



Implementation of the Kurikulum Merdeka in high school physical education

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ABSTRACT

Kurikulum Merdeka introduces a transformative approach to Indonesian education, focusing on character development and student competencies. This study aims to evaluate the level of implementation, challenges faced by teachers, and factors influencing the success of the Kurikulum Merdeka in Physical Education, Sports, and Health subjects at the high school level in Bontang City, addressing gaps in understanding its application. Using a mixed-methods design, the research employed surveys and interviews with 16 Physical Education, Sports, and Health teachers. The questionnaire was tested for validity and reliability with 37 respondents outside the study sample, indicating high reliability. The results reveal that implementing the Kurikulum Merdeka in Physical Education, Sports, and Health subjects falls under the "Good" category. However, challenges include limited facilities, insufficient teacher training on curriculum implementation, and mismatches between teachers' academic qualifications and curriculum demands. These factors hinder optimal curriculum application, particularly in delivering differentiated instruction and achieving curriculum objectives. Addressing these barriers could improve education quality in Bontang City and provide a framework for broader national implementation.

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ABSTRAK

Kurikulum Merdeka memperkenalkan pendekatan transformatif dalam pendidikan Indonesia dengan berfokus pada pengembangan karakter dan kompetensi siswa. Penelitian ini bertujuan mengevaluasi tingkat implementasi, tantangan yang dihadapi guru, serta faktor-faktor yang memengaruhi keberhasilan kurikulum Merdeka pada mata pelajaran Pendidikan Jasmani, Olahraga, dan Kesehatan (PJOK) di tingkat SMA di Kota Bontang guna mengisi kesenjangan pemahaman terkait penerapannya. Desain penelitian menggunakan metode campuran dengan survei dan wawancara terhadap 16 guru PJOK. Instrumen angket diuji validitas dan reliabilitasnya dengan melibatkan 37 responden di luar sampel penelitian, menunjukkan reliabilitas tinggi. Hasil penelitian menunjukkan bahwa implementasi kurikulum Merdeka pada mata pelajaran PJOK berada dalam kategori "Baik". Namun, terdapat tantangan, termasuk keterbatasan fasilitas, kurangnya pelatihan guru terkait implementasi kurikulum, serta ketidaksesuaian latar belakang akademik guru dengan tuntutan kurikulum. Faktor-faktor ini menghambat pelaksanaan kurikulum secara optimal, terutama dalam penerapan pembelajaran berdiferensiasi dan pencapaian tujuan kurikulum. Dengan mengatasi hambatan tersebut, kualitas pendidikan di Kota Bontang dapat ditingkatkan, sekaligus menjadi kerangka kerja untuk penerapan secara nasional.

Kata Kunci: kurikulum; Kurikulum Merdeka; pendidikan jasmani; PJOK; SMA

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INTRODUCTION

Technological, informational, and scientific advancements demand continuous development in the learning process, particularly within the educational curriculum. Curriculum development is aligned with advancements in technology, information, and science. The learning process in the 21st century differs significantly from previous, more conventional, traditional, and classical teaching methods. It emphasizes meaningful, student-centered learning, where students actively and independently use technology as a learning tool (Septiyana et al., 2024). The Indonesian government has implemented the Kurikulum Merdeka in response to these changes in the educational system. This curriculum is designed to be flexible, centered on foundational values, and capable of fostering students' unique skills and competencies. As a replacement for the 2013 curriculum, Kurikulum Merdeka aims to redefine Indonesian education toward a brighter future (Firmansyah, 2023).

Kurikulum Merdeka reflects the spirit of intellectual freedom. Educators play a pivotal role in its successful implementation in this context, as they are at the forefront of the education process. The primary goal of this curriculum is to ensure that educators possess a liberated mindset, allowing them to design and deliver learning experiences that promote creativity and innovation among students. This curriculum integrates literacy, knowledge, skills, attitudes, and technological mastery, allowing students to explore and maximize their potential. The modern curriculum concept encourages independent learning in formal and non-formal settings, enabling students to develop critical literacy and essential skills for personal growth. The implementation of Kurikulum Merdeka has introduced significant changes. Teachers have greater flexibility in creating optimal learning programs while tailoring them to students' interests, talents, needs, and abilities. This curriculum emphasizes the Profil Pelajar Pancasila, which aims to produce graduates with robust character and skills, addressing the challenges of driving positive change among students (Putri & Astiwi, 2025).

The Kurikulum Merdeka is designed to be flexible and focused on essential competencies, character development, and deep learning in literacy and numeracy. Key features include project-based learning to enhance students' soft skills and character and allow teachers to adapt their teaching to students' capabilities and local contexts. This curriculum seeks to accelerate educational goals and improve Indonesia's human resource quality by promoting educational independence and enabling global competitiveness (Irvansyah et al., 2023). The implementation of Kurikulum Merdeka began in the 2022/2023 academic year as a transitional curriculum during the pandemic. In East Kalimantan, the Provincial Department of Education and Culture targeted its adoption in all high schools (phase F) by 2024 (Bahzar et al., 2024). This wide-scale adoption highlights the urgency of studying its implementation, particularly in subjects like Pendidikan Jasmani, Olahraga, dan Kesehatan (PJOK, or Physical Education, Sports, and Health).

