



Learning Implementation of the Merdeka Curriculum

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Abstract: This study aims to describe the planning, implementation, and assessment of Merdeka curriculum learning. A school using the national piloting program in implementing Merdeka curriculum. This research used mix methods with the research subjects involving the principal, curriculum coordinator, teachers, and students. Data collection employed observation, documentation, and interview techniques, with data validity obtained through triangulation. The implementation of learning involved differentiated learning and the application of projects to strengthen the profile of Pancasila students according to the dimensions, themes, and topics. The results revealed that there is a significant difference between the scores before and after implementing the Merdeka curriculum using the Paired T-Test. The average score of grades 5 elementary school after implementing the Merdeka curriculum is 87 higher than the average score before implementation of 84. This research makes a significant contribution to improve the quality of learning.

Keywords: Implementation; Merdeka curriculum; Paired t-test

Introduction

Education in Indonesia plays a crucial role in forming individuals who have quality and have a positive impact on the progress of society and the country. This is explicitly recognized by Law Number 20 of 2003 concerning the National Education System, which explains that education is a conscious and planned effort to develop the potential of students (Shofwan et al., 2023; Boytchev & Boytcheva, 2020; Figueroa & Leyton, 2022). In addition, Law Number 16 of 2022 highlights the significance of creating a learning environment that is cheerful, interesting, safe, and able to accommodate diversity (Peraturan Pemerintah RI, 2022).

Education in Indonesia is closely related to the involvement of the government, which has the responsibility to adapt the curriculum as science develops (Mailizar & Fan, 2020; Iman et al., 2021; Agnesiana et al., 2023). Since independence period, the curriculum in Indonesia has undergone a number of changes in order to adapt to advances in time and

technology (Perignat & Katz-Buonincontro, 2019; Phan et al., 2020; Simonton et al., 2021; Sukmawati et al., 2023). However, evaluation results, such as ranking 54th out of 78 countries (good news from Indonesia) show the need for deeper reform of the quality of education in Indonesia, especially in facing the impact of the COVID-19 pandemic (Haryadi & Selviani, 2021; Sukmawati & Imanah, 2022).

So, to face the 4.0 era, where information and communication technology enters all aspects of life, curriculum development must keep pace with the times. The Merdeka Curriculum is the latest innovative step in Indonesia, replacing the 2013 Curriculum in 2021 (Pranajaya et al., 2022; Lestari, 2023; Nurmasiyah et al., 2023). With the principles of *Ing ngarso sung tulodho, ing madyo mangun karso, and tut wuri handayani*, the Merdeka Curriculum offers educators the freedom to design holistic learning according to students' needs (Rakhmawati et al., 2022; Ndari et al., 2023; Wardani et al., 2023). The Driving School is a concrete implementation to realize the Merdeka Curriculum, focusing on developing student learning outcomes

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holistically and creating a Pancasila Student Profile (Khusna et al., 2022; Kusumawardani et al., 2022; Fajarudin, 2023). The novelty of this research is that with this research it is hoped that there will be a description of the importance of an independent curriculum. This research makes a significant contribution to improve the quality of learning.

Method

This type of research is quantitative (Tanzeh, 2018; Sugiyono, 2022). The data sources for this research are primary data and secondary data. Primary data is obtained using a questionnaire that has been tested for validity and reliability, interviews, observations, and documentation. Secondary data is obtained using school data, journals and books. Data analysis technique using Paired T-Test analysis was carried out to find out whether there was an effect after implementing the Merdeka curriculum in one of the P5 subjects. This research was carried out.

Results and Discussion

The research results are presented based on data obtained in the field. The presentation of research results on Merdeka Curriculum learning at the national piloting school is divided into: Merdeka Curriculum planning, implementation of learning, and implementation of learning evaluation. The implementation of the Merdeka Curriculum can be described as follows.

Merdeka Curriculum Planning

The Merdeka curriculum planning can be described as follows.

