

Exploring the Differences and Similarities Between Kurikulum Merdeka and the Upcoming Deep Learning Curriculum: A Qualitative Study

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Abstract

Indonesia Education system is undergoing rapid development. Which has raised concern, particularly among future teachers. Kurikulum Merdeka, which is designed to offer more flexibility and emphasize student centered learning, has faced several challenges during its implementation. Many parents have expressed confusion and dissatisfaction, feeling that the curriculum currently applied in schools is not delivering the desired result. Recently, there has been growing interest in a new curriculum based on deep learning, which expected to utilize technology and artificial intelligence to help students achieve deeper and more meaningful learning. This study aims to examine the differences and similarities between kurikulum Merdeka and the proposed deep learning curriculum. It also explores teachers understanding and perception of both curriculum models. Data collection in this study was carried out through interviews with a teachers showed limited knowledge about deep learning and was unsure how it would be applied in the classroom learning. This indicates a potential challenge in the future implementation of the new curriculum. The purpose of this study is to provide useful recommendation for policymakers and curriculum developers to help schools and teacher prepare for the upcoming curriculum changes. This research is expected to contribute Indonesia education system in line with modern and international education trends.

Key words: Kurikulum Merdeka, Deep learning, Curriculum change, Teacher, Education.

Introduction

Indonesian educational system is now run into massive change with the implementation of Kurikulum Merdeka, who give flexibility to teacher and students in creating student centered learning experiences. However, the curriculum implementation faced many of problem. According research from Faradella et all. (2024), "Teaches strategy include project based learning and open-ended questioning, but this strategy face limitation due lack of resources and not enough teacher experience." This treat reflects the difficulties teacher face in integrating high level thinking skill in the class (HOTS), even though there has been effort to improve students' cognitive ability.

Besides that, Putri et al. (2024) finds that "Elementary school teachers struggle to implement differentiated instruction effectively due a lack of instructional materials, not enough teachers experience, and the absent of a clear framework for personalize learning." this indicates that even though Kurikulum Merdeka aims for supporting flexibility studying, lot of teacher face difficult to adapt learning according to what each student need, especially in dealing with the diversity of students ability in the class.

In another side, deep learning-based curriculum starts to under consideration became alternative for upgrading learning outcomes. There for, its implementation is not without challenges. Esterda-Molina et al. (2024) reveal is "In educational system adopting deep learning, the main pedagogical challenges include the effective personalization of content for different learning styles, addressing inherent biases in datasets, and managing the high computational cost of training deep learning models." Although it offers the potential for deeper learning, implementation of this brand-new curriculum needs significant planning and resources.

This research aims to explore the differences and similarity between Curriculum Merdeka and Deep learning-based curriculum, and to identification how teachers understand and prepare for both curriculum models. It is hoped that the findings of this research can provide insight for policy makers and curriculum development in preparing more effective education.

Method

This study uses a qualitative case study approach, which is suitable for exploring the differences and similarities between the Kurikulum Merdeka and the proposed Deep Learning curriculum. The qualitative approach allows researchers to deeply understand teachers' experiences, strategies, and perception regarding the implementation of both curricula. In this study, researches compare how the two curricula are implemented in the field, focusing on teachers' perspectives and the challenges faced in adapting both. This study aims to identify the teaching strategies used by teachers in implementing curricula, as well as the challenges faced in implementing the Higher Order Thinking Skills (HOTS) approach. According to Renjith (2021), a qualitative approach is used to understand human behavior and their experiences in deeper context. By using a case study allows for more focused analysis of teachers experiences in dealing with two different curricula.

Research Participants

The participants in this study were teachers who had experience in implementing the Kurikulum Merdeka in school and had understanding of Deep Learning Curriculum. Teacher was selected based on the following criteria:

1. Experience in teaching using the Kurikulum Merdeka.
2. Knowledge or training related to the implementation of deep learning Curriculum.
3. Willingness to share insights and experiences regarding the challenges faced in implementation both curricula.

