



Analyzing Platform Merdeka Mengajar utilization in high school teachers in Jakarta

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ABSTRACT

This study analyzes the utilization of the Platform Merdeka Mengajar by 5.046 teachers across 117 public high schools in Jakarta, aiming to evaluate the extent to which the platform is used by teachers in supporting the implementation of the Kurikulum Merdeka. The central research question is: To what extent do public high school teachers in Jakarta utilize the Platform Merdeka Mengajar to support the implementation of the Kurikulum Merdeka? Using a quantitative descriptive method, secondary data from the platform's dashboard were analyzed, focusing on three metric levels that measure activities such as independent training, teaching tools, assessments, and validated teacher actions. The findings reveal that independent training videos and teaching tools are the most frequently used features, reflecting their accessibility and relevance to teachers' professional needs. However, features such as webinars and validated actual actions show lower levels of participation, indicating a need for improvement in utilizing these features. This study concludes that the Platform Merdeka Mengajar holds great potential to support teacher professional development and the implementation of the Kurikulum Merdeka. However, further efforts are needed to enhance the use of underutilized features and adjust content to meet teachers' needs better.

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ABSTRAK

Penelitian ini menganalisis pemanfaatan Platform Merdeka Mengajar oleh 5.046 guru di 117 SMA negeri di Jakarta, dengan tujuan untuk mengevaluasi sejauh mana platform tersebut digunakan oleh guru dalam mendukung penerapan Kurikulum Merdeka. Pertanyaan utama penelitian ini adalah: Sejauh mana pemanfaatan Platform Merdeka Mengajar oleh guru SMA Negeri di Jakarta dalam mendukung penerapan Kurikulum Merdeka? Menggunakan metode deskriptif kuantitatif, data sekunder dari dashboard platform dianalisis, dengan fokus pada tiga level metrik yang mengukur aktivitas seperti pelatihan mandiri, alat pembelajaran, asesmen, dan tindakan nyata yang tervalidasi oleh guru. Hasil penelitian menunjukkan bahwa fitur video pelatihan mandiri dan alat pembelajaran merupakan fitur yang paling banyak digunakan, mencerminkan aksesibilitas dan relevansinya dengan kebutuhan profesional guru. Namun, fitur seperti webinar dan tindakan nyata yang tervalidasi menunjukkan tingkat partisipasi yang lebih rendah, yang mengindikasikan perlunya peningkatan dalam pemanfaatan fitur-fitur tersebut. Penelitian ini menyimpulkan bahwa Platform Merdeka Mengajar memiliki potensi besar dalam mendukung pengembangan profesional guru dan penerapan Kurikulum Merdeka, tetapi perlu upaya lebih untuk meningkatkan pemanfaatan fitur yang kurang digunakan dan menyesuaikan konten agar lebih sesuai dengan kebutuhan guru.

Kata Kunci: implemmentasi kurikulum; guru sekolah menengah atas; Kurikulum Merdeka; platform merdeka mengajar; PMM

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INTRODUCTION

Education is a fundamental human need and plays a critical role in the nation-building goals outlined in the Preamble of the 1945 Constitution of Indonesia. One of the stated aims of the Indonesian state is to “educate the life of the nation,” this commitment is reflected in Article 31, which mandates a national education system designed to promote moral values, faith, and academic excellence. The National Education System Law (Law No. 20 of 2003) further defines the role of education in Indonesia, aiming to create a curriculum that effectively guides students’ learning experiences toward specific national objectives. Throughout history, education systems have evolved with each industrial revolution. In Revolution 1.0, the focus was on physical labor with limited emphasis on formal education. In Revolution 2.0, curriculum structure and testing were introduced but lacked effective mechanisms to track student progress. Revolution 3.0 brought digitalization into education, and Revolution 4.0 shifted toward personalized learning, formative assessments, and mentoring to address each student’s unique development. Education 4.0 emphasizes skills necessary for the 21st century, including critical thinking, creativity, communication, and collaboration, aligning with the rapid technological advancements and skill demands of today’s world (Dharma et al., 2020; Khaira et al., 2023; Rosyiddin et al., 2023).

In Indonesia, the national curriculum is periodically revised to align with the demands of global competitiveness and address domestic education gaps. A recent push for improvement came from low Programme for International Student Assessment (PISA) scores, which show that over 70% of 15-year-old students in Indonesia lack minimum reading and math proficiency (Hewi & Shaleh, 2020). The Ministry of Education, Culture, Research, and Technology launched the Merdeka Belajar (Freedom to Learn) initiative to address these concerns. This framework gives students, educators, and institutions autonomy to shape learning based on their unique skills, interests, and contexts, aiming to create a more dynamic, student-centered, and creative learning environment (Yamin & Syahrir, 2020). Among the “Merdeka Belajar episodes, the *Kurikulum Merdeka* and *Platform Merdeka Mengajar* (Episode 15)” were developed to address pandemic-induced learning loss and increased educational disparities. The *Merdeka Curriculum* incorporates project-based learning, competency assessments, and a focus on Pancasila values through the Profil Pelajar Pancasila framework. This curriculum provides teachers flexibility in choosing educational tools to suit students’ needs and interests, fostering an interactive, problem-solving approach to learning to prepare students for real-world challenges.