To implement Kurikulum Merdeka, Physical Education, Sports, and Health teachers must thoroughly prepare for its application, as proper planning directly correlates with the quality of the learning process (Zaragoza et al., 2023). Effective learning involves transferring knowledge from teachers to students and focusing on cognitive, affective, and psychomotor domains (Septiana & Hanafi, 2022). A strong understanding of the new curriculum will enable teachers to navigate teaching and learning activities better. The ideal outcome of Kurikulum Merdeka is for educators to become innovative and creative in their teaching practices, utilizing diverse methods and media to create an independent learning environment. Specifically, PJOK aims to holistically develop students' physical, mental, and intellectual capacities, aligning with the Profil Pelajar Pancasila (Juditya et al., 2022).

Recent studies have provided valuable insights into the curriculum's implementation. Digital tools integrated into PJOK classes during the COVID-19 pandemic enhanced learning outcomes, particularly engagement and comprehension (Kusumawati et al., 2022). Implementing Kurikulum Merdeka in elementary school PJOK classes promoted autonomy and creativity, empowering students to engage freely in activities (Sumitra, 2023). At the vocational level, student motivation and skill development under Kurikulum Merdeka, with 75% of students demonstrating high engagement and comprehension in PJOK activities. These findings collectively underscore the curriculum's transformative potential in fostering student growth while identifying areas for improvement, such as teacher readiness, differentiated instructional strategies, and resource adequacy (Pratiwi et al., 2023).

Despite these promising outcomes, gaps remain in understanding the curriculum's application in senior high school PJOK classes, particularly in regions like Bontang City. Studies often focus on specific educational levels or urban settings, leaving significant gaps in the broader implementation context. This study addresses these gaps by assessing the implementation of Kurikulum Merdeka in PJOK across high schools in Bontang City. It seeks to evaluate the curriculum's effectiveness, identify challenges faced by teachers, and propose practical recommendations for improving implementation. By bridging the knowledge gap, this research contributes to a deeper understanding of Kurikulum Merdeka in PJOK and its potential to enhance the quality of education at both local and national levels.

LITERATURE REVIEW

The Essence of Kurikulum Merdeka

The term "curriculum" originates from the Latin word *curere*, meaning a racetrack that spans from the starting point to the finish line. Within the educational context, a curriculum is a structured and systematic educational program comprising various learning materials and experiences designed to guide teachers and students in achieving specific educational objectives (Anengsih et al., 2023). It functions as a foundational framework that outlines the scope of learning, from the initiation of a subject to its mastery, ensuring the attainment of defined educational goals. A curriculum is also seen as a written document containing ideas and strategies formulated by developers to build a coherent educational system that integrates various components essential for the teaching and learning process (Cholilah et al., 2023).

In modern educational paradigms, a curriculum is no longer limited to classroom instruction but encompasses broader activities that contribute to students' holistic development. It includes cognitive, affective, and psychomotor dimensions systematically designed to align with predetermined educational goals. Through this multidimensional approach, a curriculum fosters intellectual growth, ethical behavior, and practical skills, ensuring learners are prepared to meet the challenges of contemporary society. Kurikulum Merdeka represents a significant evolution in Indonesia's education system, emphasizing flexibility, inclusivity, and student-centered learning. It prioritizes essential content, allowing students to deepen their understanding of fundamental concepts and competencies. Teachers are granted greater autonomy to adapt instructional materials and methods based on students' needs and interests (Kumala et al., 2023). This approach addresses the gaps in literacy and numeracy and encourages creative and critical thinking among educators and learners alike (Adji & Shufa, 2024).

Characteristics of Kurikulum Merdeka

The distinctive characteristics of Kurikulum Merdeka reflect its alignment with the goals of modern education. It integrates four main components to provide broader autonomy for schools, teachers, and students. First, standardized national exams have been replaced with assessments that include portfolios, projects, and collaborative assignments. Second, minimum competency assessments and character

surveys are emphasized to evaluate students' holistic development. Third, lesson planning has been simplified, allowing teachers to focus on creating impactful learning experiences rather than extensive documentation. Lastly, the zoning system for student admissions has been expanded to ensure inclusivity and equity (Hazyimara, 2023). Another unique aspect of Kurikulum Merdeka is the Profil Pelajar Pancasila, which serves as a guiding framework for curriculum design, learning processes, and evaluation. This framework emphasizes character-building, collaborative learning, and interdisciplinary approaches, fostering the six core dimensions of Indonesian education: faith, independence, critical thinking, creativity, collaboration, and global citizenship. These elements collectively create a dynamic and inclusive learning environment that equips students with the skills and values needed for lifelong success (Putri & Astiwi, 2025).

