

Fostering independent learners: *Kurikulum Merdeka, Merdeka Belajar*, the student-centred learning approach and pedagogical reform

I Gede Wahyu Antara Kurniawan

Politeknik Negeri Bali, Indonesia

Email: igdwahyuantarakurniawian@pnb.ac.id

Abstract - This research uses document review and literature review methods. The document review was carried out by analyzing official documents related to the Independent Curriculum, such as Minister of Education, Culture, Research and Technology Regulation Number 34 of 2022 concerning National Standards for Junior High School Education and Regulation of the Minister of Education, Culture, Research and Technology Number 35 of 2022 concerning National High School Education Standards. The literature review was carried out by analyzing previous research writings about the Independent Curriculum, student-centred learning, and independent learning. The results of the analysis show that the Independent Curriculum and independent learning are closely related. The Independent Curriculum is an effort to realize independent learning. This can be seen from several main characteristics of the Independent Curriculum, such as: (a) Focus on essential material that can be studied in depth. (b) Providing freedom to teachers and schools in developing curriculum and learning. (c) Accommodating students' needs and interests. Centred learning on students is one of the strategies that can be used to implement the Merdeka Curriculum. Student-centred learning emphasizes the active role of students in the learning process. Students are not only objects of learning, but also learning subjects who have an important role in determining the direction of learning. Implementation of the Merdeka Curriculum and independent learning requires a change in the learning paradigm. Teachers must shift from their role as transmitters of information to facilitators of learning. Teachers must be able to create a learning environment that supports students to learn actively and independently.

Keywords: kurikulum merdeka; merdeka belajar; student-centred learning; pedagogy; student independence

1. Introduction

1.1 Background

Education is one of the crucial pillars in the development of a nation. Quality education can produce skilled human resources capable of competing in the global era. In recent years, the Indonesian Government has made various efforts to enhance the quality of education, including the introduction of the Merdeka Curriculum. The Merdeka Curriculum is a new curriculum that embraces the concept of freedom in learning, emphasizing the importance of autonomy and independent learning for students.

One of the main features of the Merdeka Curriculum is student-centred learning. Student-centred learning emphasizes the active role of students in the learning process. Students are not merely recipients of knowledge but are also active participants in determining the direction of their learning.

Implementing student-centred learning requires a shift in the paradigm of teaching. Teachers must transition from being information providers to learning facilitators, creating a learning

environment that supports students in learning actively and independently (Putri & Arsanti, 2022).

Although the Merdeka Curriculum has the potential to improve the quality of education, there are still several issues that need further examination. One such issue pertains to the implications of the Merdeka Curriculum on pedagogical practices in schools. This research aims to provide a deeper understanding of the implications of the Merdeka Curriculum on pedagogical practices by examining the concepts of freedom in learning, student-centred learning, and challenges in implementing the Merdeka Curriculum.

Education, as a cornerstone of national development, plays a pivotal role in shaping the trajectory of a nation in the global arena. Recognizing this, the Indonesian Government has taken significant strides in recent years to bolster the quality of education. At the forefront of these efforts stands the Merdeka Curriculum, a transformative educational framework designed to instil the spirit of freedom in learning.

Anchored in the belief that quality education equips individuals to navigate the complexities of the global era, the Merdeka Curriculum introduces a paradigm shift. Central to its ethos is the principle of student-centred learning, a departure from traditional models. Here, students aren't passive recipients of information but active contributors steering their educational journey.

Unveiling the potential of the Merdeka Curriculum requires a nuanced exploration of its impact on pedagogical practices in schools. Beyond the conceptualization of freedom in learning and the student-centred approach, this research endeavours to delve into the intricate dynamics that emerge during the implementation of the curriculum. This includes an in-depth examination of the challenges faced by educators, students, and administrators alike.

The study also seeks to identify strategies to overcome challenges in implementing the Merdeka Curriculum by examining experiences from schools that have implemented it. The research is expected to enhance the quality of learning in schools by providing understanding and strategies to teachers for implementing student-centred learning.