To support educators, the Platform Merdeka Mengajar was introduced as a digital resource hub, giving teachers access to curriculum guides, teaching materials, assessment tools, and professional development resources. This platform also encourages knowledge sharing among educators, featuring videos and creative teaching examples that inspire classroom innovation (Setiariny, 2023). Through the platform, teachers can access training and improve their competencies anytime and anywhere, creating equal opportunities for professional growth and curriculum implementation across the country. However, the platform’s effectiveness has encountered challenges. Surveys from the Directorate General of Teachers and Education Personnel (Ditjen GTK) in 2022 show that approximately 60% of teachers had not yet used the Platform Merdeka Mengajar, and about 30% faced access issues, indicating a gap between policy intentions and practical usage. In Jakarta, Indonesia’s capital and a hub for government, business, and culture, 94,830 teachers serve various educational levels, with 11,631 teaching in high schools as of January 2024. This study focuses on Jakarta high school teachers’ use of the Platform Merdeka Mengajar, examining its role in implementing the *Merdeka Curriculum* and its impact on teaching quality and curriculum delivery (Sumandya et al., 2022).

Existing studies have primarily concentrated on the technical aspects of the Platform Merdeka Mengajar rather than its practical application and benefits for teachers. According to UNESCO (2020), successful educational technology implementation requires attention to social, cultural, and economic factors

influencing user experience. Therefore, this study aims to analyze the utilization of the Platform Merdeka Mengajar among high school teachers in Jakarta, assess its impact on accelerating the implementation of the Kurikulum Merdeka, and identify the platform's perceived benefits and challenges among educators.

LITERATURE REVIEW

Concept and Characteristics of the Kurikulum Merdeka

The *Merdeka Curriculum* was designed in response to Indonesia's low educational performance, as reflected in the Programme for International Student Assessment (PISA) results. The PISA, conducted by the OECD, has shown that most Indonesian students fall below the minimum competency level in literacy and numeracy. Despite some improvement in Indonesia's ranking in the 2018 and 2023 PISA assessments, the quality of education remains significantly below international standards (Amir et al., 2023). Addressing the gaps in educational quality across regions and socio-economic groups is a significant challenge.

Since 2009, the Indonesian government has allocated 20% of its national budget (APBN) to education, with increasing investments to improve teaching quality, teacher welfare, and educational infrastructure. Although these investments have lowered teacher-student ratios and improved facilities, student achievement indicators remain low. The COVID-19 pandemic further exacerbated the situation, leading to learning losses, especially in remote areas where access to distance learning was limited (Esti et al., 2023). To address learning losses resulting from the pandemic, the Ministry of Education, Culture, Research, and Technology (Kemendikbudristek) introduced an emergency curriculum in 2020. This curriculum simplified basic competencies to enable students to focus on essential materials, with diagnostic assessments to gauge student's learning conditions. Schools implementing this emergency curriculum reported improved student outcomes, particularly in literacy and numeracy (Hadiapurwa et al., 2023; Komara & Hadiapurwa, 2023). Based on this success, the Kurikulum Merdeka—focused on flexibility and essential learning materials—was introduced to sustainably enhance the quality and effectiveness of education.

The Kurikulum Merdeka is built upon several key principles: simplicity, focus on competency and character, flexibility, alignment, collaboration, and feedback-based design. Unlike previous curricula, the Kurikulum Merdeka emphasizes in-depth competency development through material simplification, allowing students to grasp concepts more thoroughly (Hidayati, 2024; Marwa et al., 2024). Learning outcomes are organized into progressive phases encompassing knowledge, attitudes, and skills, ensuring clear competencies in each subject area. This curriculum provides flexibility in structuring learning time allocations, with annual lesson hours that schools can adjust according to student needs. Certain subjects also underwent adjustments: for example, Science and Social Studies are combined in elementary schools, English is strengthened, and Informatics is made a compulsory subject in middle schools. High school education also shifted to allow students in Grades 11 and 12 to choose subjects instead of following set study programs.

The Kurikulum Merdeka also emphasizes Penguatan Profil Pelajar Pancasila through project-based and regular intramural learning. In addition to guidance, the government provides resources such as teaching modules, learning trajectories (ATP), and project examples accessible to teachers online. Kemendikbudristek has made teaching resources available on flash drives and in print for schools with limited internet access. Implementing the Kurikulum Merdeka began gradually through the Program Sekolah Penggerak dan SMK Pusat Keunggulan initiative, covering various education levels and geographic conditions. The curriculum encourages teachers to provide contextual teaching strategies tailored to student needs. This flexibility allows teachers to adapt their teaching methods and provide learning experiences relevant to the student's context and current challenges.

The Kurikulum Merdeka offers three school implementation pathways: Merdeka Belajar, Merdeka Berubah, dan Merdeka Berbagi. These pathways allow schools to adopt the curriculum at varying levels, from integrating the Kurikulum Merdeka principles and utilizing existing teaching materials to developing their resources. The Ministry of Education and Culture has developed five key strategies to support the implementation of the Kurikulum Merdeka:

1. **Gradual Adoption Pathway:** Schools provide quarterly feedback to assess and adjust the government's support for implementation.
2. **Provision of Assessments and Teaching Resources:** Various assessments, textbooks, teaching modules, and project samples are provided in digital formats to support instructional delivery.
3. **Self-Guided Teacher Training:** Teachers can access self-guided training and learning resources online, such as videos, podcasts, and e-books, designed to enhance their competencies and creativity.
4. **Kurikulum Merdeka Resource Persons:** Teachers experienced in the Kurikulum Merdeka share insights through webinars and face-to-face sessions, offering inspiration and guidance to other teachers.
5. **Learning Communities:** Through learning communities comprising Guru Penggerak alumni and school supervisors, teachers can exchange experiences implementing the Kurikulum Merdeka.

Through these strategies, the government hopes all stakeholders—including teachers, school principals, and local policymakers—can collaborate to support a successful curriculum implementation relevant to students' development.

