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## **The Merdeka Curriculum and P5: A Review of Teachers' Understanding and Students' Experiences**

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### **Abstract**

This study aims to analyze teachers' understanding of the Merdeka Curriculum and P5 and to identify the challenges, strategies, and impacts of implementing Project Strengthening Pancasila Student Profile (P5) on the development of students' character and skills using a qualitative approach. The research was conducted at a public high school in North Aceh Regency. The research subjects consisted of 13 teachers, 17 students, and the curriculum coordinator. The instruments used included interview guidelines and questionnaires for both teachers and students. Data collection techniques involved in-depth interviews and distribution of questionnaires. The primary data sources for this study include data obtained through in-depth interviews with teachers, students, and the curriculum coordinator, as well as the completed questionnaires from teachers and students. The questionnaires were designed to explore their perspectives, understanding, and experiences regarding the Merdeka Curriculum and the implementation of P5. This data provides a comprehensive overview of curriculum implementation as well as the obstacles and strategies applied by the school. The analysis of teachers' understanding of the Merdeka Curriculum shows that teachers grasp the basic concepts of the curriculum, although many face challenges in designing project-based learning. Obstacles such as diverse student interests and limited resources hinder the curriculum's implementation. The implementation of P5 has a positive impact on students' skills; however, its integration with lessons needs to be improved.

Keywords: Merdeka Curriculum, Project Based Learning, P5

### **Abstrak**

Tujuan penelitian ini adalah untuk menganalisis pemahaman guru tentang Kurikulum Merdeka dan P5, serta mengidentifikasi tantangan, strategi, dan dampak penerapan P5 terhadap pengembangan karakter dan keterampilan siswa dengan menggunakan pendekatan kualitatif. Penelitian dilakukan di salah satu SMA Negeri Kabupaten Aceh Utara. Subjek penelitian terdiri dari 13 guru, 17 siswa, dan koordinator kurikulum. Instrumen yang digunakan terdiri dari panduan wawancara, angket untuk guru dan siswa. Teknik pengumpulan data yang digunakan mencakup wawancara mendalam dan penyebaran angket. Sumber data penelitian ini mencakup data primer. Data primer diperoleh melalui wawancara mendalam dengan guru, siswa dan koordinator kurikulum, serta hasil angket yang diisi oleh guru dan siswa. Angket dirancang untuk mengeksplorasi pandangan, pemahaman, dan pengalaman mereka terkait Kurikulum Merdeka dan Pelaksanaan P5. Data ini memberikan gambaran komprehensif tentang implementasi kurikulum serta hambatan dan strategi yang diterapkan oleh pihak sekolah. Analisis pemahaman guru tentang Kurikulum Merdeka menunjukkan bahwa guru memahami konsep dasar kurikulum, meskipun banyak yang mengalami tantangan dalam merancang pembelajaran berbasis proyek. Kendala seperti keberagaman minat siswa dan keterbatasan sumber daya menghambat penerapan kurikulum. Pelaksanaan P5 berdampak positif pada keterampilan siswa, namun integrasinya dengan pelajaran perlu ditingkatkan.

Kata Kunci: Kurikulum Merdeka Curriculum, Project Based Learning, P5.



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## INTRODUCTION

The Merdeka Curriculum is designed to provide flexibility for schools and teachers in organizing the learning process according to the needs and potentials of students. This curriculum offers educational units the opportunity to simplify or reduce content by separating the curriculum framework from the operational curriculum (Fitriyah & Wardani, 2022; Hanipah, 2023). According to the Ministry of Education, Culture, Research, and Technology, the Merdeka Curriculum aims to promote freedom in learning, where students become more active in exploring knowledge and developing critical skills (Kemendikbudristek, 2022).

In the Merdeka Curriculum, teachers are positioned as facilitators (Andriyani et al., 2023; Noptario et al., 2024). Teachers with a good understanding of the Merdeka Curriculum can design learning that is more contextual, relevant, and meaningful for students (Siahaan et al., 2023; Putra et al., 2024). The curriculum provides students with greater opportunities for independent learning and directs them to solve real-world problems through a project-based approach. One of the strategies designed within this curriculum is the Project Strengthening Pancasila Student Profile (P5), which aims to develop competencies such as critical thinking, collaboration, and creativity. P5 allows students to engage in authentic learning, applying the skills needed in the real world through collaborative projects designed with teachers (Kemendikbud, 2021).

This study reveals several fundamental challenges in the implementation of the Merdeka Curriculum and P5. Although most teachers have participated in training, their understanding of the concepts of the Merdeka Curriculum and P5 is still limited, hindering their ability to implement learning strategies optimally. One of the major challenges is the difficulty in designing relevant and contextual project-based learning, which is central to the Merdeka Curriculum approach. Additionally, limited resources, both in terms of facilities and teaching materials, complicate the implementation of this curriculum. Another challenge is the grouping of students, which fails to take into account the diversity of individual needs, making differentiated learning less effective. Furthermore, the lack of teacher experience in implementing formative assessments is also a significant challenge, which can ultimately affect the quality of learning and the development of student's character by the values of Pancasila. P5 is relevant in the context of strengthening students' character through real projects based on the values of the Pancasila Student Profile, such as cooperation, independence, creativity, and other values. This project is designed to instill character that is not only academic but also includes national and social values, which are crucial for sustainable character education. P5 provides opportunities for students to develop comprehensive skills, including soft skills and teamwork abilities, which are essential in the era of globalization (Hikmatyar, 2024; Kurniawati et al., 2024; Solehuddin et al., 2024).

