Research Article

Utilization of the Merdeka Mengajar Platform to Improve Teachers' Pedagogical Competence at Public Elementary School 2 Sarolangun

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Abstract: The Merdeka Mengajar (PMM) Platform is one of the applications used as an implementation of the Merdeka Curriculum. This software offers a number of tools that can be used by educators to improve teaching standards. This research is a qualitative study using a descriptive method. This research was conducted at SDN 2 Sarolangun. The subjects of this research were the principal, teachers, and students at SDN 2 Sarolangun. The research instruments were interviews, observations, and documentation. The data analysis technique used in this study was qualitative data analysis which included data reduction, data presentation, and drawing conclusions. The results of this study are (1) the school policy in utilizing the Merdeka Mengajar Platform has been implemented but is not yet fully optimal because some teachers still experience technical obstacles and limited digital literacy. Continuous support and mentoring are needed so that this policy can maximize teachers' pedagogical competence, (2) in utilizing the Merdeka Mengajar Platform, teachers have utilized various features such as teaching modules and learning videos, but some teachers still do not consistently use them in planning and implementing learning. (3) Challenges and obstacles in utilizing the platform include limited internet connections, a lack of technological devices, and adapting to new features. (4) School efforts to overcome these obstacles include taking several steps, such as providing Wi-Fi, facilitating training, and providing guidance in using the platform.

Keywords: Curriculum Implementation; Digital Literacy; Merdeka Mengajar Platform; Pedagogical Competence; Teacher Mentoring.

1. Introduction

Pedagogical competence is a key pillar of the teaching profession, crucially determining the quality of the learning process and outcomes.(Channa & Sahito, 2022). This competence encompasses a teacher's ability to design, implement, evaluate, and develop effective learning, tailored to student characteristics and the dynamics of the applicable curriculum.(Hartini et al., 2018).Teachers with strong pedagogical competence are able to deeply understand student characteristics, including their learning styles, potential, and individual needs. This enables them to develop learning approaches and strategies that not only deliver material but also facilitate meaningful and enjoyable learning experiences.(Sudargini & Purwanto, 2020). Beyond simply transferring knowledge, teachers with strong pedagogical competence act as facilitators, motivators, and guides in students' learning processes.(Saleh et al., 2023).In the era of the Independent Curriculum, learning challenges have become increasingly complex, as teachers are required to provide differentiated and student-centered learning. Without adequate pedagogical competence, teachers will struggle to translate curriculum demands into effective and relevant learning practices. This directly impacts student retention, decreases active participation in class, and ultimately negatively impacts learning outcomes.(Kim et al., 2019; Lestari et al., 2024).The government's implementation of the Independent Curriculum (Curriculum Merdeka) is a progressive step in addressing the needs of 21st-century education, emphasizing student-centered learning, differentiated learning, and character building

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through the Pancasila Student Profile.(Riyan Rizaldi & Fatimah, 2022; Zaenal Abidin, 2023) However, its implementation presents various challenges for teachers, particularly at the primary education level, such as elementary schools.One of the main challenges teachers face is the shift in their role from mere transmitters of material to facilitators of learning. Teachers are required to design learning processes that are flexible, contextual, and tailored to the needs and potential of each student.(Imran et al., 2024). This requires strong pedagogical skills, including a deep understanding of the principles of differentiated learning, formative assessment, and project-based learning design.Furthermore, limitations in the use of technology and learning resources also pose a challenge, especially for teachers unfamiliar with digital tools.(Schildkamp et al., 2020). The Independent Curriculum encourages the use of technology and digital platforms, such as the Merdeka Mengajar Platform, as a means of professional development and learning resources, but not all teachers have the access or skills to utilize them optimally.Other challenges include time constraints and a still-high administrative burden, making it difficult for teachers to design innovative learning.(Damayanti et al., 2024). The lack of ongoing training and technical assistance also makes it difficult for some teachers to understand and implement new elements in the curriculum, such as learning outcomes, learning goal pathways, and projects to strengthen the Pancasila Student Profile.(Bećirović, 2023)

