



Reflection of Pre-Service Physics Teacher on The Implementation of The New Indonesia Curriculum

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Abstract

This study aims to explore the pre-service of physics teachers in implementing the Merdeka Curriculum in the Samarinda region. The Curriculum Merdeka is a learning approach that gives teachers freedom in choosing methods and approaches that use a descriptive method to collect data from prospective physics teachers in Samarinda. The results indicated that most pre-service physics teachers were ready to implement the Merdeka curriculum (76.13%) and acknowledged its effectiveness (73.40%), but some still faced difficulties (64.40%) due to limited direct implementation experience. The study employed a qualitative research approach with a descriptive analysis, used questionnaires as data collection instruments, and employed data analysis techniques such as transcribing, coding, and inference or verification for those who had difficulty implementing the Merdeka Curriculum. This is because pre-service physics teachers have not directly implemented the Merdeka Curriculum. These results indicate that socialization and training on the Merdeka Curriculum alone are not enough; a consistent support program is needed, as are in-depth courses on the Merdeka curriculum as well as apprenticeship programs in schools that implement the Merdeka curriculum for prospective teachers.

Keywords: implementation; Merdeka Curriculum; pre-service physics teachers

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INTRODUCTION

Education is the main foundation for the progress and sustainability of human life (Agbedahin, 2019; Nasibulina, 2015; Smith, 2018). Through education, individuals can develop their potential in various aspects, including physical, intellectual, personality, interests, morals, and religion (Johnson, 2016). The educational process has a crucial role in shaping character, opening horizons, and preparing individuals to face the challenges and demands of changing times (Brown, 2017). Therefore, education is considered one of the most important aspects of society.

In the Indonesian context, Law No. 20 on the National Education System, Chapter II, Article III of 2003 stipulates that national education is important in creating education based on Pancasila and the Constitution of the Republic of Indonesia (Ministry of Education and Culture, 2018). National education must also be able to respond to changing times and keep up with the development of society and technology that continues to change. However, equality and accessibility of education are challenges in Indonesia. Geographical



differences, infrastructure, and accessibility of education between regions cause significant educational inequality (Jones, 2019). Education is still uneven across Indonesia, with remote and outermost areas often facing barriers to achieving quality education (Rahman, 2020). Therefore, reforms in the education system are needed to create educational equality across the country.

The Indonesian government introduced the Merdeka Curriculum to improve the education system (Ministry of Education and Culture, 2022). The Merdeka Curriculum aims to optimize diverse learning and provide sufficient time for learners to understand concepts and develop their competencies optimally. In the Merdeka Curriculum, a relaxed and flexible learning approach is implemented, which gives teachers the freedom to choose methods and approaches that suit the needs of learners (Susanto, 2021). The government also launched the Mover School program as a concrete step in implementing the Merdeka Curriculum. This program aims to strengthen the role of teachers as originators and movers in education (Wijaya, 2023). Teachers are expected to be ready for curriculum changes and educational policies that occur. With effective and thorough curriculum socialization, it is hoped that all teachers can understand and implement the Merdeka Curriculum consistently and efficiently (Santoso, 2022). In implementing the Merdeka Curriculum, there are three choices: independent learning, independent change, and independent sharing. These choices provide teachers with flexibility in creating a learning environment that suits the needs of students. Teachers can choose the most effective learning methods and strategies for achieving educational goals.

The Merdeka Curriculum in Indonesia, introduced to address the challenges of the previous education system, offers a more flexible learning approach and aims to promote innovation, creativity, and the development of core competencies among learners. However, its implementation has encountered obstacles, such as teachers' limited understanding of its main concepts and their limitations in using IT to support the new approach, highlighting the need for regular mentoring programs and consistent support to help teachers overcome these challenges and effectively implement the new curriculum (Ndari & Mahmudah, 2023). Merdeka Curriculum implementation offers opportunities for flexibility in learning and diversified teaching, with a new paradigm in which teachers and students have the same position. The curriculum provides broad space and freedom for teachers to determine the content and strategy. However, teachers need to understand the main concepts and principles of the Merdeka Curriculum to effectively implement it in their classrooms (Yatim, 2023). Regular mentoring programs and consistent support are needed to help teachers overcome these challenges and adapt to the new curriculum, which emphasizes the formation of student character following the Pancasila global diversity, independence, cooperation, critical thinking, and creativity and is intended to provide freedom for schools, educators, and students in managing the learning process (Retnaningrum, 2023).

Through the Merdeka Curriculum, it is hoped that education in Indonesia can significantly transform. This reform in the education system is directed at building learners' core competencies more efficiently and relaxedly and giving teachers the freedom to develop learning methods that suit the needs of learners. The Merdeka Curriculum also encourages innovation and creativity in the learning process, thus creating a more dynamic educational environment and preparing learners to face future challenges (Lee, 2020). With the changes and updates in the education system through the Merdeka Curriculum, it is hoped that education in Indonesia can contribute more to preparing the younger generation to face global changes and challenges.