Merdeka Curriculum Design

The research results show that planning for the Merdeka Curriculum begins with an analysis of the characteristics of the educational unit involving a learning committee. The results of this analysis were used to develop intracurricular, co-curricular, and extracurricular activities that are appropriate to the conditions of educators, education staff, and students in order to support the development of students' potential. This curriculum is adapted according to school needs, in line with the concept of Merdeka curriculum development, which provides authority to schools (Direktorat PAUD, Dikdas dan Dikmen, Direktorat PAUD, Dikdas dan Dikmen, 2021). Planning for the Merdeka curriculum for the 2022-2023 school year received direct guidance from the Center for Curriculum and Learning, making it a national curriculum model. The design process involved collaboration between the school team, ministry of education, supervisors,

community and parents (Sukmadinata, 2007) through workshops and meetings before the school year starts. This collaboration aims to ensure that the curriculum is designed according to school conditions, creating a structured, and quality educational experience for students from the start of the school year.

Designing the Flow of Learning Objectives

Designing the flow of learning objectives in the Merdeka Curriculum can be carried out independently and is based on Learning Achievements (Kemdikbudristek, 2022). The process of developing this pathway begins by looking at the Learning Outcomes in each subject per phase, down to the objectives per subject per phase, and further developed into learning objectives per grade level (Riskwahyuningsih, 2022). Teachers from grades 1-6 collaborate to develop a flow of learning objectives, concerning to the school context, effective learning hours, and government regulations. This collaboration involves coordination, intense communication, and considering various aspects of learning. Besides the Merdeka curriculum development, the school also refers to government regulations, with a learning committee team guiding teachers in developing a flow of learning objectives according to the uniqueness of the school, involving collaboration in the In House Training activities.

Lesson Plan and Assessment

Lesson plan and assessment should ideally be prepared based on students' needs (Kemdikbudristek, 2022). This planning was carried out in In House Training and learning community activities. The planning and assessment processes were tailored to the needs of students, including their knowledge, interests, and learning styles. In order to determine these needs, cognitive and non-cognitive diagnostic tests were carried out at the beginning of the semester. The results of the assessment were used to develop differentiated learning according to students' needs. This plan was implemented through teaching modules prepared by the teacher.

The Use and Development of Teaching Tools

The use and development of teaching tools ideally includes a combination of various learning tools according to local needs and students (Kemdikbudristek, 2022). Teaching modules were developed with the freedom to create complete or simplified versions tailored to students' needs. This teaching module functions as a lesson plan document, replacing lesson plans in the Merdeka curriculum, providing systematic and creative guidance for teachers. The planning process involves internal meetings and collaboration between teachers, ensuring the quality and

effectiveness of learning. The preparation of teaching modules was carried out in the IHT activities and learning communities per class level, starting from learning objectives, materials, activities, to assessments (Peraturan Pemerintah RI, 2022). Teacher collaboration is the key to the successful implementation of the Merdeka curriculum, especially in the preparation of learning tools (Damayanti & Muhroji, 2022; Lestari, 2023).

Planning for the Project to Strengthen the Profile of Pancasila Students

Planning for the project to strengthen the profile of Pancasila students was carried out by designing project modules adapted to the region, needs and interests of students, in accordance with Ministry of Education and Culture guidelines. This process was started with an analysis of school quality reports to determine three basic dimensions of learning. After determining the dimensions, the next step was to determine the theme and topic to design the project learning week. The weekly plan was adapted to the local context and needs of students.

Implementation of Merdeka Curriculum Learning

The learning implementation can be described as follows.

Implementation of the Project for Strengthening the Pancasila Student Profile

Implementation of the project to strengthen the profile of Pancasila students at SD Negeri Wonosari I follows the Ministry of Education and Culture's guidelines (Kemendikbud, 2022) and focuses on three dimensions (faith, creativity, critical reasoning). In each semester, there are three themes for each class. The implementation refers to a weekly design at the beginning of the semester with a sequence model for 18 weeks, separate from intracurriculars with an allocation of 7 lesson hours (JP) per week. This learning reflects the humanitarian and humanistic values recognized by Ki Hajar Dewantara. The philosophy *Ing ngarso sung tulodho, ing madya mbangun karso, tut wuri handayani* by Ki Hajar Dewantara is reflected in this lesson with the teacher's role as a role model in applying human values to guide and provide encouragement to students (Aminah, 2021).