In the implementation of P5, students are encouraged to collaborate in groups, solve real-life problems that are relevant to everyday life, and directly apply the values of Pancasila. For example, cooperation is reflected in group work, and creativity is developed through innovative solutions to

problems encountered in the project. The value of independence is nurtured when students manage time and make decisions in the project. These Pancasila-based projects not only sharpen students' cognitive skills but also shape their character in facing real-world challenges. (Natalia et al., 2021; Tiyani & Ramadan, 2024).

The success of P5 implementation largely depends on teachers' understanding of the Merdeka Curriculum and the project-based approach. When teachers' understanding is limited or its implementation is not optimal, various issues may arise. One main issue is the mismatch between the goals of the project and its practical implementation. Teachers who do not fully understand the essence of P5 may conduct projects merely as a formality, without truly emphasizing the reinforcement of Pancasila values. As a result, students may not receive the full impact of this project-based learning, and the main objective of P5, which is character strengthening, may not be achieved. Teachers who have not mastered the project-based approach often face difficulties in designing and managing projects that integrate Pancasila Student Profile values. This negatively impacts students, leading to confusion in following the project activities, low motivation, and lack of active participation in learning. Research by Lam et al. (2009) and Wijnia et al. (2024) Shows that when teachers do not master this approach, students often engage in projects with low motivation, thus making learning less effective and hindering the development of students' character and skills. Another significant impact is the inability of students to develop essential skills such as teamwork, independence, and creativity. If projects are not well integrated into the curriculum, students may view them as additional tasks that are not directly related to their character development. This reduces the effectiveness of the curriculum in achieving its primary goal, which is to create students who embody the Pancasila Student Profile: resilient, collaborative, and creative. (Fikrotussholihah, 2024; Marsidin, 2022; Nisa et al., 2024). It is important to ensure that teachers receive adequate training and guidance in understanding and implementing the Merdeka Curriculum and P5 to genuinely strengthen students' character through real projects based on Pancasila values. Research by Martinez (2022) and Molina & Pilar (2022) Shows that continuous training for teachers significantly improves their understanding of project-based learning methods, which ultimately has a positive impact on achieving character education goals.

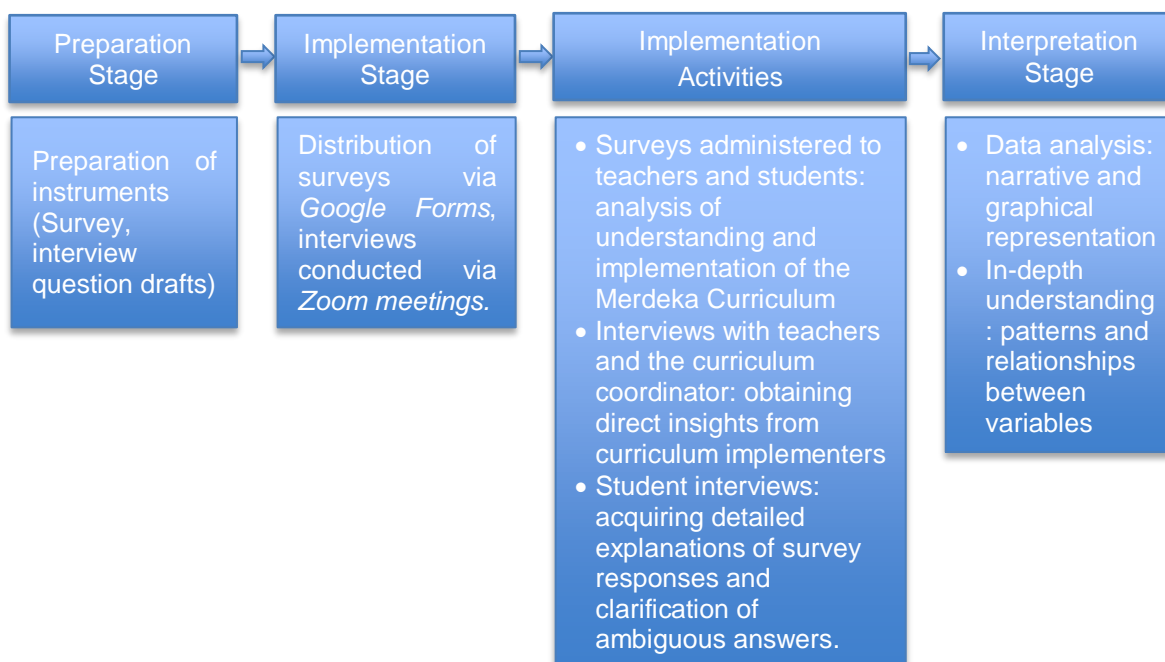
This study plays an important role in contributing to the theoretical literature on the implementation of the Merdeka Curriculum and P5, particularly in Indonesia. In addition, this research provides practical guidance for teachers on how to overcome challenges in implementing project-based learning and formative assessments, as well as recommendations for the government and schools to improve the effectiveness of teacher training and support. With its high relevance to national education policies, this research supports the development of student's character through the integration of Pancasila values in P5. The implementation of the Merdeka Curriculum heavily depends on the role of teachers. They are not only required to deliver content but also to design learning processes that suit the characteristics and needs of students. Understanding the challenges faced by teachers is crucial. How can they overcome barriers in implementing this curriculum? What difficulties arise when they try to apply new principles in their daily teaching? This research aims to answer these questions in depth. First, it analyzes teachers' understanding of the concepts and principles of the Merdeka Curriculum. Second, it identifies the strategies and methods used by teachers in implementing this curriculum. Third, it describes the challenges faced by teachers in applying the Merdeka Curriculum in the classroom. Fourth, it analyzes the implementation of P5 for

students, particularly in developing the Pancasila Student Profile. Lastly, it evaluates the impact of P5 on the development of students' skills and character values.