Implementation of Kurikulum Merdeka in Physical Education (PJOK)

Physical Education, Sports, and Health is critical in developing students' physical, mental, and social well-being. Within the framework of Kurikulum Merdeka, PJOK emphasizes holistic growth by integrating physical activities with cognitive and affective development. The curriculum aims to foster lifelong physical activity habits, enhance motor skills, and instill values such as teamwork, discipline, and ethical behavior, aligning with the overarching goals of the Profil Pelajar Pancasila (Syafuruddin et al., 2022). In practice, Kurikulum Merdeka encourages innovative teaching methods in PJOK, including project-based learning and interdisciplinary activities. These approaches create engaging and meaningful learning experiences, enabling students to develop essential competencies while exploring their interests and potential. Moreover, the curriculum balances academic rigor with recreational and character-building activities, ensuring students achieve well-rounded development.

Several studies have examined the implementation of Kurikulum Merdeka in PJOK and its implications for teaching and learning. Integrating digital tools during the COVID-19 pandemic improved learning outcomes in PJOK classes, particularly student engagement and comprehension (Kusumawati et al., 2022). Similarly, improvements in physical literacy and character education among high school students demonstrate the curriculum's potential to foster holistic growth (Yusuf et al., 2024). Further, the curriculum's application in elementary schools emphasizes its role in promoting autonomy and creativity among younger students (Sumitra, 2023). Vocational schools found increased student motivation and improved skills development under Kurikulum Merdeka (Pratiwi et al., 2023). Lastly, it evaluated its adoption in junior high schools, identifying positive impacts on teaching practices and persistent challenges such as inadequate teacher training and limited resources (Tyas et al., 2024).

These findings collectively highlight the transformative potential of Kurikulum Merdeka, particularly in PJOK, while underscoring areas that require attention, such as teacher readiness, resource availability, and differentiated instructional strategies. This study builds on existing literature by implementing Kurikulum Merdeka in PJOK across senior high schools in Bontang City. It aims to assess the curriculum's effectiveness in achieving holistic student development and identify specific challenges teachers face during its application.

METHODS

Research Design

This study employed a mixed-methods research design, integrating quantitative and qualitative approaches to comprehensively explore the implementation of the Kurikulum Merdeka in PJOK learning in high schools across Bontang City. The quantitative component utilized a descriptive survey method to

identify and explain patterns, while the qualitative component provided contextual insights through in-depth interviews.

Population and Sampling

The study's population comprised all 16 PJOK teachers from 11 high schools in Bontang City. A total sampling technique was employed, including all population members as research respondents. Additionally, the study included 16 teachers as interview participants to provide deeper contextual insights. This approach ensured a comprehensive representation of quantitative and qualitative data, aligning with the study's objectives to explore the implementation of the Kurikulum Merdeka in PJOK learning across the city.

Data Collection

Quantitative Data Collection

Quantitative data were gathered using a structured questionnaire comprising 31 statements rated on a 4-point Likert scale: Strongly Agree (4), Agree (3), Disagree (2), and Strongly Disagree (1). The questionnaire underwent validity and reliability testing before deployment. Validity testing ensures that the instrument measures the intended constructs accurately, while reliability testing evaluates its consistency over repeated applications.

The validity test involved a pilot study with 37 respondents outside the study sample, revealing that all items were valid, with calculated r values exceeding the critical threshold of 0.334 at a 0.05 significance level. Reliability testing using Cronbach's alpha yielded a coefficient of 0.978, significantly surpassing the threshold of 0.7, indicating the instrument's high reliability.

Qualitative Data Collection

Qualitative data were collected through semi-structured interviews with all 16 PJOK teachers. These interviews explored teachers' perspectives on implementing, understanding, and challenges associated with the Kurikulum Merdeka in their respective schools. The qualitative data provided in-depth insights into the practical and contextual factors influencing the curriculum's application, complementing the findings from the quantitative phase.

Data Analysis

Quantitative Data Analysis

Quantitative data were analyzed using descriptive statistics, particularly percentages, calculated using the following formula.

$$P = \frac{f}{n} \times 100$$

P: Percentage

f: Total response score

n: Maximum possible score

Table 1. Score Criteria

No	Percentage	Predicate
1	81,26% - 100%	Very Good
2	62,51% - 81,25%	Good
3	43,76% - 62,50	Fair
4	25% - 43,75%	Poor

Source: Adapted from *Prasetyo & Pramono (2022)*

Qualitative Data Analysis

Qualitative data were analyzed using a systematic four-step approach based on the framework developed by Miles and Huberman (*Safrudin et al., 2023*). The first step, data collection, involved organizing raw interview data to ensure clarity and accessibility for subsequent analysis. The second step, data reduction, focused on summarizing and refining the information to highlight key themes and patterns directly relevant to the research objectives. In the third step, data display, the reduced data were organized into structured formats, such as matrices, narrative text, or tables, to facilitate more straightforward interpretation and identification of trends. Finally, in the conclusion drawing step, overarching patterns were synthesized, and findings were formulated to answer the research questions comprehensively.