Implementation of Student-Centered Learning

Implements student-centered differentiated learning, tailored to students' needs, achievements, and interests (Kemendikbud, 2022). At the beginning of the semester, teachers conduct cognitive and non-cognitive diagnostic tests to present appropriate learning. Differentiation can be seen in art learning, with three

study groups at each grade level choosing art subjects according to their interests. Learning based on interests and learning styles, starting with non-cognitive diagnostic tests, was designed according to student needs. Differentiation is divided into content, process, and product, with the use of various learning media. The research results show the implementation of differentiated learning which begins with cognitive and non-cognitive diagnostic assessments at the beginning of the new school year, with teachers preparing learning according to students' learning styles and interests.

Integration of Assessment in Learning

The Merdeka curriculum related to integrated assessment is carried out with an initial formative assessment. The results used to design differentiated learning is according to the stage of student achievement (Kemendikbud, 2022). After the initial assessment, there are formative assessment, final summative assessment of the material scope, and final summative assessment of the semester. Formative assessments provide information for improving learning, while final summative assessments are used for quantitative grades in report cards. The integration of assessment is also reflected in the learning project for strengthening the Pancasila student profile, where assessment is carried out based on the learning process, including socialization and discussion of students according to the dimensions developed. This holistic approach is in line with Ki Hajar Dewantara's concept, which emphasizes the moral and character development of students (Cantika et al., 2022; Shadri et al., 2023; Siringoringo et al., 2023).

Implementation of Learner-Centered Learning

In the Merdeka curriculum, refers to the student's learning stage, which is based on the initial formative assessment of learning. Students in the class are divided into two groups based on their learning achievements (Kemendikbud, 2022). Teachers pay attention to the results of initial formative assessments and the learning process to adapt learning to students' learning stages, including preparing formative and summative worksheets (Prasetyo et al., 2022; Empaldi, 2023; Fajarudin, 2023; Kartika & Wahyuni, 2023).

Collaboration between Teachers for Curriculum and Learning Needs

Learning practices collaboration between teachers in accordance with the Merdeka curriculum guidelines (Lestari, 2023; Musa et al., 2023). This collaboration occurs in learning communities, where teachers from the same grade level participate in planning, preparing Learning Objective Flow (ATP), teaching modules, learning projects to strengthen Pancasila student

profiles, as well as other learning preparations. Through training and exchanging information within the learning community, this collaboration ensures the design of the Merdeka curriculum that suits the needs and abilities of students.

Collaboration with Parents in Learning

Collaboration with parents in implementing the Merdeka curriculum I occurs through teacher communication with student parents, especially when receiving report cards (Kemendikbud, 2022). For example, in the learning project to strengthen the profile of Pancasila students, teachers and parents collaborate from P5 learning for P5 exhibitions. Parents provide material and non-material support, including preparation and implementation of exhibitions. Therefore, this collaboration has improved learning outcomes.

Collaboration with Society/Community/ Industry

The implementation of the Merdeka curriculum involves collaboration with the community. Society is not only an object of learning, but also a source of valuable knowledge for students. For example, in the learning project to strengthen the profile of Pancasila students regarding sustainable lifestyles, students are directly involved with local communities, visiting waste processing sites around the school. This collaboration creates deep and relevant learning experiences, connecting learning concepts to daily life. The school also collaborates with the local Young Community/*Karang Taruna* to support the implementation of the P5 project, and the P5 exhibition is open to the public with community participation in arranging parking as a form of support for P5 learning activities.

Implementation of Evaluation

Assessment, as a tool for measuring teacher success and student abilities, was carried out both in intracurricular and co-curricular settings. Formative assessments are used to assess teacher success, as material for reflection and teaching improvement, based on the results of students' work. Assessment of the final summative material was used to measure students' understanding of the learning unit, assessment was conducted at the end-of-semester summative as a reflection and to evaluate students' understanding of the material for one semester, even though it is not required in the technical guide. The co-curricular assessment assesses the dimensions of attitudes or profiles of Pancasila students, including faith, devotion, diversity, independence, mutual cooperation, critical reasoning, and creativity. Assessments were carried out weekly using assessment forms and journals, in accordance with

the focus of the project to strengthen the profile of Pancasila students to strengthen character, morals and character (Pangestu & Rochmat, 2021; Khusna et al., 2022; Prasetyo et al., 2022).

