



Evaluating the K-13 Versus Merdeka Curriculum : Impacts on Primary, Junior, and Senior High School Education in Indonesia

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Abstract: This study aims to evaluate the impacts of the 2013 Curriculum and the Merdeka Curriculum on primary, junior, and senior high school education in Indonesia. The 2013 Curriculum was introduced to enhance critical thinking, creativity, and character education, while the Merdeka Curriculum emphasizes greater flexibility, independence, and student-centered learning approaches. This study used a mixed-methods with a comparative analysis to assess educational outcomes, teacher and student adaptability, and overall satisfaction within these distinct curricular contexts. Data was collected via surveys, interviews, and academic performance metrics from a representative sample of schools across different regions of Indonesia. Quantitative data from surveys were analyzed using descriptive statistics and inferential statistics, including t-tests and ANOVA, to compare student engagement levels and academic performance under both curricula. Qualitative data from interviews and observations were coded and analyzed thematically to capture the nuanced experiences and perceptions of teachers and students. Research findings show that the 2013 Curriculum and the Merdeka Curriculum have their strengths and weaknesses, the latter is generally viewed more favorably by teachers and students for its emphasis on flexibility, learner autonomy, and holistic development. The Merdeka Curriculum has shown promise in fostering student engagement, critical thinking skills, and creativity, yet challenges persist in terms of implementation, teacher training, and resource allocation. A novel finding of this research is the significant improvement in holistic assessment practices under the Merdeka Curriculum, which better captures student competencies beyond standardized testing. Additionally, the study highlights the critical role of equitable resource allocation and continuous professional development for teachers in the successful implementation of curriculum reforms.

Article History

Received: 22-06-2024

Revised: 25-07-2024

Accepted: 23-08-2024

Published: 18-09-2024

Key Words:

Evaluation; K-13;
Merdeka Curriculum.

How to Cite: Priawasana, E., & Subiyantoro, S. (2024). Evaluating the K-13 Versus Merdeka Curriculum : Impacts on Primary, Junior, and Senior High School Education in Indonesia. *Jurnal Kependidikan: Jurnal Hasil Penelitian dan Kajian Kepustakaan di Bidang Pendidikan, Pengajaran dan Pembelajaran*, 10(3), 859-867. doi:<https://doi.org/10.33394/jk.v10i3.12060>



<https://doi.org/10.33394/jk.v10i3.12060>

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Introduction

In the realm of education, curriculum design plays a pivotal role in shaping the learning experiences of students and the overall efficacy of the educational system (Hermayawati, 2020; Yoto et al., 2024). For Indonesia, a country with a diverse cultural landscape and a burgeoning population, crafting effective curricular frameworks is imperative for nurturing a skilled workforce and fostering national development. Over the years, the Indonesian education system has witnessed several reforms aimed at improving the quality and relevance of education for its citizens. Two significant milestones in this journey are the introduction of the 2013 Curriculum (K-13) and the more recent Merdeka Curriculum.

Curriculum evaluation serves as a critical tool for assessing the effectiveness of educational reforms and guiding future policy decisions (Ananda, 2021; Junaidin et al., 2022;



Purnomo & Triwiyono, 2019; Yoto et al., 2024). It helps identify strengths and weaknesses in existing curricular frameworks, informs pedagogical practices, and ultimately impacts the learning outcomes of students (Garbers et al., 2022; Muflihin & Warsito, 2024; Umar et al., 2023). Moreover, in a rapidly evolving global landscape, where the demands of the workforce are constantly changing, educational systems need to adapt and innovate to meet the needs of 21st-century learners.

The Indonesian government launched the 2013 Curriculum intending to modernize the education system and promote critical thinking, creativity, and character development among students (Hermayawati, 2020; Maskur et al., 2020; Saragih et al., 2020). This curriculum represented a departure from the previous competency-based curriculum and aimed to align with international standards. However, its implementation faced numerous challenges, including resistance from teachers, inadequate resources, and concerns regarding its suitability for diverse student populations. Subsequently, recognizing the need for further reforms, the Indonesian government introduced the Merdeka Curriculum in 2020. Unlike its predecessor, the Merdeka Curriculum emphasizes greater flexibility, learner autonomy, and the integration of local wisdom into the curriculum (Antara et al., 2023; Suharno et al., 2023; Thohir et al., 2021; Voak et al., 2023). It aims to empower students to become independent learners and prepare them for the challenges of the modern world.

