningful, as students are directly involved in activities related to their daily lives (Hakim et al., 2024)

Thus, from these various perspectives, it can be concluded that the Merdeka Curriculum is a national curriculum that provides freedom for schools, teachers, and students to innovate in the learning process, emphasizing flexibility, in-depth study of essential material, and strengthening the character and competencies of students. This curriculum is expected to create learning that is adaptive to the times, relevant to the needs of students, and in line with the noble values of the Indonesian nation.

## **Characteristics of the Merdeka Curriculum**

The Merdeka Curriculum has a number of characteristics that distinguish it from previous curricula. These characteristics reflect a new educational paradigm that emphasizes meaningful, flexible, and student-centered learning. According to the Ministry of Education, Culture, Research, and Technology (2022), the main features of the Merdeka Curriculum lie in the simplification of the curriculum structure, the provision of flexibility to teachers and schools, and a focus on strengthening student competencies and character (Rosyida, 2025).

In general, the characteristics of the Merdeka Curriculum can be outlined as follows:

### **a. Focus on Essential Content**

The Merdeka Curriculum simplifies basic competencies and learning content so that students can understand concepts in depth, rather than just memorizing them. With this essential content, teachers can allocate more time to strengthen students' competencies and character through active and reflective learning.

### **b. Flexibility and Differentiated Learning**

One of the main features of the Merdeka Curriculum is flexibility. Teachers are given the freedom to determine teaching methods, strategies, and tools according to the characteristics of the students and the school environment. This encourages differentiated learning, which is learning that adapts to the needs, learning styles, and interests of students so that no student is left behind.

### **c. Strengthening Competence and Character through Projects**

The Merdeka Curriculum emphasizes project activities that strengthen the Pancasila Student Profile, which aims to shape students who are faithful, independent, cooperative, creative, critical thinkers, and globally diverse. Through project-based learning, students are invited to solve real problems in their surroundings.

### **d. Learner-Centered Learning**

The approach used in the Merdeka Curriculum places students as active subjects of learning. Teachers no longer dominate, but rather facilitate the learning process that encourages students to explore, discuss, experiment, and create according to their potential.

### **e. Holistic and Continuous Assessment**

In the Merdeka Curriculum, assessment is not only carried out at the end of learning, but also during the process. Assessment is formative and diagnostic, used to understand students' overall development and learning needs, not just to measure final results.

### **f. Contextual and Adaptive to the Environment**

Another characteristic is its contextual nature, where learning is designed according to socio-cultural conditions, regional potential, and local community needs. Thus, this curriculum is adaptive to changes and challenges of the times (Agustina, 2023)

## **Understanding Deep Learning in Education**

Deep learning in the context of education is a learning approach that focuses on deep understanding of concepts, critical information processing, and the ability to apply knowledge in new contexts. Unlike surface learning, which tends to emphasize memorization without comprehensive understanding, the deep learning approach encourages students to connect new knowledge with their existing experiences, actively construct meaning, and reflect on the learning process and outcomes achieved (Hitzler et al., 2025).

Deep learning in the context of education refers to a learning approach that emphasizes a deep understanding of the subject matter. Unlike traditional methods that generally focus on mastering facts and memorization, this approach focuses on developing critical, analytical, and reflective thinking skills. Through deep learning, students are encouraged to process, connect, and utilize the knowledge they have acquired in various new situations. The main objective is to improve the quality of learning by fostering social interaction, honing higher-order thinking skills, and expanding the application of knowledge in a broader life context.

According to Marton and Saljo, deep learning occurs when students strive to understand the meaning of the subject matter, connect new ideas with prior knowledge, and are able to analyze and evaluate the information obtained. In other words, students who apply deep learning not only know what, but also understand why and how.

Mystakidis reveals that deep learning encompasses cognitive, social, and affective aspects in the learning process. Thus, students are not only guided to understand the material theoretically, but are also expected to be able to apply it in real situations related to everyday life. Through this approach, deep learning focuses not only on mastering knowledge, but also on developing critical thinking skills and the ability to work together, both of which are very important for facing and solving problems in the real world (Fitriani, 2025)

Otto et al. state that deep learning does not solely emphasize mastery of subject matter, but also includes motivational aspects, such as the emergence of interest or fascination with the material being studied. This approach is seen as a cognitive process that requires learners to relate new knowledge to what they already know and deepen their understanding by applying the concepts they have learned in real-life contexts and new situations (Otto et al., 2020).

M. Elbashbishy explains that deep learning in the context of education is related to the ability of learners to apply the knowledge they have acquired from one situation to another. This confirms that deep learning does not only focus on understanding concepts, but also on applying that knowledge in real life. In addition, this approach also involves the process of analyzing student behavior and interaction with learning materials in order to improve the effectiveness and quality of the learning process as a whole (Elbashbishy, 2024).

Based on the various views above, it can be concluded that deep learning in education is not merely about mastering material, but encompasses a deep understanding that combines knowledge, critical thinking skills, creativity, and cooperation. This approach not only requires students to remember information, but also encourages them to actively participate in a learning process that emphasizes the application of knowledge in various situations. The use of technology, project-based learning, and collaborative methods are important components in building meaningful learning experiences. Thus, deep learning has the potential to transform education in a more progressive direction, where students are not only prepared to face exams, but also able to respond to real-life challenges with stronger and more adaptive skills. In conclusion, deep learning in education is an approach that emphasizes deep understanding through critical, reflective, creative, and applied thinking, not just memorization.