Platform Merdeka Mengajar

The adoption of Kurikulum Merdeka marks a transformative phase in Indonesia's education system, promoting a more flexible and student-centered learning approach. This curriculum seeks to develop students' critical thinking, creativity, and capacity for independent learning, aligning with global trends emphasizing personalized and holistic educational experiences (Ningsih & Sari, 2021). Technology plays a central role in this shift, acting as a driving force for innovative teaching and learning methods that align with the objectives of Kurikulum Merdeka (Hartono et al., 2023). Integrating technology within the Kurikulum Merdeka framework holds significant potential to transform education by boosting student engagement and enhancing learning outcomes. By utilizing digital tools such as Learning Management Systems (LMS), interactive multimedia resources, and adaptive learning technologies, schools can foster more dynamic and personalized learning experiences. These tools align with the objectives of Kurikulum Merdeka by promoting critical thinking, creativity, and student autonomy while making learning more interactive, accessible, and tailored to the unique needs of each learner.

To support the implementation of the Kurikulum Merdeka, the Ministry of Education, Culture, Research, and Technology (Kemendikbudristek) launched the Platform Merdeka Mengajar, a digital platform designed to provide teachers and school principals with references, inspiration, and resources to deepen their understanding of the *Merdeka Curriculum* and support collaborative classroom learning. Officially launched on February 11, 2022, as part of the Merdeka Belajar (Freedom to Learn) Program's 15th installment, this platform represents a significant step towards accessible, technology-enhanced teacher development. The Platform Merdeka Mengajar serves three core functions: teaching, learning, and creating. Each of these functions is crafted to support teachers in different aspects of their professional growth and instructional practice:

1. **Teaching Function:** This function aids teachers in delivering lessons aligned with the Kurikulum Merdeka by providing access to over 2,000 curriculum-based teaching resources and a student assessment tool for conducting quick diagnostic analyses of literacy and numeracy skills. These

resources help teachers tailor lessons to the curriculum's essential competencies while tracking student progress.

2. **Learning Function:** The learning function offers tools for teachers to enhance their competencies and professionalism. It includes self-paced training materials and unlimited access to inspirational videos that showcase teaching strategies aligned with the principles of the Kurikulum Merdeka. Teachers can choose from a wide range of training modules based on their personal needs and interests. Inspiration videos demonstrate innovative instructional techniques teachers can integrate into their classrooms.
3. **Creating Function:** This function allows teachers to build portfolios showcasing their achievements, which they can share with colleagues for collaboration and inspiration. Through *My Work Evidence*, teachers can upload videos demonstrating students' learning progress, which reflects the achievement of learning outcomes and the Profil Pelajar Pancasila. These works serve as learning resources and sources of inspiration for other teachers.

The Platform Merdeka Mengajar is accessible through an Android mobile application and a website using the educational account belajar.id. Teachers can download the mobile app from the Google Play Store or through the link <https://bit.ly/platformmerdekamengajar>, and they can access the website at <https://guru.kemdikbud.go.id/>. For a complete guide and tutorial videos, teachers can visit <https://linktr.ee/pmerdekamengajar>. The platform also uses content crowdsourcing, enabling teachers to contribute and actively create classroom-relevant content. This approach fosters active teacher involvement in content creation, promoting an environment where teachers continually develop and share educational resources.

As a platform “for teachers, by teachers,” the Platform Merdeka Mengajar allows teachers to select and access training materials, inspiration videos, and work evidence that aligns with their needs and preferences. Additionally, the platform offers teachers a space to collaborate and contribute meaningful content that can benefit others. The Platform Merdeka Mengajar features several flagship products divided into two main categories: Teacher Development and Teaching and Learning Activities.

Teacher Development Products

1. **Inspirational Videos:** This is a collection of inspirational videos curated by Kemendikbud Ristek and educational experts. It is designed to provide teachers with ideas for enhancing their educational practices and serve as a source of inspiration for their professional development journey.
2. **Self-Paced Training:** A set of concise training materials that enable teachers to undertake professional development independently at any time and place. This feature provides teachers with the opportunity to enhance their competencies autonomously.
3. **My Work Evidence:** This feature serves as a platform for teachers to document and showcase their achievements, competencies, and contributions. It also facilitates peer feedback and sharing of best practices, allowing teachers to benefit from each other's experiences.

Teaching and Learning Activity Products

1. **Student Assessment:** This tool helps teachers conduct rapid diagnostic analyses of students' literacy and numeracy skills, allowing them to adapt instruction based on students' current levels and developmental needs.
2. **Teaching Resources:** This feature provides a wide array of teaching materials, including instructional modules, project modules, and textbooks, to enrich the classroom experience and support teachers in delivering diverse and engaging lessons.

The Platform Merdeka Mengajar aims to be a supportive tool for teachers as they implement the Kurikulum Merdeka, encouraging collaboration and shared learning experiences. The platform's resources, developed by Kemendikbudristek, offer teachers a structured approach to implementing the curriculum in schools actively participating in the *Merdeka Curriculum*. The platform demonstrates how technology can

be leveraged in post-pandemic learning, fostering a collaborative educational ecosystem and enhancing instructional effectiveness (Churiyah et al., 2020). A study highlighted the importance of the Platform Merdeka Mengajar in supporting teaching and learning activities for educators (Prianti et al., 2022). The platform has been shown to play a constructive role in helping educators develop their potential to inspire and teach. This is supported by findings where 87.6% of respondents acknowledged that the platform contributes to developing educators' competencies, and 86.6% believed it positively impacts learning outcomes (Budiarti, 2022). However, many teachers face challenges in utilizing the platform effectively, particularly in developing the necessary technological skills to navigate it independently. Furthermore, elementary school educators often lack a strong understanding of the Independent Teaching Program and its implementation. Further research is needed to explore the utilization of the Platform Merdeka Mengajar and its potential to enhance the quality of educators (Silaswati, 2022).