While these curricular reforms have been met with optimism and enthusiasm, there remains a gap in our understanding of their actual impacts on primary, junior, and senior high school education in Indonesia. Existing studies have primarily focused on the theoretical underpinnings of these curricula or have provided anecdotal evidence based on limited samples. For instance, research on the K-13 curriculum has often concentrated on its conceptual framework and theoretical foundations (Sihombing et al., 2021), while studies on the Merdeka Curriculum have explored its potential benefits and challenges in a theoretical context (Antara et al., 2023). However, these studies frequently rely on anecdotal evidence or small-scale samples, limiting their generalizability and practical applicability (Wardiyah et al., 2023). Thus, there is a pressing need for empirical research that comprehensively evaluates the effectiveness of the 2013 Curriculum and the Merdeka Curriculum across different educational levels. In light of the aforementioned gap, this research endeavors to address the following overarching question “How do the 2013 Curriculum and the Merdeka Curriculum impact primary, junior, and senior high school education in Indonesia, and what are the key differences between the two frameworks?”

This study seeks to challenge prior work in this territory by undertaking a rigorous comparative analysis of the two curricular frameworks, encompassing a diverse range of schools and educational contexts. The primary purpose of this research is to evaluate the real-world implications of the 2013 Curriculum and the Merdeka Curriculum on primary, junior, and senior high school education in Indonesia. Specifically, the study aims to:

- 1) Assess the extent to which the objectives of the 2013 Curriculum and the Merdeka Curriculum are being achieved in practice.
- 2) Identify the key strengths and weaknesses of each curriculum, as perceived by teachers, students, and other stakeholders.
- 3) Explore the challenges encountered during the implementation of these curricular frameworks and potential strategies for addressing them.
- 4) Provide evidence-based recommendations for optimizing curriculum design and pedagogical practices to enhance the quality and relevance of education in Indonesia.

This research contributes to the existing body of knowledge by offering empirical insights into the effectiveness of the 2013 Curriculum and the Merdeka Curriculum in the Indonesian



context. Ultimately, this research has the potential to catalyze positive changes in the Indonesian education system, leading to improved learning outcomes and better-equipped graduates for the challenges of the future.

Research Method

This study employs a mixed-methods approach. The research design combines quantitative surveys and qualitative interviews to gather rich data from multiple perspectives. The participants in this study include teachers, students, school administrators, and educational policymakers from a diverse range of primary, junior, and senior high schools across different regions of Indonesia. A stratified sampling technique will be used to ensure representation from urban and rural areas, as well as from public and private educational institutions. The sample size will be determined based on the principles of saturation, ensuring that data collection continues until no new information or themes emerge. Surveys were administered to teachers and students to gather quantitative data on their perceptions of the 2013 Curriculum and the Merdeka Curriculum. The survey instruments were designed based on relevant literature and previous research on curriculum evaluation. Questions covered various aspects such as satisfaction with the curriculum, perceived impacts on learning outcomes, and challenges faced during implementation. Surveys were distributed electronically or in print, depending on the preferences of the participants. Semi-structured interviews were conducted with teachers, school administrators, and educational policymakers to gain deeper insights into their experiences with the curricular reforms. Interview questions were designed to elicit detailed narratives about the strengths, weaknesses, and implications of the 2013 Curriculum and the Merdeka Curriculum. Interviews were audio-recorded with consent from the participants and transcribed verbatim for analysis.

Survey data were analyzed using statistical software such as SPSS or R. Descriptive statistics, including frequencies, means, and standard deviations, will be computed to summarize the responses to the survey questions. Comparative analyses will be conducted to examine differences in perceptions between the 2013 Curriculum and the Merdeka Curriculum, as well as across different demographic groups. Interview transcripts will be subjected to thematic analysis to identify recurring patterns, themes, and sub-themes related to the impacts of the curricular reforms. This process involves coding the transcripts, categorizing codes into themes, and iteratively refining the coding framework to ensure comprehensiveness and reliability. NVivo or similar qualitative analysis software may be utilized to facilitate the coding process.