METHOD

The research method in this article is qualitative research, which is descriptive analysis because it is shown to find in-depth information about an object of research as a whole. Then, the research results were poured out in a narrative based on the data obtained in the field, which did not change the data because of a little processing and a complete unit analysis. The subjects of this research were prospective physics teachers who were doing micro-teaching, while the object of this research was the implementation of the Merdeka Curriculum.

The data collection method used in the study was a questionnaire. The questionnaire in the study was structured to facilitate the researcher's work in receiving the information needed. This method was used to obtain data related to research problems, namely prospective teachers' perspectives on implementing the Merdeka Curriculum.

This research took samples from students of physics education at Mulawarman University who had taken curriculum review courses and understood the Merdeka Curriculum, with the data analysis steps carried out as follows: (1) Transcribing, or data processing, was carried out by collecting answers based on data obtained from research results through questionnaires. (2) Coding: This process was carried out after data transcription, namely labeling the respondent's answer as complete. This means that the respondent's answer is labeled according to the variable. (3) Inference or verification was inference and verification. This review was tentative and may change if no strong evidence was found to support the next stage of data collection, but if the data found proved to be different, the conclusion was credible.

This research provides initial results regarding the preparation of prospective physics teachers for the Merdeka curriculum that has been implemented, how much they understand the Merdeka curriculum, what the obstacles are, and how to overcome them.

RESULT AND DISCUSSION

The results of physics teachers' perceptions of the Merdeka Curriculum are shown in Figure 1.

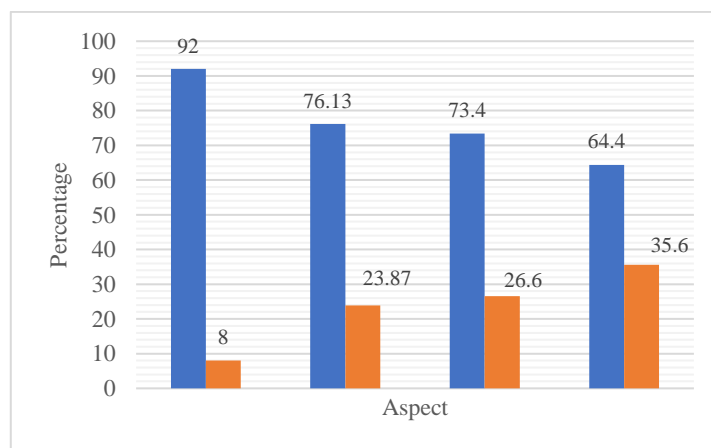


Figure 1 Physics teachers' perceptions of the Merdeka Curriculum

Description:

Aspect 1: Having learned the Merdeka Curriculum

Aspect 2: The readiness of pre-service physics teachers for the Merdeka Curriculum

Aspect 3: The Effectiveness of the Merdeka Curriculum

Aspect 4: Difficulties in implementing the Merdeka Curriculum

Figure 1 shows that the perception of pre-service physics teachers shows that most pre-service physics teachers (92%) have learned about the Merdeka Curriculum, while 8% have

never learned about the Merdeka Curriculum. Most pre-service physics teachers (76.13%) stated they were ready to implement a Merdeka Curriculum, while 23.87% did not. The discussion about the preparation of science teachers needs to be understood in the context of the objectives of science learning in the context of schooling in Indonesia. Globally, more attention is being paid to integrated STEM education, and the Indonesian science curriculum has adopted this approach as one of its science education goals. Adopted this approach as one of the goals of science education. However, these changes are not readily implemented by science teachers in schools (Nugroho et al., 2019; Permanasari et al., 2021), and they also emphasize the importance of the functioning and involvement of media in the learning process so that students can easily understand the material (Barke et al., 2012) in understanding material.

From the results of this study, it can be concluded that the initial perception of pre-service physics teachers in East Kalimantan is quite positive about accepting change, in this case, the change from the 2013 Curriculum to the Merdeka Curriculum. This sense of optimism is necessary to successfully implement reforms, especially in implementing the Merdeka Curriculum. In short, this sense of optimism in welcoming change has eliminated one of the problems in implementing the Merdeka Curriculum: the difficulty in changing the mindset or old habits in applying it to learning (Fauzi, 2022).