This study is expected to contribute theoretically by enhancing the literature on the implementation of the Merdeka Curriculum and P5 in schools. Practically, this research will provide guidance and reflection for teachers on how to optimally implement the Merdeka Curriculum and P5. For school principals, the findings will provide an overview of the challenges faced and solutions that can be taken to improve the implementation of the Merdeka Curriculum within the school environment. Therefore, this research is expected to add value to the development of education in Indonesia.

## METHOD

This study uses a qualitative descriptive approach, focusing on exploring the understanding and implementation of the Merdeka Curriculum and the Project Strengthening Pancasila Student Profile (P5) in schools. The research was conducted at a public high school in North Aceh Regency. The research subjects consisted of 13 teachers (4 Mathematics teachers, 4 Physics teachers, 3 Chemistry teachers, and 2 Biology teachers), 17 students, and the curriculum coordinator. The instruments used included interview guides, teacher understanding questionnaires on the Merdeka Curriculum, student reflection questionnaires on the implementation of P5, and teaching modules. Data collection techniques included in-depth interviews, questionnaire distribution, and document collection. The observation steps carried out were the preparation, implementation, and interpretation stages ( Groves et al., 2011; Czaja et al., 2014).



**Figure 1. Steps of Observation Implementation**

The preparation stage involves preparing the observation instruments in the form of questionnaires and interview question drafts. The implementation stage consists of several activities, including the distribution of questionnaires through *Google Forms*, interviews via *Zoom meetings*, and analysis of teaching modules. The researcher began by collecting information from teachers and students through questionnaires. The questionnaires were used to analyze teachers' understanding and implementation of the Merdeka Curriculum, as well as to gain direct insights into students'

experiences with the implementation of the curriculum. After analyzing the questionnaires, interviews were conducted with student representatives. The interviews allowed the researcher to gather more detailed and in-depth explanations regarding the answers provided in the questionnaires and to clarify any unclear or ambiguous responses. The researcher could ask the respondents to elaborate or clarify their answers.

The next stage involved interviews with a teacher and the curriculum coordinator, which provided the researcher with direct views from those responsible for the implementation of the learning process. The final stage involved document analysis. Document analysis was used to validate the data obtained from the questionnaires and interviews. By comparing findings from the document analysis with the results from the questionnaires and interviews, the researcher could confirm the accuracy and reliability of the data obtained. The interpretation stage followed after the data collection was completed, during which the information was analyzed both in narrative form and through charts and graphs to gain a deeper understanding of the patterns and relationships between the variables involved.

## RESULT AND DISCUSSION

### Analysis of Teachers' Understanding of the Concept and Implementation of the Merdeka Curriculum

An analysis of teachers' understanding of the concept and implementation of the Merdeka Curriculum was conducted through interviews with one teacher and the vice-principal for curriculum, as well as by administering a questionnaire to teachers. The survey was conducted with 13 teachers from a public high school in Aceh Utara, comprising teachers of Mathematics, Physics, Chemistry, and Biology with teaching experience ranging from 14 to 35 years.

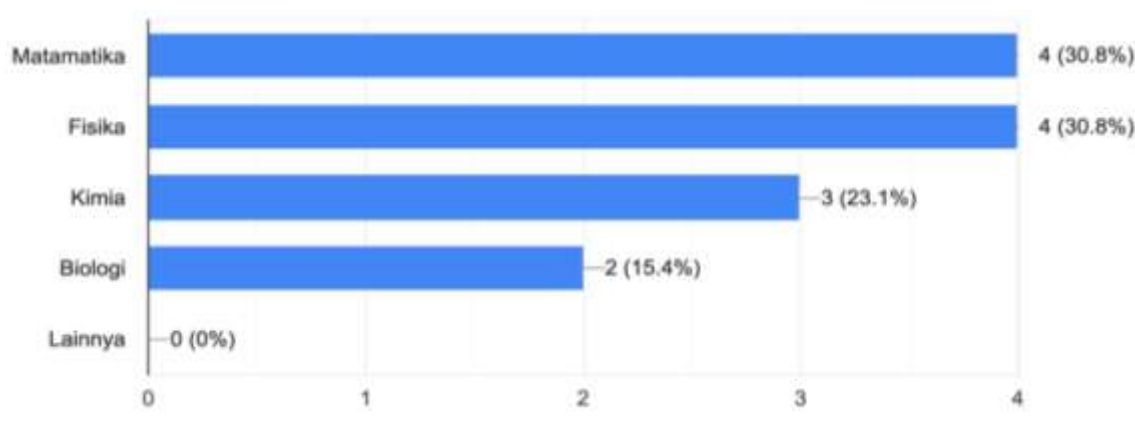


Figure 2. Respondents Based on Subject Area

The questionnaire was designed to assess the teachers' understanding of the Merdeka Curriculum. The indicators used included teachers' understanding of several key aspects of the Merdeka Curriculum. The analysis focused on teachers' understanding of the basic concept of the curriculum, its main objectives centered on flexible and student-centered learning, and the main differences from previous curricula. In addition, the indicators assessed teachers' understanding of the importance of project-based learning, designing appropriate assessments, and identifying elements of the Pancasila student profile. Teachers' ability to implement differentiated learning, training attended, and student involvement in self-reflection, as well as the role of technology in learning, were also evaluated.

