Strategies and Challenges of Implementing the Merdeka Curriculum in Senior High Schools

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Article info	Abstract
	The Merdeka Curriculum aims to promote differentiated learning practices in line with the diverse backgrounds of students in Indonesia. However, its implementation at the secondary school level still faces various challenges. This study aims to analyze the strategies and barriers encountered in the implementation of this curriculum. Using a qualitative descriptive method, data were collected through semi-structured in-depth interviews with curriculum managers, supported by direct observation in the learning environment. Data analysis was conducted thematically, following the procedures of Braun and Clarke. The results revealed three main findings: the limited competencies of teachers in applying differentiated learning principles, disparities in access to digital learning resources, and low student involvement in the design of learning activities, which collectively hinder the effectiveness of the curriculum. These findings indicate that national curriculum reform cannot solely rely on policy design but requires strengthening context-based capacities at the educational unit level to realize the full potential of curriculum transformation effectively. ***Keywords:** Merdeka Curriculum, Senior High School, Strategies, Challenges*

Abstrak

Kurikulum Merdeka bertujuan mendorong praktik pembelajaran yang terdiferensiasi sesuai dengan keragaman latar belakang peserta didik di Indonesia. Namun, implementasinya pada jenjang sekolah menengah masih menghadapi berbagai tantangan. Penelitian ini bertujuan untuk menganalisis strategi dan hambatan yang muncul dalam pelaksanaan kurikulum tersebut. Dengan menggunakan metode deskriptif kualitatif, data dikumpulkan melalui wawancara mendalam semi-terstruktur dengan pengelola kurikulum dan diperkuat dengan observasi langsung di lingkungan pembelajaran. Analisis data dilakukan secara tematik mengikuti prosedur Braun dan Clarke. Hasil penelitian mengungkapkan tiga temuan utama: keterbatasan kompetensi guru dalam menerapkan prinsip pembelajaran diferensiatif, ketimpangan akses terhadap sumber belajar digital, dan rendahnya keterlibatan peserta didik dalam perancangan aktivitas pembelajaran, yang secara kolektif menghambat efektivitas kurikulum. Temuan ini mengindikasikan bahwa reformasi kurikulum nasional tidak cukup hanya bertumpu pada desain kebijakan, melainkan memerlukan penguatan kapasitas berbasis konteks di tingkat satuan pendidikan untuk mewujudkan potensi transformasi kurikulum secara optimal.

Kata Kunci: Kurikulum Merdeka, Sekolah Menengah Atas, Strategi, Tantangan

INTRODUCTION

In the modern era of education, the relevance of the curriculum to students' needs has become an increasingly critical issue (Hidayat & Nurlatifah, 2023; Rahmasari et al., 2022; Warmansyah et al., 2023). The rapid advancement of technology, globalization, and social dynamics demands that educational systems continuously adapt to produce graduates who are not only academically competent but also prepared to face real-world social and professional challenges (Pare & Sihotang, 2023; Sundari, 2024). The curriculum can no longer be perceived as a static and uniform body of material; instead, it must be flexible and adaptive to the social, cultural, and economic contexts of the students (Fatimah et al., 2024). Consequently, a more responsive approach to individual student needs has become an imperative in today's educational landscape.

Nationally, efforts to align the curriculum with students' needs have been manifested through the implementation of the Merdeka Curriculum, as stipulated in the Decree of the Minister of Education, Culture, Research, and Technology of the Republic of Indonesia Number 262/M/2022. This curriculum emphasizes the importance of student-centered learning, the application of differentiated instruction, and character development (Idhartono, 2022; Warmansyah et al., 2022). Through the Merdeka Curriculum, educational institutions are granted flexibility to adjust content and teaching methods according to the characteristics and needs of their students. However, challenges in its implementation are inevitable, particularly in educational institutions facing limitations in human resources and infrastructure (R. N. Putri et al., 2023; Rosadi & Andriyani, 2020).