Triangulation techniques were employed to ensure the credibility and reliability of the findings. Data triangulation was achieved by comparing findings from multiple sources, including interviews and field notes. Methodological triangulation was also applied by cross-referencing qualitative findings with quantitative results to validate consistency and uncover more profound insights. By employing these triangulation methods, this study ensured a rigorous analysis that minimized bias and enhanced the reliability and validity of the qualitative data.

RESULTS AND DISCUSSION

Result

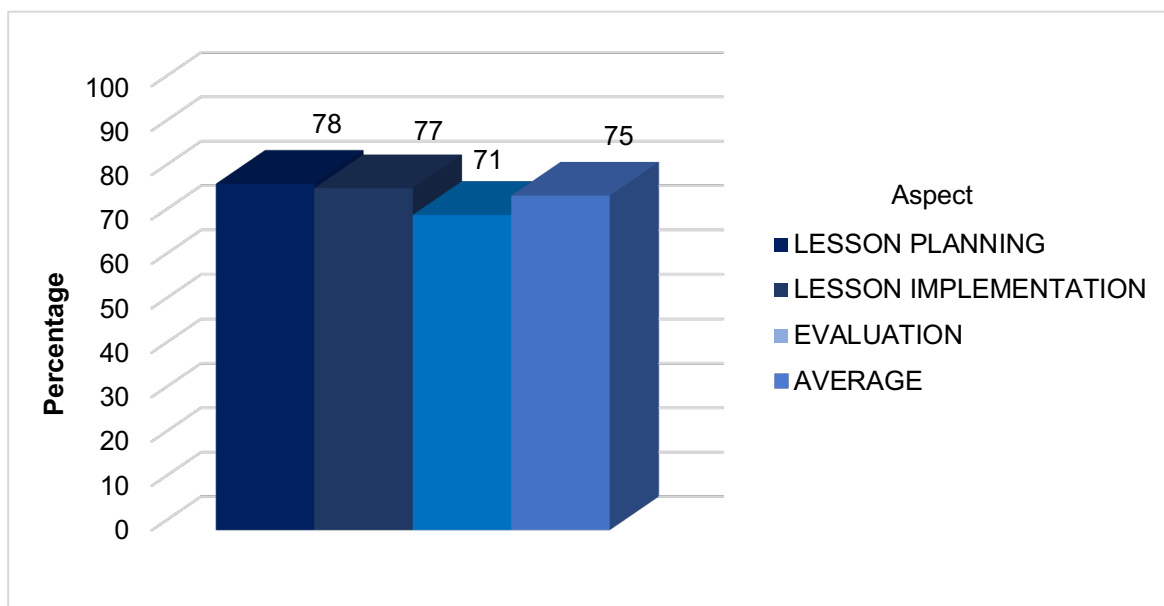


Figure 1. Bar Chart of Statistical Implementation of the Kurikulum Merdeka in Physical Education and Sports (PJOK) Subjects at Senior High Schools in Bontang City

Source: Data Processed 2024

Figure 1 presents the implementation of the Kurikulum Merdeka in Physical Education, Sports, and Health (PJOK) at the high school level in Bontang City, which was analyzed across three dimensions: lesson planning, instructional delivery, and assessment. The quantitative findings revealed that lesson planning scored 78%, instructional delivery 77%, and assessment 71%, resulting in an overall average implementation score of 75%, categorized as "Good".

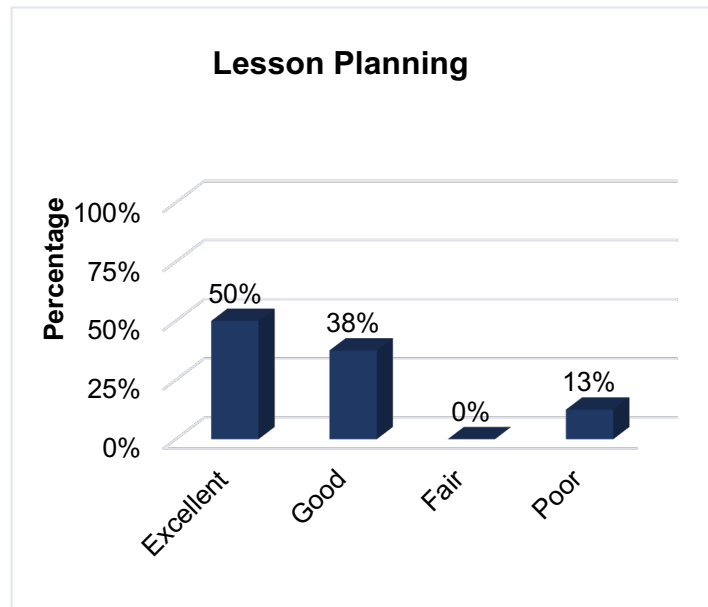


Figure 2. Bar Chart of the Lesson Planning Aspect
Source: Data Processed 2024

Figure 2 presents lesson planning; 13% of teachers categorized their implementation as "Poor", 38% as "Good", and 50% as "Excellent". Instructional delivery was rated as "Fair" by 13% of teachers, "Good" by 50%, and "Excellent" by 38%. In the assessment dimension, 19% categorized their practices as "Fair", 75% as "Good", and 6% as "Excellent".