The teachers selected had been involved in the implementation of Kurikulum Merdeka and had also attended training or seminars related to the Deep Learning Curriculum. This allowed researchers to gain a comprehensive perspective on the comparison between the two curricula.

Data Collection

The data in this study were collected through semi structured interviews aimed to explore the following aspects:

1. Teaching strategies used by teacher in implementing the Kurikulum Merdeka and Deep Learning Curriculum.
2. Differences and similarities perceived by teacher between the two curricula.
3. Challenges faced by teachers in adapting the two curricula.
4. Teacher's perception of the effectiveness of the two curricula in increasing student engagement and HOTS-based learning.

Interviews were conducted in person (or online) with the teacher's permission and all conversation were recorded for later transcriptions, so that teachers can provide deeper insights into their experiences in implementing the two curricula.

Data Analysis Techniques

The data obtained from the interviews were analyzed using thematic analysis. This approach was chosen because it allows researchers to identify key themes and pattern that emerge from the teachers answer. In thematic analysis, researcher extract recurring topics, and analyze how teachers describe the differences and similarities between Kurikulum Merdeka and Deep Leraning Curriculum. The transcribed data will be analyzed to find:

1. Teaching strategies applied in the teaching (HOTS).
2. Differences and similarities in the implementation of the two curricula.
3. Challenges faced in implementing the two curriculum approaches.
4. The effectiveness of each curriculum in increasing student engagement and higher-order thinking skills.

By using thematic analysis, this study can provide a clear picture of how these two curricula are received and implemented in the classroom, as well as the challenges that arise when integrating HOTS into learning.

Result & Discussion

Interview Result

Based on the result of the interview with a teacher who has implemented the Kurikulum Merdeka and has a basic understanding of the Deep Learning Curriculum concept, three main themes were obtained: (1) Teaching strategies, (2) Implementation challenges, and (3) Perceptions of the effectiveness of the two curricula.

1. Teaching strategy

The teacher said that in the Kurikulum Merdeka, the most dominant approach used is project-based learning, differentiated learning, and integration of Pancasila Student Profile values. Teacher is given the freedom to adjust learning methods according to student characteristics and school context. Meanwhile, the concept of Deep Learning Curriculum is understood by teachers as an approach that prioritizes the use of technology, the development of artificial intelligence in the learning process, and emphasizes deep understanding and analytical skills. The teacher explained that the strategy in the Deep Learning Curriculum will rely heavily on digital-based learning, personalization of materials, and the use of data to support student progress.

Teacher also added that while the Deep Learning Curriculum offers the potential to provide a more immersive learning experience, implementing these concepts requires adequate infrastructure. According to teachers, the Kurikulum Merdeka is easier to implement because of its more flexible approach and less reliance on sophisticated technology and hardware needed to support Deep Learning are still limited in many schools in Indonesia.

2. Implementation Challenges

The teacher explained that the main challenges in the Kurikulum Merdeka were the gap in readiness between teachers, limited understanding of differentiated learning, and the lack of contextual learning facilities. The teachers also added that even though there was freedom in designing learning, many teachers found it difficult to assess student success comprehensively.

On the other hand, the Deep Learning Curriculum faces more complex challenges. Unready technological infrastructure in many schools in Indonesia is the one of main obstacles. In addition, the implementation of Deep Learning requires teacher to continue learning and adapting to new technological developments, which requires intensive training. The teacher also stated:

“The concept of deep learning is very interesting, but it will be difficult to access if school do not have the technological support. This could increase the gap between school. “

The difference in infrastructure readiness between schools in big cities and remote areas is a major problem. Technology-based curriculum requires stable internet access, good hardware, and intensive teacher training in using the latest devices and technologies.

3. Perception of Curriculum Effectiveness

Teachers stated that the Kurikulum Merdeka has proven to be effective in providing space for teacher and students to be more flexible in the learning process. However, teacher also expressed that the effectiveness of the Kurikulum Merdeka is highly dependent on the internal support available in each school. On the other hand, the Deep Learning Curriculum sees as the future of the education that can significantly improve the quality of learning, but its implementation requires time and long-term planning, especially in terms of teacher training and technology provision.