Utilization of Technology in Education

The utilization of technology is a process and behavior carried out by individuals or groups to use technology to achieve specific goals. Technology can take the form of tools, media, systems, or applications that support, facilitate, or enhance the performance and outcomes of an activity. In education, the utilization of technology relates to how teachers and students use educational technologies in the teaching and learning process. One theory that can explain the utilization of technology in education is the Technology Acceptance Model (TAM). This theory proposes that two main factors influence individuals' acceptance and use of technology: perceived ease of use and perceived usefulness (Tahar et al., 2020). Perceived ease of use refers to the degree to which a person believes technology will not involve significant difficulty or effort. Perceived usefulness refers to the degree to which a person believes technology will improve their performance or outcomes.

TAM also states that external factors, such as individual, technology, task, and environmental characteristics, influence perceived ease of use and usefulness. These external factors may include attitudes, motivation, beliefs, experiences, knowledge, skills, support, resources, policies, norms, or technology-related cultures. These external factors can affect the acceptance and use of technology either positively or negatively. In the educational context, the external factors influencing the utilization of technology by teachers and students can vary depending on the type and purpose of the educational technology being used. Educational technology is the study and ethical practice of facilitating learning and improving performance by creating, using, and managing appropriate technological processes and resources (Nurchalia et al., 2023). Educational technology can include learning tools, media, systems, or applications.

Learning tools are devices or instruments that support the teaching and learning process, such as computers, laptops, tablets, smartphones, projectors, interactive whiteboards, digital cameras, microphones, speakers, printers, scanners, etc. Learning media refers to the materials or content presented through learning tools to convey information or messages to students, such as text, images, graphics, tables, audio, video, animations, simulations, games, etc. Learning systems are procedures or steps systematically organized to achieve learning objectives by integrating learning tools and media, such as e-learning, blended learning, mobile learning, flipped classrooms, etc. Learning applications are programs or software specifically designed to support teaching and learning activities using interactive learning tools and media, such as Learning Management Systems (LMS), Content Management Systems (CMS), Learning Content Management Systems (LCMS), Massive Open Online Courses (MOOCs), Small Private Online Courses (SPOCs), etc. (Bradley, 2021; Ashary & Komara, 2022).

The utilization of educational technology by teachers and students can offer various benefits, such as improving access, quality, and equity in education, enriching learning resources, expanding the space and time for learning, enhancing motivation, participation, and collaboration, adapting learning styles and speeds, and developing 21st-century skills, among others. However, using educational technology also presents several challenges, such as limitations in infrastructure, resources, and support, the digital divide, changes in the roles and responsibilities of teachers and students, and ethical and legal issues. To address these challenges, appropriate strategies are needed in planning, implementing, and evaluating the use of educational technology. One strategy that can be employed is instructional design. Instructional design is a systematic process for analyzing learning needs, formulating learning objectives, developing learning materials, implementing learning materials, and evaluating learning outcomes by applying the principles of learning theory and educational technology (Hamilton et al., 2021).

Using the Platform Merdeka Mengajar in education is an innovative and strategic approach in the current digital era. This platform can support the implementation of the Kurikulum Merdeka, which is oriented toward developing 21st-century competencies. Therefore, it is essential to understand the theories underlying the utilization of educational technology and the strategies that can be used in planning, implementing, and evaluating the use of the Platform Merdeka Mengajar. By doing so, using the Platform Merdeka Mengajar can improve the quality of education in Indonesia.

METHODS

This descriptive quantitative research study shows trends or tendencies in responses in percentage form. The quantitative research method is used not to test hypotheses but to identify groups based on indicators or variables, which can be interpreted descriptively to understand the causes and factors behind the issues. The subjects of this research are teachers teaching in all public senior high schools in DKI Jakarta. The population of this study consists of 117 public senior high schools in Jakarta, with a total of 5,046 teachers. The data used in this study is secondary data collected from the usage dashboard of the Platform Merdeka Mengajar by teachers in these schools: https://bit.ly/DasborPMM_Penggunaan. The data analysis technique employed is descriptive analysis. The descriptive method in this study is used to analyze and describe the data.

RESULTS AND DISCUSSION

The data used in this study is secondary data sourced from the Dashboard of the Platform Merdeka Mengajar Utilization in DKI Jakarta. This data illustrates the extent to which 5,046 teachers across 117 public high schools in DKI Jakarta have utilized the Platform Merdeka Mengajar to accelerate the implementation of the Kurikulum Merdeka. Three metric levels were applied to measure the extent of the platform's utilization in educational units. **Metric Level 1** includes 10 basic activities within the Platform Merdeka Mengajar, namely: the percentage of educators actively watching videos, the average number of learning days, the percentage of educators accessing reference pages in independent training, the percentage of educators attending at least three webinars, the average number of attempts to pass post-tests, the average days to complete a topic, the percentage of uploaded actual actions with similar elements, the percentage of validated real actions (certified), the percentage of educators using assessments, and the percentage of educators using teaching tools.

Metric Level 2 categorizes the 10 activities from Metric Level 1 into five broader metrics:

1. Start Learning, derived from the percentage of educators actively watching videos in Metric Level 1.
2. Learning Progress, representing the continuity of five activities from Metric Level 1 (average number of learning days, percentage of educators accessing reference pages in independent training, percentage

of educators attending at least three webinars, average number of attempts to pass post-tests, and average days to complete a topic).

3. Real Actions, indicating the completion level of two activities in Metric Level 1 (the percentage of uploaded actual actions with similar elements and the percentage of validated actual actions).
4. Assessment, derived from the percentage of educators using assessments in Metric Level 1.
5. Teaching Tools, derived from the percentage of educators using teaching tools in Metric Level 1.