The survey results related to teachers' understanding of the basic concept of the Merdeka Curriculum showed that the majority of teachers had a good understanding. Based on the data, 46.2% of teachers strongly agreed that they understood the basic concept of the Merdeka Curriculum, while 53.8% agreed with this statement. This percentage indicates that nearly all respondents have grasped the fundamental concept of the curriculum, which is centered on flexible and contextual learning. This understanding is crucial because it reflects teachers' readiness to adapt their teaching strategies to align with the philosophy of the Merdeka Curriculum, which focuses on the needs of students and provides space for knowledge exploration. This readiness is also an indicator that teachers can adapt their roles as facilitators to foster more independent and dynamic learning.

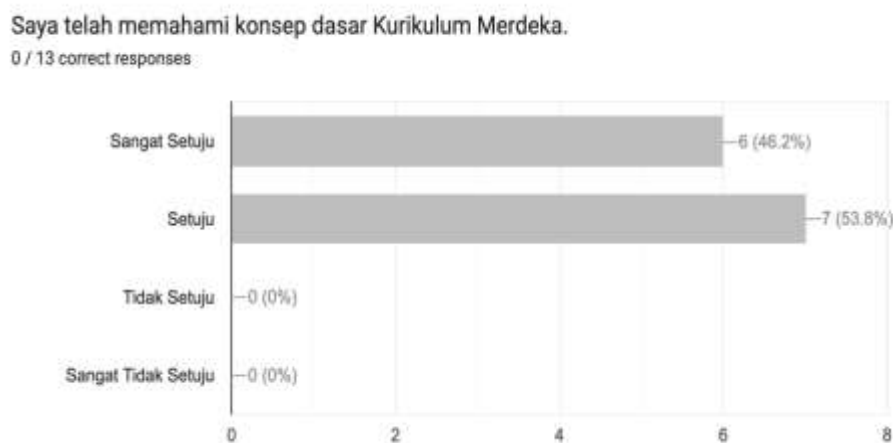


Figure 3. Survey Results on Understanding the Basic Concept of the Merdeka Curriculum

Although the survey shows a good level of understanding, further reinforcement is needed so that teachers not only grasp the concept theoretically but can also implement it effectively in the classroom. This was reinforced by an interview with one teacher, who stated that although they had attended several training sessions related to the Merdeka Curriculum, they still felt that they did not fully understand the concept in depth. Below is the transcript of the interview:

*Interviewer:*

*"How do you understand the concept of the Merdeka Curriculum after attending the provided training?"*

*Teacher:*

*"I understand the basic concept of the Merdeka Curriculum, but I still feel I haven't fully grasped how to apply it in a diverse classroom setting."*

*Interviewer:*

*"Did the training you attended help you implement the Merdeka Curriculum in the classroom?"*

*Teacher:*

*"The training helped, but most of it was still theoretical. I struggle when trying to translate theory into practice, especially in designing project-based learning that meets students' needs."*

The teacher acknowledged that while the training provided a general overview of the Merdeka Curriculum, it was not enough to make them confident in applying the new strategies and approaches in the classroom. Despite understanding foundational principles such as flexible learning and student-centeredness, they still found it challenging to translate these concepts into everyday

teaching practices, particularly in designing appropriate assessments and implementing project-based learning. This aligns with findings by Sepadi & Molapo (2024) and Lynch et al. (2024), Who states that although teachers have a good understanding of the curriculum and assessment, further reinforcement is needed for effective implementation.

This indicates that although training has been conducted, more intensive and in-depth training, as well as practical support, is needed to help teachers overcome challenges in implementing the Merdeka Curriculum. More applied guidance and ongoing mentorship in the school context would be highly beneficial for teachers in effectively applying these changes. Furthermore, teachers understood the primary objective of the Merdeka Curriculum, which is to facilitate flexible and student-centered learning. This understanding is vital because, in the Merdeka Curriculum, the role of the teacher transforms from merely an instructor to a facilitator who supports student independence. Teachers are expected to create a learning environment that enables students to explore knowledge and develop skills according to their potential. Survey results show that 46.2% of teachers strongly agreed that they understood the main goals of the Merdeka Curriculum, while 53.8% agreed with the statement. This data shows that the majority of teachers recognize the importance of flexible, student-centered learning.

Interview results indicated that the teacher had implemented different teaching processes across classes, adjusting them to students' learning styles and interests. For Class A, they used a discussion-based approach, which allowed students to actively participate by sharing ideas and opinions. This approach was considered effective because students could learn from each other, develop communication skills, and feel more engaged in the learning process. For Class B, the teacher applied a different method tailored to the needs and preferences of the students, such as direct instruction or hands-on activities where students interacted more concretely with the material. This approach aligns with prior research, which states that flexible, student-centered teaching methods are effective in enhancing student engagement, and motivation, and fostering deeper learning. (Müller et al., 2023; Galdames-Calderón et al., 2024).