Previous studies have emphasized that an education system's success lies in its ability to personalize learning according to the diverse needs and backgrounds of its students. For instance, Tomlinson (Tomlinson, 2014) highlights the importance of differentiated instruction, which allows educators to address the varied learning styles, strengths, and challenges of each student, promoting more effective learning outcomes. Additionally, recent studies by Prima et al. (2023) reveal that teachers' understanding of the curriculum and its adaptability to students' contextual needs plays a pivotal role in determining its success. However, these studies often suggest that the real challenge lies in implementing such personalized learning strategies in schools with limited resources, as the gap between ideal curriculum design and actual classroom realities becomes evident.

Furthermore, the socio-economic background of students has been identified as a significant factor influencing the effectiveness of curriculum implementation. As noted by Maskur (2023), students from lower socio-economic backgrounds often face barriers such as limited access to resources, which affects their ability to engage with and benefit from the curriculum. This issue is compounded by the teachers' readiness and ability to employ differentiated teaching methods in a way that supports students from diverse backgrounds. According to Putri et al. (2024), while the Merdeka

Curriculum offers flexibility, the reality of its implementation in schools with a heterogeneous student body, such as SMAN 15 Pekanbaru, highlights the need for tailored strategies that account for these socio-economic disparities.

At the local level, SMAN 15 Pekanbaru is one of the schools that has adopted the Merdeka Curriculum. This school exhibits a diverse student population, both academically and socio-economically. Based on internal school data, approximately 60% of the students come from lower-middle-income families. This condition creates unique complexities in implementing a curriculum that offers flexibility but implicitly demands adequate resources and infrastructural support (Fatimah et al., 2024; Oktavia et al., 2023; Rohmah & Zulfitria, 2024). In such a context, the role of teachers as learning facilitators becomes critically important, as emphasized by Kumalasari & Idawati (2023), who assert that students' social contexts must be a primary consideration in curriculum development and implementation.

Previous studies have shown that a mismatch between the curriculum and the students' real-life contexts can negatively impact their learning motivation and academic achievement (Dzata Rahmah et al., 2022; Hasibuan et al., 2022; Muhammad et al., 2023). Moreover, students' socio-economic backgrounds significantly influence their access to learning resources, readiness to learn, and active participation in the learning process (Kurniawati & Husnayain Madani, 2024; Ridwanulloh et al., 2024). Rohmah & Zulfitria (2024) also emphasize that differentiated instruction must be contextually adapted to enhance students' learning motivation, particularly at the basic and secondary education levels.

This study aims to analyze the strategies and challenges in the implementation of the Merdeka Curriculum at SMAN 15 Pekanbaru. Specifically, it seeks to identify the gaps between curriculum design and students' actual needs, to evaluate teachers' readiness in applying differentiated instruction, and to explore the influence of students' socio-economic backgrounds on the effectiveness of the learning process.

METHODS
Research Approach and Design

This study employed a qualitative approach with a descriptive method. The qualitative approach was selected for its capacity to uncover the underlying meanings behind observed phenomena, particularly in the context of Merdeka Curriculum implementation that intersects directly with social realities and students' educational needs within SMAN 15 Pekanbaru. The descriptive method aimed to provide a detailed and systematic portrayal of the processes, challenges, and adaptive strategies involved in the curriculum's enactment.

Research Setting and Period

The research was conducted at SMAN 15 Pekanbaru in November 2024. The site was purposively selected based on its full implementation of the Merdeka

Curriculum and its diverse student population, offering rich contextual insights into the curriculum's applicability and relevance.

Data Collection Techniques and Procedures

Primary data were collected through in-depth interviews and participatory observation. Semi-structured interviews were conducted with the Vice Principal for Curriculum Affairs as the principal informant. Nevertheless, the study does not explicitly clarify whether additional informants were involved. Clarification regarding the number and profile of participants is crucial to reinforce data credibility, especially in the context of source triangulation.