In response to the increasingly complex dynamics of the education sector, particularly with the implementation of the Independent Curriculum (Kemendikbudristek), the Ministry of Education, Culture, Research, and Technology (Kemendikbudristek) launched the Merdeka Mengajar (PMM) Platform, a digital innovation specifically designed to support the role and professionalism of teachers. This platform responds to the need for more flexible, accessible, and relevant learning and competency development media for teachers.The Merdeka Mengajar Platform offers a variety of superior features designed to support the practical and applicable implementation of the Independent Curriculum.(Sims et al., 2023) Features such as Inspirational Videos, Independent Training, Student Assessments, Teaching Tools, and Teacher Reflections are designed to assist teachers in planning, implementing, and evaluating the learning process.(Fadhil Zil Ikram et al., 2023). With a technology-based approach, teachers can access training materials, share best practices, and engage in continuous self-development anytime and anywhere.More than just a learning medium, PMM also serves as a means of transforming the learning culture for teachers. Through this platform, teachers are not merely passive users but are also encouraged to become lifelong learners who actively seek knowledge and improve their teaching practices. This aligns with the spirit of the Independent Curriculum, which emphasizes independent learning for both students and teachers.The presence of PMM also addresses the challenge of disparities in access to information and training between teachers in urban and rural areas. Through a single, integrated digital platform, all teachers in Indonesia have equal opportunities to learn and develop. This makes PMM a concrete manifestation of digital transformation in Indonesian education.

Although the Merdeka Mengajar (PMM) Platform has been designed as a digital platform to support the implementation of the Merdeka Curriculum nationally, its utilization at the educational unit level, particularly in areas like SD Negeri 2 Sarolangun, requires a comprehensive evaluation. This is crucial given that the platform's success is highly dependent on the local context, including teacher readiness, supporting facilities, and the school's learning culture.At SDN 2 Sarolangun, teachers are faced with a variety of real-world conditions that may differ from educational units in other regions. The availability of technological devices, internet access, and teachers' digital skills are crucial factors influencing the extent to which PMM can be optimally utilized. Without a clear understanding of these conditions, the platform, which should be a solution, can actually become an additional burden for teachers.

Furthermore, not all teachers fully understand the features available in PMM and how to integrate them effectively into the learning process. Therefore, evaluating the level of utilization of this platform at SDN 2 Sarolangun is crucial to determine the extent to which teachers have used the PMM, which features are most utilized, and what challenges they face.Through this evaluation, the school can formulate strategies to increase teacher capacity in using the PMM, whether through internal training, mentoring, or strengthening school policies that support continuous professional development. The evaluation also helps the

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local education office adopt more targeted policies to support the implementation of the Independent Curriculum.(Putra et al., 2024)(Department of Basic Education & NEEDU, 2018)Thus, the use of the PMM is not only seen as fulfilling national policy, but is truly a tool for transforming learning that is relevant and contextualized according to the needs and conditions of SDN 2 Sarolangun. This will have a direct impact on improving teacher competency, particularly in pedagogical aspects, and encourage the creation of a higher-quality, student-centered learning process.

2. Method

This study used a descriptive qualitative approach (Cropley, 2023) and was conducted at SDN 2 Sarolangun. The subjects were the principal, teachers, and students at SDN 2 Sarolangun. The research instruments were interviews, observation, and documentation. The data analysis technique used in this study was qualitative data analysis, which included data reduction, data presentation, and drawing conclusions using Miles Huberman's data analysis.(Huberman & Miles, 2002).

3. Results and Discussion

3.1. The Merdeka Teaching Platform policy in improving the pedagogical competence of teachers at Sarolangun 2 Public Elementary School

The Indonesian government's commitment to transforming education is embodied in the Merdeka Belajar (Freedom to Learn) policy, which aims to empower both teachers and students through flexibility, innovation, and contextual learning. A critical component of this broader policy is the Merdeka Teaching Platform (Platform Merdeka Mengajar), a digital plat-form developed by the Ministry of Education, Culture, Research, and Technology (Ke-mendikbudristek) to support continuous professional development among educators.At Sarolangun 2 Public Elementary School, located in Sarolangun Regency, Jambi Province, this platform has played a transformative role in enhancing the pedagogical competence of teachers. Prior to the implementation of the Merdeka Teaching Platform, many teachers faced challenges in accessing up-to-date teaching resources, learning new methodologies, and engaging in meaningful peer collaboration. Pedagogical practices often remained conventional, relying heavily on rote learning and textbook-centered instruction.With the introduction of the Platform Merdeka Mengajar, teachers at Sarolangun 2 gained access to a comprehensive suite of tools and learning materials, including: (a) Self-paced learning modules focused on active learning strategies, differentiated in-struction, project-based learning, and formative assessment. (b) Best-practice videos and lesson plans developed by expert educators across Indonesia. (c) Assessment tools aligned with the national curriculum, enabling teachers to better understand and track student learning outcomes. (d) A collaborative digital space for peer-sharing and reflection.