With this discovery, it can be concluded that the obstacles in implementing the Merdeka Curriculum can be technical, namely facilities and infrastructure, and non-technical, namely the limited understanding of teachers of the concepts of the Merdeka Curriculum. Non-technical, namely teachers' limited understanding of the main concepts of the Merdeka Curriculum and teachers' limitations in using IT. Main concepts of the Merdeka Curriculum and teachers' limitations in using IT. The obstacles pre-service teacher participants face are crucial problems related to Merdeka, such as limited understanding of CP, TP, and ATP, preparation of lesson plans, implementation of the learning process, and the assessment process. Therefore, a mentoring program for teachers carried out regularly can be used to overcome the ineffectiveness of Merdeka curriculum training. Training that has been implemented. The aim is to examine science teacher preparation programs and discuss the challenges of preparing science teachers to teach effectively. Science teacher preparation programs prepare teacher candidates to teach at the high school level. Science teachers are prepared to teach in junior high school (grades 7 to 9) or senior high school (grades 10 to 12). Before the senior high school level, all elementary and junior high school students studied science as an integrated and thematic subject with no clear separation between physics, chemistry, and biology content. Each science subject is taught separately as a compulsory course at the high school level. In most schools, engineering and technology education is an additional subject for students. Engineering and technology subjects are generally taught as elective classes that students choose (Sulaeman et al., 2016). Thus, we can examine more deeply to find suitable courses to prepare future teachers by following the changes in the curriculum in Indonesia.

CONCLUSION

Pre-service teacher participants support the implementation of the Merdeka Curriculum. However, not all participants in this study understand the main concepts of the Merdeka Curriculum well. This finding is important for both pre-service teachers to adapt learning to the Merdeka Curriculum, the regional coordinator for education, the local education office in particular, and other related parties in general. The Ministry of Education has provided a lot of socialization through the education office and the Merdeka Mengajar Platform, which teachers can access freely. However, in reality, many teachers still do not understand the main concepts and aspects of the Merdeka Curriculum. This is because teachers experience

obstacles in understanding these concepts, limited facilities and infrastructure, and limited IT skills of teachers in accessing platforms that support the implementation of the Merdeka Curriculum. This finding shows that the mentoring program for prospective teachers and an internship program in schools that implement the Merdeka Curriculum need to be implemented to help teachers understand and implement the Merdeka Curriculum in teaching and learning activities. As for suggestions for future researchers, it is hoped that they will be able to develop research on implementing the Merdeka Curriculum, especially in the Physics subject. Research can also be developed at other levels of education to provide wider benefits.

REFERENCES

- Agbedahin, A. V. (2019). Sustainable development, Education for Sustainable Development, and the 2030 Agenda for Sustainable Development: Emergence, efficacy, eminence, and future. *Sustainable Development*, 27(4), 669-680.
- Brown, R. (2017). The importance of education in shaping character. *Journal of Character Education*, 12(1), 78-94.
- Fauzi, A. (2022). Implementasi kurikulum merdeka di sekolah penggerak. *Pahlawan: Jurnal Pendidikan-Sosial-Budaya*, 18(2), 18-22. <https://doi.org/10.57216/pah.v18i2.480>
- Johnson, A. (2016). The impact of education on personal development. *International Journal of Educational Psychology*, 35(3), 123-140.
- Jones, M. (2019). Educational inequality and access in indonesia. *Indonesian Journal of Education*, 25(4), 156-175.
- Lee, S. (2020). Transforming education through kurikulum merdeka: opportunities and challenges. *International Journal of Educational Reform*, 25(4), 120-138.
- Nasibulina, A. (2015). Education for sustainable development and environmental ethics. *Procedia-Social and Behavioral Sciences*, 214, 1077-1082.
- Ndari, W., & Mahmudah, F. N. (2023). Implementation of the Merdeka Curriculum and Its Challenges. *European Journal of Education and Pedagogy*, 4(3), 111-116.
- Sulaeman, N. F., Putra, P. D., & Kumano, Y. (2022). Towards integrating STEM education into science teacher preparation programmes in indonesia: A challenging journey. In *Concepts and Practices of STEM Education in Asia* (237-252). Singapore: Springer Nature Singapore.
- Rahman, A. (2020). Challenges of education in remote areas of indonesia. *Journal of Rural Education*, 15(2), 87-104.
- Retnaningrum, E. (2023). Teacher's paradigm in interpreting the birth of the merdeka curriculum policy. *Journal of Education Research*, 4(2), 435-442.
- Santoso, F. (2022). Effective strategies for implementing kurikulum merdeka in schools. *Journal of Educational Development*, 40(2), 78-95.
- Smith, J. (2018). The Role of Education in Human Development. *Journal of Education Studies*, 20(2), 45-62.
- Susanto, B. (2021). The Implementation of Kurikulum Merdeka in Indonesian Schools. *Journal of Curriculum Studies*, 30(3), 200-215.
- Wijaya, D. (2023). The Role of the Sekolah Penggerak Program in Enhancing Teacher Leadership. *Indonesian Journal of Educational Leadership*, 18(1), 45-60.
- Yatim, H., Jamilah, J., Sahnir, N., & Abdullah, A. (2023). Analysis of habituation in implementing the merdeka belajar curriculum in art education in schools. *Jurnal Administrare: Jurnal Pemikiran Ilmiah dan Pendidikan Administrasi Perkantoran*, 10(1), 111-126.