Teachers also understood the differences between the Merdeka Curriculum and the previous curriculum. They recognized that the Merdeka Curriculum emphasizes flexibility in lesson planning, the use of formative assessments, and a focus on project-based learning. This shows that they have a good understanding of the basic principles of this new curriculum. However, although survey results show that 46.2% of teachers strongly agreed and 53.8% agreed with this statement, there is still a need to further enhance their understanding, particularly in practical implementation. Some teachers expressed difficulties in preparing administration and lesson plans, noting that these tasks took more time. This information was gathered through teacher interviews:

*Interviewer:*

*"How has your experience been in preparing administration and lesson plans for the Merdeka Curriculum?"*

*Teacher:*

*"The process is quite time-consuming because the preparation feels more complex than the previous curriculum. There are many details to consider, such as differentiating learning and integrating elements of the Pancasila Student Profile."*

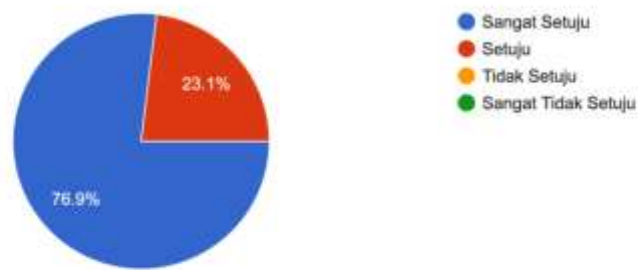
In the interview, one teacher stated that the Merdeka Curriculum required more time to prepare the administration and lesson plans. They noted that the more complex administrative preparations and the need for greater attention to detail could hinder the implementation of the



Merdeka Curriculum, thus requiring further support and training to maximize the potential of this new curriculum. Previous studies have highlighted that implementing a new curriculum often faces challenges at the practical level, particularly in terms of adapting teachers to changes in lesson planning and management. (Pak et al., 2020; Winarno et al., 2020; Al Fajri & Andarwulan, 2023).

Project-Based Learning (PBL) is one of the key components of the Merdeka Curriculum, and most teachers recognize its importance. They understand that PBL helps students develop critical thinking, collaboration, and creativity. Survey results show that 76.9% of teachers strongly agreed and 23.1% agreed that this method is an essential part of the learning process. However, teachers face challenges in designing and managing projects that are relevant to their school context and students' needs. In interviews, teachers explained that they had implemented project-based learning through P5 activities. The project theme was selected through consensus among teachers, ensuring that the chosen topics were relevant to student's interests and needs.

Saya memahami pentingnya pembelajaran berbasis proyek (Project-Based Learning) dalam Kurikulum Merdeka.  
13 responses



**Figure 4. Survey Results on the Importance of Project-Based Learning in the Merdeka Curriculum**

One example project theme raised was sustainable living. In this project, the teacher introduced the concept of sustainable living, including waste management. Students were then involved in a project to process organic and inorganic waste. Project activities included making molasses from organic waste, composting dry leaves, and making soap and candles from used cooking oil. These projects not only taught students about waste management but also connected with classroom learning materials. This approach allows students to see the relevance between theory and practice while experiencing the positive impact of their actions on the environment. Student involvement in environmental-based projects can increase their awareness of sustainability issues and encourage positive environmental actions (Husamah et al., 2022; Filho et al., 2024; Uzorka et al., 2024). This hands-on experience is expected to raise students' awareness of the importance of environmental protection while developing practical skills useful in their everyday lives.

Teachers' understanding of designing assessments that align with the Merdeka Curriculum shows a good level of comprehension. They recognize that assessment should not only focus on outcomes but also on students' learning processes. This indicates that teachers understand the importance of focusing on how students learn, not just evaluating the results achieved. Formative assessments are crucial tools used to monitor students' progress regularly. Teachers have started implementing formative assessments in teaching to provide constructive feedback to students and identify areas for improvement. Survey results indicate that 61.5% of teachers understood, and 38.5% strongly understood the importance of formative assessment in the Merdeka Curriculum

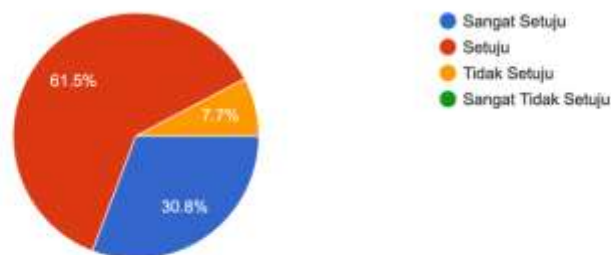


context. Formative assessment plays a key role in increasing student engagement and supporting their learning development through continuous feedback. (Karaman, 2021; Zhang et al., 2023; Sortwell et al., 2024).

The Pancasila Student Profile elements that form the core of the Merdeka Curriculum are also well understood by teachers. They can identify and integrate these elements into their teaching, aiming to create students who are not only academically capable but also possess character, independence, and social responsibility. This understanding shows that teachers recognize the importance of Pancasila values in creating the next generation of individuals with integrity and a sense of responsibility. Survey results show that 61.5% of teachers understood, and 38.5% strongly understood the elements of the Pancasila Student Profile. While the understanding of these elements is quite strong, further support is necessary for their consistent implementation. Such support could come in the form of deeper training, provision of relevant resources, and the development of teaching materials that emphasize Pancasila values. Ensuring that every student not only acquires knowledge but also develops character and attitudes in line with national values is critical for shaping students who are both academically competent and socially responsible. (Hidayat et al., 2022; Maulana, 2022; Septiwiharti et al., 2024).

Teachers also have an awareness of differentiated learning, adjusting teaching approaches to meet the varying needs of students. While they understand the concept, implementing differentiated instruction in the classroom is often challenging due to limited resources and time constraints. Survey results show that 30.8% of teachers strongly agreed, 61.5% agreed, and 7.7% disagreed that differentiated learning is important to implement. Interviews with teachers revealed that many teachers struggle with differentiated instruction due to the diverse needs and abilities of students in a single class. This statement aligns with research indicating that implementing differentiated learning requires resource support and thorough planning, especially to accommodate the diverse needs of students in heterogeneous classrooms. (AM, Hadi, & Istiyono, 2023; AM, Hadi, Istiyono, et al., 2023; Hu, 2024).