This research aims to examine the implications of the Merdeka Curriculum on pedagogical practices in schools. The study utilizes document analysis and literature review methods. Document analysis involves analysing official documents related to the Merdeka Curriculum, such as the Minister of Education, Culture, Research, and Technology Regulation Number 34 of 2022 on National Standards for Junior High School Education and Minister of Education, Culture, Research, and Technology Regulation Number 35 of 2022 on National Standards for Senior High School Education. Literature review involves analysing previous research on the Merdeka Curriculum, student-centred learning, and freedom in learning.

1.2 Review and Theoretical Framework

This study employs a theoretical framework focused on the concepts of freedom in learning and student-centred learning. Freedom in learning emphasizes the importance of autonomy and independent learning for students. Student-centred learning emphasizes the active role of students in the learning process.

Student-centred learning is an instructional approach that emphasizes the active role of students in the learning process. Students are not only recipients of learning but also active participants in determining the direction of learning (Arends, 2012; Anazifa & Djukri, 2017). There has been an increasing emphasis in recent years on the transition from traditional teaching to student-centred learning (Mussarat et al., 2022; Rahmadhanty, 2022; Megawati, 2019). This paradigm shift encourages the transfer of power from the instructor to the learner, treating learners as co-creators in the teaching and learning process, including the use of peer teaching or peer tutoring models (Latipah & Adjie, 2022; Khoiriyah, 2021).

Instructors delivering student-centred teaching involve students in decision-making about how and what they learn and how learning is assessed. They respect and accommodate individual differences in students' backgrounds, interests, abilities, and experiences (Mutilifa & Kapenda, 2017; McCombs & Whistler, 1997). The role of instructors in student-centred classrooms is to encourage students to engage in more discovery learning and to learn from each other, with

the focus on building authentic and real-world tasks that motivate student engagement and participation (Weimer, 2002; Altena, 2016; Trinova, 2003).

Student-centred learning possesses several characteristics, namely: (a) **Student as the Subject of Learning:** In student-centred learning, students play the role of the subject of learning, holding a significant role in determining the direction of their education. Students have the opportunity to express their ideas and opinions actively, engaging in the learning process. (b) **Teacher as the Facilitator of Learning:** In student-centred learning, teachers act as facilitators of learning, assisting students in their educational journey. Teachers provide guidance and support to help students develop their potential. (c) **Meaningful Learning:** Student-centred learning emphasizes meaningful learning for students. Education should be relevant to the needs and interests of the students.

Student-centred learning offers various benefits, including: (a) **Enhancing Motivation and Interest in Learning:** Student-centred learning can boost students' motivation and interest in learning since students actively participate in the learning process. (b) **Developing Critical Thinking and Problem-Solving Skills:** Student-centred learning can foster the development of critical thinking and problem-solving skills as students are encouraged to think independently and creatively. (c) **Preparing Students to Face Challenges in the Global Era:** Student-centred learning can prepare students to face challenges in the global era by training them to become independent and adaptive learners (Brookhart & Nitko, 2018; Fabregat-sanjuan et al., 2017; Fitriyah, 2020; Hermanto & Harimurti, 2017; Driscoll et al., n.d.).

2. Method

The method of data collection, specifically the document study of previous studies, involves a comprehensive review and analysis of existing documents related to the research topic. This method is commonly employed in academic research to gather information from various written sources such as academic papers, official documents, reports, and other relevant literature.

Researcher begins by identifying and collecting relevant documents related to the research topic. These documents may include academic articles, books, government reports, policy documents, and any other written materials that provide insights into the subject matter. Researcher defines clear criteria for selecting documents. This could involve focusing on recent publications, authoritative sources, or documents that specifically address the key concepts or themes of your research.

Researcher conducts a thorough literature review of the selected documents. This involves summarizing and synthesizing information from each document to understand the key findings, methodologies used in previous studies, and the theoretical frameworks applied. Researcher extracts relevant data and information from each document. This may include statistical data, qualitative findings, theoretical perspectives, and any other details that contribute to the understanding of your research questions or objectives. Researcher conducts a critical analysis of the documents. Evaluate the strengths and limitations of each study, identify gaps in the existing literature, and assess the reliability and validity of the information gathered.