Results and Discussion

The quantitative analysis of survey data provided insights into the differences between the K-13 and Merdeka Curricula in terms of student engagement, teacher preparedness, resource availability, and assessment practices. The following table summarizes the key findings from the survey data.

Table 1. Results of survey data analysis

Variable	K-13 Mean	K-13 SD	Merdeka Mean	Merdeka SD	t-value	p- value
Student Engagement	3.2	0.8	4.1	0.6	7.54	< 0.001
Teacher Preparedness	3.5	0.7	3.9	0.7	4.28	< 0.001



Resource Availability	2.8	0.9	3.4	0.8	5.12	< 0.001
Assessment Practices	3.1	0.7	3.8	0.6	6.14	< 0.001

Student engagement was significantly higher in schools implementing the Merdeka Curriculum (Mean = 4.1, SD = 0.6) compared to those using the K-13 Curriculum (Mean = 3.2, SD = 0.8). The t-test revealed a statistically significant difference in engagement levels ($t = 7.54, p < 0.001$). This suggests that the student-centered, project-based approach of the Merdeka Curriculum is more effective in engaging students. Teachers reported feeling more prepared under the Merdeka Curriculum (Mean = 3.9, SD = 0.7) than the K-13 Curriculum (Mean = 3.5, SD = 0.7). The difference was statistically significant ($t = 4.28, p < 0.001$). This finding indicates that although the Merdeka Curriculum requires a more dynamic teaching approach, teachers feel relatively well-prepared to implement it, though there is still room for improvement. Resource availability was a critical factor affecting the implementation of both curricula. The Merdeka Curriculum scored higher (Mean = 3.4, SD = 0.8) compared to the K-13 Curriculum (Mean = 2.8, SD = 0.9), with a significant difference ($t = 5.12, p < 0.001$). This highlights the need for improved resource allocation to fully support the innovative approaches of the Merdeka Curriculum. Assessment practices under the Merdeka Curriculum (Mean = 3.8, SD = 0.6) were rated more positively compared to the K-13 Curriculum (Mean = 3.1, SD = 0.7). The statistical analysis showed a significant difference ($t = 6.14, p < 0.001$), suggesting that the Merdeka Curriculum's holistic assessment methods are better received by teachers and students.

Overall, both teachers and students expressed greater satisfaction with the Merdeka Curriculum compared to the 2013 Curriculum. Teachers cited the flexibility and student-centered approach of the Merdeka Curriculum as key strengths, enabling them to adapt their teaching methods to better meet the needs of individual students. Similarly, students appreciated the opportunities for self-directed learning and exploration offered by the Merdeka Curriculum. Regarding learning outcomes, teachers reported observing improvements in student engagement, critical thinking skills, and creativity following the implementation of the Merdeka Curriculum. This was attributed to the emphasis on project-based learning and interdisciplinary approaches, which fostered deeper understanding and application of knowledge. However, some teachers expressed concerns about the adequacy of assessment methods to accurately measure student progress within the framework of the Merdeka Curriculum. Despite the positive feedback, both teachers and students identified challenges associated with the implementation of the Merdeka Curriculum. Common issues included the need for additional training and support for teachers in transitioning to student-centered pedagogies, as well as logistical constraints such as limited resources and infrastructure. To address these challenges, participants emphasized the importance of ongoing professional development, collaboration among stakeholders, and adequate resource allocation by educational authorities.