The interview session lasted approximately 45 to 60 minutes in a single meeting. All interviews were audio-recorded and transcribed verbatim to preserve the integrity of the data. Complementary to the interviews, observations of the learning environment were conducted to enrich the data and provide a more comprehensive contextual understanding of the curriculum implementation.

Data Analysis Techniques

Data were analyzed using thematic analysis as conceptualized by Braun and Clarke. The analytical process included phases of familiarization with the data, initial coding, theme identification, and interpretation of the underlying meanings of the emergent themes within the context of curriculum implementation.

The analysis was conducted iteratively, allowing the researcher to continually refine insights based on the emerging data dynamics, thereby ensuring that the interpretations were reflective, contextually grounded, and theoretically informed.

Trustworthiness of Data

To ensure the trustworthiness of the data, the study employed methodological triangulation and source triangulation. Methodological triangulation was achieved by combining interview and observation data, while source triangulation involved discussions with peers possessing backgrounds in education, including fellow researchers, teachers, and school staff. Peer debriefing aimed to test the consistency and logic of data interpretation and to obtain alternative perspectives on the findings.

Furthermore, member checking was conducted by validating the transcribed interviews with the informants to ensure that the interpretations accurately reflected the intended meanings conveyed during the interviews.

Research Ethics

The entire research process was carried out in adherence to ethical standards in qualitative research. Informants were provided with clear information regarding the purpose of the study, their right to withdraw at any time, and assurances of confidentiality concerning their identities and the data provided.

RESULTS AND DISCUSSION

Based on the interviews with the Vice Principal of Curriculum at SMAN 15 Pekanbaru (W1), several significant challenges in the implementation of the Merdeka Curriculum were identified. One of the major obstacles is the socio-economic disparity, which affects the students' ability to access quality learning materials.

> *"Many of our students come from underprivileged families, which makes it difficult for them to access adequate learning resources, such as books and technological devices," (W1).*

This statement highlights the issue of unequal access to education, which remains a major barrier. This finding aligns with Miftahurrahmi & Nari, (2022)research, which asserts that unequal access to learning materials is one of the primary barriers to implementing an inclusive curriculum, posing a serious challenge for equitable education in Indonesia.

Furthermore, the interview revealed that students from the affirmative action program face academic challenges. As one informant stated,

> *"The children from the affirmative action program often need more attention, as their academic performance is generally below that of other students," (W1).*

This finding corroborates the research of Abdullah & Syahrani Nafisah et al., (2023), who argue that lower socio-economic backgrounds significantly affect academic performance, particularly in secondary education. Consequently, more intensive interventions are necessary for students from the affirmative action program to support their academic development and help them compete with students from other backgrounds.

Additionally, issues related to facilities and infrastructure were found to be major barriers in the implementation of the Merdeka Curriculum at SMAN 15 Pekanbaru. Many classrooms do not meet the ideal capacity, and there is a limited availability of technology-based learning resources and laboratories. As stated by one informant,

> *"We face constraints with classroom space and practical equipment, especially for technology-based learning, which is still not adequately supported," (W1).*

This finding aligns with the research of Fatimah et al., (2024), which emphasizes that the availability of physical and technological resources is a critical factor in the success of curriculum implementation. To create quality education, there needs to be a serious effort to improve the existing facilities to support optimal learning processes.

Another finding revealed that the teachers at SMAN 15 Pekanbaru are not fully prepared to implement the changes introduced by the Merdeka Curriculum. Many teachers have not participated in training that is specifically aligned with the new curriculum. As one informant noted,

> *"Some of the teachers still do not fully understand the principles of the Merdeka Curriculum because not all have attended intensive training," (W1).*

This finding is crucial as teacher development is a key factor in effective curriculum implementation. In line with this, the research by Putri et al. (2024)emphasizes that continuous professional development and training for teachers are essential in helping them understand and apply the Merdeka Curriculum effectively.