Metric Level 3 is a summary of Metric Level 2, providing an overview of the platform's utilization by educational units.

Result

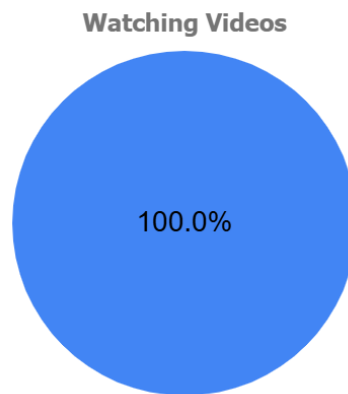


Figure 1. Percentage of Educators Actively Watching Videos (measured over time).
Source: Processed Data 2024

Figure 1 shows that all 5,046 teachers have actively watched independent training videos, achieving 100% participation. This indicates that the independent training videos on the Platform Merdeka Mengajar are highly accessible, enabling all educators to use a belajar.id account to easily access the feature. Based on the Technology Acceptance Model (TAM), this high participation rate reflects two key factors: Perceived Ease of Use (PEOU) and Perceived Usefulness (PU). Perceived Ease of Use (PEOU) indicates that the platform's accessible design and straightforward features make it easy for teachers to navigate and use (Barhouni, 2016; Khan & Woosley, 2019). Meanwhile, Perceived Usefulness (PU) indicates that teachers perceive that the training videos contribute positively to their professional development, motivating them to engage actively (Nursiah, 2018).

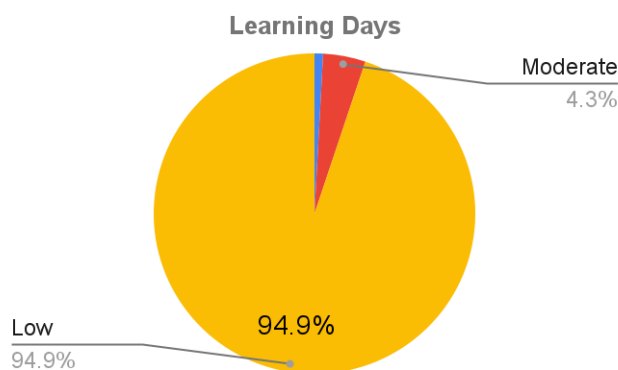


Figure 2. Average Number of Learning Days (measured per semester).
Source: Processed Data 2024

Figure 2 illustrates the average number of learning days measured during the current semester. The metric has three categories: High for averages above 5 days, Moderate for averages between 2-5 days, and Low for averages below 2 days. The distribution reveals that 94.9% of schools fall into the Low category, with only 4.3% achieving Moderate and only 0.8% achieving the High category. This finding suggests that while many teachers engage with the platform by watching training videos, most do not dedicate significant time to active learning. According to the Unified Theory of Acceptance and Use of Technology (UTAUT), behavioral intention and actual use behavior of technology are influenced by four factors: Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions. In this case, the low engagement in active learning may be attributed to limited facilitating conditions (e.g., time constraints or workload) and high effort expectancy, where teachers perceive that active learning requires significant effort beyond simply watching videos. To address these challenges, gamification, microlearning, or institutional support can enhance performance expectancy and reduce perceived effort. Additionally, fostering a supportive social environment where active engagement is encouraged and rewarded can amplify teachers' behavioral intention to participate in more substantial learning activities.

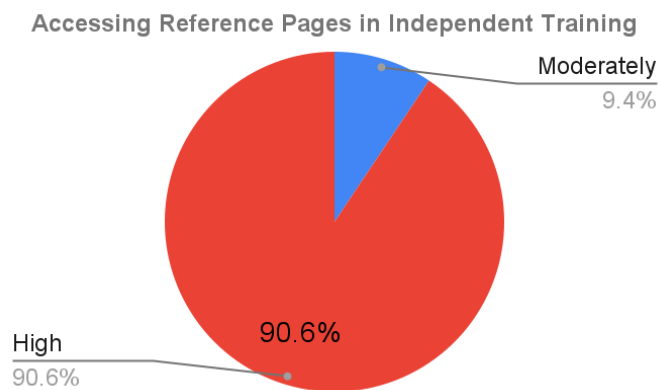


Figure 3. Percentage of Educators Accessing Reference Pages in Independent Training (measured per semester)
Source: Processed Data 2024

Figure 3 shows the percentage of educators actively accessing reference pages in independent training. Most schools, 96.6%, demonstrate a high level of access, while 9.4% are categorized as Moderately High. This reflects that teachers are pretty active in accessing reference materials on the platform, likely indicating a need for additional resources to support teaching or professional development. This behavior aligns with the Technology Acceptance Model (TAM), particularly the concept of Perceived Usefulness (PU). Teachers perceive that the reference materials provide practical value in enhancing their instructional strategies or professional skills.

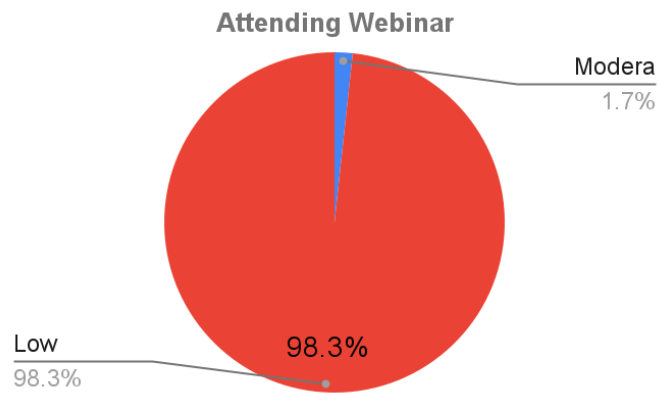


Figure 4. Percentage of Educators Attending at Least Three Webinars (measured over time)
Source: Processed Data 2024

For the metric on webinar participation (**Figure 4**), 98.3% of schools fall into the Low category, with only two schools categorized as Moderately High. This suggests that webinars may be less appealing or more challenging to access, resulting in relatively lower engagement than other metrics. The availability of resources, such as reliable internet access, technical support, or time allocated during work hours, could impact the ease with which teachers can attend webinars. If these conditions are not met, it becomes harder for teachers to participate. To address this, improving the accessibility of webinars, offering more engaging and interactive formats, and ensuring that webinars are closely aligned with teachers' immediate needs could increase participation. Additionally, offering incentives or integrating webinars into professional development programs could enhance their appeal.