The statement above is the result of data reduction and analysis from interviews with the samples and is supported by observations and documentation in the research field..These features have enabled teachers not only to broaden their pedagogical knowledge, but also to reflect critically on their teaching practices. For example, through modules on stu-dent-centered learning, teachers began to shift their classroom approaches—from directive teaching toward facilitation and inquiry-based learning. Regular use of the platform has also encouraged continuous self-assessment and participation in professional learning com-munities. further research, found a condition, which is the result of interviews, observations and documentation in the research field, Moreover, the platform helps address the geo-graphical and professional isolation often experienced in rural areas like Sarolangun. By connecting teachers to a national network of educators, it has fostered a culture of collab-oration and innovation that was previously limited by infrastructural constraints. Early in-dicators of impact at Sarolangun 2 Public Elementary School include: (a) Improved student engagement and participation in learning activities. (b) Teachers' increased confidence in experimenting with diverse instructional strategies. (c) Higher levels of teacher motivation and initiative in lesson planning and classroom man-agement.

Despite its benefits, the implementation of the platform is not without challenges. Limited internet connectivity, insufficient digital literacy among some teachers, and the need for stronger mentoring systems remain barriers. However, the school has responded by

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organizing regular in-house training, peer mentoring sessions, and partnerships with local education authorities to strengthen support systems. the above statement is also in accordance with research results, (Lestari et al., 2024), that teachers experienced increased skills in preparing learning plans based on the Merdeka curriculum, as well as increased competence in utilizingtechnology for a more effective and efficient learning process. The novelty of this study lies in the focus of the analysis of the impact of the platform on a specific area, namely Mesuji District, which previously received less attention in national research. The contribution of this study is to provide recommendations for policymakers and platform developers to continue to improve relevant features and content and for schools to encourage the use of this platform as an integral part of teacher professional development in the future.

3.2 Utilization of the Merdeka Teaching Platform to improve the pedagogical competence of teachers at State Elementary School 2 Sarolangun

In an effort to improve the quality of education and teacher professional competence, SD Negeri 2 Sarolangun has optimally utilized the Merdeka Mengajar (PMM) Platform as a learning and self-development support tool. This platform, launched by the Ministry of Education, Culture, Research, and Technology, addresses teachers' needs in implementing the Merdeka Curriculum and improving pedagogical competence independently and sustainably. The use of PMM at SD Negeri 2 Sarolangun began with an internal outreach by the principal, who encouraged all teachers to actively access and participate in the independent training available on the platform, based on findings in the research field, where researchers reduce data and analyze data obtained from interviews, observations and documentation in the research field .Teachers were given the freedom to choose modules that suited the needs and learning challenges of their respective classes, such as differentiated learning, diagnostic assessments, and effective classroom management.Through features like Independent Training, Inspirational Videos, and Teaching Tools, teachers at SDN 2 Sarolangun not only gained new insights but also implemented more innovative and student-centered teaching practices. As a result, there has been a significant improvement in the quality of classroom learning, with more active teacher-student interactions, and increasingly diverse and contextual approaches.The positive impact of using PMM is also evident in the increased reflection and collaboration among teachers. They are more open to sharing good practices, providing feedback, and encouraging a culture of lifelong learning within the school environment. Furthermore, PMM has become a tool for developing more systematic, student-centered lesson plans.Overall, the use of the Merdeka Mengajar Platform at SD Negeri 2 Sarolangun has been a significant catalyst in improving teachers' pedagogical competencies. This aligns with the spirit of Merdeka Belajar, where teachers are encouraged to continuously learn, innovate, and develop to create meaningful learning for students. the above statement is also in accordance with research results,(Mulyani et al., 2024), that PMM significantly contributes to supporting the development of pedagogical and managerial competencies of teachers, especially through its integrated continuous development features. However, its effectiveness is influenced by factors such as technology access, user motivation, and school institutional support. This research recommends strengthening PMM usage training and improving supporting infrastructure to optimize the benefits of this platform in supporting the Sekolah Penggerak program.

3.3. Inhibiting and supporting factors in the use of the Merdeka Teaching Platform in improving the pedagogical competence of teachers at State Elementary School 2 Sarolangun

The use of the Merdeka Mengajar (PMM) platform by teachers at SD Negeri 2 Sarolangun has been a strategic step in improving pedagogical competence in line with the implementation of the Merdeka Curriculum. Based on findings in the research field, where researchers reduce data and analyze data obtained from interviews, observations and documentation in the research field .However, during the implementation process, various factors influenced it, both supporting and hindering it.

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Supporting Factors

Some of the main supporting factors that contributed to the successful use of PMM at SDN 2 Sarolangun include:

Proactive Principal Leadership

The principal's visionary leadership and support for teacher professional development are key drivers. The principal actively promotes the importance of PMM and provides space and time for teachers to learn independently.