Kurikulum Merdeka can increase student participation in learning, because it provides more space for students to be actively involved in the projects that are relevant to their lives. This is very much in line with the theory of constructivist education, where students learn by experiencing and using knowledge in real contexts. This project-based learning provides space for students to think critically and solve problems that are relevant to the real world, something that is very necessary to prepare students to face the challenges of the 21st century.

Discussion

The result of this study shows that the Kurikulum Merdeka and Deep Learning Curriculum have same goal, which is to improve the quality of education, but with very different approach. The Kurikulum Merdeka focuses on flexibility, contextual learning, and student independence, while the Deep learning Curriculum focuses more on utilizing technology and data to create personalized and analysis-based learning.

Kurikulum Merdeka provides an opportunity for teachers to be more creative in designing learning that suits student's needs. This approach is in the line with the findings of Ymin & Syahrir (2020) which state that flexibilities in the curriculum provides room for teaching innovation. However, the biggest challenges is the limited teacher training in implementing differentiated learning and competency-based assessment.

On the other hand, Deep Learning Curriculum offers great potential in enhancing personalization of learning, allowing each student to learn according to their abilities. However, its implementation requires a large investment in technological infrastructure and more in-depth teacher training. This is line with the findings of Estrada-Molina et al. (2024) which show that deep learning has the potential to improve learning, the main challenges lie in access to technology and high computing costs.

While both curricula offer great potential, challenges remain in their implementation. Kurikulum Merdeka is more accessible because it is more flexible and less dependent on technology, but the challenges lie in the differences in teacher readiness lack of training. The Deep Learning Curriculum, on the other side, has tremendous potential to create data-driven learning, but the gap in access to technology remains a major obstacle.

Overall, both curricula, although having similar goals in improving the quality of education, require a more holistic approach in their implementation. Government policies that support the development of teacher and school capacity in accessing technology will greatly influence the success of the implementation of both curricula.

Conclusion

This study aims to explore the differences and similarities between Kurikulum Merdeka and Deep Learning Curriculum, focusing on teachers experiences in implementing both curricula in the classroom. Based on the result of an interview with a teacher who experienced in both curricula, it can be concluded that although both curricula have the same goal, which is to improve quality of education in Indonesia, each curriculum offers a very different approach in achieving that goal.

Kurikulum Merdeka, with its basic principles emphasizing flexibilities, contextual learning, and student independence, provides more space for teacher to develop more creative learning methods that are tailored to students need. This Curriculum gives teachers the freedom to choose relevant teaching materials and design competency-based learning, which support the development of higher-order thinking skill (HOTS). However, the implementation of the Kurikulum Merdeka faces major challenges related to varying teacher readiness, lack of training in differentiated learning, and limited resources available in schools. Nevertheless, this

curriculum is considered easier to implement, especially in schools with limited technological infrastructure.

On the other side, The Deep Learning Curriculum offers great potential in leveraging technology and data analytic to create more personalized and data-driven learning for student. The implementation of this curriculum allows for deeper learning, with an emphasis on conceptual understanding and the development of strong analytical skills. However, the implementation of Deep Learning Curriculum is highly dependent on adequate technological infrastructure, intensive teachers training, and easy access to technological devices throughout Indonesia. Without great support in terms of hardware and internet access, the Deep Learning Curriculum risks exacerbating the educational gap between schools that have access to technology and those that do not.

Overall although the Kurikulum Merdeka is easier to implement and more flexible, its success is highly dependent on the commitment and capacity of teachers in implementing it. In contrast, the Deep Learning Curriculum offers great potential to create a more immersive and data driven learning experiences, but requires long term investment in technology infrastructure and teacher training. Therefore, government policies that support teacher capacity development and technology access across school will greatly determine the success of the implementation of these two curricula.

This study shows that in order to realize inclusive and equitable qualify education, a more holistic approach is need that integrates education policies that support both curricula, with particular attention to teachers' professional development and more equitable access to technology.

Author Biography

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