Figure 5. Average Number of Attempts to Pass Post-Tests (measured per semester)
Source: Processed Data 2024

Regarding the number of attempts needed to pass post-tests (**Figure 5**), all schools fall into the **Low** category, indicating that post-tests are relatively easy to understand or that teachers are well-prepared before taking them.

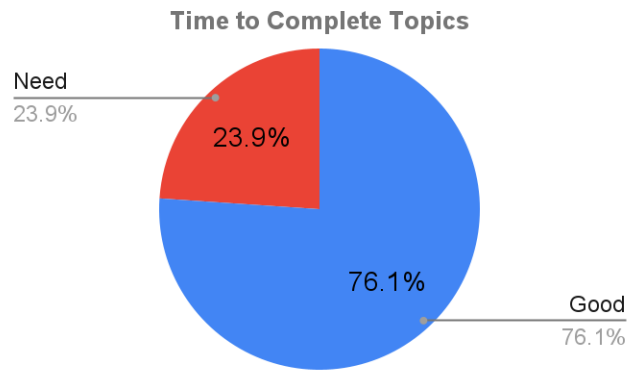


Figure 6. Average Time to Complete Topics (measured per semester)
Source: Processed Data 2024

For the metric of time to complete topics (**Figure 6**), 76.1% of schools fall into the Good category, with 23.9% of schools needing improvement. This suggests that while most teachers can complete topics within the expected timeframe, a subset may require additional support or better time management.

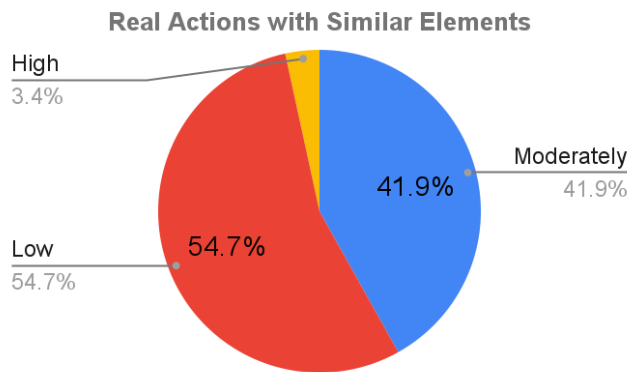


Figure 7. Percentage of Uploaded Real Actions with Similar Elements (measured per semester).
Source: Processed Data 2024

For the metric on actual actions with similar elements (**Figure 7**), 54.7% of schools fall into the Low category, although 41.9% reach the Moderately High and only 3.4% reach the High category. This indicates significant variability in actions taken, with a few schools beginning to show consistency in their action patterns. Schools with higher engagement in actual actions may perceive the platform as more helpful in achieving educational goals or improving teaching effectiveness, motivating them to integrate the platform into their daily practices consistently. In contrast, schools in the Low category may not yet perceive the same level of benefit, leading to less engagement.

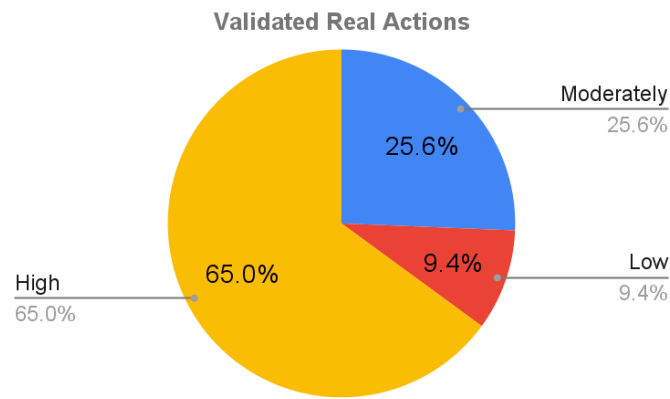


Figure 8. Percentage of Validated Real Actions (measured per semester)
Source: Processed Data 2024

For the metric on validated actual actions, the majority of schools (**Figure 8**), which is 65%, fall into the **High** category, followed by 25.6% of schools in the Moderately High category, and a small number in the Low category with 9.4% of schools. This shows that most teachers are active in implementing validated actual actions, highlighting the positive impact of the platform. However, some schools still require additional support to increase their participation in validated actual actions. The Technology Acceptance Model (TAM), particularly Perceived Usefulness (PU), can explain this strong engagement. Teachers in the High category likely perceive the platform as helpful in improving their teaching practices and student outcomes, encouraging active participation in validated actual actions. The platform's positive impact on teaching efficacy may drive this high engagement.