Researcher relates the findings from the document study to your research objectives. This integration helps in establishing the theoretical framework and informs the subsequent steps of your research. Finally, researcher incorporates the results of the document study into your research report. Clearly articulate how the information gathered from the literature contributes to the theoretical framework and supports your research hypotheses or questions.

3. Results and Discussion

3.1 Previous Research Studies

Several previous studies have examined the implications of the Merdeka Curriculum on pedagogical practices in schools. These studies indicate that the Merdeka Curriculum has the potential to improve the quality of learning, but there are also challenges to address, such as: (a) Lack of teacher understanding of the Merdeka Curriculum and student-centred learning. (b)

Insufficient support from school principals and local governments. (c) Inadequate availability of resources.

This research aims to contribute to educational issues in Indonesia by: (a) Providing a deeper understanding of the implications of the Merdeka Curriculum on pedagogical practices in schools. (b) Finding strategies to overcome challenges in implementing the Merdeka Curriculum. (c) Enhancing the quality of learning in schools.

This study compares two teaching approaches in the Nursing BS program: the traditional method and a new student-centred strategy called SCCTA (Student-Centred Conceptual Teaching Approach) (Ramel & Apsay, 2017). The main findings of this research are that both groups started with below-average learning skills. Traditional teaching did not significantly improve learning. Students using SCCTA showed significant improvements in Knowledge Retention and Critical

All other measured skills of SCCTA students learned significantly better compared to those using traditional methods. Student-centred teaching with SCCTA significantly enhances learning for nursing students compared to traditional methods. This approach can benefit the development of skills and prepare students for nursing career demands. The research uses a robust research design with pre and post-tests and statistical analysis (Ramel & Apsay, 2017).

Mutilifa & Kapenda (2017) investigated whether using a Learner-Centred Approach (LCA) could improve students' understanding of acids and bases. This study was conducted in two high schools in Namibia with a sample of 80 11th-grade students. The research used a quasi-experimental design with a control group and an experimental group. The control group received traditional teaching on acids and bases, while the experimental group learned using the LCA approach. The results showed that the experimental group using the LCA approach had a better understanding of acids and bases compared to the control group, as indicated by higher post-test scores in the experimental group.

The study concluded that the LCA approach could improve students' understanding of acids and bases. The research also recommended that teachers use the LCA approach in teaching acids and bases to enhance students' understanding because it has several advantages: (a) Encourages active student learning; (b) Makes learning more meaningful for students; (c) Develops critical thinking and problem-solving skills.

This research aimed to determine the learning outcomes of students after implementing the peer teaching model. Conducted at a college in Indonesia with a sample of 60 students (Hertiavi & Kesaulya, 2020), the study used a quasi-experimental design with a control group and an experimental group. The control group received traditional teaching, while the experimental group received peer teaching model-based learning.

The results indicated that the experimental group using the peer teaching model had better learning outcomes than the control group. The average learning outcomes of the experimental group were higher than those of the control group. Therefore, it can be concluded that the peer teaching model can improve students' learning outcomes. This teaching model has several advantages: (a) Encourages active student learning; (b) Makes learning more meaningful for students; (c) Develops critical thinking and problem-solving skills.

Further Explanation: Here is additional clarification regarding the research findings. The average student grades in the class that implemented the peer teaching model were categorized as moderate. The average learning outcomes of the experimental group were 75, while the average learning outcomes of the control group were 65. A score of 75 falls into the moderate category according to the learning outcome classification developed by the Assessment Centre of the Ministry of Education and Culture of the Republic of Indonesia.

The peer teaching model can enhance students' learning outcomes. The improvement in students' learning outcomes after implementing the peer teaching model is indicated by the higher N-gain values in the experimental group compared to the N-gain values in the control group. The N-gain value of the experimental group is 0.5, while the N-gain value of the control group is 0.2. A higher N-gain value than 0.2 indicates a significant improvement in learning outcomes. Based on this research, it can be concluded that the peer teaching model can improve

students' learning outcomes. This teaching model has several advantages that encourage students to learn actively and make learning more meaningful for them.