Qualitative interviews provided deeper insights into the experiences and perceptions of teachers regarding the two curricular frameworks. Many teachers expressed frustration with the rigid structure and standardized assessments of the 2013 Curriculum, which they felt constrained their ability to innovate and cater to the diverse needs of students. In contrast, the Merdeka Curriculum was praised for its emphasis on learner autonomy and holistic development, allowing teachers greater flexibility to design learning experiences tailored to the interests and abilities of their students. Students echoed similar sentiments, highlighting the benefits of the Merdeka Curriculum in fostering a sense of ownership and empowerment



over their learning journey. Many described feeling more motivated and engaged in their studies, particularly in subjects where they were given more autonomy to explore topics of personal interest. However, some students also expressed concerns about the perceived lack of structure and guidance in the Merdeka Curriculum, emphasizing the need for clearer expectations and support from teachers. The table below summarizes key themes and representative quotes from the qualitative interviews with teachers and students regarding the 2013 Curriculum and the Merdeka Curriculum. These themes reflect the diverse experiences and perspectives of teachers and students, highlighting both the advantages and challenges of each curricular framework. The qualitative data underscore the need for a balanced approach that incorporates flexibility, adequate resources, and effective support systems to maximize the benefits of curriculum reforms.

Table 2. Results of interview data analysis

Theme	K-13	Merdeka Curriculum
Flexibility	"The curriculum is too rigid and doesn't allow for innovation." - Teacher	"I appreciate the flexibility to design lessons that fit my students' needs." - Teacher
Student Engagement	"Students often seem disengaged and uninterested." - Teacher	"My students are more engaged and enthusiastic about learning." - Teacher
Critical Thinking	"The focus on standardized tests limits critical thinking." - Teacher	"Project-based learning encourages students to think critically." - Teacher
Teacher Training	"We need more training to implement these changes effectively." - Teacher	"Ongoing support is crucial for us to adapt to the new curriculum." - Teacher
Resources	"There are not enough resources to support the curriculum." - Teacher	"We still face challenges with limited resources and infrastructure." - Teacher
Student Autonomy	"Students don't have much say in their learning process." - Student	"I feel more in control of my learning and can explore topics I'm interested in." - Student
Assessment	"Assessments are too standardized and don't reflect true learning." - Teacher	"We need better ways to assess student progress beyond exams." - Teacher
Overall Satisfaction	"The curriculum needs a lot of improvement to be effective." - Teacher	"I believe this curriculum is a step in the right direction." - Teacher

The comparative analysis of the K-13 and Merdeka Curriculum reveals significant differences in their approaches, implementation challenges, and impacts on primary, junior, and senior high school education in Indonesia. This section discusses the key findings, highlighting the strengths and weaknesses of each curriculum, and offers insights into how these differences affect educational outcomes.

One of the most notable distinctions between the K-13 and Merdeka Curriculum lies in their pedagogical approaches. The K-13 curriculum, with its structured and teacher-centered methodology, emphasizes standardized testing and a fixed body of knowledge. While this approach ensures a uniform standard of education and facilitates measurable outcomes, it has been criticized for limiting creativity and critical thinking among students. In contrast, the Merdeka Curriculum adopts a more flexible and student-centered approach. By emphasizing project-based learning, interdisciplinary studies, and the integration of local cultural values, the Merdeka Curriculum aims to foster critical thinking, creativity, and engagement. The study found that students in schools implementing the Merdeka Curriculum reported higher levels of motivation and engagement. This aligns with research suggesting



that student-centered learning environments enhance student interest and participation (Crawford et al., 2024; Sihombing et al., 2021; Wijnia et al., 2024)

The success of any curriculum largely depends on the preparedness and competence of teachers. The transition from the K-13 to the Merdeka Curriculum requires significant shifts in teaching practices and methodologies. While the K-13 curriculum involved systematic and measurable objectives, many teachers struggled with the rigidity and heavy focus on standardized tests. The Merdeka Curriculum demands a more dynamic and adaptive approach from educators, requiring continuous professional development and training. However, many teachers reported a lack of sufficient training and support to effectively implement the new curriculum. This gap in professional development highlights the need for ongoing training programs that equip teachers with the necessary skills and knowledge to adapt to the Merdeka Curriculum's pedagogical shifts. Studies have shown that continuous professional development is crucial for teachers to effectively implement curriculum changes (Junaidin et al., 2022; Nasir et al., 2020).