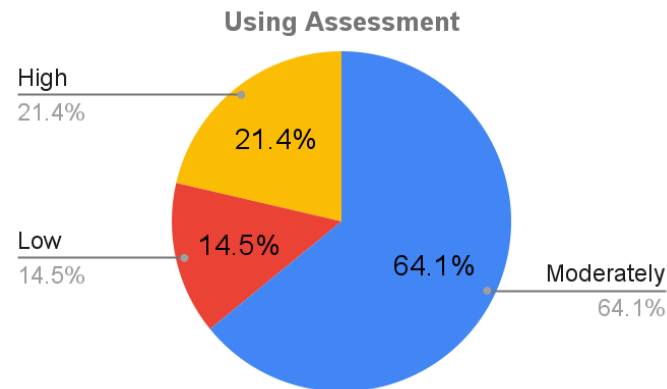


Figure 9. Percentage of Educators Using Assessments (measured over time)
Source: Processed Data 2024

Regarding assessments (Figure 9), 64.1% of schools are categorized as Moderately High, 21.4% are in the High category, and the rest are in the Low category. This suggests that most teachers actively use the platform's assessments, reflecting their relevance and usefulness in supporting the learning process. As noted by previous research, 260,000 teachers have used the student assessment menu to map student quality in their classrooms (Ketaren et al., 2022). This highlights assessments' widespread adoption and importance in improving teaching and learning outcomes.

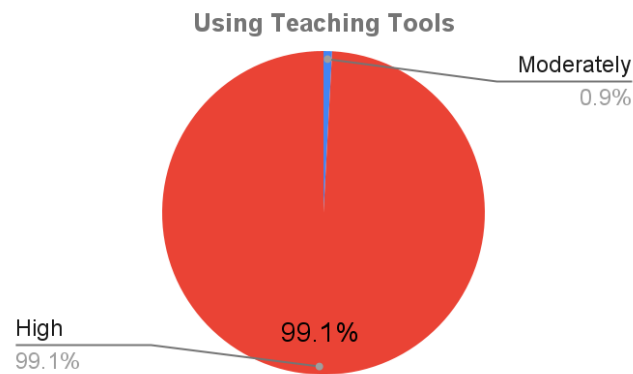


Figure 10. Percentage of Educators Using Teaching Tools (measured over time)
Source: Processed Data 2024

For the metric on teaching tool usage (**Figure 10**), 99.% of schools are in the High category, with only one school in the Moderately High category and none in the Low category. This indicates that the teaching tools on the Platform Merdeka Mengajar are highly relevant and beneficial for public high school teachers in Jakarta. Teachers who believe using the platform's teaching tools will improve teaching effectiveness, or better student performance is more likely to adopt and consistently use them. This strong belief in the tools' impact helps explain why most schools fall into the High category. To maintain and further strengthen the use of these tools, continued support in training, updates, and feedback can ensure that teachers continue to find them valuable and relevant in their practice.

Discussion

This study explores the utilization of the Platform Merdeka Mengajar by public high school teachers in Jakarta. The findings provide valuable insights into how teachers are engaging with key features of the platform and offer a connection to various educational theories. They also align with Indonesia's Kurikulum Merdeka and the policy goals of Platform Merdeka Mengajar.

Independent Training Videos

The high engagement with the Independent Training Video feature, where all schools were categorized as HIGH, reflects the platform's success in delivering accessible and relevant content. This aligns with Perceived Usefulness (PU) in TAM, where teachers are likely using this feature because they perceive it to be valuable for their professional development. This finding supports the Curriculum Merdeka's emphasis on self-directed learning and continuous professional growth. By providing easily accessible training videos, the platform empowers teachers to improve their competencies independently, which is a core principle of Kurikulum Merdeka. Using videos in learning, accompanied by visual illustrations, positively correlates with the learning experience as it enhances learners' engagement with the presented content (Suryani & Drajadi, 2021). Previous research findings further indicate that visual illustrations assist learners in understanding material more quickly and effectively by integrating elements of images, audio, text, and video (Wardana & Andini, 2022). Since these videos offer structured, bite-sized content, they reduce extraneous cognitive load and make it easier for teachers to learn at their own pace without feeling overwhelmed. This makes the feature highly attractive, as teachers can access content when it fits their schedules, reducing the cognitive overload that might occur from attending live training sessions.

Assessment and Teaching Tools

The metrics for Using Assessment and Using Teaching Tools showed high engagement, particularly in the Moderately High and High categories. This indicates that teachers are actively utilizing these features. The high usage of assessment and teaching tools suggests that the Platform Merdeka Mengajar successfully meets teachers' expectations by providing useful tools for teaching and learning. These findings are consistent with Platform Merdeka Mengajar's (PMM) goals, which aim to equip educators with practical, easy-to-use resources that enhance teaching quality. Moreover, this aligns with the previous research highlighting that using student assessment features in Platform Merdeka Mengajar facilitates teachers in conducting assessments and mapping students' learning needs (Karomah et al., 2024). The student assessment feature in Platform Merdeka Mengajar is an alternative solution for implementing assessments with results that teachers can analyze quickly. It enables teachers to gain a holistic understanding of students' abilities. Through regular tests and evaluations, teachers can map each student's potential, which aids in better learning planning.

Validated Real Actions and Actions with Similar Elements

For Validated Real Actions, most schools were categorized as High, showing that teachers actively implement the actions they learned through training. This finding aligns with Self-Determination Theory (SDT), particularly the concept of competence. Teachers who feel capable and empowered by the training are likelier to engage in these actions (Chiu, 2021). The successful implementation of validated actual actions highlights the positive impact of the platform's training resources on teachers' confidence in applying what they have learned. However, the Actions with Similar Elements metric revealed that most schools fell into the Low category, suggesting variability in how teachers use their learning. This could indicate a lack of standardized implementation guidelines ensuring consistent school practices. In the context of Kurikulum Merdeka, which emphasizes teacher autonomy and flexibility, this variability could be seen as an opportunity for teachers to innovate. However, Platform Merdeka Mengajar could consider providing more structured frameworks or best practice guidelines to help teachers consistently apply learned actions across schools.