Gashoot and Mohamed (2022) examined how the physical setting and human behavior in a designed environment influence users' productivity. This research used a mobile learning approach that combines experiential and instructional learning modes. The results showed that mobile learning is the most suitable approach for teaching design interaction modules. This approach gives students more opportunities to understand the impact of design on the environment.

Mobile learning has several advantages for design education, including: (a) Encouraging active and participatory learning; (b) Increasing motivation and interest in learning; (c) Enhancing students' understanding of design. Therefore, mobile learning can be an effective alternative method for industrial design education.

In this study, mobile learning was used to examine how the physical setting and human behaviour in an environment affect users' productivity. Students evaluated the designed space using mobile technology along with traditional teaching resources through lectures and design studios. This research used a case study approach that emphasized social interaction using five expected learning outcomes. These learning outcomes include: (a) Understanding the concept of human-environment interaction; (b) Applying principles of human-environment interaction design; (c) Analysing the impact of design on environmental users; (d) Communicating the results of design analysis.

The case was assessed using tools measuring its compatibility with overall and specific learning outcomes. The research results showed that mobile learning could fulfil all expected learning outcomes. Mobile learning gives students more opportunities to understand the impact of design on environmental users by allowing students to: (a) Collect data independently; (b) Analyse data independently; (c) Communicate the results

3.2 Discussion

Previous studies indicate that the Merdeka Curriculum has the potential to enhance the quality of learning in schools but faces challenges such as teacher understanding, support from school principals, and resource availability. The research aims to provide a deeper understanding of the curriculum's implications, strategies to overcome challenges, and enhancement of learning quality.

This sets the context for the current study by highlighting existing challenges and potential areas of improvement in the Merdeka Curriculum. The research compares traditional teaching with a student-centred approach (SCCTA) in the Nursing BS program, showing that SCCTA significantly improves knowledge retention and critical thinking ability. The SCCTA approach is identified as beneficial for nursing students, enhancing skills and preparing them for career demands. This study's robust design strengthens the argument for the effectiveness of student-centred teaching in the nursing context.

Mutilifa & Kapenda's (2017) study demonstrates that a Learner-Centred Approach (LCA) improves students' understanding of acids and bases compared to traditional teaching. The LCA approach is recommended for its positive impact, actively engaging students and enhancing critical thinking. This study supports the importance of adopting learner-centred approaches, specifically in science education. The research on peer teaching models indicates better learning outcomes in the experimental group, with the peer teaching model enhancing active learning, meaningful learning, critical thinking, and problem-solving skills. The peer teaching model is identified as effective in improving learning outcomes, particularly in encouraging active student participation.

This study reinforces the potential of peer teaching models for active and meaningful learning experiences. Gashoot and Mohamed's (2022) research emphasizes that mobile learning is the most suitable approach for teaching design interaction modules, providing more opportunities for understanding the impact of design on the environment. Mobile learning is highlighted as an effective alternative method for industrial design education, promoting active

learning and enhancing motivation. The study supports the integration of mobile learning in design education, emphasizing its advantages in fostering active and participatory learning.

These studies collectively underscore the importance of student-centred and active learning approaches. They highlight the positive impact of such approaches on knowledge retention, critical thinking, and overall learning outcomes. The challenges identified in the Merdeka Curriculum study also emphasize the need for strategic solutions to enhance the implementation of student-centred learning in educational settings. The insights gained from these studies contribute to the broader discussion on pedagogical practices and curriculum effectiveness.

The studies encompass a range of educational contexts, from national curriculum implications (Merdeka Curriculum) to specific discipline-oriented investigations (nursing, science, and design education). This diversity underscores the applicability of student-centred and active learning across different academic domains, emphasizing the universality of these pedagogical principles. The Merdeka Curriculum is positioned as a response to the demand for globally competitive human resources. This aligns with the broader educational trend emphasizing the development of skills and competencies that prepare students for challenges in the globalized era. Student-centred approaches, as evident in the peer teaching model and SCCTA, not only enhance subject-specific knowledge but also contribute to the development of critical thinking, problem-solving, and adaptability – qualities crucial for navigating an evolving global landscape.