Saya mengetahui bagaimana menerapkan pembelajaran diferensiasi sesuai kebutuhan siswa dalam Kurikulum Merdeka.  
13 responses



**Figure 5. Survey Results on Understanding Differentiated Learning Implementation in the Merdeka Curriculum**

The majority of teachers have participated in training or socialization activities related to the implementation of the Merdeka Curriculum, contributing to an improvement in their understanding of the curriculum. Such training is crucial in ensuring that teachers are prepared to face the challenges of implementing the Merdeka Curriculum, especially in terms of lesson planning, assessment, and the use of technology. Survey results indicate that 38.5% of teachers have attended at least two

training sessions, 46.2% have attended at least one, and 15.4% have never participated in any Merdeka Curriculum training.



**Figure 6. Frequency of Training/Socialization on the Merdeka Curriculum**

Interview results revealed that teachers expressed the need for practical training, particularly about the Merdeka Curriculum, from experts who can provide direct examples. This shows that teachers require not only theoretical knowledge but also concrete examples of how to implement these concepts in daily classroom practice. With more practice-based training, teachers are expected to feel more confident in implementing differentiated learning and other aspects of the Merdeka Curriculum, leading to more effective learning that aligns with students' needs. Practice-based training can enhance the effectiveness of curriculum implementation by equipping teachers with real skills and confidence in applying appropriate teaching methods in the classroom (Pak et al., 2020; Al-Omary et al., 2024).

Teachers also demonstrate an understanding of the importance of involving students in the self-reflection process regarding their learning progress. This reflection process allows students to recognize their strengths and weaknesses, promoting more independent and responsible learning. Survey results indicate that 30.8% of teachers strongly agree, and 69.2% agree that self-reflection is important. This awareness shows that teachers recognize the crucial role of reflection in encouraging students to take an active role in their learning and increasing self-awareness. Student involvement in self-reflection can enhance their metacognitive awareness, contributing to the development of independent learning skills and responsibility for their learning process (Craig et al., 2020; Tuononen et al., 2023; Hartelt & Martens, 2024).

Teachers also understand the role of technology in supporting the implementation of the Merdeka Curriculum. Technology is not only a tool for learning but also a means to enhance interaction, flexibility, and accessibility of learning materials. In the survey, 53.8% of teachers strongly agreed, and 46.2% agreed that technology can enrich students' learning experiences. Teachers have started utilizing technology to make learning more engaging and relevant to students' needs in the digital era, such as using learning apps, interactive media, and online learning platforms. This study found that the majority of teachers have a good understanding of the basic concepts of the Merdeka Curriculum, with most agreeing that a flexible and student-centered approach is crucial. However, despite their understanding of the basic principles of the curriculum, the biggest challenge faced by teachers is its practical implementation in the classroom, particularly in lesson planning, assessment, and project-based learning. Teachers also face difficulties in designing differentiated instruction and managing time and more complex administration. Intensive,

practice-based training is needed to help teachers translate theory into everyday practice. Additionally, although technology is being used to enrich learning, further support is required to fully optimize its potential in supporting the Merdeka Curriculum.

To address the challenges in implementing the Merdeka Curriculum, solutions could include more intensive and practice-based training, where teachers are given concrete examples of how to apply the curriculum principles in daily lessons. Moreover, ongoing support from schools in the form of guidance, collaborative lesson planning among teachers, and the provision of relevant teaching materials and resources is essential to strengthening understanding and curriculum implementation. The use of technology should also be enhanced through training related to its use in more flexible and interactive learning environments. Finally, a continuous system of evaluation and feedback will help teachers refine and adjust their approaches, ensuring that the Merdeka Curriculum is implemented effectively and meets students' needs.

### **Challenges in Understanding and Implementing the Merdeka Curriculum: Teachers' Perspectives**

Challenges in understanding the Merdeka Curriculum are a critical concern. Based on a survey involving 13 teachers at a high school in North Aceh, several obstacles were identified, including student interest and access to necessary facilities. Students have varied interests, and not all of them have access to the facilities required to support the learning process. This impacts student engagement and may reduce the curriculum's effectiveness. Another key challenge is the lack of understanding among both teachers and students regarding the concepts and objectives of the Merdeka Curriculum. Many teachers and students do not fully grasp the fundamental principles of this curriculum, which hinders the implementation of effective teaching methods in the classroom. This lack of understanding creates difficulties in adopting the new approaches expected by the Merdeka Curriculum. Insufficient understanding of the curriculum's goals and principles can hinder the success of its implementation, especially in contexts where innovative approaches and active student engagement are required (Pak et al., 2020; Al-Fajri & Andarwulan, 2023).

Student grouping is another challenge. When student groups are not aligned with their individual needs and characteristics, the learning process becomes less optimal. This leads to some students not receiving the attention they need to learn effectively, while others may feel unchallenged. Research by Lechuga & Doroudi (2023) and Smale-Jacobse et al (2019) suggests that student grouping, which fails to consider individual needs and characteristics, can hinder optimal learning outcomes, as students do not receive the appropriate support for their developmental levels and interests. Additionally, teachers face difficulties in finding relevant references to support the teaching process in line with the Merdeka Curriculum. Limited resources hinder teachers' ability to innovate their teaching methods, which should be engaging and attention-grabbing for students. References and learning resources are crucial to supporting teacher creativity (López et al., 2024; Samaniego et al., 2024). Another challenge arises from teachers' limited experience in teaching the Merdeka Curriculum. Many teachers feel that their knowledge of the curriculum is inadequate due to limited training time and insufficient information. The diversity of students in the classroom adds to the complexity, as each student has different learning needs and styles. This requires more flexible and responsive teaching approaches. The lack of experience with the new curriculum often leaves teachers feeling unprepared (Martinez, 2022).