Webinars and Post-Tests

The low engagement with webinars, where 98.3% of schools fell into the low engagement category, highlights a significant challenge in optimizing this feature of the Platform Merdeka Mengajar. Although teachers who complete the module materials and post-tests are eligible to attend webinars, several factors may hinder participation. Webinars are designed with specific schedules visible on teachers' PMM accounts, including details such as the webinar title, topic description, date, time, Zoom link, and speaker information. However, teachers may find webinars time-consuming or difficult to access, which limits their engagement. This issue is consistent with previous research findings that only 21.4% of teachers obtained information about PMM through webinars (Utomo & Kusumawati, 2024). Implementing these webinars is primarily managed by the Ministry of Education, Balai Besar Guru Penggerak, or the Balai Besar Penjaminan Mutu Pendidikan. During the initial launch of Kurikulum Merdeka and PMM, the Ministry of Education and Culture, through the Directorate General of Teachers and Education Personnel, intensively organized dissemination activities, including webinars. The National Curriculum Standards and Assessment Board also facilitated similar activities to support outreach. The online webinars were also made available on the Ministry of Education's official YouTube channel, allowing teachers to access recordings conveniently.

Despite these efforts, the findings suggest improvements are needed to increase webinar accessibility and usability. Teachers may benefit from on-demand webinar sessions, which offer greater flexibility by allowing them to access professional development resources at times that suit their schedules. Moreover, streamlining the registration and attendance process could further reduce barriers. These adjustments would align with the platform's policy goal of providing professional development opportunities that are convenient, adaptable, and responsive to teachers' diverse needs. Similarly, the Post-Test results, where most teachers passed the tests quickly, could point to a lack of cognitive challenge in the tests. The low difficulty level of the post-tests might result in teachers not feeling sufficiently challenged, and the tests may not be driving deep learning. Increasing the cognitive load by adding more complex scenarios or problem-solving tasks could encourage deeper engagement with the material, fostering better learning outcomes.

Policy Implications and Recommendations

The findings indicate that while the Platform Merdeka Mengajar has succeeded in engaging teachers, particularly through the Independent Training Videos and Teaching Tools, areas need improvement. To align with the Kurikulum Merdeka and further support teachers' professional growth, the platform could enhance the flexibility and accessibility of webinars, offering on-demand sessions that cater to teachers' time constraints. Additionally, increasing the challenge of post-tests could ensure that teachers engage in deeper learning and application of the material. Platform Merdeka Mengajar has significantly improved teaching quality, with 87% of users perceiving its benefits as substantial (Setiaryny, 2023). Both students and educators at various educational levels report enhancements in learning outcomes. However, despite this positive impact, there is a need for further optimization, particularly through regular usage and integration into daily teaching practices. This can be supported by intensive training and mentoring programs facilitated by relevant units, including collaboration between BPMP, school supervisors, principals, and teachers. These efforts will help ensure a better understanding and effective use of the platform to enhance learning processes.

PMM effectively enhances teacher competence by providing easy access to up-to-date educational information through smartphone applications. The platform fosters inspiration and collaboration among teachers nationwide, offering features such as inspirational videos, positive feedback on creative works, and various tools, including teaching materials, student assessments, learning communities, and practice ideas (Hidayati, 2024). These features have been instrumental in promoting active participation and professional growth among teachers. While the platform has succeeded in engaging teachers, particularly through features like Independent Training Videos and Teaching Tools, there are areas requiring improvement. To align with the Kurikulum Merdeka, the platform could enhance webinar accessibility by offering on-demand sessions and increasing post-test challenges to encourage deeper learning. Moreover, addressing variability in actions with similar elements by providing structured guidelines or templates would balance teacher autonomy with standardized practices, ensuring more consistent implementation.

CONCLUSION

This study underscores the significant role of the Platform Merdeka Mengajar in enhancing the professional development and teaching practices of public high school teachers in Jakarta. The platform's features, particularly Independent Training Videos and Teaching Tools, have demonstrated high levels of engagement and usability, aligning with the principles of Kurikulum Merdeka, which emphasize self-directed learning and teacher autonomy. These tools effectively support the professional growth of educators, enabling them to enhance their competencies and deliver higher-quality education. However,

the findings also reveal areas for improvement. Low engagement with webinars highlights the need for increased flexibility and accessibility, such as introducing on-demand sessions to accommodate teachers' schedules. Additionally, increasing the cognitive challenge of post-tests could encourage deeper learning and better application of knowledge. Variability in implementing actions with similar elements suggests a need for more structured guidelines or templates to balance teacher autonomy with consistent practices across schools.

In conclusion, while the Platform Merdeka Mengajar demonstrates significant potential as a tool for professional development and effective curriculum implementation, there are clear opportunities for improvement. To maximize its impact, platform managers and policymakers should focus on enhancing the accessibility and relevance of features like webinars, providing structured support for teachers, and ensuring that content challenges educators to engage more deeply with the material. These improvements will help the platform continue to meet the evolving needs of educators, fostering the successful adoption of the Kurikulum Merdeka across Indonesian educational institutions. By aligning the platform's features with the principles of TAM, UTAUT, SDT, and Cognitive Load Theory, the platform can become an even more effective tool for supporting the professional development of teachers and the successful implementation of the curriculum.

AUTHOR'S NOTE

The authors declare that there are no conflicts of interest related to the publication of this article. They further confirm that the data and content presented in this work are entirely original, ethically sourced, and plagiarism-free. All external sources or references have been appropriately acknowledged and cited in compliance with academic guidelines. The authors remain committed to ensuring the highest ethical and scientific integrity standards throughout the research and publication process.

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