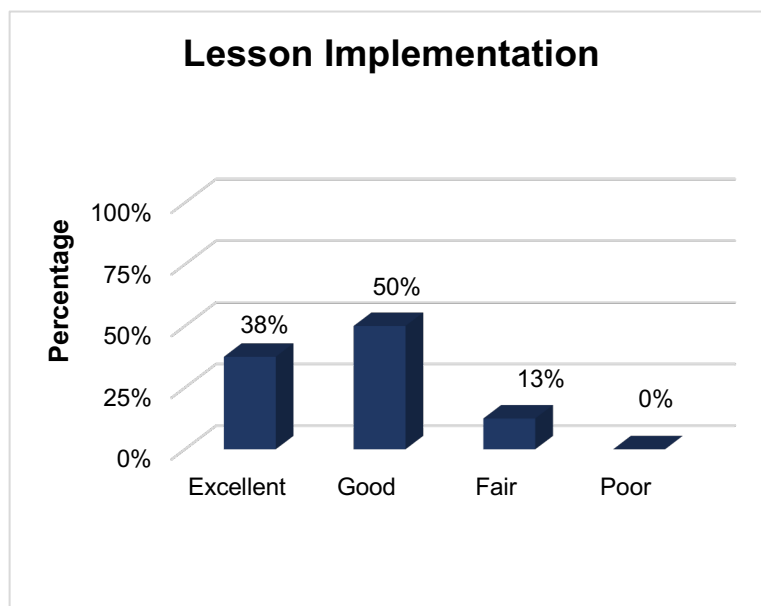


Figure 3. Bar Chart of the Lesson Implementation Aspect
Source: Data Processed 2024

Figure 3 illustrates the findings for instructional delivery, categorized as "Poor" for 0% (0 teachers), "Fair" for 13% (2 teachers), "Good" for 50% (8 teachers), and "Very Good" for 38% (6 teachers). These results suggest that most PJOK teachers have implemented instructional practices aligned with the principles of the Kurikulum Merdeka, although some areas still require improvement.

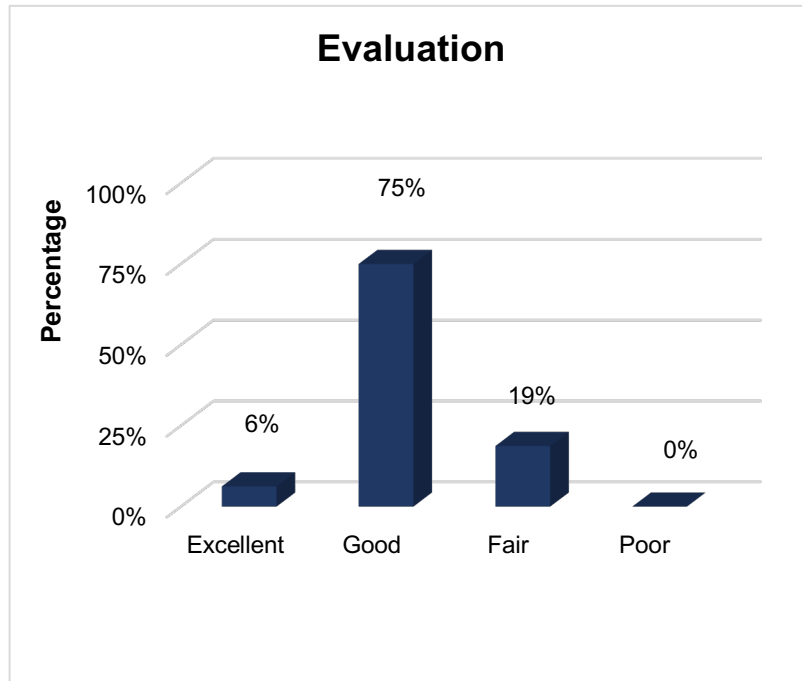


Figure 4. Bar Chart of the Lesson Evaluation Aspect
Source: Data Processed 2024

Figure 4 presents the evaluation aspect, categorized as "Poor" for 0% (0 teachers), "Fair" for 19% (3 teachers), "Good" for 75% (12 teachers), and "Very Good" for 6% (1 teacher). The high percentage in the "Good" category highlights that most teachers have conducted evaluations effectively following the Kurikulum Merdeka, with some requiring further enhancement.