The assessment process within the Merdeka Curriculum is also a challenge. Teachers are required to design and implement assessments that not only focus on the outcome but also consider the overall learning process. This requires them to have a deep understanding of appropriate assessment strategies. Lastly, many teachers face difficulties when participating in online training. Network instability and time constraints are significant barriers to gaining the necessary experience and knowledge to effectively implement the Merdeka Curriculum. These challenges highlight the need for greater support from various parties to ensure the optimal implementation of the Merdeka Curriculum for the benefit of students.

Survey results on the question "Do you experience any challenges in implementing the Merdeka Curriculum?" revealed several major challenges. Among them are difficulties in preparing differentiated teaching modules, as teachers struggle to adjust learning materials to meet the diverse needs of students. Additionally, student diversity is another factor that complicates curriculum implementation, compounded by minimal support from parents, which significantly affects the implementation of the Merdeka Curriculum in the classroom. On the other hand, projects carried out by students lack the cohesion expected, leading to suboptimal project-based learning outcomes. Teachers also report difficulty in conducting assessments that align with the Merdeka Curriculum. The students' environment, parents, and even the classroom conditions that still adhere to old patterns pose significant challenges in transitioning to the Merdeka Curriculum.

These challenges indicate that successful implementation of the Merdeka Curriculum requires greater support from both schools and the government to provide more comprehensive training and better access to the necessary resources. Additionally, strengthening teacher capacity and providing adequate facilities for students are important steps toward creating a more effective and inclusive learning environment.

Findings from the survey show that most teachers struggle with adjusting learning materials to meet the diverse needs of students and face difficulties in conducting assessments consistent with the Merdeka Curriculum principles. One solution could be to enhance training and mentoring that is more focused, where teachers are given specific skills in differentiated instruction and assessments that focus on the learning process rather than just the outcomes. Additionally, support in providing flexible teaching modules, as well as easier access to relevant learning references and resources, would greatly assist teachers in improving their teaching quality. Strengthening parent involvement in supporting the curriculum and creating a classroom environment that encourages collaboration and cooperation among students is also an essential solution to address the challenge of student diversity. As an additional step, ongoing evaluation and improvement of online training processes should be carried out to ensure better network quality and easier access to materials for teachers.

### **The Implementation of the P5 Project and Its Impact on Students' Skills and Character Development**

The implementation of the Project to Strengthen the Pancasila Student Profile (P5) in the Merdeka Curriculum aims to develop students' skills and character in line with the values of Pancasila. The execution of P5 has a positive impact on the development of collaboration skills, where students learn to work in groups, share ideas, and resolve disagreements. These skills help students become more open and understanding of different perspectives, forming the foundation of a character that values diversity. Students also have the opportunity to practice independence and responsibility through their roles in the project, developing discipline and integrity. Moreover, the implementation of P5 encourages students to think creatively and innovatively in solving projects

related to environmental, social, or cultural issues, which enhances their critical thinking abilities while strengthening their social awareness and responsibility for the surrounding environment, by the Pancasila Student Profile.

The direct impact of such projects allows students to apply theory to real-world practice, reinforcing their conceptual understanding while fostering a character that is adaptive and resilient in facing challenges. The success of P5's implementation also depends on teachers' readiness, school infrastructure support, and ongoing guidance from relevant authorities. With adequate teacher training to understand the P5 methodology more deeply, it is expected that this activity will continue to have a significant impact on the development of student's skills and character.

An interview with the Vice Principal for Curriculum revealed that the implementation of the Pancasila Student Profile Strengthening Project (P5) has been applied across all classes. The P5 activities are held once a week for each class, using regular class time. For example, in Physics, which has three lessons per week, two hours are used for regular lessons, and one hour is allocated for P5 activities. Ideally, P5 is aligned with the learning material; however, since it is a project, not all subjects can be directly integrated with the P5 activities. Nevertheless, it is hoped that character changes in line with the project's theme can be achieved. Each class facilitator has the freedom to choose a project that fits the theme that has been determined. The school has stated the need for additional training, such as workshops or technical guidance, to enhance teachers' understanding and skills in implementing P5. Currently, teachers are expected to learn independently through the Merdeka Mengajar Platform (PMM), which is limited to answering questions without sufficient practical training. The support from the education office has so far been limited to monitoring teacher access to PMM without accompanying training. The Vice Principal mentioned that the current implementation of P5 has reached 70%, indicating challenges in teachers' understanding of optimal implementation.

Interviews with students showed that they view P5 activities as enjoyable. They did not identify significant obstacles in the implementation of these activities, although they suggested improving group collaboration to achieve more optimal results. Additionally, students proposed that some project activities be conducted outside of school at locations relevant to the project themes to enrich their understanding and provide hands-on experiences that could later be applied back at school.