Implementation of Merdeka Curriculum

In this discussion, a comparison will be made after implementing the Merdeka curriculum, for example in the P5 assessment (project-based learning). Before the Merdeka Curriculum, subjects that dealt with national values, morals or character were often combined into certain subjects, such as Civics Education (PKn) or religious subjects. However, curriculum changes often involve restructuring and integrating new concepts, including an emphasis on certain values, as is the case with P5 in the Merdeka Curriculum.

When preparing the curriculum draft, an analysis was carried out first using data sources from education reports. The following is assessment data before and after P5 learning in class 5 which will be displayed in Table 1.

Table 1. Student Values

Before	After
80	85
75	78
85	92
78	88
92	93
88	87
79	91
81	84
90	93
83	85
87	89
76	80
94	95
82	86
89	86

Based on Table 1, analysis was then carried out using a paired T-Test which was used to compare two conditions or treatments on the same subject. The results of this data get values for paired sample correlation, as follows.

Table 2. Paired Sample Correlation

N	Correlation	Significance
15	0.757	0.001

Based on the data from Table 2, a significance value of 0.001 is obtained, which shows that there is a correlation between the two variables or the level of success of students before and after implementing the Merdeka curriculum has a high level of success after implementing this learning method. After that, a

hypothesis test was carried out using the Paired Sample T Test. The test criteria are if the Sig value. (2-tailed) < 0.05, then H_0 is rejected, whereas if Sig. (2-tailed) > 0.05, then H_0 is accepted.

Table 3. Paired Samples Test

\bar{X}	S^2	t-count	df	Sig. (2-tailed)
-3.53333	3.87052	-3,536	14	0.003

Table 3 presents that the significance value obtained is $0.003 < 0.05$, so the decision that H_0 is rejected. Thus, it can be concluded that there is a significant difference before and after P5 learning carried out in the Merdeka curriculum. This can be considered as an indication of successful implementation of the curriculum. This means that changes in learning methods and the Merdeka curriculum approach have had a positive impact on student learning outcomes (Danilaev & Malivanov, 2020; Tamai et al., 2021; Vicente Eet al., 2021; Park & Kwon, 2023; Wei & Yang, 2023).

Therefore, it can be said that before the Merdeka Curriculum existed, the learning process at this school tended to follow the national curriculum that has in effect at that time. Lesson plan is more centralized and may involve less significant student learning. Learning models tend to be homogeneous or can be said to have high similarity or similarity between one student and another student. The learning evaluation process focuses more on academic aspects with conventional assessment methods. After the Merdeka Curriculum is introduced, there is a significant change in the learning approach.

Lesson plan actively involved the learning community, with the use of teaching modules, student worksheets, and collaboratively designed learning assessments. Learning models become more differentiated, adapting to learning styles, and individual student needs. Moreover, implementing the project to strengthen the Pancasila student profile adds a dimension of creativity and application of national values in learning. The learning evaluation process includes various assessments and reflections, emphasizing students' holistic development. P5 evaluation utilizes a check list and weekly journal, paying special attention to aspects of students' personality and social development. This change reflects the school's efforts to adopt innovative and collaborative practices as a result of implementing the Merdeka Curriculum.

Conclusion

Implementation of the Merdeka Curriculum learning includes planning, implementation, and evaluation of learning. The lesson plan involves

analyzing the characteristics of educational units to determine learning programs. Implementation of learning includes differentiation and implementation of the Pancasila Student Profile Strengthening Project. Evaluation is carried out through formative assessments, summative assessments, and assessment journals. In its implications, the Merdeka Curriculum provides teachers the freedom to plan, implement, and assess learning according to student needs, as well as is able to adapt to various student learning styles. The implementation study can be a model for other schools, provide a basis for further research, and emphasize the need for inclusive learning approaches that take into account student diversity.

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Author Contributions

Conceptualization: C.R.M and B.S.A; data curation C.R.M and B.S.A funding acquisition: C.R.M and B.S.A methodology: C.R.M and B.S.A visualization: C.R.M and B.S.A writing – original draft: C.R.M and B.S.A writing – review & editing: C.R.M and B.S.A.

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Conflicts of Interest

No Conflicts of interest.

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