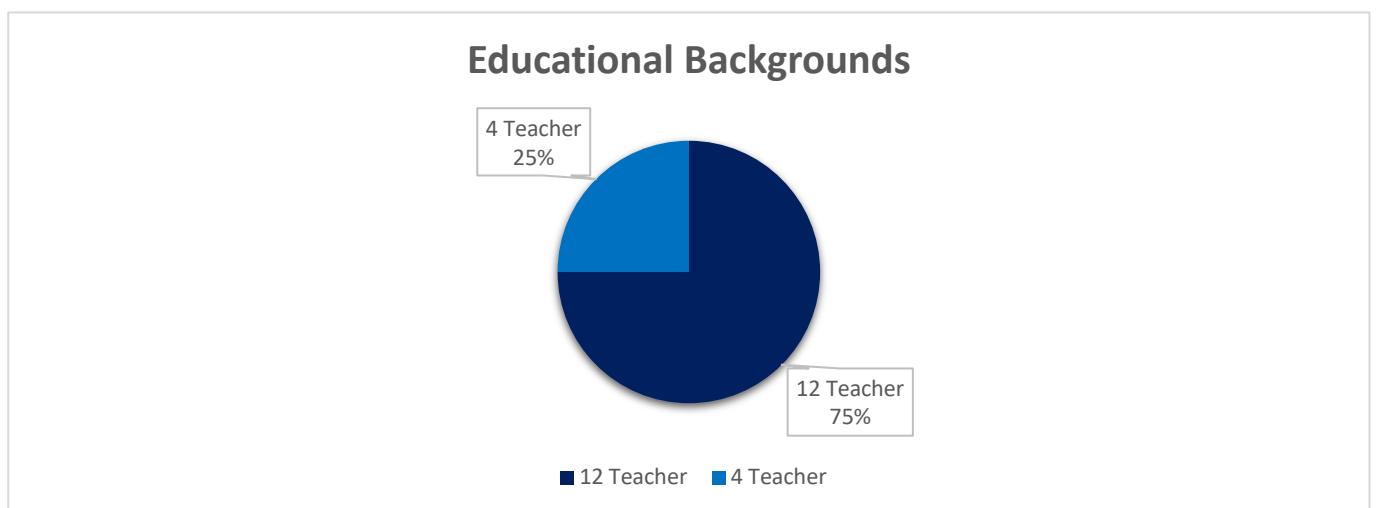


Figure 5. Bar Chart of the Educational Background of Physical Education and Sports (PJOK) Teachers at Senior High Schools in Bontang City
Source: Data Processed 2024

Figure 5 presents the educational background, 75% of PJOK teachers in Bontang City had relevant educational backgrounds for teaching PJOK, while 25% had unrelated academic qualifications. These results provide a comprehensive overview of the current state of curriculum implementation and the alignment of teacher qualifications with curriculum demands.

Implementation of the Kurikulum Merdeka in PJOK

The implementation of the Kurikulum Merdeka in PJOK varied across schools in Bontang City. While many schools adopted the curriculum incrementally, some continued to use the 2013 Curriculum (Kurikulum 2013 or K13) for Grade 12 due to infrastructure and human resources challenges. For example, a teacher explained.

“Implementasi Kurikulum Merdeka baru diterapkan di kelas 10 dan kelas 11, Untuk kelas 12, kami masih menggunakan Kurikulum 2013. Penerapan Kurikulum Merdeka dilakukan secara bertahap karena sarana, prasarana, dan sumber daya manusia belum sepenuhnya siap untuk implementasi penuh,” (T1, Bahrul Ulum Senior High School).

Similarly, another respondent noted that schools were given the flexibility to decide on the extent of implementation based on their readiness.

“Saat ini Kurikulum Merdeka belum sepenuhnya diterapkan karena sekolah diberikan kebebasan untuk memilih apakah akan menerapkan keseluruhan atau tidak,” (T9, Yabis Senior High School).

On the other hand, some schools fully implemented the curriculum across all phases, supported by teacher leaders (Guru Penggerak) who facilitated the process effectively, as one teacher shared.

“Di sekolah ini, Kurikulum Merdeka sudah diterapkan sejak diluncurkan oleh pemerintah. Di sekolah kami juga memiliki guru penggerak Kurikulum Merdeka yang memberikan arahan dalam proses implementasinya,” (T16, State Senior High School 1).

These variations illustrate the differing readiness levels among schools to adopt the curriculum.

Facilities and Infrastructure

Adequate facilities and infrastructure are crucial for successful PJOK implementation under the Kurikulum Merdeka. Schools with sufficient resources reported positive outcomes, with one teacher highlighting,

“Sekolah kami memiliki kolam renang sepanjang 50 meter, gedung olahraga, serta semua peralatan yang diperlukan untuk mendukung pembelajaran PJOK,” (T10, YPK Senior High School).

“Kami memiliki gedung olahraga, dua lapangan voli, dan peralatan yang memadai, semuanya dalam kondisi sangat baik,” (T14, State Senior High School 1).

However, schools with limited resources faced significant challenges. A teacher noted,

“Fasilitas yang tersedia tidak memadai, sehingga kami sering mengandalkan media alternatif seperti slide dan YouTube karena keterbatasan peralatan yang memadai,” (T4, Tunas Bangsa Senior High School).

“Banyak aktivitas tidak dapat dilaksanakan karena keterbatasan fasilitas, seperti tidak adanya kolam renang,” (T9, Yabis Senior High School).

These disparities highlight the importance of equitable resource distribution to support curriculum implementation effectively.