Teachers' Enthusiasm for Learning and Adaptation

Teachers' high motivation to continue learning and improving their skills is a crucial internal factor. Many teachers welcome PMM as a flexible learning tool tailored to their needs.

Availability of Relevant Features in PMM

Features such as Self-Training, Inspirational Videos, and Teaching Tools significantly assist teachers in understanding student-centered learning concepts and applying them in their teaching practices.

Technology Support and School Internet Access

The availability of digital devices and adequate internet connections in the school environment also facilitate teachers' access to PMM.

Inhibiting Factors

On the other hand, several challenges or inhibiting factors also emerged during the process of utilizing this platform:

Limited Digital Literacy among Some Teachers

Despite their strong enthusiasm for learning, not all teachers have adequate skills in operating technology. This presents an initial obstacle to accessing and optimally utilizing PMM.

Limited Learning Time

The busy schedule of teaching and administrative tasks makes it difficult for some teachers to find time to consistently participate in self-training.

Unstable Internet Connection at Teachers' Homes

Some teachers face challenges accessing PMM from home due to limited internet connections, especially those living in areas with inadequate digital infrastructure.

Lack of Initial Technical Assistance

At the beginning of implementation, not all teachers received technical assistance or direct training in using the platform, resulting in a slow adaptation process for some teachers.

3.4. Solutions to overcome the inhibiting factors in the use of the Merdeka Teaching Platform to improve the pedagogical competence of teachers at State Elementary School 2 Sarolangun

In utilizing the Merdeka Mengajar (PMM) platform as a means of improving pedagogical competence, teachers at SD Negeri 2 Sarolangun faced several obstacles. However, various solutions have been designed and implemented to gradually and sustainably address these obstacles.

Improving Teacher Digital Literacy

To address limited digital literacy, the school regularly conducts internal training. This training covers the basic use of digital devices, how to access PMM, and how to maximize its features. More experienced teachers are also appointed as mentors for their peers in the peer teaching system, to foster a culture of collaboration and mutual learning.

Flexible Learning Time Management

In response to time constraints due to workloads, the school has implemented a specific time each week allocated specifically for self-development through PMM. This activity, known as "Teacher Independent Learning Hours," is held outside of main teaching hours, ensuring it does not disrupt learning activities.

Improving Technology and Internet Access

To address technical challenges such as unstable internet connections at teachers' homes, the school provides digital learning spaces with reliable internet connections. Teachers can utilize this facility outside of teaching hours to access materials and training in the PMM. Furthermore, schools can also propose collaborations with external parties, such as the education office or internet service providers, to strengthen digital infrastructure.

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Ongoing Mentoring and Supervision

The principal and the school curriculum development team play an active role in providing regular supervision and evaluation of teachers' progress in utilizing the PMM. This mentoring is supportive and solution-oriented, with a reflective approach to finding joint solutions to the challenges teachers face.

Increasing Motivation and Appreciation

To encourage active teacher involvement, schools provide recognition for teachers who demonstrate progress in participating in PMM training. This recognition can take the form of certificates, monthly awards, or opportunities to share good practices in teacher forums.

With these solutions, the obstacles that previously hampered the use of the Merdeka Mengajar Platform are gradually being overcome. These strategic steps not only improve teachers' pedagogical competence but also strengthen a culture of sustainable learning at SD Negeri 2 Sarolangun, in line with the spirit of educational transformation through the Merdeka Curriculum. Based on the description above, overall, the use of the Merdeka Mengajar Platform at SD Negeri 2 Sarolangun has made a positive contribution to improving teachers' pedagogical competence, particularly in planning, implementing, and evaluating learning. However, its effectiveness is largely determined by how supporting factors are maximized and inhibiting factors are overcome. Therefore, synergy between schools, teachers, and the government is essential to creating a learning ecosystem that supports sustainable educational transformation.

4. Conclusions

The results of this study are (1) the school policy in utilizing the Merdeka Mengajar Platform has been implemented but is not yet fully optimal because there are still teachers who experience technical obstacles and limited digital literacy. Continuous support and mentoring are needed so that this policy can maximize teacher pedagogical competence, (2) utilization of the Merdeka Mengajar Platform, teachers have utilized various features such as teaching modules and learning videos, but some teachers are still not consistently using it in planning and implementing learning. (3) challenges and obstacles in utilizing the Platform are limited internet network, lack of technological devices, and adaptation to new features, and (4) School efforts in Overcoming Obstacles, schools have taken several steps such as providing Wi-Fi, facilitating training, and providing assistance in using the platform.

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