The implementation of P5 shows that although the project activities have been carried out across all classes, there are challenges in integrating the projects with regular learning materials, particularly due to time constraints and difficulty aligning the project themes with certain subjects. Additionally, teachers' understanding of the implementation of P5 has not been optimal because the training provided is still limited, focusing mainly on self-learning through PMM without in-depth practical training. On the other hand, students find the P5 activities enjoyable but suggest that group collaboration be improved to achieve better outcomes. They also recommend that project activities occasionally take place outside of school to enrich the experience and deepen their understanding of the topic being studied.

Proposed solutions to overcome these challenges include improving practical training for teachers through more focused workshops or technical guidance on applying P5 in teaching. This will help teachers understand how to effectively integrate the project with lesson content and optimize the use of available time. Additionally, conducting project activities outside of school can provide students with hands-on experiences that are more relevant to the project theme and enrich

their learning. To improve group collaboration, further guidance can be provided on role distribution and clear responsibilities, ensuring that each student can contribute maximally to the project.

### **Recommendations for Teacher Training and Mentoring Program Development in Implementing the Merdeka Curriculum and P5**

Survey results regarding the question, "What support do you need to better understand the Merdeka Curriculum?" suggested that teacher training programs for implementing the Merdeka Curriculum and P5 should focus on a deeper and more interactive approach. In-person training sessions involving group discussions and Q&A with experienced resource persons can significantly enhance teachers' understanding. Furthermore, the training should include real-life case studies based on field experiences, allowing teachers to learn from best practices already implemented by their colleagues. This would not only provide a clearer picture of Merdeka Curriculum implementation but also help teachers identify potential challenges and effective solutions to overcome them.

Another recommendation is to organize ongoing mentoring sessions involving mentors or facilitators experienced in applying the Merdeka Curriculum and P5. These sessions could take place periodically, in the form of classroom visits, group discussions, or online platforms where teachers can continuously engage in discussions and share experiences. With ongoing mentorship, teachers will feel more supported in applying this curriculum and can adjust their teaching methods according to the needs of their students and the characteristics of each class. This structured and continuous mentoring program is expected to improve teaching quality and ensure the successful implementation of the Merdeka Curriculum and P5 across schools.

Additionally, it is important to ensure the availability of relevant and easily accessible training materials for teachers. Training materials should be tailored to the specific needs of each teacher and the grade levels they teach. For example, for teachers of certain subjects, training can focus on how to integrate the Merdeka Curriculum and P5 into the context of that particular subject. The development of digital platforms that provide resources, training modules, and discussion forums could help teachers learn independently outside of formal training hours. By providing easy access to appropriate materials, teachers can continue to improve their competencies and feel more prepared to implement the Merdeka Curriculum and P5 more effectively in their classrooms.

One of the significant challenges in implementing the Merdeka Curriculum is the lack of understanding among teachers regarding the integration of the P5 across various subjects. Therefore, training programs should emphasize the development of project-based learning modules relevant to P5. For instance, teachers could be encouraged to design collaborative projects where students analyze local issues, such as waste management in schools. This approach not only supports the achievement of P5 but also aligns with real-world contexts, helping students connect theoretical knowledge with practical applications. Simultaneously, this strategy strengthens teachers' competencies in aligning the curriculum with students' needs.

Moreover, efforts to enhance the implementation of the Merdeka Curriculum can be reinforced through collaboration among schools. Facilitating teacher-learning communities at the district or municipal level could serve as a platform for sharing experiences and addressing challenges in curriculum implementation. Within these communities, teachers from different schools can exchange modules, strategies, and innovative approaches to P5-based learning. For example, a teacher successfully implements. Within these communities, teachers from different schools can exchange modules, strategies, and innovative approaches to P5-based learning. For example, a teacher successfully implementing digital learning strategies for P5 could share their best practices with

others unfamiliar with such methods. This collaborative effort not only enhances individual teacher competencies but also accelerates the collective success of Merdeka Curriculum implementation.

## **CONCLUSION**

An analysis of teachers' understanding of the Merdeka Curriculum in a senior high school in Aceh Utara was conducted through interviews and surveys with 13 teachers. The results indicate that all respondents understood the fundamental concepts of this curriculum, with 46.2% strongly agreeing and 53.8% agreeing with their understanding. Project-based learning was considered important by 76.9% of the teachers, although they faced challenges in designing appropriate projects. Additionally, there was a good understanding of formative assessment, with 61.5% of teachers demonstrating an understanding of the Pancasila Student Profile. However, the implementation of differentiated learning, which is recognized as important, faced obstacles due to limited resources. The survey identified several barriers to implementing the Merdeka Curriculum, including the diversity of student interests and available facilities, which hindered engagement. Many teachers and students have not fully understood the goals of the curriculum, negatively impacting the adoption of innovative methods. Moreover, difficulties in finding relevant references and the teachers' limited experience with the Merdeka Curriculum present additional challenges. The process of assessment, which focuses on the learning process of students, also faces challenges, compounded by issues related to online training, often disrupted by poor connectivity and time constraints. The implementation of P5 has positively impacted students' collaboration skills, independence, and responsibility. Interviews with the Vice Principal revealed that P5 is conducted once a week, although its integration with lessons is not always optimal. Students found the P5 activities enjoyable but recommended improving group collaboration and conducting projects outside the school for more meaningful experiences.

## **RECOMMENDATION**

Recommendations for schools and the government include enhancing support for the implementation of the Merdeka Curriculum. Comprehensive training, both online and offline, is essential to improve teachers' understanding. The development of relevant teaching materials and access to adequate resources should also be prioritized. Further research is recommended to explore the impact of P5 on students' character development and to address the challenges related to student grouping and the preparation of teaching modules.

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