Teachers' Understanding of the Kurikulum Merdeka

The Kurikulum Merdeka introduced substantial changes, particularly in its structure and instructional design. Teachers reported that the curriculum replaced Kompetensi Inti (Core Competencies) and Kompetensi Dasar (Basic Competencies) with Capaian Pembelajaran (Learning Outcomes), Tujuan Pembelajaran (Learning Objectives), and Modul Ajar (Teaching Modules). As one teacher explained,

"Kurikulum saat ini mencakup Capaian Pembelajaran dan Tujuan Pembelajaran yang disertai dengan Modul Ajar, yang berbeda secara signifikan dari sistem sebelumnya," (T5, State Senior High School 3).

Another key feature was the division of learning phases into E and F, emphasizing movement skills, knowledge, utilization, and character building. A respondent elaborated,

"Di tingkat SMA, terdapat fase E dan F dalam kurikulum ini yang mencakup empat elemen utama: keterampilan gerak, pengetahuan gerak, pemanfaatan gerak, serta pembentukan karakter dan penanaman nilai-nilai melalui gerakan," (T10, YPK Senior High School).

However, some teachers expressed challenges adapting to these changes due to limited training and the complexity of developing new teaching materials. For instance, one teacher stated,

"Saya belum menerima pelatihan yang memadai, ditambah latar belakang akademik saya yang bukan dari bidang olahraga maupun pendidikan menambah tantangan yang saya hadapi," (T13, Monamas Senior High School).

Challenges in the Implementation of the Kurikulum Merdeka

Implementing the Kurikulum Merdeka faced several challenges, particularly regarding instructional time and resource availability. One primary concern was reducing PJOK instructional hours, as one hour was allocated to the Proyek Penguatan Profil Pelajar Pancasila (P5). A teacher remarked,

"Waktu jam pelajaran telah berkurang menjadi 2 jam, sehingga tidak cukup untuk menyampaikan seluruh materi secara efektif," (T7, State Senior High School 2).

"Pengurangan alokasi waktu pembelajaran membuat sulit untuk melaksanakan semua kegiatan yang telah direncanakan," (T2, DHBS Senior High School).

Furthermore, diagnostic assessments to identify students' talents and interests were insufficient, complicating the application of differentiated instruction. A teacher explained,

"Diperlukan diagnostik awal untuk mengidentifikasi minat dan bakat siswa sebagai dasar melaksanakan pembelajaran berdiferensiasi," (T12, State Senior High School 3).

"Keberagaman siswa menjadi tantangan dalam melaksanakan pembelajaran terdiferensiasi secara efektif," (T15, Vidatra Senior High School).

Finally, the lack of teacher training and the mismatch between teachers' academic backgrounds and curriculum requirements emerged as significant barriers. As one teacher shared,

"Saya menghadapi kesulitan dalam menerapkan Kurikulum Merdeka karena latar belakang akademik saya dan kurangnya pelatihan yang saya terima," (T3, Hidayatullah Senior High School).

This issue underscores the need for targeted professional development programs to enhance teachers' understanding and preparedness for implementing the new curriculum.

Discussion

Implementation of the Kurikulum Merdeka in High School PJOK Subjects in Bontang City

The findings indicate that implementing the Kurikulum Merdeka in PJOK subjects at high schools in Bontang City is categorized as "Good," with schools adopting the curriculum based on their readiness and resources. Gradual adoption across schools demonstrates variability in preparedness, as some institutions have fully implemented the curriculum across all grades. In contrast, others remain in transition, particularly in Grade 12, where the 2013 Curriculum (Kurikulum 2013 or K13) is still in use. Lesson planning emerged as a critical factor influencing the successful implementation of the Kurikulum Merdeka. Effective lesson planning ensures efficient and meaningful learning processes (Sabrina et al., 2024).

Teachers in Bontang City reported engaging in training programs, peer discussions, and collaborations with professional organizations to improve their understanding of the curriculum. However, some educators expressed that these efforts remain insufficient, highlighting the need for continuous professional development. Training programs are essential for equipping educators with the skills to design lessons aligned with the curriculum framework (Apriyanti, 2023). Key changes in lesson planning under the Kurikulum Merdeka include the transition from traditional lesson plans (Rencana Pelaksanaan Pembelajaran or RPP) to teaching modules (Modul Ajar), integration of the Pancasila Student Profile, and revised evaluation methods. These changes require teachers to adapt their practices and develop new competencies, emphasizing the importance of structured support and training. Media and learning methods are essential factors in implementing the curriculum so that it can run effectively (Ramdani et al., 2021; Rosyiddin et al., 2023).

Teaching and Differentiated Instruction

Teaching implementation under the Kurikulum Merdeka for PJOK subjects is generally categorized as "Good." This finding highlights the positive influence of well-prepared lesson planning on instructional quality. The curriculum encourages differentiated instruction, tailoring learning experiences to meet student's diverse needs (Adisjam & Saparia, 2023). This approach aligns with the Teaching at the Right Level (TaRL) principle, where learning activities are designed based on students' varying abilities and readiness levels (Putri & Siswanto, 2024). Teaching and valuable education for shared life is to liberate humans as community members (Dwipratama, 2023). However, implementing differentiated instruction poses challenges, mainly due to limited instructional time, which has been reduced to two hours per week. Many teachers reported difficulties designing varied learning activities and conducting diagnostic assessments to group students effectively. These constraints resonate with limited time and often force teachers to rely on conventional methods, reducing student engagement (Nurjanah & Mustofa, 2024).