Despite the challenges in teacher preparedness, some educators at SMAN 15 Pekanbaru have made efforts to adapt by employing more flexible teaching methods. As one teacher shared,

> *"We are trying to adapt by using methods that are more experiential and discovery-based, even though we are constrained by limited resources," (W2).*

This indicates a growing awareness among teachers to implement the principles of the Merdeka Curriculum, despite facing limitations in resources and training. This is consistent with research by Wantiana & Mellisa, (2023), which highlights that teachers who are flexible in adapting teaching methods can positively influence the learning process, even in the face of resource constraints.

Another key challenge identified was how students responded to the changes in teaching approaches. Based on an interview with one of the students,

> *"We find it difficult to adjust to the new system because we were previously accustomed to a more structured approach," (W2).*

This statement reflects the difficulty students face in adapting to a more flexible curriculum. This finding resonates with the study by Motimona & Maryatun, (2023), which highlights that curriculum changes, if not accompanied by effective guidance

strategies, can result in decreased motivation and interest in learning. Therefore, psychological support and experiential-based learning are necessary to help students adapt effectively.

Another challenge relates to the limited time allocated for learning. Both teachers and students feel that the limited class time makes it difficult to deliver content optimally. As one teacher stated,

> *"We also need to ensure that the duration of each lesson is optimal, so that students do not feel fatigued and can absorb the material effectively,"* (W3).

In line with this, research by Hendriani et al., (2022) underscores the importance of effective time management in the learning process. When lesson time is well-managed, students are more likely to understand the material and feel less overwhelmed, thus increasing their motivation to learn.

Despite the various challenges, there is significant potential for optimizing the use of technology in learning at SMAN 15 Pekanbaru. Even with limited resources, some teachers have begun utilizing digital learning platforms to support teaching and learning processes. As shared by W1,

> *"We have started using platforms like Google Classroom to collect assignments and conduct online tests, although it is still limited to certain subjects."*

This use of technology demonstrates a promising potential to enhance the quality of learning. This is supported by research by Saleha et al., (2022), which found that integrating technology into teaching can enhance instructional effectiveness and assist teachers in delivering material more interactively. However, despite the potential for technological integration, many students are still unfamiliar with using digital devices for learning. Many of them experience difficulties in accessing devices or reliable internet connections, which hinders their learning process. Therefore, it is crucial for schools to ensure equal access to digital devices and internet connectivity to support effective learning.

The rapid changes in the curriculum necessitate a more inclusive approach that accommodates the diverse backgrounds of students. For instance, students from affirmative action programs require more personalized approaches to help them overcome their learning difficulties. Research by Arafat & Mete, (2022) emphasizes that approaches that consider student diversity will enhance their motivation and support better achievement outcomes.

Overall, the findings suggest that the implementation of the Merdeka Curriculum at SMAN 15 Pekanbaru faces several significant challenges. These include unequal access to education, limited teacher readiness, and inadequate facilities. However, with the right support, such as more intensive teacher training, improved facilities, and more effective use of technology, these challenges can be addressed. Previous studies, such as those conducted by Bisma et al., (2023), have revealed that with strategic actions like enhancing infrastructure and developing teacher capacity, the quality of education can be significantly improved.

CONCLUSIONS

This research concludes that the implementation of the Merdeka Curriculum at SMAN 15 Pekanbaru faces significant challenges, primarily due to limited resources and the socio-economic diversity of students. While the curriculum aims for inclusivity, it has yet to fully address the needs of students, particularly those from lower-income backgrounds. Teachers play a crucial role in overcoming these challenges, but insufficient training and support hinder their effectiveness. To address these gaps, continuous teacher development, improved access to learning resources, and active student involvement in curriculum design are essential. Additionally, periodic evaluations and adjustments to the curriculum are necessary to ensure it remains responsive to the evolving needs of students, thus fostering equitable academic and personal growth.

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