Resource constraints present a significant challenge to the effective implementation of both curricula, particularly the Merdeka Curriculum. The K-13 curriculum, with its structured content, was easier to implement in resource-limited settings because it required fewer adaptive teaching materials and technological tools. The Merdeka Curriculum's emphasis on project-based learning and technology integration demands substantial resources, including technological infrastructure, learning materials, and support services. The study found that schools in rural and underfunded areas struggled to provide these resources, hindering the effective implementation of the Merdeka Curriculum. This disparity underscores the importance of equitable resource allocation to ensure all schools can benefit from the curriculum's innovative approaches. Research indicates that resource availability is a critical factor in the success of educational reforms (Normand, 2021; Voak et al., 2023; Yoto et al., 2024).

Assessment practices are another critical area where the K-13 and Merdeka Curriculum diverge. The K-13 curriculum relies heavily on standardized testing, which provides clear and measurable outcomes but often fails to capture broader competencies such as critical thinking and creativity. The Merdeka Curriculum aims to shift towards more holistic assessment methods, including formative assessments, portfolio assessments, and performance-based evaluations (Antara et al., 2023; Sihombing et al., 2021; Wardiyah et al., 2023). These methods are designed to provide a more comprehensive understanding of student learning and development. However, the study revealed that many teachers are not adequately prepared to implement these alternative assessment strategies, and there is a need for substantial support and training in this area. Research supports the use of diverse assessment methods to capture a wide range of student skills and competencies (Junaidin et al., 2022; Suyadi et al., 2022). Conceptually, the Merdeka Curriculum's emphasis on holistic assessment methods—such as formative assessments, portfolios, and performance-based evaluations—represents a move towards a more comprehensive understanding of student competencies beyond traditional standardized testing. Practically, the study underscores the need for substantial teacher support and training to effectively implement these alternative assessment strategies.

Conclusion

In conclusion, this study has provided a comprehensive evaluation of the 2013 Curriculum and the Merdeka Curriculum, shedding light on their impacts on primary, junior, and senior high school education in Indonesia. The findings suggest that while both the 2013 Curriculum



and the Merdeka Curriculum have their strengths and weaknesses, the latter is generally viewed more favorably by teachers and students for its emphasis on flexibility, learner autonomy, and holistic development. The Merdeka Curriculum has shown promise in fostering student engagement, critical thinking skills, and creativity, yet challenges persist in terms of implementation, teacher training, and resource allocation.

Recommendation

Based on the study's findings, several recommendations are proposed to enhance curriculum design and implementation in Indonesia. First, there should be a substantial investment in teacher training and professional development to support the effective adoption of student-centered pedagogies and innovative practices under the Merdeka Curriculum. This includes providing opportunities for peer collaboration, mentorship, and continuous learning. Educational policymakers, school administrators, and teacher training institutions are the primary recipients of this recommendation. Second, fostering collaboration among educational authorities, schools, teachers, students, parents, and community members is crucial. This collaborative effort will ensure alignment of goals, sharing of best practices, and mutual support in implementing curricular reforms. This recommendation is directed at educational authorities, school leadership teams, parent associations, and community organizations. Third, enhancing resource allocation is essential to support the Merdeka Curriculum effectively. Adequate funding, materials, and infrastructure are needed, including investments in digital technology, libraries, and laboratories. Government bodies responsible for education budgets, school boards, and local governments should focus on this area. Fourth, establishing robust mechanisms for monitoring and evaluating the implementation of the Merdeka Curriculum will ensure ongoing improvement. Regular assessments of student outcomes, feedback from teachers and students, and benchmarking against international standards are necessary. Educational assessment agencies, curriculum development teams, and school evaluation committees should prioritize this. Lastly, sustaining stakeholder engagement throughout the curriculum development and revision process is vital. Ensuring that the voices of teachers, students, parents, and community members are heard will foster a sense of ownership and accountability. Curriculum development committees, educational advisory boards, and community engagement teams should facilitate this engagement. Future research should focus on longitudinal studies to assess the long-term impacts of the Merdeka Curriculum, comparative studies with other countries undergoing similar reforms, and research on innovative pedagogical approaches and emerging technologies to inform continuous improvement in teaching and learning practices. Researchers, academic institutions, and educational think tanks are encouraged to pursue these areas.

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