Role of the Profil Pelajar Pancasila in PJOK

The Pancasila Student Profile is integral to the goals of PJOK under the Kurikulum Merdeka, aiming to instill character values rooted in Pancasila's principles. The profile emphasizes competencies such as critical thinking, teamwork, creativity, and independence, which are developed through co-curricular activities like the Proyek Penguatan Profil Pelajar Pancasila (P5). P5 activities allow students to engage in experiential learning, fostering character development and competency building (Fauzi et al., 2023). While many high schools in Bontang City have integrated the P5 initiatives into their curricula, further efforts are needed to fully realize Kurikulum Merdeka's principles. Pancasila Student Profile has been partially actualized in PJOK. Critical thinking and creativity have progressed the most, whereas others require additional emphasis (Mashud et al., 2024).

Evaluation and Its Challenges

The evaluation phase of the Kurikulum Merdeka in PJOK subjects was categorized as "Good," reflecting the positive implementation of assessment practices. Evaluation is a systematic process to monitor and assess the quality of learning and curriculum implementation (Harly & Andriani, 2024). It provides critical insights into how learning objectives are achieved and serves as a foundation for curriculum refinement. However, many educators focus solely on outcomes without adequately addressing the evaluation process, highlighting a gap in understanding the broader role of assessments. This underscores the need for enhanced teacher training on comprehensive evaluation practices to ensure the alignment of assessment with curriculum goals.

Challenges in Implementing the Kurikulum Merdeka

Implementing the Kurikulum Merdeka in PJOK subjects faces several challenges, including reduced instructional time, limited resources, and insufficient teacher readiness. Reducing PJOK instructional hours to two hours per week is a significant obstacle, as many teachers feel this is inadequate to deliver the required material comprehensively. Furthermore, the difficulty in implementing differentiated instruction due to student diversity exacerbates these challenges. Grouping students based on individual competencies requires time and effort and is often constrained (Ana, 2023). Teacher readiness also remains a critical issue. Four out of sixteen PJOK teachers in Bontang City lacked educational or sports-related qualifications, affecting their ability to implement the curriculum effectively.

Teacher qualifications must align with their instructional responsibilities to ensure successful curriculum delivery (Kultsum, 2023). Additionally, limited participation in training programs further hinders teachers' understanding and application of the Kurikulum Merdeka. Inadequate training is a common barrier to curriculum adoption included in the Sekolah Penggerak as one of the efforts for the gradual implementation of the Kurikulum Merdeka (Susilana et al., 2023). Facilities and infrastructure also significantly impact the implementation of PJOK under the Kurikulum Merdeka. Schools with limited resources struggle to provide adequate sports equipment and facilities, which affects the effectiveness of learning activities. The critical role of infrastructure in supporting curriculum implementation (Rijaldi et al., 2024). Budget constraints and inadequate facilities were similarly reported as barriers in the Loksado District, highlighting the need for equitable resource distribution.

CONCLUSION

The findings of this study on the implementation of the Kurikulum Merdeka in Physical Education, Sports, and Health (PJOK) subjects at high schools in Bontang City indicate that the overall implementation falls into the "Good" category across the three assessed dimensions: lesson planning, instructional delivery, and assessment. Schools in Bontang City have progressively adopted the Kurikulum Merdeka based on their respective capacities and readiness. While these findings reflect a generally positive trend, significant challenges remain. Key obstacles include the limited availability of facilities and infrastructure essential for supporting PJOK learning activities. This limitation is particularly pronounced in schools with constrained resources, hindering the effective delivery of the curriculum. Additionally, the reduction in instructional time to only two hours per week for PJOK is widely regarded by teachers as insufficient to comprehensively deliver the curriculum content and implement differentiated learning tailored to students' abilities and characteristics. Another critical issue is the lack of training provided to PJOK teachers on implementing the *Kurikulum Merdeka*. Insufficient professional development opportunities negatively impact teachers' understanding of and readiness to apply the curriculum effectively. Furthermore, the study revealed that

four out of sixteen PJOK teachers in high schools across Bontang City lack educational backgrounds relevant to teaching or sports, which impedes their ability to facilitate learning processes aligned with the *Kurikulum Merdeka* framework. These findings underscore the need for targeted interventions to address the challenges identified. Key recommendations include improving the availability and quality of PJOK facilities and infrastructure, extending instructional hours to accommodate curriculum demands better, providing comprehensive training programs for teachers, and ensuring that teacher qualifications align with curriculum requirements. Addressing these issues will be critical to optimizing the implementation of the *Kurikulum Merdeka* and achieving its objectives in PJOK subjects. Further research can explore supporting strategies such as focused training, resource provision, and alignment of qualifications with curriculum needs.

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