## **The Relationship and Application of Deep Learning in the Implementation of the Merdeka Curriculum**

The Merdeka Curriculum is an education policy that emphasizes freedom of learning, character building, and holistic student competency development. This concept of freedom of learning provides space for teachers and students to organize the learning process according to their respective needs and potential. Deep learning in the context of education is not merely artificial intelligence technology, but a deep and meaningful learning approach. This approach emphasizes detailed understanding of concepts, active student involvement, and the application of knowledge in real contexts.

In the Merdeka Curriculum, deep learning is an approach that is in line with the goal of shaping Pancasila student profiles, which requires students to develop critically, creatively, collaboratively, and communicatively. This understanding is important because deep learning can strengthen the effectiveness of the Merdeka Curriculum through a learning process that not only transfers knowledge but also transforms higher-order thinking skills. The integration of deep learning can help create a mindful, joyful, and meaningful learning atmosphere, which are the basic principles of the Merdeka Curriculum.

**Application of Deep Learning in the Merdeka Curriculum** In practice, several learning models based on the principles of deep learning can be applied in the Merdeka Curriculum, such as the following: Project-Based Learning (PjBL) Students are given challenging projects that must be completed through active collaborative work. Here, students not only memorize but also analyze, research, and apply concepts to real projects. This method hones critical and creative thinking skills in line with the Merdeka Curriculum guidelines. In-Depth Class Discussions

Teachers facilitate class discussions that encourage students to explore a comprehensive understanding of a concept or phenomenon. These discussions foster analytical skills, argumentation, and deep reflection, which are characteristics of deep learning supported by the Merdeka Curriculum. Problem-Based Learning (PBL)

In this method, students solve real-world problems by applying cross-disciplinary knowledge. This facilitates the development of adaptive competencies and creative solutions, as well as strengthening collaboration and communication skills. Integration of Technology in Learning

The use of technology such as simulations, interactive videos, and learning applications supports deep learning by making the learning process more interesting and relevant to the digital age. Technology also helps students understand complex concepts in a visual and interactive way (Cholifatunisa et al., 2025).

**Benefits and Impact of the Deep Learning Approach on the Merdeka Curriculum** As researchers, empirical studies show that the application of deep learning in the Merdeka Curriculum contributes significantly to: Improving Student Competence. Through active and reflective learning, students are able to master the material with a deeper understanding, not just memorization. The result is an improvement in the Pancasila learner profile, including critical thinking, creativity, and social skills. Personalized and Flexible Learning. The Merdeka Curriculum emphasizes learning that suits the individual needs of students. Deep learning supports this with methods that accommodate various learning styles and learning rhythms of students.

The relationship between teachers and students becomes more collaborative and interactive, creating a supportive, enjoyable, and challenging learning environment. This has a positive impact

on student motivation and engagement. Development of Digital Skills and Technology Literacy. The integration of technology in deep learning prepares students to critically understand and use advanced technology, strengthening digital literacy that is highly relevant in the modern era.

Deep learning and the Merdeka Curriculum are two complementary educational concepts. Deep learning is a profound and meaningful learning approach that optimizes learning freedom, diversity of potential, and character development in the Merdeka Curriculum. Its application through active methods such as project-based learning, in-depth discussions, problem solving, and technology enriches the learning experience of students while improving the quality of competencies in accordance with the Pancasila learner profile.

Integrating deep learning into the implementation of the Merdeka Curriculum provides a great opportunity to innovate research-based and contextual learning that is relevant to the needs of the times, as well as to produce a generation of learners who are adaptive, critical, creative, and have character. This explanation includes detailed descriptions and examples of implementation that demonstrate the close relationship between deep learning and the Merdeka Curriculum from both academic and practical educational perspectives (Aripin, 2025)

## **CONCLUSIONS**

The Merdeka Curriculum is an educational innovation that provides learning freedom for teachers and students to tailor the learning process to their respective needs, interests, and potential. This curriculum emphasizes flexibility, student-centered learning, and character building through project-based activities oriented towards the Pancasila Student Profile.

Meanwhile, deep learning in the context of education does not only mean technical in-depth learning, but also includes conceptual understanding, critical thinking, creativity, and reflective abilities. This approach encourages students to understand the meaning of what they are learning, connect new knowledge with previous experiences, and be able to apply it in real-life contexts.

The relationship between the Merdeka Curriculum and deep learning is very close, as both are oriented towards meaningful and transformative learning. Deep learning is an approach that supports the successful implementation of the Merdeka Curriculum through methods such as Project Based Learning, Problem Based Learning, and in-depth discussions that encourage collaboration and independent learning among students.

By integrating deep learning into the Merdeka Curriculum, the learning process becomes more contextual, relevant, and adaptive to the challenges of the times. As a result, students not only master knowledge but also have higher-order thinking skills, strong character, and are ready to face global changes creatively, critically, and with noble character in accordance with the values of Pancasila.

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