A consistent theme across the studies is the redefined role of teachers in student-centred approaches. Teachers shift from information providers to facilitators of learning, guiding students to explore and construct knowledge actively. This evolution in the teacher's role signifies a paradigm shift in education, emphasizing collaboration and shared responsibility between educators and students. The studies highlight the integration of technology, particularly mobile learning, as a catalyst for enhancing educational outcomes. Mobile learning not only facilitates active and independent learning but also aligns with contemporary students' preferences for flexibility in learning environments. The success of mobile learning in design education suggests the potential for technology to play a transformative role in fostering creativity and understanding in specialized fields.

Beyond academic outcomes, the research studies touch upon the sociocultural impact of educational approaches. Learner-centred strategies, like the LCA approach, are shown to encourage active participation and meaningful learning, potentially fostering a culture of collaboration and shared understanding within educational communities. The findings have implications for educational policy formulation and classroom practices. Addressing challenges identified in the Merdeka Curriculum study requires strategic policy interventions, while the success of student-centred approaches calls for a reevaluation of traditional teaching methods and institutional support for pedagogical innovation. Educators can leverage the success of peer teaching and mobile learning models by integrating them into their teaching practices, promoting dynamic and student-focused classrooms.

The implementation of the Merdeka Curriculum marks a departure from conventional teaching practices, demanding a paradigm shift that empowers students as active agents in their learning journey. As teachers transition from mere knowledge providers to facilitators, the emphasis on creating an environment conducive to active and independent learning takes center stage (Putri & Arsanti, 2022). The essence of student-centred learning embedded in the Merdeka Curriculum brings to light not just an alteration in instructional methodologies but a redefinition of the teacher-student dynamic. Beyond the theoretical underpinnings, the real-world implications unfold in classrooms, shaping the daily experiences of both educators and learners. The challenges encountered in this transformative process merit careful consideration.

As we navigate the complexities of student-centred learning, it becomes imperative to analyse the practical implications. How do educators adapt their teaching styles to foster autonomy? What hurdles do students face in embracing this newfound freedom in learning?

Unravelling these intricacies provides a granular understanding of the transformative journey undertaken by the educational ecosystem.

Moreover, the Merdeka Curriculum's emphasis on autonomy extends beyond individual classrooms. It reverberates at the institutional level, necessitating a re-evaluation of support structures. Principals and local governments play a pivotal role in providing the scaffolding required for the successful implementation of student-centred learning. The adequacy of resources and the degree of administrative support become critical factors influencing the curriculum's effectiveness.

Amidst these considerations, the research aims not only to identify challenges but also to illuminate strategies for overcoming them. What innovative approaches emerge to bridge the gap between theoretical ideals and practical hurdles? How can schools and policymakers collaborate to fortify the foundations of the Merdeka Curriculum?

4. Conclusion

In conclusion, the collective analysis of previous research studies reveals a consistent and compelling narrative advocating for student-centred and active learning approaches. The studies examined the implications of the Merdeka Curriculum, compared teaching approaches in nursing, explored learner-centred strategies for science education, investigated the impact of a peer teaching model, and assessed the effectiveness of mobile learning in design education. The Merdeka Curriculum shows promise in enhancing learning quality but faces challenges such as teacher understanding, administrative support, and resource availability. The current research aims to contribute by providing a deeper understanding of these challenges, proposing strategies for improvement, and striving to enhance the overall quality of learning in Indonesian schools. Studies consistently support the effectiveness of student-centred approaches, such as SCCTA in nursing education and the Learner-Centred Approach in science education.

These approaches significantly improve critical thinking, knowledge retention, and overall learning outcomes, emphasizing the need for pedagogical shifts towards active student engagement. The peer teaching model emerges as a successful strategy, demonstrating improvements in learning outcomes, active student participation, meaningful learning, and the development of critical thinking skills. This reinforces the viability of peer teaching as an effective alternative method for enhancing student learning experiences. Mobile learning proves to be a suitable and advantageous approach in design education, offering active and participatory learning experiences, increased motivation, and a better understanding of design concepts. The findings support the integration of mobile learning as an effective method for industrial design education.

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